NORWICH City Council

Dr Nick Davey
Entran Ltd
2nd & 3rd Floors
Northgate House
Upper Borough Walls
Bath
BA1 1RG

26th May 2022

Our Reference: 22/00540/EIA2
Your reference: E3077 220424
Contact: Sarah Hinchcliffe (Senior planner)

Dear Dr Davey

EIA Scoping Opinion Request for mixed use re-development at Carrow Works, Norwich.

Introduction
Thank you for your letter and accompanying 'EIA Scoping Report' seeking a 'scoping opinion' under Regulation 15(2) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (hereafter referred to as 'the EIA Regs'), received by the Council on the 25th May 2022.

We note that you propose to carry out an Environmental Impact Assessment (EIA) and submit an Environmental Statement in support of a future planning application for the proposed development.

EIA Screening Opinion
Norwich City Council as local planning authority conclude that the proposed development constitutes Schedule 2 development with an area of works which exceeds the thresholds as defined by Schedule 2, 10(a), (10)(b) and potentially 10(f). The scale of the development proposed has the potential to give rise to significant effects upon the environment based on the criteria in Schedule 3. The proposal is therefore considered to constitute EIA development and any planning application would therefore need to be accompanied by an Environmental Statement.

The Development Proposed
The 17 hectare site last used as a manufacturing facility by Britvic and Unilever is located to the south east of Norwich city centre.

The EIA Scoping request describes the proposed development as consisting of;

"Hybrid application to develop Carrow Works for a phased residential-led development (use class C3) with supporting mixed-uses (non-residential Class E/F1 use class), demolition of buildings, the retention, conversion and adaptation of Listed and locally listed Buildings and structures, landscaping, open space, new and modified access, car parking and other ancillary works.

Detailed application component comprises the construction of the primary internal road and associated public spaces and public realm, restoration and change of use of Carrow Abbey back to original residential use (Class C3), enhanced access to Carrow Abbey and Scheduled Ancient Monument and associated ancillary works".

EIA Scoping Opinion

Following consultation with statutory and non-statutory bodies, the local planning authority has considered the extent of issues to be considered in an assessment of environmental effects and reported in the Environmental Statement.

The local planning authority has consulted statutory and non-statutory bodies. Responses have been received from:

- Natural England
- Historic England
- Norfolk County Council – including fire and rescue, minerals and waster and Lead Local Flood Authority
- Norfolk County Council - Highway Authority
- Norfolk Historic Environment Service
- Norfolk Constabulary – Designing Out Crime Officer
- Norfolk Wildlife Trust
- Norwich City Council – Design and Conservation
- Network Rail
- Marine Management Organisation

Full consultation responses from the above are appended to this response.

The Environment Agency, Broads Authority and South Norfolk Council were also consulted, however to date no response has been received. Any further responses that are received will be provided under separate cover.

We can confirm that the submitted EIA Scoping Report Revision 1.1 dated 13/04/22 is generally considered to identify the main subject areas where significant environmental effects could arise. Comments relating to each topic to be scoped in to the Environmental Statement (ES) are set out below within the Council's EIA Scoping Opinion, which has had regard to the EIA Regs.

Transport and Access

It is understood that the matter of transport and access will be informed by detailed dialogue with the Highway Authority around the scope of a Transport Assessment which will accompany the planning application and should inform this section of the ES accordingly. The response of the highway authority is appended to this letter.

Air Quality

The council considers that due to the scale of the development there is the potential for significant adverse effects to arise from the development in regard to air quality.

The operation of the aggregate railhead and Tarmac plant on the adjacent site to the east should be considered under the key issues section. See also comments below in relation to noise concerning periods of intense activity at the Tarmac plant.

An assessment of the impacts on air quality should not be limited only to dust during construction and more importantly demolition and also changes in traffic generation. It should also take into account any additional pollution sources which may be introduced as a result of any new employment aspects of the development which could affect NO_2 or particulate levels. Therefore, the scoping should be amended to reflect the capture and consideration of all potential NO_2 and particulate pollution sources.

Section 7.4, second bullet should we widened to also include emissions of pollutants from all construction plant (including any diesel generators), not just vehicle exhausts. An additional impact to consider within this section should include asbestos containing materials.

Noise and Vibration
The council and Norfolk County Council (response attached within the Appendix 1 for your consideration), considers there to be the potential for significant adverse noise impacts to arise from the development and in combination with:

- existing operational activity at adjacent commercial sites, including,
    - the Tarmac Trowse Asphalt plant;
    - the safeguarded aggregate railhead;
    - Carrow Fire Station
    - operation of the railway line and Trowse Swing Bridge directly to the east of the site.

The Tarmac plant is understood to operate at varied intensity depending on demand and therefore an understanding of the periods of peak demand to assess the worst-case scenario of noise generation at the site will be required.

Explanation should be provided as to how any existing noise impacts on users and residents of the proposed development will be mitigated through the design, layout and construction of the development.

Biodiversity and Nature Conservation
Account should be taken of the Natural England consultation response in full (see attached Appendix 1). Although fairly generic in content this sets out the wide range of environmental information expected to be included within the scope of an ES to allow an assessment of environmental effects to be carried out. This includes Biodiversity Net Gain of at least 10% and nutrient neutrality (covered in more detail in the water quality section).

In addition please also consider the recent response from Natural England in relation to the scope of an Environmental Statement at the adjacent Deal Ground site (see Appendix 2). Page 3-5 of Annex A of the response outlines issues and solutions that are also applicable to this site and should be scoped in, namely the matter of recreational disturbance.

The Environmental Statement should review the potential presence of any Priority Habitats and Species nearby (as per section 41 of the Natural Environment & Rural Communities Act), so that the potential for indirect impacts on these ecological features can be assessed.

In addition Eaton Chalk Pit SSSI is identified by Natural England as a specific local site which may be impacted by the development.

The application site is approximately 200m from the Carrow Abbey County Wildlife Site (CWS), a non-statutory designated site which should be added to section 9.2 of the scoping report. The habitats of the CWS are potentially vulnerable to increases in air pollution (further information on the impacts of air pollution on important habitats can be found on the APIS website - http://www.apis.ac.uk/).

In section 9.8 of the scoping report, indirect effects such as noise or dust impacts from the construction phase, on statutory and non-statutory designated sites have been scoped out, but given the presence of the CWS and Whitlingham Country Park Local Nature Reserve (statutory designated site) nearby it is recommended that they are scoped back in.

Water Quality, Hydrology and Flood Risk

This proposal falls within the Impact Risk Zone of European Sites vulnerable to nutrient impacts. Please refer to Natural England's overarching advice sent to all relevant Local Planning Authorities dated 16th March 2022 (see Appendix 3). A Habitats Regulations Assessment which has been informed by the Nutrient Neutrality should be included for proposals with the potential to affect water quality resulting in nutrient impacts on European Sites, to allow consultation with Natural England at the planning application stage.

Section 7.3 of the scoping report explains that energy provision for the site has not been confirmed. While site energy provision remains undetermined the environmental effects of the full range of potential energy sources must be considered, including the potential for energy generation specific to the site location. The hydrological impacts associated with using thermal energy from the river to power heat pumps should be considered as an option in this section of the environmental statement.

Section 10.13 of the scoping report refers to wastewater flows and the need for a foul drainage strategy, including an assessment of capacity within the local sewerage network. The recent announcement from Natural England regarding nutrient neutrality due to wastewater impacts on designated sites requires additional evidence needed to demonstrate that the development will be able to avoid adverse effects on the Wensum and Broads river catchments prior to any consent.

In addition Carrow Abbey CWS includes wetland and water dependant habitats which are potentially vulnerable to changes in local hydrology such as groundwater flow and mobilisation of site contaminants. The potential for impacts on the nearby CWS from changes in groundwater flows or from increased risks of groundwater contamination from the construction and operational phases of the development should be included in the environmental statement.

Account should be taken of the Lead Local Flood Authority consultation response in full (see attached Appendix 1) in relation to assessment of flood risk.

Soils, Geology and Contamination

The potential for impacts on the nearby CWS from changes in groundwater flows or from increased risks of groundwater contamination from the construction and operational phases are recommended for inclusion within the ES. Section 11.9 of the

scoping report refers to travel times through local aquifers, so the potential for historical contaminants mobilised during construction, or operational phase wastewater or road run-off to reach and impact the nearby CWS should be considered as part of the ES.

Archaeology
In section 2.4 of your scoping report it is suggested that the site is not located within an Area of Archaeological Interest. This is incorrect, a large part of the site includes the Scheduled Ancient Monument and all areas to the north and west of this are in an 'Area of Archaeological Interest'.

Historic England comment that the updated Archaeological Desk-Based Assessment should also consider the potential for changes in burial-environment and hydrology to adversely impact the preservation of buried archaeological and palaeoenvironmental remains or the foundations of existing historic structures at the site. Appropriate reference should be made in the assessment to the Historic England document 'Preserving Archaeological Remains <https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>' (2016).
In addition to the sources stated in the scoping report, it is recommended that the assessment includes a review of existing borehole and geoarchaeological datasets.

Norfolk Historic Environment Service highlight that the potential of development to impact on archaeological remains of medieval date relating to Carrow Priory is identified in the scoping documents. Also the potential impact on remains of Palaeolithic, Mesolithic and Roman date remains to be defined. Any updated archaeological desk-based assessment should include consideration of existing sources of palaeoenvironmental and geoarchaeological information and present this information in the form of a deposit model.

At this stage bolstering the base line information relating to Carrow Priory with information from non-intrusive investigations such as ground-penetrating radar survey should also be considered.

Heritage, Townscape and Visual Impacts:
The council considers that there is the potential for significant adverse effects to arise from the development in regard to heritage, townscape and visual impacts. Account should be taken of the Historic England consultation response in full (see attached Appendix 1).

The Environmental Statement should consider the potential impacts on any grade I, II* and II listed buildings, Scheduled Monuments and Registered historic parks. As well as non-designated features of historic, architectural, archaeological or artistic interest, including the non-registered park and garden (Carrow House and Carrow Abbey) and curtilage listed structures - such as boundary treatments, the rustic summer house and the greenhouses etc. at Carrow Abbey and the boiler room/cottage at Carrow House.

The Heritage Baseline Assessment dated May 2021 does not contain sufficient information on the historic buildings to inform consideration of their uses. The baseline should also be updated to reflect the recent designation work.

Historic England and Norwich City Councils Design and Conservation Officer expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this

development have been included and can be properly assessed. It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this.

Historic England's new tall building guidance and guidance on the setting of listed buildings/designated heritage assets should be referenced and followed in any assessment undertaken.
https://historicengland.org.uk/images-books/publications/tall-buildings-advice-note-4/
https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/

There is concern that the proposed study area of 250 metres from the site boundary is too limited and has not been justified. The proposed development and in particular its tall buildings could have potential to be visible across a large area and could, as a result, affect the significance of heritage assets at some distance from this site itself and within neighbouring authority areas. The need to consider views of the approach to the city along the river, wider views of the city and the registered historic park at Crown Point (Whitlingham Park), the grade II listed ruins of Trowse Newton Hall and Trowse conservation area and Whitlingham Country Park have been identified as necessary to consider impacts on setting and character and appearance.

In addition the demolition works and the effect of the loss of any designated or non-designated heritage assets upon the wider character and appearance of the conservation area and its setting should form part of the assessment of potential impacts of the development.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area.

The EIA scoping report at section 13.17 explains that a Heritage and Townscape Baseline Assessment will be developed with the council. Discussions are ongoing with the councils Design and Conservation Officer in this regard, including agreeing a list of representative viewpoints for assessment across the local area.

A cumulative Townscape and Visual Impact Assessment (TVIA) will be required with regard to extant (development at the adjacent Deal Ground) and emerging proposals which form part of the wider draft strategic site allocation.

The TVIA should include a clearly reasoned conclusion setting out where significant townscape and visual effects have been identified and any mitigation measures that are proposed.

Socio-economics
Where there is likely to be an impact on local services, the Environmental Statement should indicate how the proposal plans to mitigate these impacts and what delivery mechanism/sources of funding may be available e.g., Community Infrastructure Levy, Planning Obligations, and the potential use of planning conditions.

When assessing the impacts of the development on the existing conditions of the area the assessment within section 14.7 should also include the location and access to

existing leisure and community facilities, including community halls, formal leisure and sports facilities and areas of open space, play space, allotments and community gardens.

Impacts of new uses proposed at the Carrow Works site on the existing safeguarded aggregate railhead which is adjacent to the application site should be assessed in accordance with the 'agent of change' principle and Policy CS16 of the Norfolk Minerals and Waste Core Strategy.

Climate change
The 2017 EIA Regulations require an assessment of the impact of the project/development on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change.

The Environmental Statement should acknowledge the location of the site within the administrative area of Norwich City Council and that the council declared and passed a climate emergency motion in January 2019 and have adopted an Environmental Strategy 2020 – 2025. In November 2021 Norwich Climate Commission a new independent climate commission was launched to support the city's goal of reaching net zero carbon emissions by 2045 and provide leadership and advice regarding climate change and sustainability. The commission will feed into the Norwich 2040 Vision which includes combating climate change as part of 'a liveable city' as one of its key themes. In this context the council considers it appropriate to consider impacts of the proposed development on climate change and the vulnerabilities of the development to the global, transboundary impacts of climate change together with any mitigation or adaption measures as a consideration across all of the topics contained within the Environmental Statement.

Section 7.3 of the scoping report explains that energy provision for the site has not been confirmed. It is important that such important matters are considered as early within the development process as possible to allow the full extent of environmental effects of chosen energy provision to be assessed. While site energy provision remains undetermined the environmental effects of the full range of potential energy sources must be considered.

Within section 15.7 the assessment should be expanded to include;

- A 'whole life' carbon options analysis, including end of life pathways for construction materials.
- The environmental effects of the full range of potential energy sources at the site.
- Mitigation should include measures to minimise construction waste and minimise water consumption during demolition and construction and the operational phases of the development.
- Relevant local policy would include Joint Core Strategy for Broadland, Norwich and South Norfolk, Policy 3 which requires development to include sources of 'decentralised and renewable or low carbon energy' providing at least 10% of the scheme's expected energy requirements and provisions within emerging/draft Policy 2 of the Greater Norwich Local Plan.
- The development will be taking place as we are about to enter into a new low carbon phase of building construction. How the development will meet the

Future Homes Standard/Future Buildings Standard requirements moving forward needs to be explained.

Other topics scoped out of the EIA
It is agreed that the disciplines as identified within section 16 of your scoping report. can be scoped out of the Environmental Statement. However, sunlight and overshadowing considerations should be dealt with throughout the planning application process through the submission of an assessment of impacts based on the identified quantum, height and locational parameters that consent is being sought for across the whole site.

Cumulative impacts
The Council considers that a development of this size in combination with other existing and approved developments, has the potential to give rise to significant environmental impacts.

Although recognising that the emerging status of the East Norwich Regeneration Area does not at this point relate to committed development in the development plan it should be acknowledged that the draft Greater Norwich Local Plan and associated draft masterplan and supplementary planning document (SPD) seek to allocate sites in this area (including this one) for up to 4000 dwellings. The advice from Natural England (see Appendix 1) in relation to the type of projects to include when providing an assessment of cumulative and in-combination effects should be followed.

Clearly this is an application at the edge of Norwich City Councils administrative area and any relevant committed developments in Norwich, South Norfolk and the Broads Authority areas must be considered.

Cumulatively, other specific developments within Norwich City Councils administrative area alongside this proposal location, which could give rise to significant environmental effects are identified below.

Cumulative Schemes

Application Ref	Description	Distance to Site
22/00434/F (Yet to be determined)	Hybrid (Part Full/Part Outline) application for the comprehensive redevelopment of Anglia Square, and car parks fronting Pitt Street and Edward Street for: up to 1,100 dwellings and up to 8,000sqm (NIA) flexible retail, commercial and other non-residential floorspace including Community Hub, up to 450 car parking spaces (at least 95% spaces for class C3 use, and up to 5% for class E/F1/F2/Sui Generis uses), car club spaces and associated works to the highway and public realm areas. Due to the size of this application, all plans and documents can be viewed online at www.norwich.gov.uk/angliasquare.	Approx 2km to north west of the site.

12/00875/O Deal Ground	Outline planning application (full details of access) for a mixed development consisting of a maximum of 670 dwellings; a local centre comprising commercial uses (A1/A2/A3): a restaurant/dining quarter and public house (A3/A4); demolition of buildings on the May Gurney site (excluding the former public house); an access bridge over the River Yare; new access road; car parking; flood risk management measures; landscape measures inc earthworks to form new swales and other biodiversity enhancements including the re-use of the Grade II Listed brick Kiln for use by bats.	Adjacent site to the east side of the railway line.
17/01647/VC Land north of Carrow Quay (Phase 4 along the riverside remains to be constructed)	Variation of Condition 1 of previous permission 13/01270/RM to allow revised plans. [Reserved Matters with full details of external appearance, landscape, layout and scale of development, to provide 250 No. residential flats (Class C3), 113sqm offices (Class B1a), 279sqm groundsman's facilities (Class B8), and 401sqm of flexible office space (Class B1a) and community uses (Class D1/D2) with 126 No. parking spaces, associated highways works and provision of a Riverside Walk, consequent to previous outline planning permission 11/02104/O 'Outline application with full details of access for residential-led development of between 200 and 250 No. residential flats (Class C3) and 140 No. car parking spaces with commercial office space (Class B1a), groundsman's facilities (Class B8), community uses (Class D1/D2) and associated works including Riverside Walk and access road'. The proposals include details for approval of Conditions 1(a), 1(b), 2(b), 3, 4(a), 4(b), 4(c), 5, 6, 7, 8(a), 8(b), 12, 20, 22(a), 22(b), 22(c), 22(e), 25, 26, and 30(a) of outline planning permission 11/02104/O applicable to the form of development as proposed in these Reserved Matters.]	Adjacent site to the north of the River Wensum

Alternatives:
An outline of the main alternatives to the development studied by you and the main reasons for the choices made, should be described in the ES.

Generally:
Established methodologies and industry standards should be adopted for any assessments to be undertaken and reported on in the ES.

The ES will need to describe and assess the range of uses (and worst case scenario consequential impacts) that could fall within the non-residential mixed uses, Class E and F1 proposed under the outline elements of the application together with any retained industrial uses. Suitable parameters will need to be described for each element of the development in the ES and shown on a plan in order that the significant environmental effects can be understood and if necessary mitigated to the extent (where possible), that they would not need to be revisited at subsequent stages of the planning and development process. The impacts associated with any phasing of the construction of the development need to be fully explained and understood.

Any off-site development that is required, such as the provision of new utilities or infrastructure, including bridge and underpass links should be taken into account in the ES. A gas valve compound to the east of the railway line has been outlined in red which suggests that this site will form part of the planning application at Carrow Works, but it is not clear of the relevance to the application or the scope of the Environmental Statement.

In respect of all identified potential adverse impacts, the application should be specific about the extent of mitigation proposed and whether a phased mitigation approach is being suggested; that is, whether a specific mitigation method is proposed for a certain level, type or phase of use, with a different type, amount or phase of use triggering a different mitigatory approach. If a phased approach to mitigation is proposed, the suggested trigger points and mitigation methods should be clearly identified.

We trust this response is helpful and I look forward to receiving the planning application in due course. We can confirm that the scope of works set out in your scoping report, as supplemented and revised by the comments of the consultation bodies, interested parties, relevant sections within the Council and the contents of this letter, constitutes the 'scoping opinion' of the Council in this instance in respect of the above proposed development described in your EIA Scoping Report.

Yours sincerely

Sarah Ashurst
Head of Planning and Regulatory Services

APPENDIX 1

From: Percival, John
To: Chamberlain, Naomi
Cc: Hinchcliffe, Sarah
Subject: Consultation: EIA Scoping Report Carrow Works (Part of East Norwich site)
Date: 23 May 2022 22:12:16

CAUTION! This email originates from outside Norwich City Council.

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Our Ref CNF40839

Dear Naomi and Sarah,

Consultation: EIA Scoping Report Carrow Works (Part of East Norwich site)

Thank you for reminding me regarding the above EIA scoping consultation and apologies for the delayed response. Complete email this time.

As briefly discussed with Sarah the short answer is that we agree that below-ground archaeology need to be scoped into the EIA.

The potential of development to impact on archaeological remains of medieval date relating to Carrow Priory is identified in the scoping documents. Potential impact on remains of Palaeolithic, Mesolithic and Roman date remains to be defined.

We echo the comments of Historic England. Any updated archaeological desk-based assessment should include consideration of existing sources of palaeoenvironmental and geoarchaeological information and present this information in the form of a deposit model.

At this stage the applicants should consider bolstering the base line information relating to Carrow Priory with information from non-intrusive investigations such as ground-penetrating radar survey.

If you have any further queries please don't hesitate to contact me.

Regards

John Percival

John Percival, Historic Environment Senior Officer (Strategy and Advice)
Community and Environmental Services
Tel: 01362 869275 | Mobile: 07775 697616
County Hall, Martineau Lane, Norwich, Norfolk NR1 2SG
Please Note I work in a flexible hybrid pattern but remain contactable by landline, mobile phone and email

Campaign Logo

We now have a general mailbox for historic environment strategy and advice. Please send all new site/application consultations, existing casework enquires where you are unclear who our case officer is, and reports for review to hep@norfolk.gov.uk

Norfolk County Council introduced *Standards for Development-led Archaeological Projects in Norfolk* and a new historic environment strategy and advice charging schedule on 1 May 2018. Please visit https://www.norfolk.gov.uk/libraries-local-history-and-archives/archaeology-and-historic-environment/planning-and-the-historic-environment for copies.

From: Chamberlain, Naomi <naomi.chamberlain@norfolk.gov.uk>
Sent: 19 May 2022 14:48
To: Historic Environment Planning <hep@norfolk.gov.uk>; Percival, John <john.percival@norfolk.gov.uk>
Subject: FW: Consultation: EIA Scoping Report Carrow Works (Part of East Norwich site)

Hi John

I did not receive any comments from HEP on the below consultation. Please can you confirm if HEP have any comments to make the Carrow Works EIA Scoping Report?

Norwich City Council requires comments by **Monday 23 May**. I know Sarah has emailed directly.

Best Wishes

Naomi

Naomi Chamberlain, Senior Planner
Growth and Infrastructure
Community and Environmental Services
Tel: 01603 638422
County Hall, Martineau Lane, Norwich, NR1 2DH

Campaign Logo

From: Chamberlain, Naomi <naomi.chamberlain@norfolk.gov.uk>

Sent: 27 April 2022 14:10
To: Allen, Dominic <dominic.allen@norfolk.gov.uk>; Blackwell, Jane <jane.blackwell@norfolk.gov.uk>; Doleman, Richard <richard.doleman@norfolk.gov.uk>; Feeney, Jan <jan.feeney@norfolk.gov.uk>; Fire - Water Officer <FireWaterOfficer@norfolk.gov.uk>; Hall, Sera <sera.hall@norfolk.gov.uk>; Halliday, Merry <merry.halliday@norfolk.gov.uk>; Hayward, Matthew <matthew.hayward2@norfolk.gov.uk>; Herron, Beverley <beverley.herron@norfolk.gov.uk>; Historic Environment Planning <hep@norfolk.gov.uk>; Jeffery, Caroline <caroline.jeffery@norfolk.gov.uk>; Lead Local Flood Authority <llfa@norfolk.gov.uk>; Freeman, Lewis <lewis.freeman@fire.norfolk.gov.uk>; Libs Planning Obligations <libs.planning.obligations@norfolk.gov.uk>; Natural Environment Team <NETI@norfolk.gov.uk>; Scales, Andy <andy.scales@nps.co.uk>; Shreeve, Phil <phil.shreeve@norfolk.gov.uk>; Tim Allison <Tim.Allison@fire.norfolk.gov.uk>; Waters, Simon <simon.waters@norfolk.gov.uk>; Willner, Roberta <roberta.willner@norfolk.gov.uk>; Wilson, David - ETD <david.wilson@norfolk.gov.uk>; Young, Nicola <nicola.young2@norfolk.gov.uk>
Cc: Faulkner, Stephen <stephen.faulkner@norfolk.gov.uk>
Subject: Consultation: EIA Scoping Report Carrow Works (Part of East Norwich site)

Dear all

Norwich City Council has received a request for a scoping opinion for the proposed development at the former Carrow Works site.

Proposal: EIA scoping opinion request for the redevelopment of the former Carrow Works site in Norwich. For roughly 2,000 dwellings, plus employment space (across the whole East Norwich site, which includes Carrow Works, Utilities Site, Deal Ground and May Gurney sites, 3,632 dwellings and 84,500 sq m of employment space is proposed).

Attached is the EIA Scoping Report and location plan.

Please let me know if you have any comments and/or additional items to be included in the EIA by **13 May 2022**.

For information we are expecting to be consulted on the planning application for this site in June, but this is likely to change.

Best Wishes

Naomi

Naomi Chamberlain, Senior Planner
Growth and Infrastructure
Community and Environmental Services
Tel: 01603 638422
County Hall, Martineau Lane, Norwich, NR1 2UA

From: Hinchcliffe, Sarah
To: DC TECH
Subject: PAC Carrow Works 22/00540/EIA2
Date: 19 May 2022 15:09:44

Can the consultee comments below be added to civica for the above application please.

Thanks

Sarah

-----Original Message-----
From: Bix, Sophia <SophiaBix@norwich.gov.uk>
Sent: 19 May 2022 14:22
To: Hinchcliffe, Sarah <SarahHinchcliffe@norwich.gov.uk>
Subject: RE: PAC Carrow Works 22/00540/EIA2

Hi Sarah

I have concerns about their premature conclusions in respect of a tall building on the site, which states:- 'High quality design, considered form and contextual materiality will be most effective in mitigating the impact of a taller building on this site, contributing to what can be considered a high-quality element. The proposed development heights are anticipated to potentially have a high visual impact, however any perceived harm caused by this can be mitigated by the introduction of high-quality design'.

High quality design and materiality may not be sufficient to offset harm caused to heritage assets as a result of the height, scale and bulk of such a tall building.
Historic England's new tall building guidance and guidance on the setting of listed buildings/designated heritage assets should be referenced and followed in any assessment undertaken.
https://historicengland.org.uk/images-books/publications/tall-buildings-advice-note-4/
https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/

There is no reference made to the non-registered park and garden (Carrow House and Carrow Abbey) as a non designated heritage asset Nor is there reference to curtilage listed structures - such as boundary treatments, the rustic summer house and the greenhouses etc at Carrow Abbey and the boiler room/cottage at Carrow House.

The document does not appear to acknowledge that a tall building / tall buildings in this location has the potential to impact heritage assets settings further afield than 250m radius, including heritage assets located at neighbouring authorities - and the setting /character and appearance of Whittingham broad/park. Have we consulted the neighbouring LPA's on this screening?
I wonder if we ought to be getting a verified view of any impacts upon the setting of Trowse Millgate conservation area and trowse millgate pumping station and adjacent locally listed/listed structures? I have not yet highlighted this to Laurie.

Are we satisfied that the works in this location will not block or alter key views within the city -

Appendix 8 of the local plan?

The document will have to consider the affect of the loss of any designated or non-designated heritage assets upon the wider character and appearance of the conservation area and its setting.

I think that these are the most relevant thoughts for now

Thanks

Sophia

I hope that this information is helpful and if you do require further guidance, please get in touch.

Kind Regards

Sophia

Sophia Bix MSc Hist Con
Conservation & Design Officer
Planning & Regulatory Services
Norwich City Council

01603 989236
My working days are Monday, Tuesday and Thursday 9am-5pm

Norfolk County Council
Community and Environmental Services
County Hall
Martineau Lane
Norwich
NR1 2SG

via e-mail

NCC contact number: 0344 800 8020
Textphone: 0344 800 8011

Your Ref:	N/A	My Ref:	FW2022_0450
Date:	18 May 2022	Tel No.:	0344 800 8020
		Email:	llfa@norfolk.gov.uk

Dear Case Officer

Town and Country Planning (Development Management Procedure) (England) Order 2015

EIA Scoping Request for environmental consultancy associated with the proposed development of the site at Carrow Works King Street Norwich (Part of East Norwich site).

Thank you for your consultation on the above site, received on 27 April 2022. We have reviewed the request as submitted and wish to make the following comments:

- The applicant has provided a report requesting an Environmental Impact Assessment (EIA) Scoping Opinion from you, the Local Planning Authority (LPA) (Carrow Works, Norwich, Environmental Impact Assessment Scoping Report | Entran Limited | Ref: E3077 | Rev: 1.1 | Dated: 13 April 2022).
- We welcome the inclusion of references to flood risk within the report.
- We welcome the inclusion of Section 10 titled 'Water Quality, Hydrology and Flood Risk'.
- We welcome the inclusion of flood risk from rivers and seas, surface water, ground water and reservoirs within the report.
- We welcome that the applicant indicates in the submitted EIA Scoping Report that a Flood Risk Assessment (FRA) and surface water drainage strategy will be submitted as part of the planning application.
- We note that the site is affected by surface water flooding in the 3.33%, 1.0% and 0.1% AEP events as shown by the Environment Agency (EA) Risk of Flooding from Surface Water (RoFSW) maps. There are a number of small areas of localised surface water flooding (ponding) present in the 3.33%, 1.0% and 0.1% AEP, concentrated to the paved areas between existing buildings and with the majority situated in the northern half of the site. We would expect this to be addressed as

part of any future FRA and Drainage Strategy along with all other sources of flooding.

- According to Lead Local Flood Authority (LLFA) datasets (extending from 2011 to present day) we have 4 records of internal flooding within close proximity of the site. The LLFA highlight the importance of considering surface water, groundwater, and flooding from ordinary watercourses in the best interest of development in the area.
- We note that the site is within close proximity to the Norfolk Rivers Internal Drainage Board (IDB), a member of the Water Management Alliance.
- We note the LLFA will expect appropriate SuDS to be included the proposal, including consideration of surface water reuse SuDS, as per the NCC LLFA Developer Guidance Document.
- In terms of surface water flood risk, the applicant has stated that “the majority of the site has a very low risk of surface water flooding”. We would advise that the benefits of a full EIA will only support the site development and far outweigh the loss of not doing so, but ultimately, we recognise that it is the responsibility of the LPA to decide whether a full EIA is required or not.

Whether or not an EIA is required we consider that the following issues should be considered and addressed:

We strongly recommend that any EIA includes, or any planning application for development is accompanied by a FRA / surface water drainage strategy to address:

- All sources of flood risk, including those from ordinary watercourses, surface water and groundwater to the development.
- How surface water drainage from the development will be managed on-site and show compliance with the written Ministerial Statement HCWS 161 by ensuring that Sustainable Drainage Systems (SuDS) are put in place.
- How any phasing of the development will affect the overall drainage strategy and what arrangements, temporary or otherwise, will need to be in place at each stage of the development in order to ensure the satisfactory performance of the overall surface water drainage system for the entirety of the development.

This supporting information would assess the potential for the development to increase the risk of flooding from the proposal or how surface water runoff through the addition of hard surfaces will be managed. It will show how this will be managed to ensure that the development does not increase flood risk on the site or elsewhere, in line with National Planning Policy Framework (NPPF) (Paragraph 167).

In this particular case this would include appropriate information on:

- Appropriate assessment and mitigation of all sources of surface water flooding onsite/originating from offsite that may affect the development, in addition to risk of groundwater flooding.
- Sustainable Drainage Systems (SuDS) proposals in accordance with appropriate guidance including “Non-statutory technical standards for sustainable drainage systems” March 2015 by Department for Environment, Food and Rural Affairs.
- At least one feasible proposal for the disposal of surface water drainage should be demonstrated and in many cases supported by the inclusion of appropriate

information. It is important that the SuDS principles and hierarchies have been followed in terms of:
    - surface water disposal location, prioritised in the following order: disposal of water to shallow infiltration, to a watercourse, to a surface water sewer, combined sewer / deep infiltration (generally greater than 2m below ground level).
    - the SuDS components used within the management train (source, site and regional control) in relation to water quality and quantity.
    - identifying multifunctional benefits including amenity and biodiversity.
- The drainage strategy should also contain a maintenance and management plan detailing the activities required and details of who will adopt and maintain all the surface water drainage features for the lifetime of the development.

Please note, if there are any works proposed as part of this application that are likely to affect flows in an ordinary watercourse, then the applicant is likely to need the approval of the County Council. In line with good practice, the Council seeks to avoid culverting, and its consent for such works will not normally be granted except as a means of access. It should be noted that this approval is separate from planning.

Further guidance for developers can be found on our website at https://www.norfolk.gov.uk/rubbish-recycling-and-planning/flood-and-water-management/information-for-developers

Yours sincerely,

Rosie

Rosie Chubbock
Assistant Flood Risk Officer
Lead Local Flood Authority

Disclaimer
We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue.

Norfolk County Council

Community and Environmental Services
County Hall
Martineau Lane
Norwich
NR1 2SG
NCC contact number: 0344 800 8020
Text Relay - 18001 0344 800 8020

Sarah Hinchcliffe
Norwich City Council
City Hall
Norwich
Norfolk
NR2 1NH

Your Ref: 22/00540/EIA2
Date: 4 May 2022

My Ref: 9/4/22/0540
Tel No.: 01603 638009
Email: liz.poole@norfolk.gov.uk

Dear Sarah,

EIA Scoping Request for environmental consultancy associated with the proposed development of the site. Carrow Works, King Street, Norwich, NR2 1DD

Thank you for your consultation regarding the above.

The highway authority will require a full Transport Assessment which should be scoped with the highway authority in advance of any submission.

Yours sincerely

Liz Poole

Major and Estate Development Team Manager
for Executive Director for Community and Environmental Services

Please be aware it is the applicants responsibility to clarify the boundary with the public highway. Private structures such as fences or walls will not be permitted on highway land. The highway boundary may not match the applicants title plan. Please contact the highway research team at highway.boundaries@norfolk.gov.uk for further details.

Historic England

Sir/Madam Planning
Norwich City Council
City Hall
St.Peter's Street
NORWICH
Norfolk
NR2 1NH

Direct Dial: 01223 582738

Our ref: PL00772902

16 May 2022

Dear Sir/Madam Planning

Thank you for writing to Historic England regarding the EIA Scoping Request in respect of the proposed development at the Carrow Works site.

The applicant is proposing to submit a hybrid application to develop Carrow Works for a phased residential led development with supporting mixed uses. The detailed application component comprises the construction of the primary internal road and associated public spaces and public realm, restoration and change of use of Carrow Abbey to residential use and enhanced access to Carrow Abbey and scheduled ancient monument and associated ancillary works.

Historic England have recently reviewed the heritage designations on the site. We have also provided advice on the Master Plan for East Norwich and the emerging Greater Norwich Local Plan.

Carrow Works is a fascinating site with a rich history encompassing the medieval monastic period through to the nineteenth and twentieth century industrial works of the Colman's factory with its strong identity with the city and the associated domestic buildings and landscape. The site lies within the Bracondale Conservation Area. It includes the Scheduled Monument, Carrow Priory and grade I listed Carrow Abbey, grade II* Conservatory to Carrow House as well as several grade II listed buildings. The former factory was developed along the bank of the River Wensum, leaving Carrow Abbey with a separate garden setting which it shared with Carrow House. There are also a number of grade II buildings nearby on the opposite side of Bracondale and other designated and undesignated heritage assets in the wider area.

We would expect an Environmental Statement to consider the potential impacts on any grade I, II* and II listed buildings, Scheduled Monuments and Registered historic parks as well as non-designated features of historic, architectural, archaeological or artistic interest, since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (httpswww.her://itage.norfolk.gov.uk/ <https://www.heritage.norfolk.gov.uk/>) and

Historic England is subject to both the Freedom of Information Act (2000) and Environmental Information Regulations (2004). Any Information held by the organisation can be requested for release under this legislation.

relevant local authority staff.

We would strongly recommend that you involve the Conservation Officer of the local planning authority and the archaeological staff at the County Council in the development of this assessment. They are best placed to advise on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

The Scoping Report refers the Heritage Baseline Assessment dated May 2021 (paragraph 13.2). This is a useful start in this process but does not contain sufficient information on the historic buildings to inform consideration of their uses. The baseline should also be updated to reflect the recent designation work. Furthermore, while the buildings settings are usually described, the ways in which setting contributes to the historic significance of the assets is often not brought out.

We are also not convinced the suggested character areas are sufficiently refined to be useful guides. These character areas overlap in places where there are clear distinctions in character. They also broadly assign the characteristics of the factory to some open spaces of a different quality which make a more positive contribution to the significance of historic buildings than the character areas would suggest.

A particular concern is that the distinction between some of these areas is unclear, especially Waterfront East and Carrow Works. The southern side of Waterfront East overlaps and appears to include most of the industrial buildings at the Carrow factory site. Part of the area called Carrow Works in fact consists of Carrow Abbey and the area between it and Carrow House which is not comprised of factory buildings. As well as the garden to Carrow Abbey and the former park land between it and Carrow House the car park to the south of the Abbey should also not be characterised as factory development as does not include industrial buildings.

It is important to establish the character of component parts of the masterplan site and the historic significance which they embody before scale, form and design of development is considered. We would therefore recommend further assessment is carried out, that historic buildings and their settings are considered in greater detail and the character areas refined.

The study area is proposed as 250 metres from the site boundary (paragraph 13.7). The details of the application are unclear at this stage but we are concerned that this is too limited. The proposed development could have potential to be visible across a large area and could, as a result, affect the significance of heritage assets at some distance from this site itself. We have already identified the need to consider views of the approach to the City along the river, wider views of the city and views from and

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around and the registered historic park at Crown Point (Whitlingham Park), the grade II listed ruins of Trowse Newton Hall and Trowse conservation area.

We would therefore expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed. It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area.

We note that the EIA Cultural Heritage chapter will include an updated Archaeological Desk-Based Assessment to consider the potential impacts of the proposed development on both designated and non-designated archaeological remains and deposits with palaeoenvironmental and geoarchaeological significance. We recommend that, in addition to the sources stated in the Scoping Report, the assessment includes a review of existing borehole and geoarchaeological datasets.

In addition to the range of potential historic environment impacts identified in the Scoping report, the assessment should also consider the potential for changes in burial-environment and hydrology to adversely impact the preservation of buried archaeological and palaeoenvironmental remains or the foundations of existing historic structures at the site. We recommend that appropriate reference is made in the assessment to the Historic England document 'Preserving Archaeological Remains <https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>' (2016).

The assessment should consider using historic maps and aerial photographs to model the extents and, where possible, the depths of previous known ground-disturbance within the site to identify areas where the potential for the survival of buried archaeological remains is particularly high or low.

Given the designated heritage assets on the site and beyond which fall within the remit of Historic England and the anticipated development, we consider there is likely to be a significant impact from the development on them. We are therefore likely to have substantive comments to make and would welcome the chance to comment on any assessment carried out and further details of the proposals.

At this stage we would like to register our concerns about the approach of submitting a hybrid application. The site is highly sensitive and any application should contain

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sufficient information to enable the impact of the proposals on the historic environment to be fully assessed.

If you have any queries about any of the above, or would like to discuss anything further, please contact me.

Yours sincerely,

Clare Campbell
Team Leader - Development Advice
clare.campbell@HistoricEngland.org.uk

cc:

Historic England is subject to both the Freedom of Information Act (2000) and Environmental Information Regulations (2004). Any Information held by the organisation can be requested for release under this legislation.

From:	SM-MMO-SH - MFA Marine Consents (MMO)
To:	PLANNING
Subject:	FW: PAC Carrow Works 22/00540/EIA2
Date:	03 May 2022 15:06:27
Attachments:	image001.png ufm23.rtf

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Marine Licensing, Wildlife Licences and other permissions

Dear Sir/Madam,

Please be aware that any works within the Marine area require a licence from the Marine Management Organisation. It is down to the applicant themselves to take the necessary steps to ascertain whether their works will fall below the Mean High Water Springs mark.

Response to your consultation

The Marine Management Organisation (MMO) is a non-departmental public body responsible for the management of England's marine area on behalf of the UK government. The MMO's delivery functions are; marine planning, marine licensing, wildlife licensing and enforcement, marine protected area management, marine emergencies, fisheries management and issuing European grants.

Marine Licensing

Works activities taking place below the mean high water mark may require a marine licence in accordance with the Marine and Coastal Access Act (MCAA) 2009.

Such activities include the construction, alteration or improvement of any works, dredging, or a deposit or removal of a substance or object below the mean high water springs mark or in any tidal river to the extent of the tidal influence.

Applicants should be directed to the MMO's online portal to register for an application for marine licence

https://www.gov.uk/guidance/make-a-marine-licence-application

You can also apply to the MMO for consent under the Electricity Act 1989 (as amended) for offshore generating stations between 1 and 100 megawatts in English waters.

The MMO is also the authority responsible for processing and determining Harbour Orders in England, together with granting consent under various local Acts and orders regarding harbours.

A wildlife licence is also required for activities that that would affect a UK or European protected marine species.

The MMO is a signatory to the coastal concordat and operates in accordance with its principles. Should the activities subject to planning permission meet the above criteria then the applicant should be directed to the follow pages: check if you need a marine licence and asked to quote the following information on any resultant marine licence application:

- local planning authority name,
- planning officer name and contact details,
- planning application reference.

Following submission of a marine licence application a case team will be in touch with the relevant planning officer to discuss next steps.

Environmental Impact Assessment

With respect to projects that require a marine licence the EIA Directive (codified in Directive 2011/92/EU) is transposed into UK law by the Marine Works (Environmental Impact Assessment) Regulations 2007 (the MWR), as amended. Before a marine licence can be granted for projects that require EIA, MMO must ensure that applications for a marine licence are compliant with the MWR.

In cases where a project requires both a marine licence and terrestrial planning permission, both the MWR and The Town and Country Planning (Environmental Impact Assessment) Regulations http://www.legislation.gov.uk/uksi/2017/571/contents/made may be applicable.

If this consultation request relates to a project capable of falling within either set of EIA regulations, then it is advised that the applicant submit a request directly to the MMO to ensure any requirements under the MWR are considered adequately at the following link

https://www.gov.uk/guidance/make-a-marine-licence-application

Marine Planning

Under the Marine and Coastal Access Act 2009 ch.4, 58, public authorities must make decisions in accordance with marine policy documents and if it takes a decision that is against these policies it must state its reasons. MMO as such are responsible for implementing the relevant Marine Plans for their area, through existing regulatory and decision-making processes.

Marine plans will inform and guide decision makers on development in marine and coastal areas. Proposals should conform with all relevant policies, taking account of economic, environmental and social considerations. Marine plans are a statutory consideration for public authorities with decision making functions.

At its landward extent, a marine plan will apply up to the mean high water springs mark, which includes the tidal extent of any rivers. As marine plan boundaries

extend up to the level of the mean high water spring tides mark, there will be an overlap with terrestrial plans which generally extend to the mean low water springs mark.

A map showing how England's waters have been split into 6 marine plan areas is available on our website. For further information on how to apply the marine plans please visit our Explore Marine Plans service.

Planning documents for areas with a coastal influence may wish to make reference to the MMO's licensing requirements and any relevant marine plans to ensure that necessary regulations are adhered to. All public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the Marine and Coastal Access Act and the UK Marine Policy Statement unless relevant considerations indicate otherwise. Local authorities may also wish to refer to our online guidance and the Planning Advisory Service soundness self-assessment checklist. If you wish to contact your local marine planning officer you can find their details on our gov.uk page.

Minerals and waste plans and local aggregate assessments

If you are consulting on a mineral/waste plan or local aggregate assessment, the MMO recommend reference to marine aggregates is included and reference to be made to the documents below;

- The Marine Policy Statement (MPS), section 3.5 which highlights the importance of marine aggregates and its supply to England's (and the UK) construction industry.
- The National Planning Policy Framework (NPPF) which sets out policies for national (England) construction minerals supply.
- The Managed Aggregate Supply System (MASS) which includes specific references to the role of marine aggregates in the wider portfolio of supply.
- The National and regional guidelines for aggregates provision in England 2005-2020 predict likely aggregate demand over this period including marine supply.

The NPPF informed MASS guidance requires local mineral planning authorities to prepare Local Aggregate Assessments, these assessments have to consider the opportunities and constraints of all mineral supplies into their planning regions – including marine. This means that even land-locked counties, may have to consider the role that marine sourced supplies (delivered by rail or river) play – particularly where land based resources are becoming increasingly constrained.

If you require further guidance on the Marine Licencing process, please follow the link https://www.gov.uk/topic/planning-development/marine-licences

Regards
Andy

Andy Davis| Administration Officer Business Support Team | Her Majesty's

Government – Marine Management Organisation Tel: +44 02080265093 Mob: 07920365419
Andrew.Davis@marinemanagement.org.uk | Lancaster House, Hampshire Court, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest
During the current health emergency, the Marine Management Organisation is continuing to provide vital services and support to our customers and stakeholders. We are in the main working remotely, in line with the latest advice from Government, and continue to be contactable by email, phone and on-line. Please keep in touch with us and let us know how we can help you
https://www.gov.uk/mmo
Our MMO Values: Together we are **Accountable, Innovative**, **Engaging** and **Inclusive**

From: planning@norwich.gov.uk <planning@norwich.gov.uk>
Sent: 27 April 2022 12:34
To: SM-MMO-SH - MFA Marine Consents (MMO) <marine.consents@marinemanagement.org.uk>
Subject: PAC Carrow Works 22/00540/EIA2

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Please see attached planning application consultation notification.

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Norfolk County Council Comments on:

Carrow Works EIA Scoping Report

18 May 2022

1. Introduction

1.1. The County Council welcomes the opportunity to comment on the above Environmental Scoping Report. The officer-level comments below are made on a without prejudice basis and the County Council reserves the right to make further comments at the pre-application and application stages.

2. Strategic Planning

2.1. The County Council has concerns that the potential school site locations do not meet the basic guidelines set out in BB103 in potential floor space within an urban development, this assessment was conducted by Norfolk Property Services on behalf of the County Council.

2.2. Where there is likely to be an impact on local services, the EIA should indicate how the proposal plans to mitigate these impacts and what delivery mechanism/sources of funding may be available e.g., Community infrastructure Levy, Planning Obligations, and the potential use of planning conditions.

Delivery of the above will need specific reference involving a combination of CIL funding and S106 arrangements for any potential transfer of land for County Council uses (e.g. education). Please see the County Council's Planning Obligation Standards.

2.3. Should you have any queries with the above comments please call or email Naomi Chamberlain (Senior Planner) 01603 638422 (naomi.chamberlain@norfolk.gov.uk).

3. Minerals and Waste

3.1. Chapter 14: Socio-economics, population and human health

This chapter of the Environmental Statement must include an assessment of how the new uses of the Carrow Works site will impact on the existing safeguarded aggregate railhead which is adjacent to the application site in accordance with the 'agent of change' principle and Policy CS16 of the Norfolk Minerals and Waste Core Strategy.

3.2. Chapter 8: Noise and Vibration

This chapter of the Environmental Statement must take into consideration noise generated by the existing safeguarded aggregate railhead and how any noise impacts on users and residents of the proposed Carrow Works development will be mitigated through the design, layout and construction of the development.

3.3. Should you have any queries with the above comments please call or email Caroline Jeffery (Principal Planner) 01603 222193 (caroline.jeffery@norfolk.gov.uk).

Date: 19 May 2022
Our ref: 392155
Your ref: 22/00540/EIA2

planning@norwich.gov.uk

BY EMAIL ONLY

Consultations
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 900

Dear Sir/Madam,

Environmental Impact Assessment Scoping consultation (Regulation 15 (4) of the Town and Country Planning EIA Regulations 2017): EIA Scoping Request for environ-mental consultancy associated with the proposed development of the site.
Location: Carrow Works King Street Norwich

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 27 April 2022**,** received on 27 April 2022.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities based on relevant and up to date environmental information should be undertaken prior to a decision on whether to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

Further guidance is set out in Planning Practice Guidance on environmental assessment, natural environment and climate change.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

Please note that Natural England must be consulted on Environmental Statements.

Please send any new consultations or further information on this consultation to consultations@naturalengland.org.uk.

Yours faithfully

Luke Turnbull
Consultations Team

Annex A – Natural England Advice on EIA Scoping

General Principles

Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- A non-technical summary of the information
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information

Further guidance is set out in Planning Practice Guidance on environmental assessment and natural environment.

Cumulative and in-combination effects

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Environmental data

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at http://www.naturalengland.org.uk/publications/data/default.aspx.

Detailed information on the natural environment is available at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

Biodiversity and Geodiversity

General principles

The National Planning Policy Framework (paragraphs174-175 and 179-182) sets out how to take account of biodiversity and geodiversity interests in planning decisions. Further guidance is set out in Planning Practice Guidance on the natural environment.

The potential impact of the proposal upon sites and features of nature conservation interest and opportunities for nature recovery and biodiversity net gain should be included in the assessment.

Ecological Impact Assessment (EcIA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. Guidelines have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Local planning authorities have a duty to have regard to conserving biodiversity as part of their decision making. Conserving biodiversity can include habitat restoration or enhancement. Further information is available here.

Designated nature conservation sites

Water Quality/Nutrient Neutrality Advice

This proposal falls within the Impact Risk Zone of European Sites vulnerable to nutrient impacts. Please refer to Natural England's overarching advice dated 16th March 2022 and sent to all relevant Local Planning Authorities. When consulting Natural England on proposals with the potential to affect water quality resulting in nutrient impacts on European Sites please ensure that a Habitats Regulations Assessment is included which has been informed by the Nutrient Neutrality.

Methodology (provided within our overarching advice letter). Without this information Natural England will not be in a position to comment on the significance of the impacts. For large scale developments, Natural England may provide advice on a cost recovery basis through our Discretionary advice service.

All queries in relation to the application of this methodology to specific applications or development of strategic solutions will be treated as pre-application advice and therefore subject to chargeable services.

Nationally designated sites
The development site is within or may impact on the following **Site of Special Scientific Interest:**

- Eaton Chalk Pit SSSI (Site of Special Scientific Interest)

Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 and paragraph 180 of the NPPF. Further information on the SSSI and its special interest features can be found at www.magic.gov .

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within the SSSI and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects. The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are interest features of the SSSI, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a site, for example by being linked hydrologically or geomorphologically.

Regionally and Locally Important Sites

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geoconservation group or other local group and protected under the NPPF (paragraph 174 and 175). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

Protected Species

The conservation of species protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017
is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*.

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted standing advice for protected species, which includes guidance on survey and mitigation measures . A separate protected species licence from Natural England or

Defra may also be required.

District Level Licensing for Great Crested Newts

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A DLL scheme for GCN may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys. By demonstrating that DLL will be used, impacts on GCN can be scoped out of detailed assessment in the Environmental Statement.

Priority Habitats and Species

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found here. Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to download. Further information is also available here.

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present
- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species
- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

Ancient Woodland, ancient and veteran trees

The ES should assess the impacts of the proposal on any ancient woodland, ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. The wood pasture and parkland inventory sets out information on wood pasture and parkland.

The ancient tree inventory provides information on the location of ancient and veteran trees.

Natural England and the Forestry Commission have prepared standing advice on ancient woodland, ancient and veteran trees.

Biodiversity net gain

Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Biodiversity Net Gain is additional to statutory requirements relating to designated nature conservation sites and protected species.

The ES should use an appropriate biodiversity metric such as Biodiversity Metric 3.0 together with ecological advice to calculate the change in biodiversity resulting from proposed development and demonstrate how proposals can achieve a net gain.
The metric should be used to:
• assess or audit the biodiversity unit value of land within the application area
• calculate the losses and gains in biodiversity unit value resulting from proposed development
• demonstrate that the required percentage biodiversity net gain will be achieved

Biodiversity Net Gain outcomes can be achieved on site, off-site or through a combination of both. On-site provision should be considered first. Delivery should create or enhance habitats of equal or higher value. When delivering net gain, opportunities should be sought to link delivery to relevant plans or strategies e.g. Green Infrastructure Strategies or Local Nature Recovery Strategies.

Opportunities for wider environmental gains should also be considered.

Landscape

Nationally Designated Landscapes

The development site is within or may impact on “The Broads” National Park

The NPPF (paragraph 176) provides the highest level of planning protection for these nationally designated landscapes.

Public bodies have a duty to have regard to the statutory purposes of designation in carrying out their functions (under (section 11 A (2) of the National Parks and Access to the Countryside Act 1949 for National Parks and S85 of the Countryside and Rights of Way Act, 2000 for AONBs). Planning Practice Guidance confirms that this duty also applies to proposals outside the designated area but impacting on its natural beauty.

Consideration should be given to the direct and indirect effects on this designated landscape and in particular the effect upon its purpose for designation. The management plan for the designated landscape may also have relevant information that should be considered in the EIA.

Landscape and visual impacts

The environmental assessment should refer to the relevant National Character Areas. Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The ES should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in

Guidelines for Landscape and Visual Impact Assessment 2013 ((3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management. For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the National Design Guide and National Model Design Code. The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

Heritage Landscapes

The ES should include an assessment of the impacts on any land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific, or historic interest. An up-to-date list is available at www.hmrc.gov.uk/heritage/lbsearch.htm.

Connecting People with nature

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 100. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Soils and Agricultural Land Quality

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 174 and 175 of the NPPF. Further guidance is set out in the Natural England Guide to assessing development proposals on agricultural land.

As set out in paragraph 211 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission.

The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk.

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and
The British Society of Soil Science Guidance Note Benefitting from Soil Management in Development and Construction.

Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue. For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg) [1].A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NOx and SO_2 against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air

[1] Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK

pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts on air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk).

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - http://www.scail.ceh.ac.uk/
- Ammonia assessment for agricultural development https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit
- Environment Agency Screening Tool for industrial emissions https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England http://www.airqualityengland.co.uk/laqm

Water Quality

The planning system plays a key role in determining the location of developments which may give rise to water pollution, and hence planning decisions can have a significant impact on water quality, and land. The assessment should take account of the risks of water pollution and how these can be managed or reduced. A number of water dependent protected nature conservation sites have been identified as failing condition due to elevated nutrient levels and nutrient neutrality is consequently required to enable development to proceed without causing further damage to these sites. The ES needs to take account of any strategic solutions for nutrient neutrality or Diffuse Water Pollution Plans, which may be being developed or implemented to mitigate and address the impacts of elevated nutrient levels. Further information can be obtained from the Local Planning Authority.

Climate Change

The ES should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people, for example whether the development affects species ability to move and adapt. Nature-based solutions, such as providing green infrastructure on-site and in the surrounding area (e.g. to adapt to flooding, drought and heatwave events), habitat creation and peatland restoration, should be considered. The ES should set out the measures that will be adopted to address impacts.

Further information is available from the Committee on Climate Change's (CCC) Independent Assessment of UK Climate Risk, the National Adaptation Programme (NAP), the Climate Change Impacts Report Cards (biodiversity, infrastructure, water etc.) and the UKCP18 climate projections.

The Natural England and RSPB Climate Change Adaptation Manual (2020) provides extensive information on climate change impacts and adaptation for the natural environment and adaptation focussed nature-based solutions for people. It includes the Landscape Scale Climate Change Assessment Method that can help assess impacts and vulnerabilities on natural environment features and identify adaptation actions. Natural England's Nature Networks Evidence Handbook (2020) also provides extensive information on planning and delivering nature networks for people and biodiversity.

The ES should also identify how the development impacts the natural environment's ability to store and sequester greenhouse gases, in relation to climate change mitigation and the natural environment's contribution to achieving net zero by 2050. Natural England's Carbon Storage and

Sequestration by Habitat report (2021) and the British Ecological Society's nature-based solutions report (2021) provide further information.

Contribution to local environmental initiatives and priorities

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

From:	Dalia Alghoul
To:	PLANNING
Subject:	Network Rail Consultation ResponsePAC Carrow Works 22/00540/EIA2
Date:	27 April 2022 14:42:35
Attachments:	image001.png ufm21.rtf ASPRO Informatives 2020 (002).pdf

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OFFICIAL

Dear Sir/Madam,
Network Rail strongly recommends the developer complies with the following comments and requirements to maintain the safe operation of the railway and protect Network Rail's infrastructure.

The developer must ensure that their proposal, both during construction and after completion does not:

- encroach onto Network Rail land
- affect the safety, operation or integrity of the company's railway and its infrastructure
- undermine its support zone
- damage the company's infrastructure
- place additional load on cuttings
- adversely affect any railway land or structure
- over-sail or encroach upon the air-space of any Network Rail land
- cause to obstruct or interfere with any works or proposed works or Network Rail development both now and in the future

Should you have any further questions, please do not hesitate to contact Network rail.
Kind regards,

Dalia Alghoul
Town Planning Technician | Property | Eastern Route
One Eversholt Street, London, NW1 2DN
Mobile: 07732641896
Email: dalia.alghoul@networkrail.co.uk
Website: www.networkrail.co.uk/property

From: planning@norwich.gov.uk <planning@norwich.gov.uk>

Sent: 27 April 2022 12:34
To: TownPlanningAnglia <TownPlanningAnglia@networkrail.co.uk>
Subject: PAC Carrow Works 22/00540/EIA2

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Please see attached planning application consultation notification.

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Norfolk Fire and Rescue Service comments on Carrow Works EIA

Please see below the response from the Operations practitioner from the Fire and Rescue Service for consideration:

- The current width of the high reach appliance (ALP) fully jacked is 5.4m. This would allow full movement when pitched at the taller buildings. We are entering a project to replace the current ALP for a larger and longer reach so jacking could be wider.
- Emergency vehicle access close to footbridges.
- Potential for a slipway to launch rescue boats and good emergency vehicle access – yacht/marina area
- Unrestricted movement for fire service vehicles during busy parking hours. (night time)
- Allowance for dual approach access on the developments in case one route is blocked. This is for the wider development and response times of second appliances also.
- Improved and unrestricted access at Cremorne Lane for wider development.
- ALP weight is currently 26 tonnes. This could increase if larger vehicle is purchased.
- Increased traffic around Bracondale/King Street area. Allowance for free flowing traffic for response times to other locations.
- Potential for reconfiguration of White Horse Lane to allow free movement of traffic
- Noise levels from the Fire Station day and night. The plans show minimum dwellings close to the station which is good

These points help should be considered to allow for rapid response to a busy and attractive regenerated development. Plus, to allow for easy movement around the development to other locations with a large increase in vehicles using trunk roads.

Norfolk Fire and Rescue Service have the following questions:

- Will there be dedicated Electric Vehicle charging points?
- What is the purpose of the small narrow strip of land adjacent to the Fire Station?
- Surface water run off during flash flooding/surge conditions. Will this impact Carrow Fire Station?

Should you have any queries with the above comments please call or email Emyr Gough (Group Manager Central District) 01603 537518 (emyr.gough@norfolk.gov.uk).

NORFOLK WILDLIFE TRUST

Response to Planning Consultation

18 May 2022

Request for EIA Scoping Opinion for Carrow Works, King Street, Norwich. Ref: 22/00540/EIA2

Thank you for consulting Norfolk Wildlife Trust regarding this EIA Scoping Opinion consultation. We have the following recommendations for its scope.

Planning Policy

The submission version of the Greater Norwich Local Plan (GNLP), includes the following policy requirements for the East Norwich strategic allocation, which the EIA will need to demonstrate compliance with, in particular the nearby Carrow Abbey County Wildlife Site (CWS) and its connectivity with the wider landscape.

Section 2.23 of the strategic allocation text notes '*to the east of the site lies a County Wildlife Site, the trees and green spaces on the site together with a number of buildings are likely to be important for wildlife and biodiversity. Protection of the wildlife and the increase the biodiversity of the site will be required*'.

In addition, Strategic Allocation policy, section 8, states '*development proposals will include protection and enhancement of the existing biodiversity of the site including green infrastructure assets, corridors, trees and open spaces. Development must enhance linkages from the city centre to the Broads, Carrow Abbey County Wildlife Site, the woodlands, the wider rural area and elsewhere in Norwich. Furthermore development must secure remediation and long term management of the Carrow Abbey County Wildlife Site. Development must also achieve high quality landscaping, planning and biodiversity enhancements, including enhancements to the River Wensum and River Yare and to the locally registered historic park and garden, along with appropriate improved public access*'.

Biodiversity Net Gain

The Environment Act 2021 includes a requirement for mandatory delivery of 10% biodiversity net gain (BNG), as per the latest Defra Metric, for all developments from autumn 2023. This requirement is also supported by the draft GNLP. As any reserved matter consents that follow from this are likely to be made following the formal adoption of the GNLP and the application of mandatory BNG under the Environment Act, we recommend that the EIA includes evidence to demonstrate that a minimum of 10% BNG is deliverable for the whole development and compatible with the full application elements of this hybrid application. Given the existing pressures on the natural environment and the challenges for the future that Norfolk's wildlife faces with climate change, we would also advocate wherever possible that the mandatory 10% target is exceeded, and would be happy to discuss this further with the applicant if helpful.

Carrow Abbey CWS

The scoping report does not make reference to the adjacent Carrow Abbey CWS and so potentially scopes out impacts on nearby wildlife sites incorrectly.

Air quality - The scoping report refers to the adjacent railway line, site construction and operational phase traffic and unconfirmed energy provision for the site as potential sources of air pollution. The application site is approximately 200m from the Carrow Abbey CWS, the habitats of which are potentially vulnerable to increases in air pollution (further information on the impacts of air pollution on

important habitats can be found on the APIS website - http://www.apis.ac.uk/). In addition, the scoping report excludes dust impacts from the construction phase, but given the presence of the CWS nearby we recommend they are scoped back in.

Water quality/hydrology - Carrow Abbey CWS includes wetland and water dependant habitats which are potentially vulnerable to changes in local hydrology such as groundwater flow and mobilisation of site contaminants.

Section 10.13 of the scoping report refers to wastewater flows and the need for a foul drainage strategy, including an assessment of capacity within the local sewerage network. We note the recent announcement from Natural England regarding nutrient neutrality due to wastewater impacts on designated sites which was issued since the completion of the EIA Scoping report, and the additional evidence that will be needed to demonstrate that the development will be able to avoid adverse effects on the Wensum and Broads river catchments prior to any consent.

In addition, we also recommend that the potential for impacts on the nearby CWS from changes in groundwater flows or from increased risks of groundwater contamination from the construction and operational phases are included in the EIA. Section 11.9 of the scoping report refers to travel times through local aquifers, so the potential for historical contaminants mobilised during construction, or operational phase wastewater or road run-off to reach and impact the nearby CWS should be considered as part of the EIA.

Priority Habitats and Species

The EIA should review the potential presence of any Priority Habitats and Species nearby (as per section 41 of the Natural Environment & Rural Communities Act), so that the potential for indirect impacts on these ecological features can be assessed.

We trust that our comments have been helpful, but would be happy to discuss our comments further with the Council and the applicant if helpful.

Mike Jones
Conservation Officer

NORFOLK CONSTABULARY
Our Priority is You

Planning Services
Norwich City Council
Via email

Norfolk Constabulary

Norwich Police Station
Bethel Street
Norwich
Norfolk
NR2 INN

Tel: 101
Mobile: 07810813530
Email: penny.turner@norfolk.police.uk

www.norfolk.police.uk
Non-Emergency Tel: 101

Your Ref: 22/00540/EIA2

Date: 27th April 2022

Dear Planning,

Proposal: EIA Scoping Request for environmental consultancy associated with the proposed development of the site. Location: Carrow Works King Street Norwich

Thank you for inviting comment on the above EIA scoping opinion request. As a Designing Out Crime Officer (DOCO) my role within the planning process is to give advice on behalf of Norfolk Constabulary in relation to the layout, environmental design and the physical security of buildings, based upon the established principles of ***'Designing out Crime'.*** Recommendations also take into account local and national crime trends and the risks associated with specific building types.

Please consider the following comments in parallel to proactive policing activity/initiatives within Carrow Works development:

- The adoption of CPTED[1] principles in building design and development across the site. This would help protect new dwellings, existing buildings, commercial developments from loss.
- Access to local amenity areas must be balanced by the potential for the criminal to use the same highways & byways to commit crime and escape detection. Unnecessary pedestrian and vehicular permeability should be reconsidered or removed.
- Communal areas (*including public open spaces*) & leisure facilities should be assessed to prevent the occurrence of anti-social behaviour.
- Secure boundary treatments should be considered proportionate to criminal statistics and not solely aesthetic considerations
- Suitable security lighting provides safety for occupiers and visitors, reduces the fear of crime[2] and is a significant deterrent for the criminal, who seeks to avoid being seen.
- Ongoing vigilance, effective natural surveillance and speedy reporting of emergency, urgent or suspicious activity will benefit all who live, work and visit the development.

I would like to take this opportunity on behalf of Norfolk Constabulary to refer to Secured by Design (SBD). This is a police initiative based upon the principles of "designing out crime" and incorporates the latest security standards to address emerging criminal methods of attack.

[1] Crime Prevention Through Environmental Design
[2] Secured by Design, New Homes 2019

Secured by Design aims to achieve a good standard of security for buildings and the immediate environment. It attempts to deter criminal and anti-social behaviour within developments by introducing appropriate design features that enable Natural Surveillance and create a sense of place where residents, businesses and legitimate business users are able to go about their daily routine, without undue fear of crime or insecurity. I strongly encourage that SBD Certification should be sought for each stage of the development. Secured by Design Commercial 2015 and Homes 2019 Design Guides and application forms can be found on the website www.securedbydesign.com.

The provision for car parking should consider the design criteria laid down in the police owned 'ParkMark' initiative to ensure the safety of people and vehicles (further information can be found at www.parkmark.co.uk); and with the importance placed on cycles in preference and/or reduced car reliance, it is paramount that placement of the cycle parking spaces is securely thought out, providing natural surveillance for guardianship as well as quality parking structures. For the residents' secure storage facilities should be provided with restricted access control. There is secure cycle information within the SBD guides.

I would like to draw your attention to a residential development in the vicinity that has been designed with small communal parking courts (close to designated dwellings). Unfortunately, this design has been the source of some constant parking conflict, with residents unable to protect their designated spaces from inappropriate parking caused by the regular activity of a nearby football arena. It is strongly advised that this type of parking is not provided for the new development, unless protected by robust gated mechanism to restrict use to residents-only.

Whilst I am unable to make specific comments in relation to 'designing out crime' at this early stage but understanding that the development is proposing a considerable number of C3 residential units, together with E (Commercial) and F (Community), I would like to note the following:

The provision of residential units will lead to an increase in the local population. The additional population arising from the residential elements of the proposal will result in an increased demand for social and community facilities and some commercial units as proposed.

The Proposed Development may incorporate a range of landscape features, including planting, green areas of public realm. The design of the public realm areas will be influenced by the existing streetscape and surrounding area. Any existing public rights of way etc. encouraging pedestrian and cycle movements through the Site should be directed via active street fronts of development not to the rear of properties and facilities provided with high levels of natural surveillance.

- The passive surveillance of the street by residents within their homes and high levels of street activity are desirable as they have both been proven to influence the behaviour of the criminal, but they are no guarantee of lower crime, which evidence proves is achieved primarily through the control and limitation of permeability.

  Permeability is perhaps the greatest threat to a site, as it has proven capacity to facilitate both anti-social behaviour and act as a classic attack and escape route for criminals. Whilst it is accepted that through routes will be included within development layouts, the designer should ensure that the security of the development is not compromised by excessive permeability, for instance by allowing the criminal legitimate access to the rear or side boundaries of dwellings, or by providing too many or unnecessary segregated footpaths (Secured By Design Homes 2019, Section 8.3).

- Secured by Design recommends that routes for pedestrians, cyclists and vehicles should be integrated to provide a network of supervised areas to reduce crime and anti-social behaviour.

Public Spaces: Depending on the use of space and commercial outlets involved, the development could attract a terror threat and the applicant may have to produce a Counter Terrorism Response plan to ensure an adequate response to a CT Attack.

The use of the open space and vehicular access to it, may need to consider anti-terrorist issues - vehicles should not be permitted were people are able to gather.

The Government has reiterated that designing out crime and designing in community safety should be central to the planning and delivery of new development. Specifically the Planning Practice Guidance on Design reminds practitioners that local authorities are duty bound to adhere to Section 17 of the Crime and Disorder Act 1998 and exercise their functions with due regard to their likely effect on crime and disorder, and do all that they reasonably can to prevent crime and disorder

The National Planning Policy Framework July 2021 requires that:

"Planning policies and decisions should aim to achieve healthy, inclusive and safe places which… are safe and accessible so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion….

Although Norfolk is considered a low crime area, we are able to offer help and advice on reducing crime still further with the intention of creating safe environments. I would recommend early consultation with the Police Designing Out Crime Officer to assist with designing in good security processes with developers and builders at the outset, to provide a future development that reduces the opportunity for crime and the fear of crime for decades to come.

Yours sincerely

Penny Turner

Penny Turner
Designing Out Crime Officer
Norfolk Constabulary

Secured by Design
SBD
Official Police Security Initiative

Date: 26 May 2022
Our ref: 392022
Your ref: 12/00875/O

planning@norwich.gov.uk

BY EMAIL ONLY

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dear Planning Services

Planning consultation: Query regarding Ref 12/00875/O - Outline planning application (full details of access) for a mixed development consisting of a maximum of 670 dwellings; a local centre comprising commercial uses (A1/A2/A3): a restaurant/dining quarter and public house (A3/A4); demolition of buildings on the May Gurney site (excluding the former public house); an access bridge over the River Yare; new access road; car parking; flood risk management measures; landscape measures inc earthworks to form new swales and other biodiversity enhancements including the re-use of the Grade II Listed brick Kiln for use by bats.
Location: Deal Ground / May Gurney site Bracondale Norwich

Thank you for your consultation on the above dated 26 April 2022 which was received by Natural England on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

You have asked Natural England to comment on the Environmental Statement submitted with the above application (Lanpro Services, November 2010) which we understand has already been granted outline planning consent, with regards to ensuring the information is up to date ahead of the forthcoming submission of Reserved Matters applications. Whilst this does not appear to be a formal EIA Scoping consultation, we advise that a robust assessment of environmental impacts and opportunities based on relevant and up to date environmental information should be undertaken prior to a decision on whether to grant planning permission. **Annex A** to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development where updated information would likely be required. In particular, please see the section on 'Designated nature conservation sites' (pages 3-5) which outlines our bespoke advice on some issues and solutions which have emerged since 2010 which will need to be addressed.

Please note that Natural England must be consulted on any Environmental Statements.

Please send any new consultations or further information on this consultation to consultations@naturalengland.org.uk

If you have any queries relating to the advice in this letter please contact me on 07471 515535.

Yours faithfully

Joanna Parfitt
Norfolk and Suffolk Team

Annex A – Natural England Advice on updating an ES

General Principles

Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the information that should be included in an Environmental Statement (ES) to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation, cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- A non-technical summary of the information
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information

Further guidance is set out in Planning Practice Guidance on environmental assessment and natural environment.

Cumulative and in-combination effects

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Environmental data

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at http://www.naturalengland.org.uk/publications/data/default.aspx.

Detailed information on the natural environment is available at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

Biodiversity and Geodiversity

General principles

The National Planning Policy Framework (paragraphs174-175 and 179-182) sets out how to take account of biodiversity and geodiversity interests in planning decisions. Further guidance is set out in Planning Practice Guidance on the natural environment.

The potential impact of the proposal upon sites and features of nature conservation interest and opportunities for nature recovery and biodiversity net gain should be included in the assessment.

Ecological Impact Assessment (EcIA) is the process of identifying, quantifying, and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal. Guidelines have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Local planning authorities have a duty to have regard to conserving biodiversity as part of their decision making. Conserving biodiversity can include habitat restoration or enhancement. Further information is available here.

Designated nature conservation sites

International and European Sites

European site conservation objectives are available at http://publications.naturalengland.org.uk/category/6490068894089216

The ES should thoroughly assess the potential for the proposal to affect nationally and internationally designated sites of nature conservation importance, including marine sites where relevant. European sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations'). In addition paragraph 181 of the National Planning Policy Framework (NPPF) requires that potential SPAs, possible SAC, listed or proposed Ramsar sites, and any site identified or required as compensatory measures for adverse effects on habitat (European) sites, potential SPAs, possible SACs and listed or proposed Ramsar sites have the same protection as classified sites (NB. sites falling within the scope of regulation 8 of the Conservation of Habitats and Species Regulations 2017 are defined as 'habitats sites' in the NPPF). Under Regulation 63 of the Habitats Regulations, an appropriate assessment must be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are qualifying features of the site, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a designated site, for example by being linked hydrologically or geomorphologically.

Should a likely significant effect on a European/Internationally designated site be identified (either alone or in-combination) or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an appropriate assessment in addition to the consideration of impacts through the EIA process. Further guidance is set out in Planning Practice Guidance on appropriate assessment
https://www.gov.uk/guidance/appropriate-assessment

This should also take into account any agreed strategic mitigation solution that may be being developed or implemented in the area to address recreational disturbance, nutrients, or other impacts.

The Ecology chapter of the Environmental Statement concludes that the proposal would not result in any adverse effect on either The Broads Special Area of Conservation (SAC) or the River Wensum SAC (paragraph 9.319). Natural England advises that this conclusion needs revisiting for the following reasons:

- **Recreational disturbance:** The Site Improvement Plan[1] for Broadland identifies that the site is vulnerable to public disturbance. Furthermore, work by Footprint Ecology[2] has shown that increased visitor numbers at European protected sites across Norfolk are due to housing development across the county. Norfolk Local Planning Authorities (LPAs) are working collaboratively to deliver a Green Infrastructure and Recreational Impact Avoidance and Mitigation Strategy (GIRAMS) to ensure that the cumulative impacts of additional visitors arising from new developments of housing and tourism, to European sites, will not result in any adverse effects which cannot be mitigated. All Norfolk LPAs are collecting a tariff of £185.93 per new dwelling towards the strategic mitigation package, at the time planning permission is approved. It is Natural England's advice that your authority should consider whether this development qualifies for collection of the tariff should planning permission be granted.

  The proposed development is within an area that Natural England considers could benefit from enhanced green infrastructure (GI) provision. Multi-functional green infrastructure can perform a range of functions including improved flood risk management, provision of accessible green space, climate change adaptation and biodiversity enhancement. Natural England welcomes the inclusion within the proposed development of management of the Carrow Abbey Marsh County Wildlife Site to provide on-site greenspace for future residents. The following advice is provided to help the applicant further enhance the provision of on-site greenspace.

  Natural England recommends that large developments include green space that is proportionate to its scale to minimise any predicted increase in recreational pressure to designated sites, by containing the majority of recreation within and around the developed area. The applicant may wish to consider to benchmark standards for accessible natural greenspace, the TCPA have published Guides and Principles for Garden Communities, and Guide 7, Principal 9, references 40% green infrastructure as a target quantum. The Suitable Accessible Natural Green Space (SANGS) guidance can be helpful in designing this; it should be noted that this document is specific to the SANGS creation for the Thames Basin Heaths, although the broad principles are more widely applicable. Green infrastructure design should seek to achieve the Natural England Accessible Natural Greenspace Standards, detailed in Nature Nearby, including the minimum standard of 2ha informal open

[1] Site Improvement Plan: Broadland - SIP030 (naturalengland.org.uk)
[2] LPE13 Visitors surveys at European protected sites across Norfolk during 2015 and 2016 (breckland.gov.uk)

space within 300m of everyone's home. As a minimum, we advise that such provisions should include:

- High-quality, informal, semi-natural areas
- Circular dog walking routes of 2.9 km within the site and/or with links to surrounding public rights of way (PRoW)
- Dedicated 'dogs-off-lead' areas
- Signage/information leaflets to householders to promote these areas for recreation
- Dog waste bins
- Contribution to the long term maintenance and management of these provisions

To provide adequate mitigation on-site GI should be designed to provide a multifunctional attractive space of sufficient size to reduce frequent visits to the coast. It should facilitate a variety of recreational activities whilst supporting biodiversity. Evidence and advice on green infrastructure can be found on the Natural England Green Infrastructure web pages. We also recommend the Green Infrastructure Partnership as a useful source of information when creating and enhancing GI.

- **Nutrient impacts:** Additionally, this proposal potentially affects European Sites vulnerable to nutrient impacts. Please refer to Natural England's overarching advice dated 16th March 2022 and sent to all relevant Local Planning Authorities.

It is therefore Natural England's advice that a Habitats Regulations Assessment is required that considers the impacts of increased recreational disturbance and that has been informed by the Nutrient Neutrality Methodology (provided within our overarching advice letter). Natural England would expect to see this completed and mitigation secured prior to all phases of development.

Nationally designated sites
The development site may impact on the following **Site of Special Scientific Interest:**

- Eaton Chalk Pit

Sites of Special Scientific Interest are protected under the Wildlife and Countryside Act 1981 and paragraph 180 of the NPPF. Further information on the SSSI and its special interest features can be found at www.magic.gov .

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within the SSSI and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects. The consideration of likely significant effects should include any functionally linked land outside the designated site. These areas may provide important habitat for mobile species populations that are interest features of the SSSI, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a site, for example by being linked hydrologically or geomorphologically.

Regionally and Locally Important Sites

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geoconservation group or other local group and protected under the NPPF (paragraph 174 and 175). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

Protected Species

The conservation of species protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017
is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*.

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England has adopted standing advice for protected species, which includes guidance on survey and mitigation measures . A separate protected species licence from Natural England or Defra may also be required.

District Level Licensing for Great Crested Newts

District level licensing (DLL) is a type of strategic mitigation licence for great crested newts (GCN) granted in certain areas at a local authority or wider scale. A DLL scheme for GCN may be in place at the location of the development site. If a DLL scheme is in place, developers can make a financial contribution to strategic, off-site habitat compensation instead of applying for a separate licence or carrying out individual detailed surveys. By demonstrating that DLL will be used, impacts on GCN can be scoped out of detailed assessment in the Environmental Statement.

Priority Habitats and Species

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found here. Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to download. Further information is also available here.

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present
- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species

- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

Ancient Woodland, ancient and veteran trees

The ES should assess the impacts of the proposal on any ancient woodland, ancient and veteran trees, and the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement.

Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. The wood pasture and parkland inventory sets out information on wood pasture and parkland.

The ancient tree inventory provides information on the location of ancient and veteran trees.

Natural England and the Forestry Commission have prepared standing advice on ancient woodland, ancient and veteran trees.

Biodiversity net gain

Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Biodiversity Net Gain is additional to statutory requirements relating to designated nature conservation sites and protected species.

The ES should use an appropriate biodiversity metric such as Biodiversity Metric 3.0 together with ecological advice to calculate the change in biodiversity resulting from proposed development and demonstrate how proposals can achieve a net gain.
The metric should be used to:
• assess or audit the biodiversity unit value of land within the application area
• calculate the losses and gains in biodiversity unit value resulting from proposed development
• demonstrate that the required percentage biodiversity net gain will be achieved

Biodiversity Net Gain outcomes can be achieved on site, off-site or through a combination of both. On-site provision should be considered first. Delivery should create or enhance habitats of equal or higher value. When delivering net gain, opportunities should be sought to link delivery to relevant plans or strategies e.g. Green Infrastructure Strategies or Local Nature Recovery Strategies.

Opportunities for wider environmental gains should also be considered.

Landscape

Nationally Designated Landscapes

The development site may impact on The Broads National Park.

The NPPF (paragraph 176) provides the highest level of planning protection for these nationally designated landscapes.

Public bodies have a duty to have regard to the statutory purposes of designation in carrying out their functions (under (section 11 A (2) of the National Parks and Access to the Countryside Act 1949 for National Parks and S85 of the Countryside and Rights of Way Act, 2000 for AONBs). Planning Practice Guidance confirms that this duty also applies to proposals outside the designated area but impacting on its natural beauty.

Consideration should be given to the direct and indirect effects on this designated landscape and in particular the effect upon its purpose for designation. The management plan for the designated landscape may also have relevant information that should be considered in the EIA.

Landscape and visual impacts

The environmental assessment should refer to the relevant National Character Areas. Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

The ES should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in *Guidelines for Landscape and Visual Impact Assessment 2013* (3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management. For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the National Design Guide and National Model Design Code. The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

Heritage Landscapes

The ES should include an assessment of the impacts on any land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific, or historic interest. An up-to-date list is available at www.hmrc.gov.uk/heritage/lbsearch.htm.

Connecting People with nature

The ES should consider potential impacts on access land, common land, public rights of way and, where appropriate, the England Coast Path and coastal access routes and coastal margin in the vicinity of the development, in line with NPPF paragraph 100. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the

creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Soils and Agricultural Land Quality

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and best and most versatile (BMV) agricultural land should be considered in line with paragraphs 174 and 175 of the NPPF. Further guidance is set out in the Natural England Guide to assessing development proposals on agricultural land.

As set out in paragraph 211 of the NPPF, new sites or extensions to sites for peat extraction should not be granted planning permission.

The following issues should be considered and, where appropriate, included as part of the Environmental Statement (ES):

- The degree to which soils would be disturbed or damaged as part of the development
- The extent to which agricultural land would be disturbed or lost as part of this development, including whether any best and most versatile (BMV) agricultural land would be impacted.

This may require a detailed Agricultural Land Classification (ALC) survey if one is not already available. For information on the availability of existing ALC information see www.magic.gov.uk.

- Where an ALC and soil survey of the land is required, this should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. The survey data can inform suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space).
- The ES should set out details of how any adverse impacts on BMV agricultural land can be minimised through site design/masterplan.
- The ES should set out details of how any adverse impacts on soils can be avoided or minimised and demonstrate how soils will be sustainably used and managed, including consideration in site design and master planning, and areas for green infrastructure or biodiversity net gain. The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts.

Further information is available in the Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites and
The British Society of Soil Science Guidance Note Benefitting from Soil Management in Development and Construction.

Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue.

For example, approximately 85% of protected nature conservation sites are currently in exceedance of nitrogen levels where harm is expected (critical load) and approximately 87% of sites exceed the level of ammonia where harm is expected for lower plants (critical level of 1µg) [1].A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The Government's Clean Air Strategy also has a number of targets to reduce emissions including to reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030, to reduce emissions of ammonia against the 2005 baseline by 16% by 2030 and to reduce emissions of NOx and SO_2 against a 2005 baseline of 73% and 88% respectively by 2030. Shared Nitrogen Action Plans (SNAPs) have also been identified as a tool to reduce environmental damage from air pollution.

The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly, or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The ES should take account of the risks of air pollution and how these can be managed or reduced. This should include taking account of any strategic solutions or SNAPs, which may be being developed or implemented to mitigate the impacts on air quality. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk).

Information on air pollution modelling, screening and assessment can be found on the following websites:

- SCAIL Combustion and SCAIL Agriculture - http://www.scail.ceh.ac.uk/
- Ammonia assessment for agricultural development https://www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit
- Environment Agency Screening Tool for industrial emissions https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit
- Defra Local Air Quality Management Area Tool (Industrial Emission Screening Tool) – England http://www.airqualityengland.co.uk/laqm

Water Quality

The planning system plays a key role in determining the location of developments which may give rise to water pollution, and hence planning decisions can have a significant impact on water quality, and land. The assessment should take account of the risks of water pollution and how these can be managed or reduced. A number of water dependent protected nature conservation sites have been identified as failing condition due to elevated nutrient levels and nutrient neutrality is consequently required to enable development to proceed without causing further damage to these sites. The ES needs to take account of any strategic solutions for nutrient neutrality or Diffuse Water Pollution Plans, which may be being developed or implemented to mitigate and address the impacts of elevated nutrient levels. Further information can be obtained from the Local Planning Authority.

Climate Change

The ES should identify how the development affects the ability of the natural environment (including habitats, species, and natural processes) to adapt to climate change, including its ability to provide adaptation for people. This should include impacts on the vulnerability or resilience of a natural feature (i.e. what's already there and affected) as well as impacts on how the environment can accommodate change for both nature and people, for example whether the development affects species ability to move and adapt. Nature-based solutions, such as providing green infrastructure on-site and in the surrounding area (e.g. to adapt to flooding, drought and heatwave events), habitat creation and peatland restoration, should be considered. The ES should set out the measures that will be adopted to address impacts.

Further information is available from the Committee on Climate Change's (CCC) Independent

[1] Report: Trends Report 2020: Trends in critical load and critical level exceedances in the UK - Defra, UK

Assessment of UK Climate Risk, the National Adaptation Programme (NAP), the Climate Change Impacts Report Cards (biodiversity, infrastructure, water etc.) and the UKCP18 climate projections.

The Natural England and RSPB Climate Change Adaptation Manual (2020) provides extensive information on climate change impacts and adaptation for the natural environment and adaptation focussed nature-based solutions for people. It includes the Landscape Scale Climate Change Assessment Method that can help assess impacts and vulnerabilities on natural environment features and identify adaptation actions. Natural England's Nature Networks Evidence Handbook (2020) also provides extensive information on planning and delivering nature networks for people and biodiversity.

The ES should also identify how the development impacts the natural environment's ability to store and sequester greenhouse gases, in relation to climate change mitigation and the natural environment's contribution to achieving net zero by 2050. Natural England's Carbon Storage and Sequestration by Habitat report (2021) and the British Ecological Society's nature-based solutions report (2021) provide further information.

Contribution to local environmental initiatives and priorities

The ES should consider the contribution the development could make to relevant local environmental initiatives and priorities to enhance the environmental quality of the development and deliver wider environmental gains. This should include considering proposals set out in relevant local strategies or supplementary planning documents including landscape strategies, green infrastructure strategies, tree and woodland strategies, biodiversity strategies or biodiversity opportunity areas.

Date: 16 March 2022

To: LPA Chief Executives & Heads of Planning,
County Council Chief Executives and Heads of Planning,
EA Area and National Team Directors,
Planning Inspectorate,
Natural Resources Wales (Cross border sites only) &
Secretary of State for Department for Levelling Up Housing & Communities (DLUHC)

BY EMAIL ONLY

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Dear Sir / Madam

Advice for development proposals with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites.

1.0 Summary

This letter sets out Natural England's advice for development proposals that have the potential to affect water quality in such a way that adverse nutrient impacts on designated habitats sites[1] cannot be ruled out.

It also provides an update to those Local Planning Authorities (LPAs) whose areas include catchments where Natural England has already advised on how to assess the nutrient impacts of new development and mitigate any adverse effects, including through application of the nutrient neutrality methodology. It includes:

- Supporting Information (Annex A) which summarises the key tools and guidance documents available and how to take account of certain issues in any Habitats Regulations Assessment (HRA)
- a national map showing the affected catchments (Annex B)
- a list of habitats sites in unfavourable condition due to nutrients, where new development may have an adverse effect by contributing additional nutrients and therefore where nutrient neutrality is a potential solution to enable development to proceed (Annex C)
- a national generic Nutrient Neutrality Methodology (attached in covering email with this letter)
- a nutrient assessment methodology decision tree (Annex D)
- a flow diagram of the HRA process (Annex E)
- guidance on thresholds for insignificant effects for phosphorus discharges to ground (Annex F)
- Natural England Area Team contacts for each habitats site and catchment (Annex G)
- Catchment Specific Nutrient Neutrality Calculators and associated Calculator Guidance (attached in covering email with this letter)
- Site specific catchment maps (attached in covering email with this letter)
- Site specific evidence documents (new catchments only - attached in covering email with this letter)
- Nutrient Neutrality Principles (attached in covering email with this letter)

[1] Habitat sites are sites which are protected by the Habitats Regulations and includes Special Areas of Conservation (SAC) and Special Protection Areas (SPA).Any proposals that could affect them require a Habitats Regulations Assessment (HRA). Ramsar sites are also included as these are protected as a matter of government policy and also require a HRA where proposals may affect them.

- Nutrient Neutrality – A Summary Guide to Nutrient Neutrality (attached in covering email with this letter)

Natural England advises you, as the Competent Authority under the Habitats Regulations, to carefully consider the nutrients impacts of any new plans and projects (including new development proposals) on habitats sites and whether those impacts may have an adverse effect on the integrity of a habitats site that requires mitigation, including through nutrient neutrality.

This letter provides advice on the assessment of new plans and projects under Regulation 63 of the Habitats Regulations. The purpose of that assessment is to avoid adverse effects occurring on habitats sites as a result of the nutrients released by those plans and projects. This advice does not address the positive measures that will need to be implemented to reduce nutrient impacts from existing sources, such as existing developments, agriculture, and the treatment and disposal of wastewater. It proposes that nutrient neutrality might be an approach that planning authorities wish to explore.

This letter is being sent to the Environment Agency (EA) and all Heads of Planning and Chief Executives for the Local Planning Authorities (LPAs) which are affected by this advice as well as the following:

- The Planning Inspectorate as the Competent Authority for appeals and local plan examinations.
- Secretary of State for the Department of Levelling Up, Housing and Communities (DLUHC) as Competent Authority for called in decisions/appeals.
- County Councils where there is a 2-tier authority.
- Natural Resources Wales (for cross border sites).

NE will also be writing to Ofwat and water companies to inform them of our advice.

2.0 Background

In freshwater habitats and estuaries, poor water quality due to nutrient enrichment from elevated nitrogen and phosphorus levels is one of the primary reasons for habitats sites being in unfavourable condition. Excessive levels of nutrients can cause the rapid growth of certain plants through the process of eutrophication. The effects of this look different depending on the habitat, however in each case, there is a loss of biodiversity, leading to sites being in 'unfavourable condition'. To achieve the necessary improvements in water quality, it is becoming increasingly evident that in many cases substantial reductions in nutrients are needed. In addition, for habitats sites that are unfavourable due to nutrients, and where there is considerable development pressure, mitigation solutions are likely to be needed to enable new development to proceed without causing further harm.

In light of this serious nutrient issue, Natural England has recently reviewed its advice on the impact of nutrients on habitats sites which are already in unfavourable condition. Natural England is now advising that there is a risk of significant effects in more cases where habitats sites are in unfavourable condition due to exceeded nutrient thresholds. More plans and projects are therefore likely to proceed to appropriate assessment.

The principles underpinning HRAs are well established[2]. At the screening stage, plans and projects should only be granted consent where it is possible to exclude, on the basis of objective information, that the plan or project will have significant effects on the sites concerned. Where it is not possible to rule out likely significant effects, plans and projects should be subject to an appropriate assessment. That appropriate assessment must contain complete, precise and definitive findings which are capable of removing all reasonable scientific doubt as to the absence of adverse effects on the integrity of the site.

[2] See, amongst others Case C-127/02 *Waddenvereniging and Vogelsbeschermingvereniging* (Waddenzee); *R (Champion) v North Norfolk DC* [2015] EKSC 52 (Champion); C-323/17 *People Over Wind, Peter Sweetman v Coillte Teoranta* (People Over Wind); C-461/17 *Brian Holohan and Others v An Bord Pleanála* (Holohan); Joined Cases C-293/17 and C-294/17 *Coöperatie Mobilisation for the Environment UA and Others v College van gedeputeerde staten van Limburg and Other* (the Dutch Nitrogen cases).

Appropriate assessments should be made in light of the characteristics and specific environmental conditions of the habitats site. Where sites are already in unfavourable condition due to elevated nutrient levels, Natural England considers that competent authorities will need to carefully justify how further inputs from new plans or projects, either alone or in combination, will not adversely affect the integrity of the site in view of the conservation objectives. This should be assessed on a case-by-case basis through appropriate assessment of the effects of the plan or project. In Natural England's view, the circumstances in which a Competent Authority can allow such plans or projects may be limited. Developments that contribute water quality effects at habitats sites may not meet the no adverse effect on site integrity test without mitigation.

Mitigation through nutrient neutrality offers a potential solution. Nutrient neutrality is an approach which enables decision makers to assess and quantify mitigation requirements of new developments. It allows new developments to be approved with no net increase in nutrient loading within the catchments of the affected habitats site.

Where properly applied, Natural England considers that nutrient neutrality is an acceptable means of counterbalancing nutrient impacts from development to demonstrate no adverse effect on the integrity of habitats sites and we have provided guidance and tools to enable you to do this.

3.0 Natural England's Role and Advice

Natural England is the government's adviser for the natural environment in England. As a statutory consultee in the planning and environmental assessment processes we provide advice to planning authorities to support them in making plans and decisions that conserve and enhance the natural environment and contribute to sustainable development.

In reviewing our advice on water quality effects on habitats sites Natural England has:

- Undertaken an internal evidence review to identify an initial list of water dependent habitats sites (which includes their underpinning Sites of Special Scientific Interest) that are in unfavourable condition due to elevated nutrient levels (phosphorus or nitrogen or both). These sites are listed in Annex C. Development which will add nutrients to these sites may not meet the site integrity test without mitigation. This will need to be explored as part of the HRA. Nutrient neutrality is an approach which could be used as suitable mitigation for water quality impacts for development within the catchments of these sites (please refer to the Nutrient Neutrality – A Summary Guide for an explanation of nutrient neutrality).

- Revised our internal guidance for planning, permitting and other HRA consultations which have the potential to have water quality and in particular nutrient effects on a habitats site.

This advice applies to the following types of habitats sites:

- Special Protection Areas (SPA) designated under the Habitat Regulations 2017.
- Special Areas of Conservation (SAC) designated under the Habitat Regulations 2017.
- Sites designated under the Ramsar Convention, which as a matter of national policy are afforded the same protection as if they were designated under the Habitat Regulations 2017**.**
- Sites identified or required as compensatory measures for adverse effects on SPAs, SACs and Ramsar sites.

A plan or project will be relevant and have the potential to affect the water quality of the designated site where:

- It creates a source of water pollution (e.g. discharge, surface run off, leaching to groundwater etc) of either a continuous or intermittent nature or has an impact on water quality (e.g. reduces dilution).

AND

- There is hydrological connectivity with the designated site i.e. it is within the relevant surface and/or groundwater catchment.

AND

- The designated sites interest features are sensitive to the water quality pollutant/impact from the plan/project.

For LPAs where Natural England has already provided advice on this matter: Natural England has already provided advice to some local authorities on how to address the impacts of development which has the potential to increase nutrient emissions and adversely affect the integrity of habitats protected sites. The sites subject to this previous advice are listed in Annex C Table 1. There is an agreed approach between Natural England and these authorities on applying nutrient neutrality as a mitigation measure to enable development to proceed without causing harm to the integrity of those habitats sites (which are in unfavourable condition due to elevated nutrient levels). We have advised that a likely significant effect from development that increases these nutrients cannot be ruled out[3]. In the absence of evidence to the contrary, our advice has been and continues to be that all new housing development proposals (including any other additional locally specific advice which has been issued), will need to consider, via an appropriate assessment, the impact of adding to the existing nutrients levels / loads where water quality targets are not being achieved for these habitats sites. Having carried out that assessment, permission for the plan or project may only be given if the assessment allows you to be certain that it will not have an adverse impact on the integrity of the site i.e. where no reasonable scientific doubt remains as to the absence of effects[4].

We are writing to your authority now to keep you updated on the development of the approach including the availability of an updated package of tools and guidance. We recommend that your authority moves to using the updated generic Nutrient Neutrality Methodology (attached) and the updated catchment calculators (attached) in preference to existing methodologies whether produced by Natural England or your own authority. Your authority will be best placed to consider how it transitions to the new tools and guidance. Natural England recognises that for some existing catchments where nutrient neutrality is being implemented and mitigation is being actively progressed, authorities may need to consider the associated practicalities of moving to the new guidance whilst recognising their role as Competent Authority. The updated generic Nutrient Neutrality Methodology and associated catchment calculators incorporates new information and evidence, which is explained in Annex A.

For local authorities where this advice is new: Natural England advises you, as the Competent Authority under the Habitats Regulations, to fully consider the nutrients implications on the sites identified in Annex C Table 2 when determining relevant plans or projects and to secure appropriate mitigation measures (see Annex A, para 6 for mitigation options).

When considering a plan or project that may give rise to additional nutrients within the affected catchments, you should undertake a HRA. An Appropriate Assessment will be needed where a likely significant effect (alone or in-combination) cannot be ruled out, even where the proposal contains mitigation provisions. The need for an Appropriate Assessment of proposals that includes mitigation measures intended to avoid or reduce the harmful effects of a plan or project is well established in case law[5] .The Competent Authority should only grant permission if they have made certain at the time of Appropriate Assessment that the plan or project will not adversely affect the integrity of a habitats site i.e. where no reasonable scientific doubt remains as to the absence of effects[6].

The application of nutrient neutrality as mitigation for water quality effects from development has been tested in *Wyatt v Fareham case*[7]. The High Court dismissed an application for judicial review that planning permission which applied nutrient neutrality as mitigation did not satisfy the Habitats

[3] Natural England has agreed that for some sites it is appropriate to screen out insignificant discharges to ground of phosphorus where certain criteria are met. See Annex E for further details

[4] Unless the further conditions in regs. 64 and 68 apply.

[5] *Gladman Developments Limited v S of S for Housing, Communities and Local Government and another* [2019] EWHC 2001 (Admin)

[6] Unless the further conditions in regs. 64 and 68 apply.

[7] *Wyatt v Fareham BC [2021]* EWHC 1434 (Admin)

Regulations. The case has now been appealed. Where properly applied Natural England considers that 'nutrient neutrality' can be a robust way to mitigate nutrient impacts from development.

Your authority may wish to consider a nutrient neutrality approach as a potential solution to enable developments to proceed in the catchment(s) where an adverse effect on site integrity cannot be ruled out. For such an approach to be appropriate, the measures used to mitigate nutrients impacts should not compromise the ability to restore the designated site to favourable condition and achieve the conservation objectives (Further guidance is provided on what this means in practice in the Nutrient Neutrality Principles document, attached).

4.0 Plans and Projects Affected

Development

The Nutrient Neutrality Methodology enables a nutrient budget to be calculated for all types of development that would result in a net increase in population served by a wastewater system.

It covers all types of overnight accommodation including new homes, student accommodation, care homes, tourism attractions and tourist accommodation and permitted development[8] (which gives rise to new overnight accommodation) under the Town and Country Planning (General Permitted Development) (England) Order 2015[9].

For authorities where Natural England's advice is already being applied the development types affected remain as previously advised but are summarised in Table 1 Annex C.

This advice also applies to planning applications at the reserved matters approval stage of the planning application process, and to applications for grants of prior approval and/or certificates of lawfulness for a proposed use or operation.

Tourism attractions and tourism accommodation are included in the methodology as these land uses attract people into the catchment and generate additional wastewater and consequential nutrient loading on the designated sites. This includes self-service and serviced tourist accommodation such as hotels, guest houses, bed and breakfasts, self-catering holiday chalets and static caravan sites. Other types of proposal should be considered on their individual merits, for example conference facilities that generate overnight stays.

Other types of business or commercial development, not involving overnight accommodation, will generally not need to be included in the assessment unless they have other (non-sewerage) water quality implications. For the purposes of the Methodology, it is assumed that anyone living in the catchment also works and uses facilities in the catchment, and therefore wastewater generated can be calculated using the population increase from new homes and other accommodation. This removes the potential for double counting of human wastewater arising from different planning uses.

Permitting

Activities that require an environmental permit (such as waste operations, water discharge activities and groundwater activities) should be subject to an HRA where they are carried out within the catchment of a habitats site and there is a risk that they may affect water quality within that catchment.

Where a likely significant effect on the habitats site cannot be ruled out, they should be subject to an appropriate assessment. Mitigation will be required if an adverse effect on the integrity of the site cannot be ruled out, although depending on the type of permit being considered it may not be appropriate, to apply the standard nutrient neutrality methodology to such plans and projects. This would need to be considered on a case by case basis.

[8] Please note the condition on permitted development relating to European sites is set out in Regulation 75 of the Habitats Regulations 2017. The statutory condition on permitted development in regulation 75 only applies the HRA procedure (via regulations 76 and 77) to statutory European Sites. It therefore only applies to Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's) it does not apply to Ramsar sites, proposed SAC's or potential SPA's or to sites identified, or required, as compensatory measures for adverse effects on habitats sites.

[9] Planning permission granted for permitted development is subject to regs. 75-78 of the Habitats Regulations.

Other Plans and Projects

Whilst nutrient neutrality is only currently being applied to development that would result in a net increase in population served by a wastewater system, the HRA requirements will apply to any plans or projects, including agricultural or industrial plans and projects that have the potential to release additional nitrogen and / or phosphorus into the system and that require an LPAs or the EA's consent, permission or approval.

A case-by-case approach will need to be adopted for these. Early discussions with Natural England via our chargeable Discretionary Advice Service (DAS) are recommended Natural England Discretionary Advice Service.

Competent Authorities must be cognisant of their duties under the Habitats Regulations when performing any of their functions. Competent Authorities may reasonably conclude that a HRA is required whenever they receive an application for any consent, approval, licence or permission for plans and projects not expressly referenced in this advice that may affect a habitats site. Natural England would welcome further discussion with you on any other types of plans and projects that you consider may have nutrients impacts.

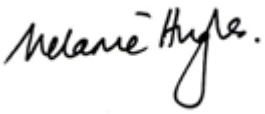
5.0 Supporting Information

Annex A of this letter outlines the tools and guidance documents that will support LPAs in implementing this advice. There are also a suite of documents appended to this email including the generic Nutrient Neutrality Methodology, catchment specific calculators and associated guidance, catchment maps, Nutrient Neutrality Principles, Nutrient Neutrality – A Summary Guide and site specific evidence documents. We recommend reading the Nutrient Neutrality – A Summary Guide to help your understanding of what is a complex issue. Natural England has been working closely across government departments (Defra and DLUHC) in the preparation of this support package and will continue to do so in the development of longer term solutions.

The Planning Advisory Service will be hosting detailed teach ins and Q&A sessions on nutrient neutrality and we therefore strongly advise joining these as a first step to understanding the issue and as an opportunity to raise questions. Please follow the link for further details: Nutrient neutrality and the planning system | Local Government Association

Area Team contacts have been provided in Annex G as an initial point of contact for informal discussions. However, should you have any detailed or technical questions concerning this advice, please contact consultations@naturalengland.org.uk marked for the attention of the relevant Area Team. Please ensure that any formal consultations are also sent to consultations@naturalengland.org.uk.

Yours faithfully,



Melanie Hughes

Sustainable Development Programme Director

ANNEX A:Supporting Information

This Annex summarises the key information and tools that are available to enable LPAs to implement Natural England's advice contained in this letter. It also explains how to take account of the following issues in any HRA:

- Habitats sites which are in unfavourable condition due to nutrients
- Use of permitted Wastewater Treatment Works (WwTW) headroom
- Summary of the updated generic Nutrient Neutrality Methodology
- Status of the National Nutrient Methodology and Calculators
- Mitigation options
- Forthcoming tools and guidance

1.0 Available Tools and Guidance

To help competent authorities take account of these water quality issues and develop strategic solutions, Natural England has provisionally developed the following tools and guidance:

1. A national generic Nutrient Neutrality Methodology (attached)
2. A national map showing the affected catchments (Annex B)
3. Table 1 listing the habitats sites that Natural England has previously advised are in unfavourable condition due to excessive nutrients and will require a HRA and where nutrient neutrality is a potential solution to enable development to proceed (Annex C).
4. Table 2 listing the additional habitats sites which are in unfavourable condition due to excessive nutrients which will require a HRA and where nutrient neutrality is a potential solution to enable development to proceed (Annex C).
5. A nutrient assessment methodology decision tree (Annex D)
6. A HRA Flow chart (Annex E)
7. Thresholds for insignificant levels of phosphorus discharges to ground (Annex F)
8. Area Team contacts for each habitats site and catchment (Annex G)
9. Catchment specific Nutrient Neutrality Calculators and associated Calculator Guidance
10. Detailed catchment specific maps (attached)
11. Evidence summary for each habitats site (new catchments only) including, brief site description, habitats site designated water dependent features, names of component SSSIs where relevant and summary of water quality data including targets and exceedances (attached).
12. Nutrient Neutrality Principles (attached)
13. Nutrient Neutrality – A Summary Guide to Nutrient Neutrality

The Nutrient Neutrality Methodology is a national generic methodology which can be used for all affected catchments and sites (as listed in Annex C). The methodology can be used for both phosphorus and nitrogen. It provides a framework and a set of agreed "input values" to enable a nutrient budget to be determined for any development draining into a habitats site. These values are based on updated information and evidence; Natural England considers that they are suitably precautionary[10] and address impacts in perpetuity to remove risks to site integrity beyond reasonable scientific doubt. The nutrient budget calculated should form part of the Appropriate Assessment (AA) of any HRA produced to address nutrient impacts on affected habitats sites.

The HRA Flow Chart summarises the key stages in the HRA process and the questions which need to be answered in relation to the habitats site and the proposed development at the screening and the appropriate assessment stages.

Guidance on Thresholds for Insignificant Effects from Phosphorus Only. This identifies the conditions which must be met to enable the effects of phosphorus, where it discharges to ground, to be considered as being insignificant. Where best available evidence indicates that these

[10] Precautionary values are used for key variables and an additional buffer is applied in stage 4 of the methodology.

conditions are met, Natural England's advice is that a conclusion of no LSE, either alone or in combination, for phosphorus can be reached. Note this does not apply to nitrogen.

The Catchment Calculators have been developed for each designated habitats site and its catchment. They enable nutrient budgets to be calculated for phosphorus and nitrogen. The calculators will be in an Excel spreadsheet format. There will be an associated guidance document for each calculator.

Site Specific Catchment Maps show the extent of the affected catchment. Natural England advises that a HRA of water quality impacts on the habitats sites is undertaken for developments that are within, or discharge to, Wastewater Treatment Works (WwTW) that are within these catchments.

Evidence Summary for each habitats site. This document includes the site name and site details including reasons for designation, nutrient pressure (i.e. whether it is nitrogen, phosphorus or both), water quality evidence and information on the underpinning Sites of Special Scientific Interest (SSSIs) for the habitats site.

Nutrient Neutrality Principles. These set out the key principles which must be met for nutrient neutrality to be an effective mitigation measure which can be relied upon to enable development to proceed that would otherwise adversely affect the integrity of habitats sites.

2.0 Where a Habitats Site is Currently Unfavourable Due to Nutrients

Where a site is considered unfavourable due to exceeded nutrient levels and there is the possibility of further nutrient loading from a new plan or project, Natural England advises that Competent Authorities need to carefully consider the circumstances where plans or projects can be authorised. In many cases, an Appropriate Assessment (AA) is likely to be the appropriate stage to consider these matters more thoroughly.

Where the plan or project will (or it cannot be ascertained that it will not) contribute additional significant nutrients, alone or in-combination directly to, or upstream of, any unfavourable location which is important for maintaining or restoring the sensitive designated interest features, then Natural England advises that either there is a Likely Significant Effect (LSE) or a LSE cannot be ruled out and therefore, an Appropriate Assessment should be undertaken. We advise that as the Competent Authority you should consider the implications of relevant case law in any HRA. Annex F identifies "Thresholds for Insignificant Effects" for phosphorus discharges to ground.

3.0 Use of Permitted Wastewater Treatment Works (WwTW) Headroom

Headroom (flow or quality) in WwTW discharge permits has largely come about due to decisions being made by the Competent Authority based on taking a 'fair share' approach that relies on proportionality (i.e. relying on action by each sector to achieve favourable conservation status) and/or through water companies significantly over-performing on their permits. In many situations, headroom has been eroded as the habitats site water quality objectives have become more stringent, or there is new available information since the last AA of the permit.

Competent Authorities who wish to rely on the reasoning or conclusions in previous AA should consider the age of the AA, its robustness and whether evidence or circumstances have changed and therefore whether additional consideration is needed. Careful consideration will be needed where the habitats site feature is unfavourable due to elevated nutrient levels and plans or projects contribute further loading. Competent Authorities should consider:

- Any changes to the habitats site nutrient objectives or related ecological objectives since the AA was undertaken.
- Any new relevant information since the AA e.g. change to site condition, information on how measures relied on in the AA have performed.

- Whether the previous AA complies with current legal requirements as a result of any changes to Case law.
- Whether any measures taken into account in the AA can be still be safely relied on to deliver the anticipated effects so that no reasonable scientific doubt remains as to their efficacy and delivery. For example, if a decision on a permit was based on another sector (such as agriculture) also delivering reductions to enable the site to achieve the water quality objectives, those measures to be taken on other sectors should be sufficiently certain so that they can lawfully be considered in an AA.

The preferred approach is to have a strategic plan which considers what is required from all sources (e.g. Diffuse Water Pollution Plan /Nutrient Management Plan) based on the latest evidence, is sufficiently certain and can therefore be used to identify and enable the development of WwTW headroom that can be used for growth, which competent authorities can then rely on to inform their AA. However due to the difficulties with providing sufficient certainty in these plans this may not be possible in the short to medium term for some habitats sites and may remain a longer term aim.

4.0 Updated Nutrient Neutrality Methodology

This new methodology incorporates updated information as detailed below. For those authorities which are currently implementing nutrient neutrality Natural England recommends that they move to applying the updated methodology (attached) and the catchment calculators (attached) in preference to any existing methodologies whether produced by Natural England or your own authority.

- The Generic Methodology includes the latest version of Farmscoper (version 5) which includes more up to date values for the various variables. The updated approach also uses the actual outputs rather than averaged values from Farmscoper for detailed farm types broken down by rainfall, drainage and Nitrate Vulnerable Zones. The benefit of taking the detailed farm types approach is that it offers a more specific budget calculation for the actual nutrient losses from the development or mitigation land to be taken into account.
- The Generic Methodology covers all potential different situations on water usage that might occur across the full range of catchments.
- It provides a more consistent approach for dealing with onsite wastewater treatment systems.
- Pet waste is not considered in the greenspace export coefficient as this type of waste is taken into account in the urban surface water run off element of the calculator.
- The new methodology uses a different approach for calculating the urban export co-efficient so that it is applicable across the country. The values take into account the type of urban land and development site specific rainfall. This results in export values that will be specific to the rainfall at the location within the catchment.

5.0 Status of the National Nutrient Methodology and Calculators

Natural England is issuing the National Generic Methodology (and the associated catchment calculators) to provide Local Planning Authorities with the tools to progress nutrient neutrality as a potential mitigation solution to enable development that would otherwise adversely affect the integrity of habitats sites to proceed. However, at present this guidance **should be considered as provisional** due to the outstanding appeal to the Court of Appeal in **Wyatt v Fareham BC** [2021] EWHC 1434 (Admin), which although not concerned with the National Generic Nutrient Neutrality Methodology, could impact on certain elements contained within the Methodology because that case considers a similar (but not identical) earlier methodology for the Solent region. The Court of Appeal has granted permission for the appeal to be heard. The dates of the hearing are 5th and 6th April 2022.The outcome of the appeal hearing is not known. Nevertheless, Natural England is encouraged that the Judge in the High Court upheld Natural England's nutrient neutrality approach in principle and has responded to the Judge's comments in the Methodology. Natural England

intends to review this Methodology following judgement in the appeal in ***Wyatt*** which may require amendments to be made to the Methodology.

6.0. Mitigation Options

Mitigation to enable development to proceed within the affected catchments of the designated sites listed in Annex C can include nutrient neutrality as an option to avoid either permanent, or temporary increases in nutrients on the affected sites. Suitable mitigation measures might include constructed wetlands, land use change or retrofitting of Sustainable Urban Drainage systems (SUDs). Such measures must be effective for the duration of the impacts. In the case of new housing the duration of the impact is typically taken as in perpetuity, with the costs of maintaining, monitoring and enforcing mitigation calculated for a minimum of 80 – 125 years. It does not, however, follow that mitigation is not needed after that period, but rather the expectation is the mitigation will continue indefinitely (e.g. through securing appropriate permanent land use change).

There may be circumstances in which it is possible to define the 'lifetime of the development' more precisely, for example where consent is sought for the construction and use of a temporary structure that will be removed after a fixed period. In those circumstances, a Competent Authority may require mitigation to be maintained for a shorter period providing the Competent Authority is certain that adverse impacts on the integrity of a habitats site will not occur after the mitigation is removed. In those circumstances, a bespoke nutrient budget will be required, and early discussions with Natural England via our chargeable DAS are recommended Natural England Discretionary Advice Service.

Natural England has identified that nutrient neutrality is an option which can be used to mitigate the impacts of excess nutrients from development for the majority of sites listed in Annex C. However, there may be instances where due to the nature of the habitats site and/ or the location and scale of development it may not be appropriate to apply nutrient neutrality, as doing so would compromise the ability to restore the site to favourable conservation status in the long term, or it may not be possible to identify mitigation which will enable the development to be nutrient neutral. Situations where this is more likely to apply are explained in Annex C.

The extent of these nutrient neutrality constraints will be site and often development specific so will need to be considered on a case-by-case basis. Natural England recommends that Competent Authorities should carefully consider whether it is possible to allocate development in catchments or parts of catchments of sites which are likely to have significant constraints in being able to apply nutrient neutrality. Where nutrient neutrality cannot effectively mitigate the nutrient impacts of new developments, then consent should only be granted where other mitigation can effectively prevent an adverse effect on the integrity of site.

When consulting Natural England on proposals with the potential to affect water quality resulting in nutrient impacts on habitats sites, please ensure that a Habitats Regulations Assessment is included which has been informed by the Nutrient Neutrality Methodology (attached). Further guidance on the process is provided by the Decision Tree (Annex D) and HRA flow Diagram (Annex E) Without this information Natural England will not be in a position to comment on the significance of the impacts or the scope of any mitigation which may be required. For large scale developments, Natural England may provide advice on a cost recovery basis through our Discretionary Advice Service

All queries in relation to the application of this methodology to specific applications or development of strategic solutions will be treated as pre-application advice and therefore subject to chargeable services.

7.0 Forthcoming Tools and Guidance

Natural England's SSSI Impact Risk Zones will also be updated to include the affected catchments.

Annex B: National Map of Catchments

European protected sites requiring nutrient neutrality strategic solutions

Nutrient neutrality SSSI catchments

SSSI subject to nutrient neutrality strategy

Nutrient neutrality SSSI catchment

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Annex C: Habitats sites in unfavourable condition and where nutrient neutrality has been identified as a potential mitigation solution to enable development to proceed.

Table 1: Existing sites in unfavourable condition due to excessive nutrients which require a Habitats Regulations Assessment (HRA) and where nutrient neutrality is being deployed as mitigation.

Habitats Site & Catchment	LPA Affected	Nutrient	Summary of Development Types Affected	Nutrient Neutrality Methodology and Calculator produced by Natural England or LPA*.
Poole Harbour SPA / Ramsar	Dorset Council Bournemouth, Christchurch and Poole Council	Nitrogen and Phosphorus	Additional development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation	Nitrogen Reduction in Poole Harbour Supplementary Planning Document (SPD)
The Solent	Basingstoke and Deane Borough Council Chichester District Council East Hampshire District Council Eastleigh Borough Council Fareham Borough Council Gosport Borough Council Havant Borough Council Isle of Wight Council New Forest District Council New Forest National Park Authority Portsmouth City Council South Downs National Park Authority Southampton City Council Test Valley Borough Council Wiltshire Council Winchester City Council	Nitrogen for existing catchment (River Itchen includes Phosphorus and Nitrogen. See River Itchen in Table 2 for further details)	Additional development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation	Methodology and Calculator developed and provided by Natural England.
River Avon SAC	Bournemouth Christchurch and Poole Council	Phosphorus	Additional development that will result in a net increase in population served by a	Interim Phosphate Calculator

	Dorset Council New Forest District Council New Forest National Park Authority Test Valley Borough Council Wiltshire Council		wastewater system, including new homes, student and tourist accommodation	
River Camel SAC	Cornwall Council	Phosphorus	• Additional development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation. • Additional locally specific advice	Phosphate Calculator developed by consultants on behalf of Local Planning Authority
Stodmarsh SAC/Ramsar	Ashford Borough Council Canterbury City Council Dover District Council Folkestone and Hythe District Council Maidstone Borough Council Swale Borough Council	Nitrogen and Phosphorus	Additional development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation.	Methodology and Calculator developed and provided by Natural England**.**
River Wye SAC (only applies to the River Lugg component)	Herefordshire Council Malvern Hills District Council	Phosphorus	Additional development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation.	Phosphate Calculator developed by consultants on behalf of Local Planning Authority
Somerset Levels and Moors Ramsar	Dorset Council Exmoor National Park Mendip District Council Mid Devon District Council Sedgemoor District Council Somerset West and Taunton District Council South Somerset District Wiltshire Council	Phosphorus	• Additional residential and commercial development that will result in a net increase in population served by a wastewater system, including new homes, student and tourist accommodation. • Additional locally specific advice	Methodology and calculator developed by consultants on behalf of Local Planning Authority

*Note: Nutrient neutrality calculators have been provided for all the catchments listed above, even where there is an existing nutrient neutrality calculator .

Table 2: Additional habitats sites in unfavourable condition due to excessive nutrients which require a Habitats Regulations Assessment (HRA) and where nutrient neutrality is a potential solution to enable development to proceed.

Habitats site & Catchment	LPA Affected	Nutrient
Chesil and the Fleet SAC/SPA	Dorset Council	Nitrogen and Phosphorus
Esthwaite Water Ramsar	South Lakeland Council	Phosphorus
Hornsea Mere SPA	East Riding of Yorkshire Council	Nitrogen and Phosphorus
Lindisfarne SPA/Ramsar	Northumberland County Council	Nitrogen
Oak Mere SAC	Cheshire West and Chester Council	Phosphorus
Peak District Dales SAC	Derbyshire Dales District Council High Peak Borough Council Peak District National Park Authority	Phosphorus
River Axe SAC	Dorset Council East Devon District Council Somerset West & Taunton Council South Somerset District Council	Phosphorus
River Clun SAC	Herefordshire Council Shropshire Council	Nitrogen and Phosphorus
River Derwent & Bassenthwaite Lake SAC (only applies to catchments of Bassenthwaite Lake (River Derwent and Tributaries SSSI unit 1) and River Marron (unit 124 of River Derwent and Tributaries SSSI).	Allerdale Borough Council Copeland Borough Council Eden District Council Lake District National Park	Phosphorus
River Eden SAC	Allerdale Borough Council Carlisle City Council Durham County Council Eden District Council Lake District National Park Northumberland County Council Northumberland National Park Richmondshire District Council South Lakeland Council	Phosphorus
River Itchen SAC (part of Solent Catchment)	Basingstoke and Deane Borough Council East Hampshire District Council Eastleigh Borough Council Winchester City Council	Nitrogen and Phosphorus
River Kent SAC (only applies to catchments of units 104 and 111 of River Kent SSSI)	Eden District Council Lake District National Park South Lakeland Council	Phosphorus
River Lambourn SAC	Swindon Borough Council Vale of White Horse District Council West Berkshire Council Wiltshire Council	Phosphorus
River Mease SAC	East Staffordshire Borough Council Hinckley and Bosworth Borough Council Lichfield District Council North Warwickshire Borough Council	Phosphorus

	North West Leicestershire District Council South Derbyshire District Council	
River Wensum SAC	Borough Council of King's Lynn and West Norfolk Breckland Council Broadland & South Norfolk Council North Norfolk District Council Norwich City Council	Phosphorus
Roman Walls Loughs SAC	Northumberland County Council Northumberland National Park Authority	Phosphorus
Rostherne Mere Ramsar	Cheshire East Council	Nitrogen and Phosphorus
Teesmouth & Cleveland Coast SPA/Ramsar	Darlington Borough Council Durham County Council Eden District Council Hambleton District Council Hartlepool Borough Council Middlesbrough Council North York Moors National Park Redcar and Cleveland Borough Council Richmondshire District Council Stockton-on-Tees Borough Council	Nitrogen
The Broads SAC/Ramsar (only the following are included: • Bure Broads and Marshes SSSI • Trinity Broads SSSI • Yare Broads and Marshes SSSI • Ant Broads and Marshes SSSI • Upper Thurne Broads and Marshes SSSI	Borough Council of King's Lynn and West Norfolk Breckland Council Broadland & South Norfolk Council Great Yarmouth Borough Council North Norfolk District Council Norwich City Council The Broads Authority	Nitrogen and Phosphorus and
West Midlands Mosses SAC (only catchments of Abbotts Moss SSSI and Wynbunbury Moss SSSI are included)	Cheshire East Council (Wynbunbury) Cheshire West and Chester Council (Abbotts)	Nitrogen and Phosphorus

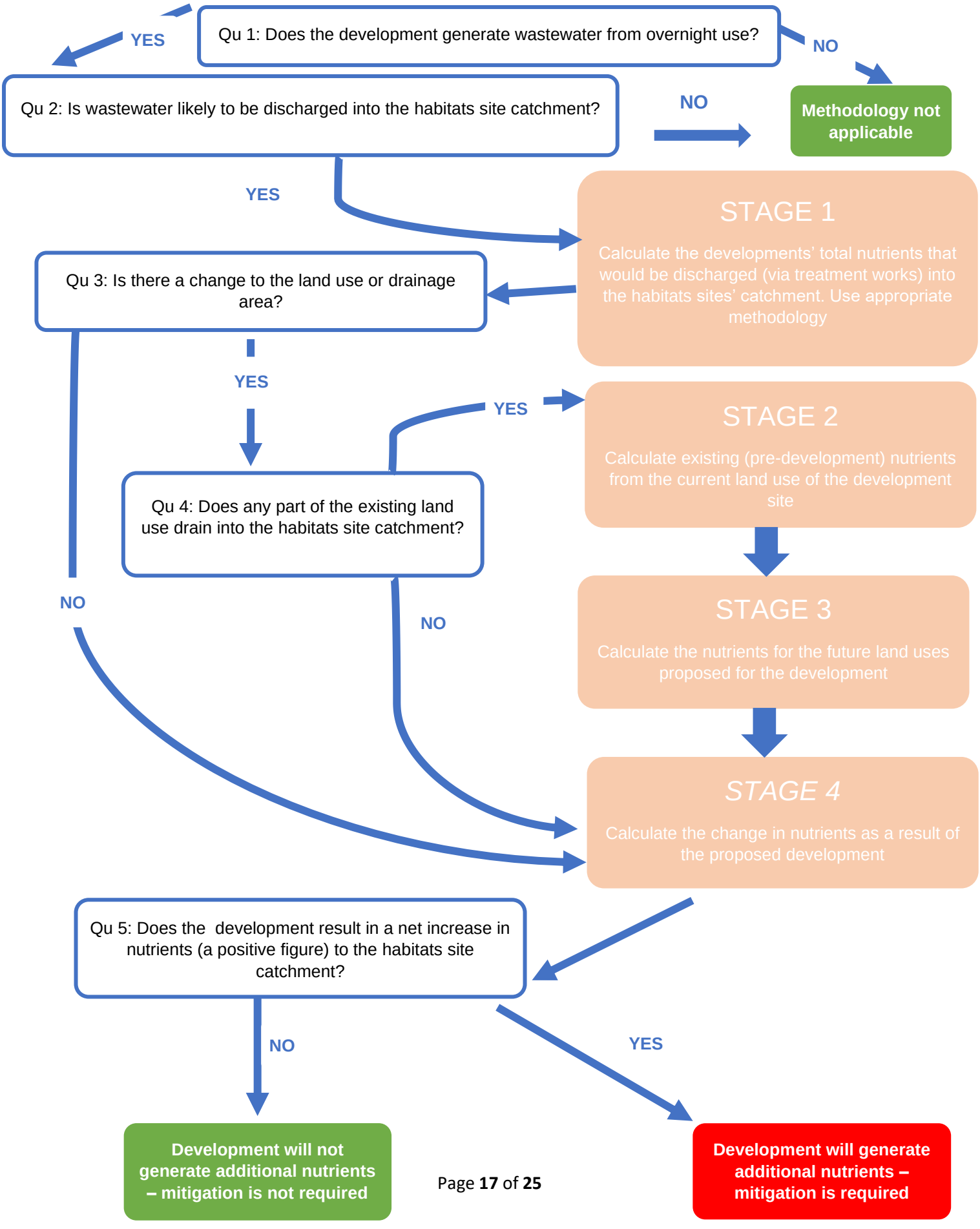
Situations where Nutrient Neutrality may not be an appropriate Mitigation Measure

- Lake or wetland sites and particularly those with long residence times or which have a limited or no outflow. For these types of sites nutrients will accumulate over time and therefore they are particularly vulnerable to even small increases in nutrients which will further hinder restoration. Where one of these sites is already unfavourable due to nutrient enrichment it is also likely that current sources of nutrients will need to be reduced to restore the site and therefore using these measures for nutrient neutrality would undermine the ability to restore the site.
- Where the development impact is direct to a habitats site terrestrial wetland habitat rather than to surface water. In these circumstances the mitigation would need to be

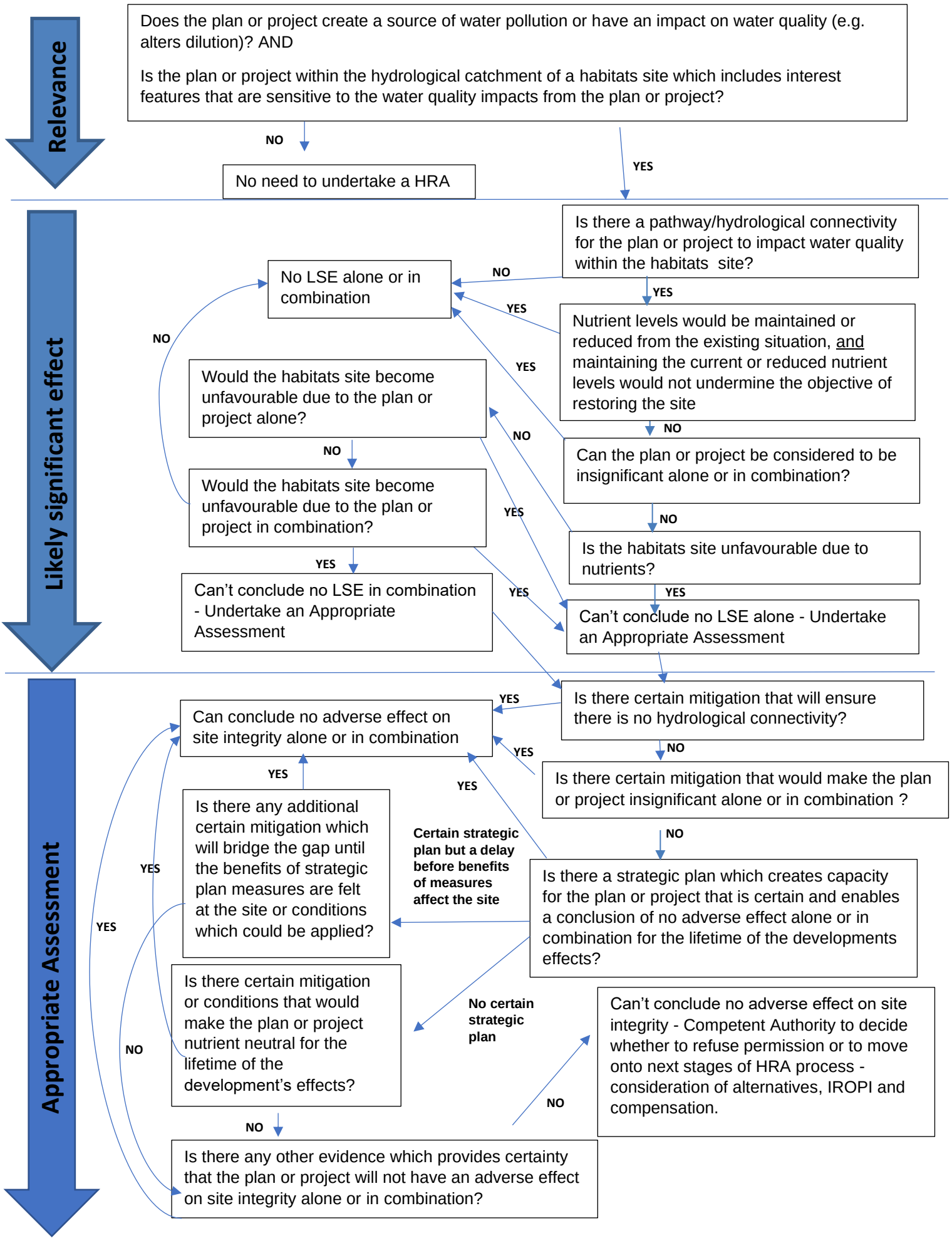
at the exact same location where the development is having its effect on the site, as reductions in nutrients in other locations of the wetland would not neutralise the effect of the development. Therefore, potential mitigation options will likely be very limited.

- Where the development impact is via groundwater discharging direct to a habitats site terrestrial wetland habitat rather than to groundwater discharging to surface water. In these circumstances there will be variation in the effectiveness of measures depending on their location within the groundwater catchment compared to development. This means measures may need to be located in the same part of the groundwater catchment to ensure that it would neutralise the nutrient increase from the development before it reaches the site, thereby constraining the area where mitigation could be targeted to a smaller area.
- Development (particularly larger developments) in the headwaters of a catchment. In these circumstances the area upstream of the development where nutrient neutrality mitigation can be located will be restricted to a small area, providing much more limited and perhaps in some cases no feasible opportunities for mitigation through nutrient neutrality, although other mitigation measures may be possible.
- Habitats sites with small catchments. Again, there will be a much more limited area where mitigation can be targeted thereby limiting potential nutrient neutrality mitigation opportunities.
- Where widespread and/or large-scale uptake of measures are needed to restore the habitats site or part of the site (e.g. identified in the DWPP or NMP) thereby significantly constraining the measures available for counterbalancing additional nutrient inputs in a way which will not undermine site restoration.

Annex D: Nutrient Assessment Methodology for Development which Generates Wastewater Decision Tree



Annex E: Flow Diagram of HRA Process for Consultations Contributing Nutrients



Annex F: Thresholds for Insignificant Effects – Phosphorus Discharges to Ground

Waddenzee established that an Appropriate Assessment (AA) is required where there is a "probability or a risk" of a significant effect on the site concerned. In light of the precautionary principle, a plan or project is likely to have a significant effect if the risk cannot be excluded on the basis of objective evidence. Any site specific rationale or thresholds to demonstrate the insignificance of effects would need to ensure that the risk of Likely Significant Effect (LSE) (alone or in combination) can be excluded. Where evidence is not currently available or it is uncertain, it would be more appropriate to take the plan or project through to AA for further consideration. It may still be possible to conclude no adverse effect on site integrity (alone or in combination) in the AA through further consideration as to the specific facts of the case in question and/or through consideration of appropriate mitigation.

Natural England currently considers that it is difficult to make robust arguments around generic standardised thresholds for levels of water quality impacts that exclude the risk of likely significant effects (alone or in combination) for all sites and situations. There are a number of different factors that are variable between sites which can influence the risk of cumulative effects and the sensitivity and vulnerability of the site and therefore what might be significant.

Thresholds for insignificant levels of phosphorus discharges to ground

Natural England considers that there is an exception to this position on generic thresholds in relation to discharges of phosphorus to ground.

Any plan or project which requires planning permission, Building Regulations approval or an environmental permit from the Environment Agency must comply with the requirements of those regulatory regimes as well as what is needed to meet the Habitat Regulations. For example, all of these regimes require that developments should be connected to the public foul sewerage network wherever this is reasonable. This includes areas where the Habitats Regulations apply and any need to reduce nutrient inputs in those areas should not lead to the installation of non-mains foul drainage systems in circumstances where connection to the public foul sewer would otherwise be considered reasonable. Any plan or project then connecting to mains would still need to also be compliant with Habitat Regulations.

Summary of evidence

Septic tank systems or package treatment plants that discharge to ground via a drainage field should pose little threat to the environment, because much of the P discharged is removed from the effluent as it percolates through the soil in the drainage field[11]. The risk of water pollution by these types of discharges to ground depends on a range of factors that affect their success or failure and can be summarised by three key factors[12]:

1. improper location
2. poor design
3. incorrect management

[11] Robertson WD, Van Stempvoort ER & Schiff SL. 2019. Review of Phosphorus attenuation in groundwater plumes from 24 septic systems.

[12] MAY, L., PLACE, C., O'MALLEY, M. & SPEARS, B. 2015. *The impact of phosphorus inputs from small discharges on designated freshwater sites*. Natural England Commissioned Reports, NECR 170.

Phosphorus is removed from the effluent within the drainage field through retention in the soil through sorption within the aerated soil zone and mineral precipitation. How much phosphorus is removed will depend on the soil type and phosphorus characteristics, mineral content, pH, texture, and the hydraulic loading rate. P sorption can be reversed and P desorption can occur in certain conditions e.g. change in redox conditions[13]. For the drainage field to work effectively the drainage field needs to have acceptable year round percolation rates which will be influenced by the soil type, as if they drain too quickly or to slowly effective phosphorus removal will not take place. In addition if infiltration rates are lower than the loading rate of the effluent into the drainage field then hydraulic failure can occur which results in the effluent being discharged over the soil surface. Therefore correct design of the system is important. The Building Regulations[14] set out design and construction standards for septic tanks, package treatment plants and drainage fields. In relation to drainage fields they include the need for a percolation test, a method for how this should be undertaken and the minimum and maximum percolation values (V_p) which ensure that the drainage field effectively removes pollutants. This is then used to calculate the size of the drainage field required for the size of the household it will be serving.

Robertson et al (2019)[8] found that the carbonate mineral content of the drainage field sediments can also affect the P retention within the drainage fields and therefore the distance any P plume extends. Calcareous sediments having very high P retention (average 97%), with plumes not extending beyond 10m and non-calcareous sediments showing greater variability and having a lower P retention (average 69%) with some of the P plumes extending beyond 15m up to 100m in one case.

The evidence has shown that it is the aerated drainage field sediments which provides a key function in terms of removing the phosphorus from the effluent before it enters a receiving water body (surface or groundwater). Any enhanced connectivity to a water body, which short circuits this process, is probably one of the main factors that causes pollution of habitats sites (and other water dependent sites) by these systems[15] [16]. Therefore it will be important that the drainage field is sited far enough away from any watercourse, ditch, drain etc. as well as that it is not in a location where the groundwater is high enough that comes into connection with this aerated zone. Fractured rock or fissured geology could also short circuit this process. In addition seasonal flooding can wash out the contents of the tanks. Slope also affects the way the drainage field functions, with steeper slopes having a higher risk of run off.

---

[13] Mary G. Lusk, Gurpal S. Toor, Yun-Ya Yang, Sara Mechtensimer, Mriganka De

& Thomas A. Obreza. 2017. *A review of the fate and transport of nitrogen, phosphorus, pathogens,*

and trace organic chemicals in septic systems, Critical Reviews in Environmental Science and

Technology, 47:7, 455-541,

[14] Building Regulations, Drainage and Waste disposal (2015), Document H, Section H2.

[15] MAY, L., WITHERS, P.J., STRATFORD, C., BOWES, M., ROBINSON, D. & GOZZARD, E. 2015. *Development of a risk assessment tool to assess the significance of septic tanks around freshwater SSSIs: Phase 1 – Understanding better the retention of phosphorus in the drainage field*. Natural England Commissioned Reports, NECR171

[16] MAY, L., DUDLEY, B.J., WOODS, H. & MILES, S. 2016. *Development of a Risk Assessment Tool to Evaluate the Significance of Septic Tanks Around Freshwater SSSIs.* NECR 222

There is also some evidence that density (i.e. number) of these types of systems in an area also has a bearing on the risk of pollution. In general, lower densities of tanks tend to cause less contamination of downstream water bodies than higher densities of tanks.

Proposed thresholds

Small discharges to ground i.e. less than 2m^3/day[17] that are within the surface or groundwater catchment of a designated site will present a low risk that the phosphorus will have a significant effect on the designated site where certain conditions are met:

a) The drainage field is more than 50m from the designated site boundary (or sensitive interest feature) [18] **and**;

b) The drainage field is more than 40m from any surface water feature e.g. ditch, drain, watercourse[19], **and**;

c) The drainage field in an area with a slope no greater than 15%[20], **and**;

d) The drainage field is in an area where the high water table groundwater depth is at least 2m below the surface at all times[21] **and**;

e) The drainage field will not be subject to significant flooding, e.g. it is not in flood zone 2 or 3 **and**;

f) There are no other known factors which would expedite the transport of phosphorus[9] for example fissured geology, insufficient soil below the drainage pipes, known sewer flooding, soil/geology type and its ability for P sorption/mineralisation or presence of conditions would cause remobilisation phosphorus, presence of mineshafts, etc **and**;

g) To ensure that there is no significant in combination effect, the discharge to ground should be at least 200m from any other discharge to ground[22].

[17] A limit of 2m3/day is used based on this being the size used for discharges to ground in the General Binding Rules and is representative of the size of the majority of the septic tanks investigated within NECR171, from which most of the criteria are based.

[18] 50m is the distance as which no measurable phosphorus signal was detected at this distance (NECR171 and NECR222). Robertson *et al* (2019) also found that the majority (although not all) of plumes did not extend further than this distance

[19] 40m is the distance that represents a low risk, based on there was a weak phosphorus signal this distance for some of the small discharges (NECR171 and NECR222) This is a slightly less precautionary value than the 50m distance to the Habitats site as there will be the capacity for further attenuation and dilution before the site.

[20] 15% is the slope that represents a low risk based on the methodology outlined in NECR222.

[21] 2m is the groundwater depth that represents a low risk, based on very low levels being detected in soil at depth below this (NECR171 and NECR222)

[22] The 200m is based on the 50m distance where no measurable phosphorus signal was detected (NECR171) for each septic tank. So for two drainage field areas not to overlap they need to be at least 100m apart. A safety factor of two is then applied to ensure that in the long term there will be the certainty that the effective drainage field phosphorus retention areas don't overlap. This then also takes account of the greatest distance that Robertson et al (2019) found a plume to extend which was 100m to ensure there would be no overlap. It also ensures that the maximum density of these systems is no more than one for every 4ha (or 25 per km2), as identified in NECR170.

A GIS layer is available from NE[23] which looks at conditions b, c and d above only, for the whole of England. Where this layer indicates that there is a low risk, then the three conditions (b, c & d) above can be considered to be met. Where there is a high or medium risk identified, then one or more of the three conditions (b, c & d) will not be met. This GIS layer can be shared with the EA and Local Authorities with the relevant data licence via our GI team, but not with developers due to the terms in the data licence. If site specific monitoring/modelled data is presented for conditions b, c or d which provides greater certainty than the national dataset used to produce the risk map, then this can override the risk map. It may be time consuming and/or costly to undertake site-specific monitoring that provides certainty for some of the conditions such as groundwater depth, due to the inherent variability over time and therefore the need for any monitoring to cover a long enough time period (several years) and to a sufficient frequency to determine the highest groundwater depth. So it is acceptable to rely on modelled or national dataset where these are the best available data and scientifically robust.

To consider the other three conditions (a, e and f) other data sources will need to be considered. Condition a can be looked at through using the designated site data layer[24] and calculating the distance from the site boundary. Condition e can use the EA flood risk maps (https://flood-map-for-planning.service.gov.uk/). Condition f should make use of any sewer flood data, information on local geology and soils, groundwater phosphorus concentration monitoring within the catchment or other local information which it is readily available. Elevated concentrations of phosphorus in groundwater would indicate phosphorus transport being short circuited e.g. through fissures, that it is not being effectively retained within the drainage field or it is being remobilised. It can be assumed that phosphorus is being effectively retained and not remobilised unless there is existing evidence at the discharge location or within the wider catchment which suggest that this may be occurring in the same conditions to those present at the location of the proposed discharge. Such evidence could include investigations, known soil or geological conditions or groundwater water quality (P) data from similar soil/geological conditions.

As not all of the phosphorus will be retained by the soil, condition g is to ensure that there is no in combination or cumulative effect from a number of these discharges in an area which together could add up to have a significant effect.

If conditions a to g are all met this represents a low risk that phosphate will reach the site, and not zero risk (i.e. not that no phosphorus from the discharge will ever reach the site in all cases). There will be further processes of dilution and attenuation between the drainage field and the site, which will provide further reduction and the current evidence would suggest that the scale of any inputs from these sources would not be significant.

Where best available evidence indicates that these conditions are met, Natural England advice is a conclusion of no LSE alone or in combination for phosphorus can be reached in these circumstances. Where uncertainty remains so LSE cannot be ruled out or evidence exists that there is a risk of phosphate from small discharges to ground causing a significant effect to a designated site (e.g. from SAGIS modelling or monitoring investigations), then Natural England advice is that there is a LSE or LSE cannot be ruled out and an AA should

[23]. The dataset LPAs can request the GIS layer for the England sewage discharge risk map from Natural England. The dataset is called - Small_Sewage_Discharge_Risk_Zone_Map_For_England (Dissolved).

[24] The Special Protection Area (England), Potential Special Protection Area (England), Special Areas of Conservation (England), Possible Special Areas of Conservation (England), Ramsar (England) and Proposed Ramsar (England) data layers can be download from Natural England Open Geodata portal

be undertaken. Where evidence is presented which provides certainty that there will be no LSE even though these conditions are not met e.g. better local information, then Natural England's advice may be no LSE, but would be determined on a case by case basis.

The Competent Authority, as the decision maker, will need to determine whether it agrees with NEs advice.

For developments which allow for increases in the number of people that will be served by an existing discharge to a drainage field, it will be important to consider whether the existing system has sufficient capacity in its design to accommodate the increase, without increasing the risk of pollution.

The evidence underpinning these thresholds will be periodically reviewed and the thresholds will be amended as necessary to take account of any new evidence.

This approach does not apply to nitrogen as it does not get taken up by the soil like phosphorus.

Further work is necessary to review the evidence and determine if it is possible to establish any other generic insignificance thresholds for other development or discharge types. It may also be possible to develop site specific insignificance thresholds.

Annex G: Natural England Area Team Contacts

Habitat Site	Area Team	Area Team Manager	Additional Area Team contact
Oak Mere SAC	Cheshire and Lancashire	Ginny Hinton ginny.hinton@naturalengland.org.uk	Petula Neilson Bond
Rostherne Mere RAMSAR			
West Midlands Mosses SAC			
Estwaite Water Ramsar	Cumbria	Helen Kirkby helen.kirkby@naturalengland.org.uk	Helen Smith
River Derwent & Bassenthwaite Lake SAC			
River Eden SAC			
River Kent SAC			
River Axe SAC	Devon, Cornwall and Isles of Scilly	Wesley Smyth wesley.smyth@naturalengland.org.uk	Denise Ramsay for LPAs in Devon and Simon Stonehouse for LPAs in Somerset
River Camel SAC			Denise Ramsay
Peak District Dales SAC	East Midlands	Vicky Manton victoria.manton@naturalengland.org.uk	Ian Butterfield
River Mease SAC			
River Wensum SAC	Norfolk and Suffolk	Helen Dixon helen.dixon@naturalengland.org.uk	Jack Haynes
The Broads SAC/Ramsar			
Lindisfarne SPA/Ramsar	Northumbria	Christine Venus christine.venus@naturalengland.org.uk	Lewis Pemberton Andrew Whitehead
Roman Walls Loughs SAC			

Teesmouth & Cleveland Coast SPA/Ramsar			
Stodmarsh SAC/Ramsar	Sussex and Kent	James Seymour james.seymour@naturalengland.org.uk	Sue Beale
Solent	Thames Solent	Allison Potts allison.potts@naturalengland.org.uk Please contact the Thames Solent Team for developments in Hampshire and Isle of Wight and the Kent and Sussex Team for developments in Chichester and Wessex Team for developments in Wiltshire.	Becky Aziz
River Itchen SAC			Becky Aziz
River Lambourn SAC			Amy Kitching
River Avon SAC	Wessex	Rachel Williams rachel.williams@naturalengland.org.uk	Tom Lord
Somerset Levels & Moors Ramsar			
Chesil and the Fleet SAC/SPA			
Poole Harbour SPA Ramsar			
River Clun SAC	West Midlands	Emma Johnson emma.johnson@naturalengland.org.uk	Hayley Fleming
River Lugg (part of River Wye SAC)			
West Midland Mosses SAC			
Hornsea Mere SPA	Yorkshire and Lincolnshire	Paul Duncan paul.duncan@naturalengland.org.uk	Hannah Gooch

Statement of Competence

Technical Area	Consultant Company	Consultant Qualifications
Transport and Access	Entran Ltd	Richard Fitter Chartered Fellow of the Institute of Logistics and Transportation (FCILT) Fellow of the Institution of Civil Engineers (FICE) Fellow of the Institute of Highway Engineers (FIFE) Over 30 years' experience
Air Quality	Entran Ltd	Emilia Pruszkowski BSc Member of Institute of Air Quality Management 6 Years' experience Alison Banks BSc (Hons), MSc, PG Dip Member of Institute of Air Quality Management, Member of Institute of Environmental Sciences Chartered Environmentalist 25 years' experience
Noise and Vibration	Entran Ltd	Stuart Berry BSc (Hons), MSc Member of Institute of Acoustics 9 years' experience
Biodiversity and Nature Conservation	Greengage	Laura Thomas MSc, BSc (Hons) Grad member of CIEEM, Natural England Class 1 Bat Licence 5 years' experience Paul White BSc (Hons), Adv PostGrad Dip Associate member of CIEEM

		Natural England Dormouse and GCN licences 15 years' experience
Water, Quality, Hydrology and Flood Risk	Curtins	Michael Smith Meng (Hons) CEng MICE 7 years' experience Tom Leake MEng (Hons) CEng MICE Over 15 years' experience
Soils, Geology and Contaminated Land	EAME	Michael Sylvester BSc, MSc Member of the Institution of Occupational Safety and Health (IOSH) Over 22 years' experience
Archaeology	Iceni	Stephen McLeod BA, MA Member of the Chartered Institute for Archaeologists (ACIfA) Over 10 years' experience
Heritage, Townscape and Visual Impacts	Iceni	Laurie Handock MA (Cantab) MSc Member if IHBC and MCIfA Over 10 years' experience Edward Wollaston BA Hons, PGDip Affiliate of IHBC Over 8 years' experience
Socio-Economics, Population and Human Health	Greengage	Mitch Cooke BSc, MSc Member of IEEM and IEMA Chartered Environmentalist Over 30 years' experience
Climate Change	Greengage	Mitch Cooke

		BSc, MSc Member of IEEM and IEMA Chartered Environmentalist Over 30 years' experience
Waste	EAME	Michael Sylvester BSc, MSc Member of the Institution of Occupational Safety and Health (IOSH) Over 22 years' experience

Notes

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Key

- Hybrid Application Boundary
- Development Parcel
- Main Site Access (Vehicular, bus, pedestrian, cycle and secondary)
- Pedestrian and Cycle Site Access Only
- Pedestrain Site Access Only
- Emergency Vehicular Access
- Primary Street and Bus Route
- Secondary Street
- Indicative Footpaths and Cycleways
- Pedestrain Only Access to Gardens
- Public Squares
- Scheduled Monument

Notes

The proposed primary and secondary streets include carriageway, green verges, street planting, swales, footways and cycleways.

Alignment of the secondary streets, footways and cyclepaths are indicative only and subject to detailed design.

Alignment and design of the bridge crossing over the river is subject to detailed design.

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status
For Planning

Client
Fuel Properties

jtp
JTP Studios, Unit 5
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London, E1W 2AP
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www.jtp.co.uk

Project
Carrow Works, Nowrich

Drawing Title
Parameter Plan
Access & Movement

Scale @A1 1 : 1000
Job Ref. 02022
Drawing No. PP-06
Revision. P1
Scale Bar 0 10 20 30 40 50 m
Sheet Code
02022-JTP-PP-06 - Access & Movement - P1

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Key

- Hybrid Application Boundary
- Existing Buildings To Be Retained
- Existing Buildings To Be Demolished
- Scheduled Monument

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status
For Planning

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Project
Carrow Works, Nowrich

Drawing Title
Parameter Plan
Demolition Plan

Scale @A1 1 : 1000
Job Ref. 02022
Drawing No. PP-03
Revision. P1
Scale Bar 0 10 20 30 40 50 m
Sheet Code
02022-JTP-PP-03 - Demolition Plan - P1

Notes

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Key

Hybrid Application Boundary

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status

For Planning

Client

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Project

Carrow Works, Nowrich

Drawing Title

Existing Site

Existing Site Plan

Scale @A1 1 : 1000 Job Ref. 02022

Drawing No. ES-02 Revision. P1

Scale Bar 0 10 20 30 40 50 m

Sheet Code

02022-JTP-ES-02 - Existing Site Plan - P1

Notes

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Key

- Hybrid Application Boundary
- Detailed Application
- Existing Buildings To Be Retained
- Scheduled Monument

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status

For Planning

Client

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Project

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Drawing Title

Parameter Plan
Hybrid Application Boundaries

Scale @A1 1 : 1000 | Job Ref. 02022

Drawing No. PP-01 | Revision. P1

Scale Bar 0 10 20 30 40 50 m

Sheet Code

02022-JTP-PP-01 - Hybrid Application Boundaries - P1

Notes

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Key

- Hybrid Application Boundary
- Existing Buildings
- Class C3 (including internal access, parking, incidental play spaces and associated infrastructure)
- Retained Buildings Class C3
- Class C3 with flexible Class E & with flexible Class C3 at Ground Floor Level
- Class E
- Retained Buildings Class E
- Employment (Class B)
- Scheduled Monument
- Landscape and Open Space (Please refer to Drawing No. PP-04 for the details of the landscape and open space).
- Public Realm
- Main Infrastructure

Notes

All land uses can deviate +/- 2m within the application boundary, subject to on-site or heritage constraints.

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status
For Planning

Client
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Project
Carrow Works, Nowrich

Drawing Title
Parameter Plan
Land Use Plan

Scale @A1 1 : 1000 Job Ref. 02022
Drawing No. PP-02 Revision. P1
Scale Bar 0 10 20 30 40 50 m

Sheet Code
02022-JTP-PP-02 - Land Use Plan - P1

Notes

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Key

- Application Boundary Line
- 1-2 storeys (12.05m maximum ridge height)
- 1-2 storeys (10.22m maximum ridge height)
- 2-3 storeys (12.05m maximum ridge height)
- 2-4 storeys (19.00m maximum ridge height)
- 3-6 storeys (25.30m maximum ridge height)
- 6-8 storeys (31.60m maximum ridge height)
- 8-11 storeys (41.05m maximum ridge height)
- 11-14 storeys (50.50m maximum ridge height)
- Scheduled Monument

Notes

The extent of the builging height parameter envelop can deviate laterally +/-2m wihtin the application boundary, subject to on-site and heritage constraints.

The height parameters set out in the Building Heights Parameter Plan are to maximum ridge heights and include parapet heights and lift/core overruns. The heights are set from existing ground levels, not a proposed Finished Floor Level and therefore account for any ground works that may need to be undertaken. Each of the parameter levels has been set at such a level to allow for flexibility to be introduced in roof line and the steepness of roof pitches in order to create variety and interest.

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status
For Planning

Client
Fuel Properties

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JTP Studios, Unit 5
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Project
Carrow Works, Nowrich

Drawing Title
Parameter Plan
Proposed Heights

Scale @A1 1 : 1000 | Job Ref. 02022
Drawing No. PP-05 | Revision. P1
Scale Bar 0 10 20 30 40 50 m
Sheet Code 02022-JTP-PP-05 - Proposed Heights - P1

Notes

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Key

Hybrid Application Boundary

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status

For Planning

Client

Fuel Properties

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Drawing Title

For Illustrative Purposes Only
Proposed Site Plan

Scale @A1 1 : 1000 | Job Ref. 02022

Drawing No. MP-01 | Revision. P1

Scale Bar 0 10 20 30 40 50 m

Sheet Code

02022-JTP-MP-01 - Proposed Site Plan - P1

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Key

- Hybrid Application Boundary
- Existing Buildings To Be Retained
- Main Infrastructure
- Scheduled Monument
- Public Open Space (including SuDS and play)
- Private Open Space
- Existing Trees To Be Retained
- Riverside Walk
- Public Realm
- Indicative Location of Children's Play Space*
- Indicative Location of SuDS Features (including surface attenuation ponds/basins, storage tanks and rain gardens)*
- Indicative Green and Blue Link (alignment and detail to be agreed at RMA stages)

Notes

All land uses can deviate +/- 2m within the application boundary, subject to on-site and heritage constraints

*Exact location, shape and sizes of SuDS features and play areas are indicative only.

Attenuation will also be provided on-plot for podium buildings.

Rev	Date	Description	Drawn	Chkd
P1	27.06.22	Planning Submission.	BM	IF

Drawing Status
For Planning

Client
Fuel Properties

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Project
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Drawing Title
Parameter Plan
Public Open Space

Scale @A1 1 : 1000 | Job Ref. 02022
Drawing No. PP-04 | Revision. P1
Scale Bar 0 10 20 30 40 50 m
Sheet Code 02022-JTP-PP-04 - Public Open Space - P1