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Our ref: 462439  
Your ref: 23/02098/OUT



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**BY EMAIL ONLY**

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Dear Andrew

**Planning consultation:** Outline application, with all matters reserved, for a multi-phased (severable), comprehensive residential-led mixed use development.

**Location:** Begbroke Science Park Begbroke Hill Begbroke OX5 1PF.

Thank you for your consultation on the above dated 20 December 2023 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.

## SUMMARY OF NATURAL ENGLAND'S ADVICE

### OBJECTION

**Natural England objects to this proposal.** As submitted we consider it will:

- have an adverse effect on the integrity of **Oxford Meadows Special Area of Conservation** due to Air Pollution contributions from the A34 and A40.
- We **do not** agree with the conclusions of the IHRA submitted by the developer.

We have reviewed the information (IHRA) provided by the developer to inform your Appropriate Assessment. The results of the air quality modelling show significant exceedances of pollutants within the SAC as a result of the development both alone and in-combination with other plans and projects. The main pollutants of concern are Nitrogen, Ammonia, Sulphur Dioxide and Acidification all of which have the potential to damage the interest features for which the site has been notified. The exceedances relate to two major roads which run through and adjacent to the SAC, the A34 and the A40. Modelling indicates that there will be significant increases in AADT for both of these roads at a number of transect locations within the SAC.

### **Oxford Meadows Special Area of Conservation (SAC)**

A 'European' or 'Habitats' site is protected by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (as amended), also known as 'The Habitats Regulations'. The designation and protection of areas of land important for natural habitat and species is safeguarded under these regulations in British law. This includes the protection of designated, and proposed, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs).

The Habitats Regulations require that before a competent authority can undertake or give permission, consent or other authorisation for a plan or project which is likely to have a significant effect on a European site (either alone or in combination with other plans or projects), where it is also not directly connected with, or necessary to, the management of the site, they must make an Appropriate Assessment of the implications of the plan or project in view of the site's conservation objectives.

Oxford Meadows SAC was designated due to the importance of its habitats namely Lowland Hay Meadow habitats and populations of Creeping Marshwort.

## **IHRA Results**

We are concerned with the results of the air quality modelling undertaken and note that the results presented in the IHRA appear to show that there are significant changes to AADT on both the A34 and A40 as a result of the development. The consequential air quality impacts are shown in table 4 and table 5 (Nitrogen Oxides), table 6 and table 7 (Ammonia) and table 8 and table 9 (Nitrogen Deposition). We note that the exceedances for nitrogen deposition are particularly high both alone and in-combination.

We note that there do not appear to be any concerns with Acidification, however we would anticipate assessment for Acidification being reviewed in light of emerging local plans, as well as a review of the approach to air quality assessment as discussed below.

At Appropriate Assessment stage [NEA001](#) – Advising CAs on Road Traffic and HRA highlights the need to consider the ecological data alongside air quality information to ascertain the impacts of exceedances on the sensitive qualifying features of the sites, as well as the sites conservation objectives.

With regards to the in-combination assessment, the assessment should consider the likely increases in AADT on the local road network as a result of Local Plans being put forward currently that are at Regulation 18 or 19 stage and should consider such increases in combination with the proposed development at Begbroke.

Two examples of the types of projects and plans that should be considered as part of an in-combination assessment include the planning application for 1450 dwellings at Bayswater Brook (this is 350 dwellings more than allocated in the South Oxfordshire Local Plan 2035) and the Oxford City Regulation 19 Local Plan consultation, which identifies a 200+ increase in AADT as a result of proposed development. Other emerging local plans such as the Joint South and Vale Local Plan 2041 and the Cherwell Local Plan Review 2040 should also be considered, which are both between Regulation 18 and Regulation 19.

## **IHRA Approach**

Aligned with the results above, the approach to air quality assessment presented in the submitted IHRA is not supported by Natural England. We refer you to [Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations - NEA001](#). The 2018 [Dutch Nitrogen Case](#) should also be taken into account in the methodology, which is not currently referenced.

The approach appears to compare distance of exceedance threshold between baseline and 2033. We are not clear on how this has been modelled and are of the view that looking at increases in distance of exceedance is not addressing levels over 1% of the critical load either alone or in-combination.

Given the level certainty required, and considering the evidence provided by the applicant, Natural England are not currently satisfied beyond all reasonable scientific doubt that this application would not lead to Adverse Effect on Integrity (AEOI) on Oxford Meadows SAC. We require further

information from the applicant with regards to the approach and results to be able to progress our concerns on the matter, either through our discretionary advice service (mentioned below) or further written information.

### **Reliance on Previous Information**

Air quality data submitted in relation to previously adopted local plans in Oxfordshire within the 2018-2020 time period is now out of date and should not be relied upon to inform the air quality assessment for this development. We therefore recommend that the assessment be remodelled and resubmitted to take into account the material changes that have occurred since the last Local Plan submission round. We note that paragraph 5.42 highlights that the traffic flow increases predicted from the modelling for this application are higher than those under the 2018-2019 Local Plan HRA, and reinforces that the air quality conclusions of previous local plans should not be relied upon when looking at the impacts of development coming forward.

As covered by the IHRA there have been changes in the approach to air quality assessments since 2018, which include the consideration of the impact that ammonia makes to local traffic related Nitrogen Deposition on the affected road network. It is now recognised that ammonia makes a significant contribution to Nitrogen Deposition and this was not assessed during the last Local Plan Submission round.

### **Proposed Avoidance and Mitigation Measures**

Paragraph 5.29 of the IHRA provides details of mitigation measures which have been included into the modelling approach to predict the future baseline position in relation to nitrogen generated by traffic. The previously mentioned [Dutch Nitrogen Ruling](#) emphasised at paragraph 130 that *'The appropriate assessment of the implications of a plan or project for the sites concerned is not to take into account the future benefits of such 'measures' if those benefits are uncertain, inter alia because the procedures needed to accomplish them have not yet been carried out or because the level of scientific knowledge does not allow them to be identified or quantified with certainty.'* We would advise that this is considered with regards to the mitigation measures outlined.

Mitigation measures that give certainty in delivery include measures such as shelter belts and hard buffers, speed limit reductions, clean air zones etc. These should be considered further should mitigation be required. While there is no definitive list of measures, 'appendix 3' measures table of the [DEFRA RAPIDS report](#) is a helpful point of reference.

Case law has established that in order to be taken into account in applying the integrity test, *'It is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable [scientific] doubt that the project will not adversely affect the integrity of the [site], that such a measure may be taken into consideration'* (refer [Grace and Sweetman](#), para 51).

### **Strategic Consideration of the Issue for Oxford Local Planning Authorities**

Natural England urged the Oxfordshire LPAs a number of years ago to proactively look at the issue of Air Quality impacts on Oxford Meadows SAC. A couple of meetings were held but then momentum was lost during the pandemic. We strongly advise that your authority works closely with the other Oxfordshire LPAs to consider this matter now that a number of Local Plans are at Reg 18 or Reg 19 stage, and a number of larger applications are being submitted. This will need modelling which takes into account all planned growth in the Oxfordshire area to ensure that in-combination impacts are being fully considered through the HRA process.

Please note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 281 (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow

a further period of 21 days before the operation can commence.

Further general advice on the protected species and other natural environment issues is provided at Annex A.

Should the developer wish to explore options for avoiding or mitigating the effects described above with Natural England, we advise they seek advice through our [Discretionary Advice Service](#).

Should the proposal change, please consult us again.

If you have any queries relating to the advice in this letter please contact me on [Laura.Elphick@naturalengland.gov.uk](mailto:Laura.Elphick@naturalengland.gov.uk).

Yours sincerely

Bella Jack  
Senior Adviser  
Thames Solent Team

## Annex A- Natural England General Advice

### Protected Landscapes

Paragraph 182 of the [National Planning Policy Framework](#) (NPPF) requires great weight to be given to conserving and enhancing landscape and scenic beauty within Areas of Outstanding Natural Beauty (known as National Landscapes), National Parks, and the Broads and states that the scale and extent of development within all these areas should be limited. Paragraph 183 requires exceptional circumstances to be demonstrated to justify major development within a designated landscape and sets out criteria which should be applied in considering relevant development proposals. [Section 245](#) of the Levelling Up and Regeneration Act 2023 places a duty on relevant authorities (including local planning authorities) to seek to further the statutory purposes of a National Park, the Broads or an Area of Outstanding Natural Beauty in England in exercising their functions. This duty also applies to proposals outside the designated area but impacting on its natural beauty.

The local planning authority should carefully consider any impacts on the statutory purposes of protected landscapes and their settings in line with the NPPF, relevant development plan policies and the Section 245 duty. The relevant National Landscape Partnership or Conservation Board may be able to offer advice on the impacts of the proposal on the natural beauty of the area and the aims and objectives of the statutory management plan, as well as environmental enhancement opportunities. Where available, a local Landscape Character Assessment can also be a helpful guide to the landscape's sensitivity to development and its capacity to accommodate proposed development.

### Wider landscapes

Paragraph 180 of the NPPF highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland, or dry-stone walls) could be incorporated into the development to respond to and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape and Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the [Landscape Institute](#) Guidelines for Landscape and Visual Impact Assessment for further guidance.

### Biodiversity duty

The local planning authority has a [duty](#) to conserve and enhance biodiversity as part of its decision making. Further information is available [here](#).

### Designated nature conservation sites

Paragraphs 186-188 of the NPPF set out the principles for determining applications impacting on Sites of Special Scientific Interest (SSSI) and habitats sites. Both the direct and indirect impacts of the development should be considered. A Habitats Regulations Assessment is needed where there is a likely significant effect on a habitats site and Natural England must be consulted on '[appropriate assessments](#)'. Natural England must also be consulted where development is in or likely to affect a SSSI and provides advice on potential impacts on SSSIs either via [Impact Risk Zones](#) or as standard or bespoke consultation responses.

### Protected Species

Natural England has produced [standing advice](#) to help planning authorities understand the impact of particular developments on protected species. Natural England will only provide bespoke advice on protected species where they form part of a Site of Special Scientific Interest or in exceptional circumstances. A protected species [licence](#) may be required in certain cases.

### Local sites and priority habitats and species

The local planning authority should consider the impacts of the proposed development on any local wildlife or geodiversity site, in line with paragraphs 180, 181 and 185 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity to help nature's recovery. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies. Emerging [Local Nature Recovery Strategies](#) may also provide further useful information.

Priority habitats and species are of particular importance for nature conservation and are 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. A list of priority habitats and species can be found on [Gov.uk](#).

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, further information including links to the open mosaic habitats inventory can be found [here](#).

### **Biodiversity and wider environmental gains**

- Development should provide net gains for biodiversity in line with the NPPF paragraphs 180(d), 185 and 186. Major development (defined in the [NPPF glossary](#)) is required by law to deliver a biodiversity gain of at least 10% from 12 February 2024 and this requirement is expected to be extended to smaller scale development in spring 2024. For nationally significant infrastructure projects (NSIPs), it is anticipated that the requirement for biodiversity net gain will be implemented from 2025.

- Further information on biodiversity net gain, including [draft Planning Practice Guidance](#), can be found [here](#).

The statutory [Biodiversity Metric](#) should be used to calculate biodiversity losses and gains for terrestrial and intertidal habitats and can be used to inform any development project. For small development sites, the [Small Sites Metric](#) may be used. This is a simplified version of the [Biodiversity Metric](#) and is designed for use where certain criteria are met.

- The mitigation hierarchy as set out in paragraph 186 of the NPPF should be followed to firstly consider what existing habitats within the site can be retained or enhanced. Where on-site measures are not possible, provision off-site will need to be considered.

Development also provides opportunities to secure wider biodiversity enhancements and environmental gains, as outlined in the NPPF (paragraphs 8, 74, 108, 124, 180, 181 and 186). Opportunities for enhancement might include incorporating features to support specific species within the design of new buildings such as swift or bat boxes or designing lighting to encourage wildlife.

- Natural England's [Environmental Benefits from Nature tool](#) may be used to identify opportunities to enhance wider benefits from nature and to avoid and minimise any negative impacts. It is designed to work alongside the [Biodiversity Metric](#) and is available as a beta test version.

- Further information on biodiversity net gain, the mitigation hierarchy and wider environmental net gain can be found in government [Planning Practice Guidance for the natural environment](#).

### **Ancient woodland, ancient and veteran trees**

The local planning authority should consider any impacts on ancient woodland and ancient and veteran trees in line with paragraph 186 of the NPPF. Natural England maintains the Ancient Woodland [Inventory](#) which can help identify ancient woodland. Natural England and the Forestry Commission have produced [standing advice](#) for planning authorities in relation to ancient woodland and ancient and veteran trees. It should be taken into account when determining relevant planning applications. Natural England will only provide bespoke advice on ancient woodland, ancient and veteran trees where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

### **Best and most versatile agricultural land and soils**

Local planning authorities are responsible for ensuring that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 180 and 181). This is the case regardless of whether the proposed development is sufficiently large to consult Natural England. Further information is contained in [GOV.UK guidance](#) Agricultural Land Classification information is available on the [Magic](#) website and the [Data.Gov.uk](#) website

Guidance on soil protection is available in the Defra [Construction Code of Practice for the Sustainable Use of Soils on Construction Sites](#), and we recommend its use in the design and construction of development, including any planning conditions. For mineral working and landfilling, separate guidance on soil protection for site restoration and aftercare is available on [Gov.uk](#) website. Detailed guidance on soil handling for mineral sites is contained in the Institute of Quarrying [Good Practice Guide for Handling Soils in Mineral Workings](#).

Should the development proceed, we advise that the developer uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.

### **Green Infrastructure**

Natural England's [Green Infrastructure Framework](#) provides evidence-based advice and tools on how to design, deliver and manage green and blue infrastructure (GI). GI should create and maintain green liveable places that enable people to experience and connect with nature, and that offer everyone, wherever they live, access to good quality parks, greenspaces, recreational, walking and cycling routes that are inclusive, safe, welcoming, well-managed and accessible for all. GI provision should enhance ecological networks, support ecosystems services and connect as a living network at local, regional and national scales.

Development should be designed to meet the [15 Green Infrastructure Principles](#). The GI Standards can be used to inform the quality, quantity and type of GI to be provided. Major development should have a GI plan including a long-term delivery and management plan. Relevant aspects of local authority GI strategies should be delivered where appropriate.

GI mapping resources are available [here](#) and [here](#). These can be used to help assess deficiencies in greenspace provision and identify priority locations for new GI provision.

### **Access and Recreation**

Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths, together with the creation of new footpaths and bridleways should be considered. Links to urban fringe areas should also be explored to strengthen access networks, reduce fragmentation, and promote wider green infrastructure.

### **Rights of Way, Access land, Coastal access and National Trails**

Paragraphs 104 and 180 of the NPPF highlight the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the any nearby National Trails. The National Trails website [www.nationaltrail.co.uk](http://www.nationaltrail.co.uk) provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts.

Further information is set out in Planning Practice Guidance on the [natural environment](#)

