North East Cambridge Area Action Plan

HRA Report

South Cambridgeshire District Council and Cambridge City Council

Final report

Prepared by LUC

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Introduction

1.1 LUC has been commissioned by South Cambridgeshire District Council and Cambridge City Council (the Councils) to carry out a Habitats Regulations Assessment (HRA) of the North East Cambridge Area Action Plan (NECAAP). This iteration of the HRA report assesses the impacts of the Proposed Submission NECAAP.

1.2 The previous iteration of the HRA of Draft NECAAP was consulted with Natural England in May 2020 as detailed in Appendix F. This HRA report takes into account the recommendations and advice provided Natural England as part of this consultation.

Context for the North East Cambridge Area Action Plan

1.3 North East Cambridge Area Action Plan is located at the north eastern fringe of Cambridge and contains one of the last substantial brownfield sites in the City and Cambridge Science Park. The area is situated between the A14 in the north, Kings Hedges and Orchard Park Wards in the south and south-west and Cambridge – Kings Lynn Railway line in the east.

1.4 The area in question straddles the administrative boundaries of Cambridge City Council and South Cambridgeshire District Council who are taking a coordinated approach to development through providing a joint AAP for the site. The NECAAP seeks the wider regeneration of this part of Cambridge with the creation of a revitalised, employment focussed area centred on the new transport interchange created by Cambridge North Station.

1.5 The Councils have previously prepared Issues and Options consultation documents in 2014 and 2019 which formed an important early stage in developing the NECAAP and set out the blueprint for a comprehensive and co-ordinated regeneration of the area. The 2019 Issues and Options document identified key issues, challenges and opportunities facing the area and set out different options the Councils could take to address these. The consultation of this Issues and Options document took place in February and March 2019 and assisted in the preparation of the Draft NECAAP. The Draft NECAAP was the first version of the plan containing a proposed vision, strategic objectives and the policies to shape the development of the area. It was consulted upon between July and October 2020. The consultation responses received to this draft plan and additional evidence which has since been prepared, have been used by the Councils to develop the Proposed Submission NECAAP.

The requirement to undertake Habitat Regulations Assessment of Development Plans

1.6 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007 **[See reference** 1**]**; the currently applicable version is the Habitats Regulations 2017 **[See reference** 2**]**, as amended. When preparing the NECAAP, the Councils are therefore required by law to carry out an HRA. The Councils can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by the Councils as the 'competent authority'. The Councils consider this work and would usually **[See reference** 3**]** only progress a plan if it considers that the plan will not adversely affect the integrity **[See reference** 4**]** of any 'European site', as defined below. The requirement for authorities to comply with the Habitats Regulations when preparing a plan is also noted in the Government's online Planning Practice Guidance **[See reference** 5**]** (PPG).

1.7 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). These were classified under European Union (EU) legislation but, since 1 January 2021, are protected in the UK by the Habitats Regulations 2017 (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive **[See reference** 6**]**) and species (Annex II).
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive **[See reference** 7**]**), and for regularly occurring migratory species not listed in Annex I.

1.8 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites **[See reference** 8**]** and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper **[See reference** 9**]** on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.9 Although Ramsar sites do not form part of the new national site network, the Government Policy Paper **[See reference** 10**]** confirms that all Ramsar sites remain protected in the same way as SACs and SPAs. In LUC's view and unless the Government provides any guidance to the contrary, potential effects on Ramsar sites should continue to form part of the HRA of plans and projects

since the requirement for HRA of plans and projects that might adversely affect Ramsar sites forms an essential part of the protection confirmed by the Government Policy Paper. Furthermore, the NPPF **[See reference** 11**]** and practice guidance **[See reference** 12**]** currently still state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

1.10 The requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves. This report uses the term 'European sites' rather than 'national site network', which takes into account SAC, SPA and Ramsar sites, the latter which does not form part of the national site network.

1.11 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the European site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of Habitat Regulations Assessment

1.12 The section below summarises the stages involved in carrying out an HRA, based on various guidance documents **[See reference** 13 and 14**]**. This HRA presents the methodology and findings of Stage 1: Screening and Stage 2: Appropriate Assessment.

Stage 1: Screening (the 'Significance Test')

Tasks

- Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites.
- Identification of potentially affected European sites and their conservation objectives **[See reference** 15**]**.
- Review of other plans and projects.
- Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction (‘mitigation’) measures **[See reference** 16**]**.

Outcome

- Where effects are unlikely, prepare a ‘finding of no significant effect report’.
- Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.

Stage 2: Appropriate Assessment (the ‘Integrity Test’)

Task

- Information gathering (development plan and data on European sites **[See reference** 17**]**).
- Impact prediction.

- Evaluation of development plan impacts in view of conservation objectives of European sites.
- Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').

Outcome

- Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation, including the mechanisms and timescale for these mitigation measures.
- If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.

Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation

Task

- Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI).
- Demonstrate no alternatives exist.
- Identify potential compensatory measures.

Outcome

- This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

Requirements of the Habitat Regulations Assessment

1.13 In assessing the effects of the Plan in accordance with Regulation 105 of the Habitats Regulations (as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed, if necessary, by an Appropriate Assessment which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not:
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on the site, either alone or in combination with other plans or projects (the 'Significance Test'). [These two steps are undertaken as part of Stage 1: Screening shown above.] If so:
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public. [This step is undertaken during Stage 2: Appropriate Assessment shown above.]
- Step 4: In accordance with Reg.105(4), but subject to Reg.107, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

1.14 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the avoidance of likely significant

effects at Stage 1, and through Appropriate Assessment at Stage 2 by the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

1.15 The HRA should be undertaken by the 'competent authority', in this case South Cambridgeshire District Council and Cambridge City Council, and LUC has been commissioned to do this on their behalf. The HRA also requires close working with Natural England as the statutory nature conservation body in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals.

Case law changes

1.16 This HRA has been prepared in accordance with relevant case law findings, including most notably the 'People over Wind' and 'Holohan' rulings from the Court of Justice for the European Union (CJEU).

1.17 The People over Wind, Peter Sweetman v Coillte Teoranta (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

> "Article 6(3) ……must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."

1.18 In light of the above, the HRA screening stage does not rely upon avoidance or mitigation measures to draw conclusions as to whether the NECAAP could result in likely significant effects on European sites. Instead, any such measures are considered at the Appropriate Assessment stage as relevant.

1.19 The approach to this HRA is also consistent with the Holohan v An Bord Pleanala (November 2018) CJEU judgement which stated that:

> Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.
>
> Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.
>
> Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons

capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

1.20 In undertaking this HRA, LUC consider the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and/or species and habitats located beyond the boundaries of European site that may be important in supporting the ecological processes of the qualifying features, has also been fully considered in this HRA.

1.21 The approach to the HRA also takes into consideration the 'Wealden' judgement and the 'Dutch Nitrogen Case' judgements from the Court of Justice for the European Union.

1.22 Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

1.23 In light of this judgement, the HRA therefore considers traffic growth based on the effects of development from the NECAAP in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.24 The 2018 'Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu (Dutch Nitrogen)' judgement stated that:

> "...the positive effects of the autonomous decrease in the nitrogen deposition…be taken into account in the appropriate assessment…, it is important that the autonomous decrease in the nitrogen deposition be monitored and, if it transpires that the decrease is less favourable than had been assumed in the appropriate assessment, that adjustments, if required, be made."

1.25 The Dutch Nitrogen judgement also states that according to previous case law:

> "…it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm to the integrity of the site concerned, by guaranteeing beyond all reasonable doubt that the plan or project at issue will not adversely affect the integrity of that site, that such a measure may be taken into consideration in the 'appropriate assessment' within the meaning of Article 6(3) of the Habitats Directive."

1.26 The HRA of the Proposed Submission NECAAP therefore only considers the existence of conservation and/or preventative measures if the expected benefits of those measures are certain at the time of the assessment.

Structure of this report

1.27 This chapter (Chapter 1) described the background to the production of the NECAAP and the requirement to undertake HRA. The remainder of the report is structured as follows:

- Chapter 2: Proposed Submission North East Cambridge Area Action Plan summarises the content of the plan, which is the subject of this report.

- Chapter 3: Method sets out the approach used, and the specific tasks undertaken during the screening and Appropriate Assessment stages of the HRA.
- Chapter 4: Screening assessment describes the findings of the screening stage of the HRA.
- Chapter 5: Appropriate Assessment describes the findings of the Appropriate Assessment stage of the HRA.
- Chapter 6: Conclusions and next steps summarises the HRA conclusions for the Proposed Submission North East Cambridge Area Action Plan and describes the next steps to be undertaken.

Chapter 2

North East Cambridge Area Action Plan

2.1 This Chapter summaries the contents of the plan, including the vision, proposed strategic objectives and policies that will be in place to deliver this vision.

Vision

2.2 The Councils vision for North East Cambridge is “to be a healthy, inclusive, walkable, low-carbon new city district with a vibrant mix of high quality homes, workplaces, services and social spaces, fully integrated with surrounding neighbourhoods”.

2.3 This vision will be delivered through five strategic objectives and their sub objectives. This includes:

- North East Cambridge will be a low environmental impact urban district, addressing both the climate and biodiversity emergencies.
  - Development will support and sustain the transition to renewables, zero carbon and embed the challenge of climate change resilience.
  - It will be inherently walkable and allow easy transitions between sustainable transport modes (walking, cycling & public transport) with density linked to accessibility.
  - It will be a new model for low private car/vehicle use by maximising walking, cycling and public transport infrastructure, car club provision and EV/alternative fuel vehicle charging provision.
  - A Green and blue infrastructure network will enable everyone to lead healthy lifestyles, will protect and enhance biodiversity and help mitigate the impact of development on climate change.

- Traditional green solutions will couple with smart city technology in achieving future-proofed and climate adaptable buildings and spaces.

- North East Cambridge will be a vibrant mixed-use new district where all can live and work.
  - There will be a range of new homes of different types and tenure, including 40% affordable housing, alongside the services and facilities new residents need.
  - Mixed use, flexible and adaptable space for office, research and development and industrial businesses will create a wide range of job opportunities for people living across North East Cambridge and the surrounding areas.
  - Beautifully designed and accessible places, spaces and buildings will improve wellbeing and quality of life for all through creating opportunities for social integration, community engagement and connecting people with nature.
  - It will maximise opportunities for collaborative spaces which link educational and business uses reinforced by effective overall communication networks and supported by shops, community, sport, leisure, health, education and cultural facilities.
  - It will make the best and most effective use of land through building to sustainable densities which also reflect, protect and enhance the unique heritage of the city.

- North East Cambridge will help meet the strategic needs of Cambridge and the sub-region.
  - It will make a significant contribution to meeting the housing needs of the Greater Cambridge area and the wider Oxford-Cambridge growth corridor.
  - It will create an integrated economy that meets the needs of people living and working within the area to create a self-sustaining place.
  - It will help to unlock investment in infrastructure, innovation and economic growth in the Greater Cambridge area as well as the Oxford-Cambridge growth corridor.

- Phasing will allow the continued use of strategic site assets such as the Cambridge North East Aggregates Railheads and ensure timely delivery of high quality community, cultural and open space facilities and other infrastructure, and management of transport impacts.
- Development will deliver strong and competitive economic growth and prosperity that achieves social inclusion and equality for new residents and the surrounding neighbourhoods alike.

- North East Cambridge will be a healthy and safe neighbourhood.
  - It will apply principles used by the NHS Healthy New Towns (Putting Health First) and Homes England 'Building for a Healthy Life'.
  - The health and wellbeing of people will help structure new development and inform decision-making, to create a high quality of life for everyone.
  - Healthy lifestyles will be enabled through a series of walkable neighbourhoods which include access to open spaces, sports and recreational facilities, public rights of way, local green spaces, food growing opportunities and active travel choices.
  - North East Cambridge will have a clear urban structure with identifiable centres of activity and streets and spaces which enable social interaction and play.
  - Human health will be at the forefront of design by ensuring that noise, air quality, lighting and odour are key factors in determining the layout and functionality of the area.
- North East Cambridge will be physically and socially integrated with neighbouring communities.
  - It will be a welcoming, safe and inclusive place that integrates well with surrounding established neighbourhoods and existing environmental constraints.
  - Development will be planned and designed to improve access to jobs, services and open spaces for existing residents of neighbouring areas, as well as new residents.

- The development will be physically well-connected to its local and wider context, through breaking down existing barriers to movement, and creating new routes for walking and cycling.
- Existing and planned public transport connections will be integrated into the planning of the area, enabling travel to and from the area without the use of the private car.

Contents of the North East Cambridge Area Action Plan

Chapter 3: A Spatial Framework for the North East Cambridge

- This section comprises of one policy, which sets out the overall quantum and type of development proposed and provides the spatial framework for North East Cambridge, which describes the key elements of this framework.

Chapter 4: Climate Change, Energy, Water and Biodiversity

- This section sets out policies, which responds to the challenges of climate change and that will ensure that the NECAAP will have a positive impact on the environment. This comprises of six policies in total.

Chapter 5: Design and Built Character

- This section outlines policies that relate to the design and character of North East Cambridge. This specifically relates to design of buildings, streets and spaces, and open spaces, as well as making provision for

development in North East Cambridge Centres (Policies 10b-e). This section comprises of 11 policies.

Chapter 6: Jobs, Homes and Services

- This section sets out development for jobs (Policy 12a and b) and for new homes (Policy 13a) and their distribution. The remaining policies relate to housing types; social community and cultural infrastructure; and shops and local services, some of which will result in small scale development. This section comprises of 10 policies.

Chapter 7: Connectivity

- This section comprises of seven policies, which relate to connectivity within the North East Cambridge and the wider area. This includes policies which encourage sustainable transport measures and limit motorised transport use.

Chapter 8: Development Process

- This section comprises of nine policies, which sets out a comprehensive and coordinated approach to the development of the land and delivery of area-wide interventions, infrastructure provision, and management regimes between sites and over the area as whole, as being the only means by which to enable new development to come forward and to optimise the development opportunity of North East Cambridge, in terms of densities, delivery rates, levels of affordable housing, access to new job opportunities, and better place-making.

Chapter 3

Method

3.1 The HRA of the NECAAP consists of two stages:

- Screening Assessment.
- Appropriate Assessment.

3.2 The methodology undertaken for the HRA is set out in more detail below.

Screening Assessment

3.3 HRA Screening of the plan was undertaken in line with current available guidance and sought to meet the requirements of the Habitats Regulations. The tasks that were undertaken during the screening stage of the HRA and the conclusions reached are described in detail below. This section of the HRA report sets out policies and impact types for which likely significant effects are predicted or cannot be ruled out prior to mitigation and avoidance measures.

3.4 The purpose of the screening stage is to:

- Identify all aspects of the plan which would have no effect on a European site, so that that they can be eliminated from further consideration in respect of this and other plans.
- Identify all aspects of the plan which would not be likely to have a significant effect on a European site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same plan or other plans or projects, which therefore do not require ‘Appropriate Assessment’.
- Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination

with other plans or projects. This provides a clear scope for the parts of the plan that will require Appropriate Assessment.

Identifying European sites that may be affected and their conservation objectives

3.5 In order to initiate the search of European sites that could potentially be affected by a development, it is established practice in HRA to consider sites within the local planning authority area covered by the plan, and other sites that may be affected beyond this area.

3.6 A distance of 15km from the boundary of the plan area is typically used in the first instance to identify European sites with the potential to be affected by the proposals within a development plan. Consideration is then given to whether any more distant European sites may be connected to the plan area via effects pathways, for example through hydrological links or recreational visits by residents. The 15km distance has been agreed with Natural England for HRAs elsewhere and is considered precautionary. All European sites within 15km were assessed in this HRA.

3.7 The assessment also takes into account areas that may be functionally linked to the European sites. The term ‘functional linkage’ is used to refer to the role or ‘function’ that land beyond the boundary of a European site might fulfil in terms of supporting the species populations for which the site was designated or classified. Such an area is therefore ‘linked’ to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status.

3.8 While the boundary of a European site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may

extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species **[See reference** 18**]**. HRA therefore considers whether any European sites make use of functionally linked habitats, and the impacts that could affect those habitats.

3.9 European sites identified for inclusion in the HRA are listed below in Table 3.1 and Figure 2 in Appendix A. Detailed information about each European site is provided in Appendix B, described with reference to Standard Data Forms for the SPAs and SACs, and Natural England's Site Improvement Plans **[See reference** 19**]**. Natural England's conservation objectives **[See reference** 20**]** for the SPAs and SACs have also been reviewed. These state that site integrity must be maintained or restored by maintaining or restoring the habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species.

Table 3.1: European Sites within 15km of Greater Cambridge District Boundary

European Site	Closest Distance / Location from GCLP Area
Eversden and Wimpole Woods SAC	14km / South West
Ouse Washes SAC	14km / North
Devils Dyke SAC	12km / East
Fenland SAC	10km / North East
Ouse Washes SPA	14km / North
Ouse Washes Ramsar Site	14km / North
Wicken Fen Ramsar	10km / North East
Chippenham Fen Ramsar	17km / North East

Assessment of 'likely significant effects' of the NECAAP

3.10 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017 **[See reference** 21**]** (as amended), an assessment has been undertaken of the 'likely significant effects' of the plan. The assessment has been prepared in order to identify which policies or site allocations would be likely to have a significant effect on European sites. The screening assessment has been conducted without taking mitigation into account, in accordance with the 'People over Wind' judgment.

3.11 Consideration was given to the potential for the development proposed to result in significant effects associated with:

- Physical loss or damage to habitat.
- Non-physical disturbance (noise, vibration and light pollution).
- Air pollution.
- Recreational pressure.
- Changes to hydrology, including water quantity and quality.

3.12 This thematic/ impact category approach also allowed for consideration to be given to the cumulative effects of the site allocations rather than focussing exclusively on individual developments provided for by the plan.

3.13 A risk-based approach involving the application of the precautionary principle was adopted in the assessment, such that a conclusion of 'no significant effect' was only reached where it was considered unlikely, based on current knowledge and the information available, that a development plan policy or site allocation would have a significant effect on the integrity of a European site.

3.14 A screening matrix was prepared (Appendix C), to document consideration of the potential for likely significant effects resulting from each policy and site allocation in the plan.

3.15 For some types of impacts, the potential for likely significant effects was determined on a proximity basis. This approach and the assumptions applied are described in more detail in Chapter 4.

Interpretation of 'likely significant effects'

3.16 Relevant case law helps to interpret when effects should be considered as a likely significant effect, when carrying out HRA of a land use plan.

3.17 In the Waddenzee case **[See reference** 22**]**, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

> An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 44). An effect should be considered 'significant', "if it undermines the conservation objectives" (para 48). Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned" (para 47).

3.18 A relevant opinion delivered to the Court of Justice of the European Union commented that:

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

3.19 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or de minimis; referring to such cases as those "that have no appreciable effect on the site". In practice such effects could be screened out as having no likely significant effect – they would be 'insignificant'.

3.20 The HRA screening assessment therefore considers whether the Proposed Submission NECAAP policies could have likely significant effects either alone or in combination.

Mitigation provided by the plan

3.21 Some of the potential effects of the plan could be mitigated through the implementation of other policies in the plan itself, such as the provision of green infrastructure within new developments (which could help mitigate increased pressure from recreation activities at European sites). Nevertheless, in accordance with the 'People over Wind' judgment, avoidance and mitigation measures cannot be relied upon at the Screening Stage, and therefore, where such measures exist, they were considered at the Appropriate Assessment stage for impacts and policies where likely significant effects, either alone or in-combination, could not be ruled out.

Assessment of potential in-combination effects

3.22 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where “a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”. Therefore, where likely insignificant effects are identified for the NECAAP alone, it is necessary to consider whether these may become significant effects in combination with other plans or projects.

3.23 The HRA Report identified which other plans and projects in addition to the NECAAP may affect the European sites that were the focus of this assessment. This included a review of relevant plans to identify those components of nearby plans that could have an impact on the European sites scoped in to this HRA, e.g. areas or towns where additional housing or employment development is proposed near to the European sites (as there could be effects from the transport, water use, infrastructure and recreation pressures associated with the new developments).

3.24 There are a large number of potentially relevant plans therefore the review focussed on planned spatial growth within authorities adjacent to the Isle of Wight as well as other authorities that are adjacent to the European sites included in this HRA. The findings of any associated HRA work for those plans have been reviewed where available.

3.25 Appendix D presents the review of other plans and projects, outlining the components of each plan that could have an impact on nearby European sites. Where likely significant in-combination effects could not be ruled out at the screening stage, the Appropriate Assessment gathered the information necessary to consider these, for example traffic data for air pollution, or housing provisions and major site allocations in neighbouring authorities for recreation pressure.

3.26 The HRA report identified that the following authorities' plans have the potential to contribute to in-combination effects with the NECAAP:

- South Cambridgeshire.
- Cambridge City.
- East Cambridgeshire.
- Huntingdonshire.
- Fenland.
- East Cambridgeshire.
- West Suffolk.

3.27 In addition, the following key plans will be included as they are developed further:

- Greater Cambridge Local Plan.
- The Oxford-Cambridge Arc.
- Cambridgeshire and Peterborough Minerals and Waste Local Plan.
- Cambridgeshire and Peterborough Strategic Spatial Framework.
- Cambridgeshire Local Transport Plan.

3.28 The Government's National Infrastructure Planning website **[See reference** 23**]** will also be reviewed for major projects that could have significant effects in combination with those of the NECAAP.

Appropriate Assessment

3.29 Following the screening stage, if likely significant effects on European sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their

conservation objectives. Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function **[See reference** 24**]**. This includes consideration of plans and projects with the potential for in-combination effects, where relevant.

Assessing the effects on site integrity

3.30 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. the habitats and species for which it has been designated) and to ensure their continued viability. The Holohan judgement also clarifies that effects on species and habitats not listed as qualifying features, but which could result in secondary effects upon the qualifying features of European sites also need to be considered. The Appropriate Assessment therefore built upon the information set out in Appendix B of this report to consider the characteristics of supporting habitats and species that could be affected by impacts identified at the screening stage.

3.31 A high degree of integrity at a site is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

3.32 A conclusion needs to be reached as to whether or not a plan would adversely affect the integrity of any European site. Assessing the effects on the site(s) integrity involves considering whether the predicted impacts of the plan policies and/or site allocations (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt those factors that help to maintain the favourable conditions of the site.

- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem.
- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants).
- Interfere with anticipated natural changes to the site.
- Reduce the extent of key habitats or the population of key species.
- Reduce the diversity of the site.
- Result in disturbance that could affect the population, density or balance between key species.
- Result in fragmentation.
- Result in the loss of key features **[See reference** 25**]**.

3.33 The conservation objectives for each SAC and SPA (as set out in Appendix B) are generally to maintain the qualifying features in favourable condition. Natural England does not define conservation objectives for Ramsar sites, but these can often be inferred from those for co-located SAC or SPA features. The Site Improvement Plans for each site provide a high-level overview of the issues (both current and predicted) affecting the condition of the designated features on the site(s) and outline the priority measures required to improve the condition of the features. An Appropriate Assessment draws on these to help to understand what is needed to maintain the integrity of the European sites.

3.34 For each European site where an uncertain or likely significant effect was identified in relation to the plan, the Appropriate Assessment sets out the potential impacts and makes a judgement (based on the information available) on whether the impact will have an adverse effect on the integrity of the European site. Consideration was given to the potential for mitigation measures to be implemented that could reduce the likelihood or severity of the potential

impacts such that there would not be an adverse effect on the integrity of the European site.

Chapter 4

Screening Assessment

4.1 As described in the Method chapter, a screening assessment was carried out in order to identify the likely significant effects of the NECAAP on the scoped-in European sites. The full screening matrix, which sets out the decision-making process used for this assessment can be found in Appendix C and the findings are summarised below.

HRA Screening of Policies

No ‘likely significant effect’ predicted

4.2 The majority of the policies are not expected to result in development and therefore will not result in significant effects on European sites:

- Policy 6a: Distinctive design for North East Cambridge
- Policy 6b: Design of mixed-use buildings
- Policy 7: Creating high quality streets, and spaces and landscape
- Policy 9: Density, heights, scale and massing
- Policy 10a: North East Cambridge Centres
- Policy 11: Housing design standards
- Policy 13b: Affordable housing
- Policy 13c: Build to Rent
- Policy 13d: Housing for local workers
- Policy 13e: Custom build housing
- Policy 21: Street hierarchy

- Policy 22: Managing motorised vehicles
- Policy 23: Comprehensive and Coordinated Development
- Policy 24a: Land assembly
- Policy 27: Planning Contributions
- Policy 29: Employment and Training
- Policy 30: Digital infrastructure and open innovation

4.3 The following policies will not result in development and will contribute to ensuring the safeguarding of European sites:

- Policy 2: Designing for the Climate Emergency
- Policy 4a: Water Efficiency
- Policy 4b: Water quality and ensuring supply
- Policy 4c: Flood risk and sustainable drainage
- Policy 5: Biodiversity and Net Gain
- Policy 8: Open spaces for recreation and sport
- Policy 16: Sustainable connectivity
- Policy 17: Connecting to the wider network
- Policy 18: Cycle and Micro Mobility Parking
- Policy 25: Environmental Protection

4.4 The following policies could result in some development, but the development arising would be either located in the urban area away from sensitive European sites or would be small in scale so would not be expected to contribute significantly to impacts arising from proposed development:

- Policy 3: Energy and associated infrastructure
- Policy 13f: Short term/corporate lets and visitor accommodation
- Policy 14: Social, community and cultural infrastructure

- Policy 15: Shops and local services
- Policy 19: Safeguarding for Cambridge autonomous metro and public transport
- Policy 20: Last mile deliveries
- Policy 26: Aggregates and waste sites
- Policy 28: Meanwhile uses

Likely significant effects predicted

4.5 The following policies are highlighted as having potential impact pathways to European sites and likely significant effects cannot be ruled out:

- Policy 1: A comprehensive approach at North East Cambridge
- Policy 10b: District Centre
- Policy 10c: Science Park Local Centre
- Policy 10d: Station Approach
- Policy 10e: Cowley Road and Greenway Local Centre
- Policy 12a: Business
- Policy 12b: Industry, storage and distribution
- Policy 13a: Housing Provision

HRA Screening of Impacts

4.6 For some types of impacts, screening for likely significant effects was determined on a proximity basis, using GIS data to determine the distance of potential development locations to the European sites that were the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far

impacts will travel. Therefore, during the screening stage a number of assumptions were applied in relation to assessing the likely significant effects on European sites that may result from the plan, as described below.

Physical damage and loss (onsite)

4.7 Any development resulting from the NECAAP would take place within the boundary of North East Cambridge (NEC); therefore, only European sites within the boundary could be affected direct by physical damage or loss of habitat within the site boundaries. No European sites are located within the boundary of NEC and therefore no likely significant effects are considered in relation to direct physical damage and loss of habitat, either alone or in-combination with other plans and projects.

Physical damage and loss – functionally linked land (offsite)

4.8 Habitat loss from development in areas outside of the European site boundaries may result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. This includes land which may provide offsite movement corridors or feeding and sheltering habitat for mobile species such as bats, birds and fish. European sites susceptible to the indirect effects of habitat loss are restricted to those sites with qualifying species that rely on offsite habitat. These were identified as:

- Eversden and Wimpole SAC.
- Ouse Washes SAC.
- Ouse Washes SPA and Ramsar Site.

4.9 All other European sites were screened out of the assessment as they do not support qualifying features that are reliant on offsite functionally linked habitat.

Eversden and Wimpole SAC

4.10 Eversden and Wimpole SAC supports barbastelle bats, which is a qualifying feature of the site. This is a mobile species, which relies on habitat within the SAC and functionally linked habitat in the wider area, which provides important foraging habitat for this species.

4.11 A review of data sources identified that this species typically travels within a Core Sustenance Zone (CSZ) of 6km **[See reference** 26**]**. This CSZ was determined by an extensive literature review and refers to the area surrounding a bat roost for barbastelle bats within which habitat availability and quality will have a significant influence on the resilience and conservation of the bat colony using the roost. This is further supported by the Draft Greater Cambridge Biodiversity Supplementary Planning Document **[See reference** 27**]**, which outlines an Impact Risk Zone (IRZ) for development of 5km, which is considered by Natural England to be a key conservation area for barbastelle, and an IRZ of 10km, which is considered by Natural England to be the supporting area for sustenance and wider conservation for barbastelle. It is understood that this species can travel up to 20km providing there are suitable commuting corridors, such as woodland edges, hedgerows and rivers, are present and that the habitats present provide sufficient foraging resources to make the longer distance worthwhile **[See reference** 28**]**. However, it is considered unlikely for habitats beyond 10km to represent key habitat that contributes to maintaining the barbastelle population of the SAC.

4.12 The NECAAP is situated 14km from the SAC and is intersected by the city of Cambridge, which is considered to provide unsuitable habitat for barbastelle due to its urban setting. In addition to this, proposed development in NECAAP is focussed in areas of existing developed land, which has limited value for barbastelle to forage and commute. The River Cam is located within the NEC area, however due to the existing area of developed land present and the

location of Cambridge, which fragments the NEC from the SAC, this habitat was not considered to contribute to the offsite habitat network. Due to this and given the distance of the SAC at 14km from the NEC, no likely significant effect is predicted in relation to physical damage and loss of offsite functionally linked habitat, either alone or in-combination with other plans and projects.

Ouse Washes SAC

4.13 The Ouse Washes SAC is designated for supporting populations of spined loach. This species occurs patchily in a variety of waterbodies, including small streams, large rivers and both large and small drainage ditches. Due to the distance of the NEC of 14km from the SAC and the limited dispersal of this species, it was considered unlikely for impacts from NECAAP as a result of physical damage and loss to functionally linked land upon which this species may depend will occur. No likely significant effect is predicted as a result of physical damage and loss, either alone or in-combination with other plans and projects.

Ouse Washes SPA and Ramsar

4.14 The Ouse Washes SPA and Ramsar supports a range of wetland bird species, which may rely on land which is functionally linked to the SPA and Ramsar, but outside the site boundaries. Natural England has advised that their recognised distance for the consideration of offsite functionally linked land is generally 2km, but for certain species, including most notably golden plover and lapwing, a greater distance of 15km may be appropriate. As the SPA and Ramsar do not support either golden plover or lapwing, a distance of 2km was applied. Given the European sites lies 14km from the NEC, no likely significant effect was predicted from physical damage and loss of functionally linked land, either alone or in-combination with other plans and projects.

Non-physical disturbance

4.15 Noise and vibration effects, e.g. during the construction of new housing or employment development, are most likely to disturb bird and bat species and are thus a key consideration with respect to European sites where these species are the qualifying features. Artificial lighting at night (e.g. from streetlamps, flood lighting and security lights) has the potential to affect species where it occurs in close proximity to key habitat areas, such as key roosting sites of SPA birds and movement or feeding areas of SAC bats.

4.16 It has been assumed that the effects of noise, vibration and light are most likely to be significant within a distance of 500 metres. There is also evidence of 300 metres being used as a distance up to which certain bird species can be disturbed by the effects of noise **[See reference** 29**]**; however, it has been assumed (on a precautionary basis) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500 metres of a European site with qualifying features sensitive to these disturbances. All European sites are located over 500m from the NECAAP boundary and as such no likely significant effect was predicted from non-physical disturbance, either alone or in-combination with other plans and projects.

4.17 Non-physical disturbance from development in areas outside of the European site boundaries may result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. European sites with qualifying species that rely on habitat outside of the designated site, include Eversden and Wimpole Woods SAC and Ouse Washes SAC, SPA and Ramsar. For further detail on the use of offsite functional habitat in relation to the NEC refer to section on 'Physical Damage and Loss' para 4.10-4.14 above. Due to the distance of these European sites from the NEC and lack of suitable habitat present for these qualifying species, no likely significant effect was predicted from non-physical disturbance of functionally linked land, either alone or in-combination with other plans and projects.

Air pollution

4.18 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can then affect plant health, productivity and species composition.

4.19 In terms of vehicle traffic, nitrogen oxides (NOx, i.e. NO and NO2) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water.

4.20 Based on the Highways England Design Manual for Road and Bridges (DMRB) LA 105 Air quality (which sets out the requirements for assessing and reporting the effects of highway projects on air quality), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

4.21 For highways developments within 200m of sensitive receptors, the DMRB provides the following screening criteria to ascertain whether there are likely to be significant impacts:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- There will be a change in speed band; or
- Road carriageway alignment will change by 5m or more.

4.22 This, where significant increases in traffic are possible on roads within 200m of European sites, traffic forecast data may be needed to determine if increases in vehicle traffic are likely to be significant. In line with the Wealden judgment **[See reference** 30**]**, the traffic growth considered by the HRA should be based on the effects of development provided for by the plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

4.23 It has been assumed that only those roads forming part of the primary road network (motorways and 'A' roads) are likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution is considered to be the likely outcome.

4.24 The key commuting corridor for new housing and employment development will likely include the A14, A10, A11, A1309, A1428, A603, A1309 and A1307, which are highlighted in Figure 4.1 in Appendix A.

4.25 The following European sites within 15km of North East Cambridge and within 200m of a strategic road include:

- Devil's Dyke SAC (A14, A1034); and
- Ouse Washes SAC, SPA and Ramsar (A1123 and A142).

4.26 In addition to this, it was advised by Natural England that "the HRA should provide sufficient evidence to demonstrate that there is no credible risk of air pollution beyond the 200m threshold that could potentially result in an adverse effect to" Wicken Fen Ramsar, Chippenham Fen Ramsar and Fenland SAC. In line with a precautionary approach, these European sites were considered further in relation to air pollution.

4.27 All other European sites were situated over 200m from a road and were not considered to be susceptible to impacts from air pollution and were therefore screened out of the assessment.

Devil's Dyke SAC

4.28 The SAC lies adjacent to two strategic roads, including the A14 to the north and the A1304 to the south of the European site. A total proportion of 2.3% of the SAC was situated within 200m of the A14 and 7.65% within 200m of the A1304.

4.29 Habitats present within 200m of the strategic roads comprised entirely of lowland calcareous grassland, which is the qualifying feature of the SAC. This habitat has been identified from the corresponding SSSI units to be in favourable condition and based on APIS data is currently exceeding critical level loads with critical level loads ranging between 15-25 kg N/ha/yr and the average critical level load being 15.6 kg N/ha/yr at the SAC. As advised by Natural England “for the purpose of assessing air quality impacts to designated sites the lower critical load limit of the APIS range should be applied”. It can therefore be concluded that existing levels exceed critical levels. There is potential that these air pollutants will modify the chemical status of the habitat’s substrate, accelerating or damaging plant growth, altering vegetation structure and composition and causing the loss of sensitive typical species associated with it.

4.30 A review of traffic data for the Greater Cambridge Local Plan, which included the NEC proposed allocation, provided by Atkins Global identified that the increase in AADT for daily traffic flows and heavy-duty vehicle flows would not exceed the threshold of 1000 AADT and 200 AADT respectively either with or without proposed transport measures **[See reference** 31**]**. Detail of this is presented in Table 4.1 and 4.2 below.

Table 4.1: AADT Figures for Daily Traffic Flows in relation to the A1304 and A14

Road	AADT: Baseline	AADT: Predicted (without transport measures)	AADT: Predicted (with transport measures)	Absolute Difference: Predicted (without transport measures)	Absolute Difference: Predicted (with transport measures)
A1304 (Northbound)	9,192	9,361	9,369	169	178
A1304 (Southbound)	9,606	9,690	9,701	82	92
A14 (Northbound)	40,196	40,552	40,772	355	576
A14 (Southbound)	41,020	41,873	41,759	853	739

Table 4.2: AADT Figures for Heavy Duty Vehicle Flows in relation to the A1304 and A14

Road	AADT: Baseline	AADT: Predicted (without transport measures)	AADT: Predicted (with transport measures)	Absolute Difference: Predicted (without transport measures)	Absolute Difference: Predicted (with transport measures)
A1304 (Northbound)	779	697	716	-82	-63
A1304 (Southbound)	808	654	674	-154	-134
A14 (Northbound)	5,292	5,263	5,255	-30	-37
A14 (Southbound)	5,096	5,238	5,214	141	118

4.31 Therefore, no likely significant effect is predicted in relation Devil's Dyke SAC as a result of increased traffic from proposed development in the NECAAP, either alone or in-combination with other plans and projects.

Ouse Washes SAC, SPA and Ramsar Site

4.32 A small area of the Ouse Washes SAC, SPA and Ramsar site lies within 200m of the A1123. This comprised a total proportion of 0.05% of the SAC and 0.73% of the SPA and Ramsar site.

4.33 Habitats present within 200m of the A1123, included river habitat, which the qualifying species of the SAC, SPA and Ramsar are reliant on, and rough grassland and wet pasture, which the qualifying species of the SPA and Ramsar depend on.

4.34 The SAC supports the spined loach for which the European site is designated for. This qualifying is considered potentially sensitive to changes in air quality, particularly in relation to nitrogen and acidity. A review of APIS data identified this species to have a maximum nitrogen deposition of 9.2 kg N/ha/yr. However, no critical level load has been determined for meso/eutrophic systems, which include this species and will therefore require consideration of potential impacts at a site-specific level.

4.35 In relation to the SPA and Ramsar, which supports a range of qualifying bird species. A review of APIS identified all bird species to have a maximum nitrogen deposition of 19.6 kg N/ha/yr. The hen harrier was the only species found to exceed critical level loads between 10-20 kg N/ha/yr whilst all other qualifying bird species fell just below the critical level load of 20-30 kg N/ha/yr. A small increase in nitrogen deposition levels as a result of air pollution from increased vehicle traffic has the potential to cause the current levels to exceed the lower critical load threshold. This could result in a likely significant effect on the SPA.

4.36 As there are no critical level loads specifically identified in relation to the Ramsar site, the data provided for the SPA was applied the Ramsar site.

4.37 A review of traffic data for the Greater Cambridge Local Plan, which included the NEC proposed allocation, provided by Atkins Global identified that the increase in AADT for daily traffic flows and heavy-duty vehicle flows would not exceed the threshold of 1000 AADT and 200 AADT respectively either with or without proposed transport measures. Detail of this is presented in Table 4.3 and 4.4 below.

Table 4.3: AADT Figures for Daily Traffic Flows in relation to the A142 and A1123

Road	AADT: Baseline	AADT: Predicted (without transport measures)	AADT: Predicted (with mitigation)	Absolute Difference: Predicted (without transport measures)	Absolute Difference: Predicted (with mitigation)
A142 (Northbound)	10,561	10,845	10,853	285	293
A142 (Southbound)	10,878	11,263	11,170	385	292
A1123 (Eastbound)	10,929	11,033	11,033	104	104
A1123 (Westbound)	10,849	10,932	10,918	83	69

Table 4.4: AADT Figures for Heavy Duty Vehicle Flows in relation to the A142 and A1123

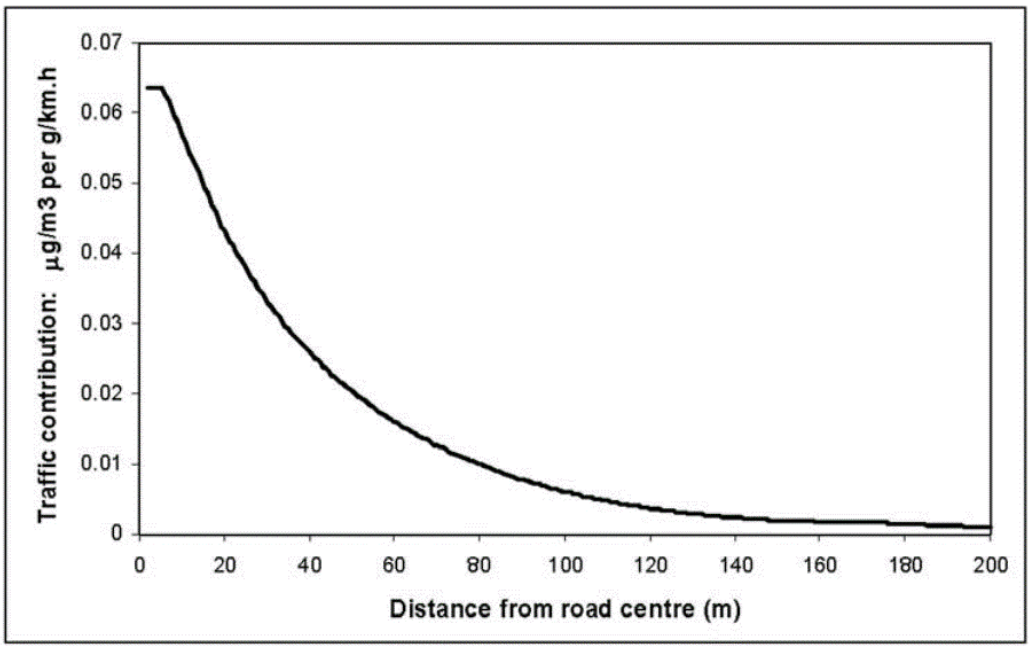
Road	AADT: Baseline	AADT: Predicted (without transport measures)	AADT: Predicted (with transport measures)	Absolute Difference: Predicted (without transport measures)	Absolute Difference: Predicted (with transport measures)
A142 (Northbound)	735	735	735	0	0
A142 (Southbound)	775	774	773	-1	-1
A1123 (Eastbound)	400	404	405	4	5
A1123 (Westbound)	462	474	474	12	12

4.38 Therefore, no likely significant effect is predicted in relation Ouse Washes SAC, SPA and Ramsar as a result of increased traffic from proposed development in the NECAAP, either alone or in-combination with other plans and projects.

Wicken Fen Ramsar, Chippenham Fen Ramsar and Fenland SAC

4.39 Wicken Fen Ramsar and part of Fenland SAC lie 300m from the A1123 at the nearest point and Chippenham Fen Ramsar and part of Fenland SAC lie 460m from the A142. As these European sites fall beyond the 200m threshold where significant effects might occur, no likely significant effects are predicted. This is supported by data provided within the DRMB, which shows that the effects of nitrogen deposition from traffic is reduced dramatically with distance from the road as illustrated by Figure 4.1.

Figure 4.1: Traffic Contribution to Pollutant Concentration at Different Distances from the Road Centre [See reference **32**]



Recreation

4.40 Recreational activities and human presence can result in significant effects on European sites. European sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances from walking, dog walking, angling, illegal use of off-road vehicles and motorbikes, wildfowling, and water sports. In addition, recreation can physically damage habitat as a result of trampling, fire or vandalism and also through erosion associated with terrestrial activities.

4.41 The NECAAP will result in housing growth, and associated population increase in the North East Cambridge. Where increases in population are likely to result in significant increases in recreation at a European site, either alone or in-combination, the potential for likely significant effects will require assessment.

Eversden and Wimpole SAC / Ouse Washes SAC, SPA and Ramsar site / Devil's Dyke SAC

4.42 Following advice provided by Natural England on the draft HRA Scoping Report for the Greater Cambridgeshire Local Plan, a ‘zone of potential risk’ for recreational pressure of 2km and 5km, which has been derived from the Impact Risk Zones (IRZ) has been applied to inform initial impacts to recreation on European sites. IRZs have been developed by Natural England as a tool to define zones of key sensitivities, including recreational pressure to SSSIs from proposed development. Given the overlap between SSSI and European sites, this zone of potential influence can therefore be used to appropriately identify the potential risks to European sites from the NECAAP in this assessment. Table 4.7 below outlines the zones of potential of risk for each European site, which are considered to be at significant risk from recreational pressure.

Table 4.5: Cambridgeshire Recreational Pressure IRZ Component SSSIs

SSSI	Zone of Potential Risk: Higher (H) or Lower (L)
Eversden and Wimpole Woods SAC	H – 5km
Ouse Washes SAC, SPA and Ramsar	L – 2km
Devil's Dyke SAC	H – 5km

4.43 Due to the distance of Eversden and Wimpole Woods SAC, Ouse Washes SAC, SPA and Ramsar and Devil's Dyke SAC from the boundary of the North East Cambridge area (>5km), no likely significant effect is predicted in relation to recreational pressure from proposed development in the NECAAP for these European sites, either alone or in-combination with other plans and projects.

Wicken Fen Ramsar

4.44 No zone of potential risk was identified for Wicken Fen Ramsar. However, in line with a precautionary approach and following the completion of the visitor surveys within Wicken Fen Vision Area, a Zone of Influence has been applied. The survey data that was collected at the Wicken Fen Main Entrance and found that the majority of visitors travelled between 10km and 20km to visit these sites. Based on these findings and in line with a precautionary approach a ZOI of 20km was applied in this assessment.

4.45 Proposed development in the NECAAP is located 10km from Wicken Fen SAC. As a result, there is potential for likely significant effects to occur in relation to impacts from recreation and therefore requires further consideration at the Appropriate Assessment stage.

Chippenham Fen Ramsar

4.46 No zone of potential risk was identified for Chippenham Fen Ramsar. To ensure that a precautionary approach is taken, this assessment has a applied a 5km zone of potential risk, which is the higher zone of potential risk outlined in Table 4.7. More specific Zone of Influence (ZOI) may be defined following targeted visitor surveys and discussions with land managers, as it is not always appropriate to apply a generic ZOI. It may also for example be possible to extrapolate appropriate ZOIs from studies and approaches used for similarly comparable sites elsewhere in the UK. Due to the distance of this Ramsar site from the boundary of the NECAAP area (>5km), no likely significant effect is predicted in relation to recreational pressure from proposed development in the NECAAP for this European site, either alone or in-combination with other plans and projects.

Fenland SAC

4.47 No zone of potential risk was identified for Fenland SAC. However, as this site overlaps with both Wicken Fen Ramsar and Chippenham Fen Ramsar, the respective ZOI have been applied. Based on this, likely significant effects are predicted only in relation to the part of the SAC, which overlaps the same location as Wicken Fen Ramsar. Impacts from recreation to the area of SAC, which overlaps Chippenham Fen Ramsar, is therefore screened from the assessment.

4.48 Likely significant effects relating to recreational pressure could not be screened out in relation to Wicken Fen Ramsar and Fenland SAC and will therefore require further consideration at the Appropriate Assessment.

Water quantity and quality

4.49 North East Cambridge area is located in one of the driest in the UK and has been identified as an area of serious water stress. The area has experienced lower than average rainfall over several years, leading to local concerns regarding environmental impact on watercourses, in particular chalk streams. An increase in demand for water abstraction and treatment resulting from the growth proposed in the Strategic Plan could result in changes in hydrology at European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in likely significant effects, for example, due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions.

4.50 The following European sites have been identified to support habitats and/or qualifying species, which are susceptible to impacts from changes in water quantity and quality. This included:

- Ouse Washes SAC, SPA and Ramsar.
- Wicken Fen Ramsar.
- Chippenham Fen Ramsar.
- Fenland SAC.

4.51 Eversden and Wimpole Woods SAC and Devil's Dyke SAC support habitats, which are not considered susceptible to impacts from water and therefore changes in water quantity and quality as a result of proposed growth in the NECAAP are not predicted to result in a likely significant effects, either alone or in-combination with other plans and projects.

Ouse Washes SAC, SPA and Ramsar

4.52 Impacts from water pollution and changes in hydrology are considered in the Standard Data Forms and Natural England SIP to be key threats to the Ouse Washes SAC, SPA and Ramsar site.

4.53 The Great River Ouse within which the SAC, SPA and Ramsar site is hydrologically connected to the River Cam and to a number of small watercourses to the north-west of the NEC area. In particular, there is potential for changes in the flow and volume of water entering the River Cam and Ely Ouse associated with the proposed development to result in reduced flow downstream of the Denver, which may exacerbate existing siltation problems. This is known to have a knock-on effect onto the Hundred Foot River, which has a significant effect on increased and prolonged flooding at the Ouse Washes SAC, SPA and Ramsar site.

4.54 There is potential for likely significant effect to occur in relation to Ouse Washes SAC, SPA and Ramsar from changes in demand and water treatment and therefore this effect is considered further at the Appropriate Assessment stage.

Wicken Fen Ramsar

4.55 Wicken Fen Ramsar is one of Europe's most important wetlands supporting fen habitat and is one of the few fens that has not been drained. Although, impacts from water pollution or hydrological changes have not been highlighted as a key threat within the Ramsar Information Sheet, this habitat is known to be highly sensitive to changes in the quality and quantity of water supply.

4.56 Natural England have detailed that the hydrology of the Wicken Fen is not well understood but that there are indications that the water present within this European site is fed by groundwater. Due to the location of the site and

chemistry of the water, it is expected that the designated site lies outside of the influence of the Cambridge chalk aquifer. However, given the reliance of the qualifying habitats and species on water and the continued uncertainty on the potential impacts of proposed growth from the NECAAP a precautionary approach has been applied.

4.57 There is potential for likely significant effect to occur in relation to Wicken Fen Ramsar site from changes in demand and water treatment and therefore this effect is considered further at the Appropriate Assessment stage.

Chippenham Fen Ramsar

4.58 Chippenham Fen Ramsar supports fenland and grassland habitat and associated invertebrate species, which is dependent upon an adequate supply of high-quality water from the chalk aquifer that supplies the Greater Cambridge area in which proposed development in the NECAAP will be located. There is potential for likely significant effect to occur in relation to Chippenham Fen Ramsar site from changes in demand and water treatment and therefore this effect is considered further at the Appropriate Assessment stage.

Fenland SAC

4.59 Fenland SAC supports qualifying habitats and species, which are reliant on water. This includes fen habitat, which is highly sensitive to changes in water quantity and quality, and spined loach, which uses the waterbodies in Wicken Lode and are connected to the River Cam. It should be noted that this species has limited dispersal so would only likely be affected by changes to water quantity and quality in areas within or near to the European site.

4.60 In addition to this, the SAC is designated for supporting great crested newts. As this species is known to use ponds, which are fed entirely by rainfall, no likely significant effects are considered in relation to this species as a result of increased demand and treatment of water from the NECAAP.

4.61 The SAC overlaps Wicken Fen Ramsar and Chippenham Fen Ramsar and as such the details presented above in relation to impacts from water quantity and quality for these European sites apply to this SAC. Due to the reliance of this habitat on water that is hydrologically connected to the River Cam and reliance on groundwater from chalk aquifer that supplies Greater Cambridge area in which proposed development in the NEC will lie, there is potential for likely significant effect to occur in relation to Fenland SAC from changes in demand and water treatment and therefore this effect is considered further at the Appropriate Assessment stage.

Summary of Screening Assessment

4.62 Table 4.8 below summarises the Screening conclusions reached in this HRA. Impact types for which a conclusion of No likely significant effect (No LSE) was reached are shown with no colour. Those potential impacts where likely significant effects (potential LSE) could not be ruled out are shown in orange and these are considered in more detail at the Appropriate Assessment stage in Section 5.

Table 4.6: Summary of Screening Assessment

European Site	Physical Damage and Loss	Non-physical Disturbance	Air Pollution	Recreation	Water Quantity and Quality
Eversden and Wimpole Woods SAC	No LSE	No LSE	No LSE	No LSE	No LSE
Ouse Washes SAC	No LSE	No LSE	No LSE	No LSE	Potential LSE
Devil's Dyke SAC	No LSE	No LSE	No LSE	No LSE	No LSE
Fenland SAC	No LSE	No LSE	No LSE	Potential LSE	Potential LSE
Ouse Washes SPA	No LSE	No LSE	No LSE	No LSE	Potential LSE
Ouse Washes Ramsar	No LSE	No LSE	No LSE	No LSE	Potential LSE
Wicken Fen Ramsar	No LSE	No LSE	No LSE	Potential LSE	Potential LSE
Chippenham Fen Ramsar	No LSE	No LSE	No LSE	No LSE	Potential LSE
Portholme SAC	No LSE	No LSE	No LSE	No LSE	Potential LSE

Chapter 5

Appropriate Assessment

5.1 Following the screening stage, the plan-making authority is required under Regulation 105 of the Habitats Regulations 2017 (as amended) to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives.

5.2 European Commission Guidance **[See reference** 33**]** states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function.

5.3 This stage seeks to determine whether implementation of the NECAAP will result in an adverse effect on the integrity of the whole European site in question (many European sites are made up of a number of fragments of habitat). It also considers the potential for in-combination effects from development proposed in neighbouring authorities' Local Plans or from major infrastructure projects. Consideration was given to mitigation measures that may be included in the NECAAP to reduce the likelihood and significance of effects on European sites.

5.4 A European site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a European site's conservation objectives is realised and where the European site is capable of self-repair and renewal with a minimum of external management support.

5.5 Likely significant effects arising from the plan, either alone or in-combination, were identified for the following sites and impact types:

5.6 Recreation – in relation to Wicken Fen Ramsar SAC and Fenland SAC.

5.7 Water quantity and quality – in relation to Ouse Washes SAC, SPA and Ramsar, Wicken Fen Ramsar SAC, Chippenham Fen Ramsar SAC and Fenland SAC.

5.8 Appropriate Assessment has been undertaken for these European sites to determine whether the plan will result in Adverse Effects on Integrity.

5.9 The Appropriate Assessment focuses on those impacts that are judged likely to have a significant effect on the qualifying features of a European site, or where insufficient certainty regarding this remained at the screening stage. As described in Chapter 1, a conclusion needs to be reached as to whether or not a policy or site allocation in the plan would adversely affect the integrity of a European site. To reach a conclusion, consideration was given to whether the predicted impacts of the proposals (either alone or in combination) have the potential to:

- Delay the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.

5.10 The conservation objectives for the above European sites are to ensure that the integrity of the site is maintained or restored as appropriate, and to ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats.
- The structure and function (including typical species) of qualifying natural habitats.
- The supporting processes on which qualifying natural habitats rely.

- The structure and function of the habitats of qualifying species.
- The populations of qualifying species.
- The distribution of qualifying species within the site.

Recreation

Wicken Fen Ramsar / Fenland SAC

5.11 Wicken Fen Ramsar and a component part of Fenland SAC, which overlaps with the Ramsar site, are located 10km to the north-east of Greater Cambridge boundary and is subject to high levels of recreation every year. The National Trust records over 65,000 visitors at their visitor centre with more people using the access network in the Wicken Fen Vision Area each year **[See reference** 34**]**. Following a recent visitor study in 2019 of the Wicken Fen Vision Area, visitors to these European sites comprised of first-time visitors travelling a greater distance in the wider area and visitors from the local area who visit the site two to three times a month.

5.12 Key activities undertaken by visitors to the European site included walking and dog walking. Other activities recorded at lower levels included cycling, bird/wildlife watching and photography. These activities have the potential to adversely affect qualifying habitats of the Ramsar site and SAC, which are fragile and susceptible to damage and disturbance to vegetation from trampling and illegal activities, such as bonfires and vandalism to contamination from litter and dog fouling and disturbance of livestock from dogs, which prevents the successful management of habitats being grazed.

5.13 Although, the Information Sheet on Ramsar Wetlands for Wicken Fen Ramsar and the Standard Data Form and Natural England Site Improvement Plan for Fenland SAC do not highlight recreation as a key threat, due to the high levels of visitors to these designated sites there is potential for impacts to the qualifying feature of the Ramsar site from recreational pressure to occur.

5.14 As detailed in the Screening Assessment, a ZOI of 20km has been applied in this assessment. This is based on visitor data that was completed in 2019 at Wicken Fen Ramsar, which identified the majority of visitors to travel between 10km and 20km to the site. Proposed development as part of the NECAAP will be located 10km from the Ramsar site and SAC and as such has potential to result in increased recreational pressure that will significantly affect the integrity of these European sites through cumulative impacts with other plans and projects.

5.15 In light of the above information, it is recommended that mitigation measures as detailed below, and which are designed to address the cumulative impacts of increased recreation on the SAC as a result of the plan are implemented to ensure a sufficient level of certainty in concluding that the plan will not result in adverse effects on the integrity of the SAC.

Mitigation

5.16 Wicken Fen Ramsar and component Fenland SAC are managed by the National Trust. There are existing measures in place, which will to some extent provide a level of mitigation for recreation at these European sites. These measures include controlling access at certain locations in the designated site by requiring permits before entry (albeit not entirely due to the presence of open access points and public rights of way), zoning remote areas away from the central hub to protect habitats from damage and disturbance and engaging with visitors at their visitor centre. In line with recommendations provided by Natural England, further advice has been sought from the National Trust with regards to mitigation from recreational impact, however no response has been provided on this to date.

5.17 In addition to this, safeguards and mitigation measures in relation to recreational pressure will be delivered in the plan. This includes:

Policy 8: Open spaces for recreation and sport

- Development proposals will be required to make provision for new or enhanced open space and recreation sites. This will be provided for in line with the Cambridge City local standards of provision of all relevant types of open space and the Councils' open space and sports strategies, where applicable.
- Development proposals in the NECAAP will make provision for and deliver a total of 22.54ha of additional open space alongside the protection of existing open space located at Cambridge Science Park and St John's Innovation Parks. All informal open space requirements are expected to be met within the North East Cambridge area.
- Applicants for development proposals will be required to deliver open space and to secure it in perpetuity, including appropriate arrangements for its future management and maintenance.
- Specific off-site contributions will be sought towards a new pedestrian/cycle bridge over the railway to improve recreational access to the River Cam and wider countryside as part of the wider green infrastructure network. This will complement and connect the NEC with existing open space in the immediate surrounds.
- Protection of existing open spaces, including Cambridge Science Park and St John's Innovation Parks.
- All residential housing proposed in the plan will be delivered within a five-minute walk of an open space and will also align with Natural England Accessible where all homes will be within 300m of an open space (>2ha).

Policy 5: Biodiversity and Net Gain

- Protection and enhancement of habitats to ensure a coherent and high-quality ecological network in North East Cambridge and the surrounding areas.

- All development will be required to avoid any adverse impacts on the conservation value of any designated environmental and nature conservation sites and protected habitats.

Policy 27: Planning Contributions

- All new development proposals within NEC are required to contribute towards the necessary supporting infrastructure, through both on-site provision and financial contributions to relevant area-wide requirements. This includes for management and maintenance of strategic infrastructure, including green infrastructure.

5.18 Beyond the above policy mitigation, additional mitigation is also proposed via the emerging Greater Cambridge Local Plan, which includes the North East Cambridge site allocation. The Greater Cambridge Green Infrastructure Opportunity Mapping, evidence report, which has informed the Local Plan, outlines existing areas of green infrastructure and the associated initiatives in place, which can be relied on to provide mitigation for recreational demand in the local area. Further to this, the Green Infrastructure Opportunity Mapping Recommendations report identifies specific initiatives to be embedded into the emerging Local Plan, that will ensure that the existing green infrastructure network is enhanced and provides alternative opportunities from the European site for people to enjoy nature. Although, given their early stage of development, the potential opportunities detailed in the Opportunity Mapping cannot be relied upon in the Area Action Plan as mitigation, it is likely that these initiatives will provide additional mitigation for recreational demand in future.

Conclusion

5.19 Provided that the above policy mitigation, as incorporated into the Proposed Submission NECAAP, is implemented successfully, adverse effects on the integrity of the Wicken Fen Ramsar site and Fenland SAC, as a result of impacts from recreation will be avoided.

Water quantity

Ouse Washes SAC, SPA and Ramsar / Wicken Fen Ramsar Site / Chippenham Fen Ramsar Site / Fenland SAC

5.20 These European sites support qualifying habitats and species as detailed in the Screening Assessment in Chapter 4, which are reliant on water resources that are used to supply the Greater Cambridge area within which the North East Cambridge area lies. Due to this, an increase in demand for water as a result of development proposed in the NECAAP has the potential to adversely affect the qualifying features of these European sites.

Water Resources Management Plan

5.21 North East Cambridge potable water is supplied by Cambridge Water. Water companies have a statutory duty to establish how planned development in their area can be serviced. These plans are set out in their Water Resources Management Plan (WRMP) **[See reference** 35**]**. Investments to deliver the plans are based on five-year planning cycles known as Asset Management Periods (AMP) so the water company programme for water infrastructure upgrades may constrain the rate at which residential growth can be supported.

5.22 Cambridge Water published its latest WRMP in December 2019 for the period 2020 to 2045. This plan outlines how they will continue to meet the demand for water in the Cambridge region. The WRMP outlines that Cambridge Water supplies public water to a network of five supply zones, which lie within a single Water Resource Zone (WRZ). The Cambridge Zone is the largest of the five supply zones and has been highlighted to have “sources which supply water direct into this zone provide more water than is needed there to meet demand”. The water resources supplied to development within the WRZ is

supplied by groundwater (90%), mainly abstracted from the chalk aquifer (97%) in the southern and eastern part of the supply area, with a small percentage of greensand aquifer (3%) sources. Abstraction from surface waterbodies are limited in this region due to the low flows of the chalk-fed rivers making large abstractions of water from surface water unsuitable. As such, surface water abstractions are restricted to agricultural uses, with the majority of the larger surface water abstracted located on the lower River Cam and River Great Ouse.

5.23 The Cambridge Water supply region lies adjacent to Affinity Water to the north and Anglian Water to the north, east and west. These water companies also abstract from the same underlying Chalk aquifer and as such any increase in development as a result of the NECAAP has the potential to result in an adverse effect on European sites susceptible to impacts from water in-combination with development in areas outside of the NECAAP area. To account for this a regional approach to water resource management planning is now being led by Water Resources East, to take into account all demands on the regional groundwater resource.

Catchment Abstraction Licencing Strategy (CALS)

5.24 The Environment Agency is responsible for managing water resources in England. The Environment Agency controls how much water is abstracted with a permitting system, regulating existing licences and granting new ones. It uses the CALS process and abstraction licensing strategies to do this. The CALS process aims to aid the meeting of the environmental objectives of the Water Framework Directive by:

- Providing a water resource assessment of rivers, lakes, reservoirs, estuaries and groundwater referred to as water bodies under the Water Framework Directive (WFD).
- Identifying water bodies that fail flow conditions expected to support good ecological status.

- Preventing deterioration of water body status due to new abstractions.
- Providing results which inform River Basin Management Plans (RBMPs).

5.25 The North East Cambridge area is located within the Cam and Ely Ouse abstraction area for which the most recent CALS was published in 2017 **[See reference** 36**]**. The CALS identify that the main water resources pressures are extensive water supply abstraction along with river support schemes and water transfers.

5.26 The CALS process has developed a classification system in order to inform the abstraction process. This classification provides an indication of:

- The relative balance between the environmental requirements for water and how much is licensed for abstraction.
- Whether water is available for further abstraction.
- Areas where abstraction may need to be reduced.

5.27 There is no water available for licencing for new surface water abstraction for most flow scenarios in Greater Cambridge within in which the NECAAP lies. Water is restricted during high flows (Q30) and is not available during medium to low flows (Q50, 70 and 95).

5.28 In relation to groundwater abstraction, the CALS states:

> "Water not available for licensing; groundwater unit balance shows more water has been abstracted based on recent amounts than the amount available; no further consumptive licences will be granted."

5.29 As a result, there is no water available for new consumptive abstraction licences from groundwater in North East Cambridge.

5.30 Where water abstractions cause or potentially cause environmental damage, existing licences may need to be revoked or changed in order to achieve a sustainable outcome. The CALS identify a number of designated sites (SAC/SPA/SSSI) where flows have fallen below the Environmental Flow Indicator (EFI). The relevant abstraction licences are therefore being assessed under the Environment Agency's Restoring Sustainable Abstraction (RSA) programme to assess impact and mitigation options. The CALS identify that all existing and new abstraction licences have been or are currently being assessed in order to make sure they are not impacting nationally or internationally designated sites.

Mitigation

5.31 The Greater Cambridge Integrated Water Management Study (IWMS): Outline Water Cycle Study has detailed that there is currently no further "capacity for future development outside of the WRMP to be supplied with water by increased abstraction from the chalk aquifer. To meet future demands, potable water supplies will need to be increased in other ways, such as through reduced usage (demand management), reduced leakage, licence trading, and the development of new supply options at the regional scale (e.g. importing water from outside of the Cambridge Water supply area and through the provision of new water resource options, such as the Fens Reservoir)".

5.32 To ensure that impacts arising from increased demand in water supply are avoided and mitigated for, the NECAPP provides protection measures through Policy 4b: Water quality and ensuring supply, which stipulates:

> "Planning applications will be required to demonstrate that all proposed development will be served by an adequate supply of water that will not cause unacceptable environmental harm... Where development is being phased, each phase must demonstrate sufficient water supply and waste water conveyance, treatment and discharge capacity. A planning condition or obligation may be secured to ensure all necessary works relating to

water supply, quality and wastewater have been carried out prior to development being occupied."

5.33 The mitigation measures provided through Policy 4b: Water Quality and ensuring supply will ensure that no development comes forward until an adequate water supply can be implemented and as such will ensure that no adverse effects to European sites will occur as a result of the plan. However, it is recognised that there are significant water supply issues in the region, which will need to be taken into account to ensure that there is sufficient supply available for development as part of the NECAAP. To ensure that future demand for water can be supplied, strategic resources currently are being identified by Water Resource East (WRE) as part of the regional plan for water resources and are expected to provide appropriate measures to supply the region in which the NECAAP lie. This plan is due to be completed by 2023 prior to the Proposed Submission consultation of the NECAAP being carried out in early 2024, and therefore also ahead of the subsequent submission and examination stage, and as such will provide the necessary evidence to meet the policy requirement.

5.34 Additional protection measures are outlined in Policy 4a: Water Efficiency, which reduces the demand for water supply by ensuring high levels of water efficiency in new developments. This policy specifies that:

"Proposals for residential developments must achieve mains water efficiency standards equivalent to 80 litres/person/day and non-residential development maximum BREEAM credits for water use (Wat 01)."

5.35 This requirement goes further than the proposed 110 litres/person/day, which is being encouraged by the WRE and is a higher standard than the current optional building regulations standard. The supporting text to the policy explains that increased standards of water efficiency for Greater Cambridge are also supported by Cambridge Water, Water Resources East, and the Environment Agency. Also, the shared regional principles for protecting,

restoring and enhancing the environment in the Oxford-Cambridge Arc are clear that they will encourage local partners to exceed minimum standards required by building regulations on issues such as water consumption, and that they will be working with Government on this issue. The Greater Cambridge IWMS considers that these highly water efficient levels are achievable by making full use of water re-use measures on site including rainwater harvesting and grey water recycling.

Conclusion

5.36 Provided that the above policy mitigation incorporated into the plan is implemented successfully, and that the WRE Water Management Plan identifies adequate new water supply sources and is in place prior to adoption of the plan, adverse effects on the integrity of the Ouse Washes SAC, SPA and Ramsar / Wicken Fen Ramsar Site / Chippenham Fen Ramsar Site / Fenland SAC will be avoided.

Water quality

Ouse Washes SAC, SPA and Ramsar / Wicken Fen Ramsar Site / Chippenham Fen Ramsar Site / Fenland SAC

5.37 The public sewers in North East Cambridge and the Cambridge Wastewater Recycling Centre (WRC) are operated and maintained by Anglian Water. Whilst the Environment Agency is responsible for regulating wastewater treatment works, by issuing permits and assessing the quality of treated effluent against compliance limits.

5.38 An increase in demand for wastewater treatment as a result of development in the NECAAP in combination with other plans and neighbouring boroughs and districts in the region has the potential to adversely affect the integrity of European sites that are susceptible to impacts from water.

5.39 New development proposed has the potential to result in the following:

- Increased volumes of treated wastewater discharges, resulting in nutrient enrichment of water and potential lowering of dissolved oxygen as well as increased water velocities and levels downstream of WRC outfalls.
- Overloading of the combined sewer network during storm events with the potential for flooding and contamination of hydrologically connected European sites to the River Cam and Great River Ouse.
- Increase in the area of urban surfaces and roads could increase the potential for contaminated surface runoff and the contamination of hydrologically connected European sites to the River Cam and Great River Ouse.

Mitigation

5.40 Increases in demand for wastewater treatment as part of the proposed development in the NECAAP will be dealt with through the relocation of the Cambridge WRC, on which the AAP is predicated having taken place. This will increase capacity from its existing population of 213,649 to a proposed 300,000 and will enable the regeneration of North East Cambridge. The existing Cambridge WRC is currently exceeding its DWF permit, and Anglian Water are negotiating a variation with the Environment Agency.

5.41 Proposed development as part of the NECAAP relies on the implementation of the relocated WRC, which Anglian Water are progressing in a separate process to the plan as part of a Development Consent Order. As such, the majority of development as part of the NECAAP will not be implemented until the WRC is relocated and sufficient capacity is in place. Limited development will be granted provided the applicant for proposed development

can demonstrate there is sufficient sewage treatment capacity to ensure no adverse effects on the integrity of any European sites. This is supported by safeguards and mitigation measures in the plan as part of Policy 4b: Water quality and ensuring supply, which stipulates:

> "Planning applications will be required to demonstrate…that there is appropriate sewerage infrastructure and that there is sufficient sewage treatment capacity to ensure that there is no deterioration of water quality. Where development is being phased, each phase must demonstrate sufficient water supply and waste water conveyance, treatment and discharge capacity. A planning condition or obligation may be secured to ensure all necessary works relating to water supply, quality and wastewater have been carried out prior to development being occupied."

5.42 In addition, this policy provides the following protection measures:

> "All development proposals should include an assessment of the measures taken to protect and enhance water quality within the surrounding water environment."

5.43 In addition, Policy 4a: Water efficiency ensures that residential development achieves water efficiency standards of 80 litres/person/day to reduce the demand for wastewater treatment and Policy 4c: Flood Risk and Sustainable Drainage requires that development includes a suitable Sustainable Drainage System (SuDS) in line with best practice which will have multiple benefits including minimising surface water run-off rates from development and helping to improve the quality of the run-off.

Conclusion

5.44 Provided that appropriate infrastructure with sufficient capacity for increased demand in wastewater treatment as part of the NECAAP is delivered as part of the relocation of the Cambridge WRC being undertaken by Anglian Water and that mitigation measures in the plan are delivered successfully, adverse effects on the integrity of the Ouse Washes SAC, SPA and Ramsar, Wicken Fen Ramsar, Chippenham Fen Ramsar and Fenland SAC, as a result of impacts from water quality will be avoided.

Summary of Appropriate Assessment

5.45 The conclusions of the Appropriate Assessment are summarised in Table 5.1:

- The European sites that are shown as screened out with no colour indicate sites that were considered to have no likely significant effect at the screening stage.
- The European sites highlighted in grey were found to have no adverse effect on integrity (AEoI) provided the mitigation measures detailed in Chapter 5 are implemented.

Table 5.1: Summary of Appropriate Assessment

European Site	Physical Damage and Loss	Non-physical Disturbance	Air Pollution	Recreation	Water Quantity and Quality
Eversden and Wimpole Woods SAC	Screened Out	Screened Out	Screened Out	Screened Out	Screened Out
Ouse Washes SAC	Screened Out	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity
Devil's Dyke SAC	Screened Out	Screened Out	Screened Out	Screened Out	Screened Out
Fenland SAC	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity	No Adverse Effect on Integrity
Ouse Washes SPA	Screened Out	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity
Ouse Washes Ramsar	Screened Out	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity
Wicken Fen Ramsar	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity	No Adverse Effect on Integrity
Chippenham Fen Ramsar	Screened Out	Screened Out	Screened Out	Screened Out	No Adverse Effect on Integrity

Chapter 6

Conclusion and Next Steps

6.1 At the Screening stage, likely significant effects on European sites, either alone or in combination with other policies and proposals, were identified for plan policies:

- Policy 1: A comprehensive approach at North East Cambridge
- Policy 10b: District Centre
- Policy 10c: Science Park Local Centre
- Policy 10d: Station Approach
- Policy 10e: Cowley Road and Greenway Local Centre
- Policy 12a: Business
- Policy 12b: Industry, storage and distribution
- Policy 13a: Housing Provision

6.2 The findings of the HRA screening determined that impacts from recreation and water quantity and quality could result in a likely significant effect in relation to:

- Recreation – in relation to Wicken Fen Ramsar SAC and Fenland SAC.
- Water quantity and quality – in relation to Ouse Washes SAC, SPA and Ramsar site, Wicken Fen Ramsar site, Chippenham Fen Ramsar site and Fenland SAC.

6.3 The Appropriate Assessment stage identified whether the above likely significant effects will, in light of mitigation and avoidance measures, result in adverse effects on integrity of the European sites either alone or in-combination with other plans or projects. The findings of the Appropriate Assessment are detailed below.

Recreation

6.4 The Appropriate Assessment concluded no adverse effect on integrity as a result of increased recreational pressure in relation to Wicken Fen Ramsar site and Fenland SAC provided that the following safeguards and mitigation measures required by the plan in Policy 8: Open spaces for recreation and sport, Policy 5: Biodiversity and Net Gain and Policy 27: Planning Contributions are successfully implemented. This includes:

Policy 8: Open spaces for recreation and sport

- Development proposals will be required to make provision for new or enhanced open space and recreation sites. This will be provided for in line with the Cambridge City local standards of provision of all relevant types of open space and the Councils' open space and sports strategies, where applicable.
- Development proposals in the NECAAP will make provision for and deliver a total of 22.54ha of additional open space alongside the protection of existing open space located at Cambridge Science Park and St John's Innovation Parks. All informal open space requirements are expected to be met within the North East Cambridge area.
- Applicants for development proposals will be required to deliver open space and to secure it in perpetuity, including appropriate arrangements for its future management and maintenance.
- Specific off-site contributions will be sought towards a new pedestrian/cycle bridge over the railway to improve recreational access to the River Cam and wider countryside as part of the wider green infrastructure network. This will complement and connect the NEC with existing open space in the immediate surrounds.
- Protection of existing open spaces, including Cambridge Science Park and St John's Innovation Parks.

- All residential housing proposed in the plan will be delivered within a five-minute walk of an open space and will also align with Natural England Accessible where all homes will be within 300m of an open space (>2ha).

Policy 5: Biodiversity and Net Gain

- Protection and enhancement of habitats to ensure a coherent and high-quality ecological network in North East Cambridge and the surrounding areas.
- All development will be required to avoid any adverse impacts on the conservation value of any designated environmental and nature conservation sites and protected habitats.

Policy 27: Planning Contributions

- All new development proposals within NEC are required to contribute towards the necessary supporting infrastructure, through both on-site provision and financial contributions to relevant area-wide requirements. This includes for management and maintenance of strategic infrastructure, including green infrastructure.

Water quantity

6.5 The Appropriate Assessment concluded no adverse effect on integrity as a result of increased demand for water supply in relation to Ouse Washes SAC, SPA and Ramsar, Wicken Fen Ramsar, Chippenham Fen Ramsar and Fenland SAC provided that the safeguards and mitigation measures required by the plan in Policy 4a: Water Efficiency and Policy 4b: Water quality and ensuring supply are successfully implemented and that the WRE Water Management Plan with adequate new water supply sources identified is in place prior to adoption of the plan. This includes measures to ensure all new development meet high water efficiency standards and that adequate supply can be demonstrated before any development is permitted.

Water quality

6.6 The Appropriate Assessment concluded no adverse effect on integrity as a result of increased demand for water supply in relation to Ouse Washes SAC, SPA and Ramsar, Wicken Fen Ramsar, Chippenham Fen Ramsar and Fenland SAC provided that appropriate wastewater treatment infrastructure with sufficient capacity is delivered as part of the relocation of the Cambridge WRC being undertaken by Anglian Water.

6.7 Additional mitigation measures are also implemented through Policy 4b: Water quality and ensuring supply, which requires all new development to demonstrate appropriate sewerage infrastructure and that there is sufficient sewage treatment capacity before development is permitted and through Policy 4a: Water Efficiency, which ensure high water efficiency standards and Policy 4c: Flood Risk and Sustainable Drainage requires that development includes a suitable Sustainable Drainage System (SuDS) in line with best practice which will have multiple benefits including minimising surface water run-off rates from development and helping to improve the quality of the run-off.

Next steps

6.8 HRA is an iterative process and as such may need to be updated in light of newly available evidence and comments from key consultees. This report will be subject to consultation with Natural England and the Environment Agency alongside the Regulation 19 NECAAP document to confirm that the conclusions of the assessment are considered appropriate at this stage of plan-making. Previous consultation was undertaken with Natural England for the HRA of Draft NECAAP in May 2020 and has been taken into consideration in this report.

6.9 There may be a need for an HRA Addendum to be prepared during the Examination of the NECAAP if a number of Main Modifications are proposed and consulted upon, or to take into account formal agreements of mitigation.

Appendix A

Figures

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Figure A.1: European Sites within 15km of North East Cambridge AAP

Ouse Washes (Ramsar, SPA, SAC)
Portholme (SAC)
Wicker Fen (Ramsar, SAC)
Chippenham Fen (Ramsar, SAC)
Devils Dyke (SAC)
Eversden and Wimpole Woods (SAC)
A142
A141
A14(M)
A1(M)
Godmanchester
St Ives
Soham
Northstowe
A14
A10
A1
St Neots
A428
A1303
Newmarket
A11
Gog Magog Hills
M11
Sandy
Potton
Biggleswade
A505
Royston
Saffron Walden
Stotfold
Baldock
Letchworth
N
0
5
10
km
Map scale 1:180,000 @ A3

- North East Cambridge Boundary
- North East Cambridge Boundary 15km Buffer
- South Cambridgeshire
- Cambridge City
- Special Area of Conservation
- Special Protection Area
- Ramsar Sites

CB:CB EB:Packham_B LUC APNDX1_10860_NE_CAMBS_EuropeanSites_r1_A3L 10/12/2019
Source: NE, OS

South Cambridgeshire District Council

LUC

Figure A.2: Strategic Roads within North East Cambridge

Ouse Washes (Ramsar, SPA, SAC)
Portholme (SAC)
Wicker Fen (Ramsar, SAC)
Chippenham Fen (Ramsar, SAC)
Devils Dyke (SAC)
Eversden and Wimpole Woods (SAC)
Gog Magog Hills
Huntingdon
Godmanchester
St Ives
Northstowe
Soham
Newmarket
St Neots
Sandy
Potton
Biggleswade
Royston
Saffron Walden
Stotfold
Baldock
Letchworth
A14(M)
A1(M)
A141
A142
A14
A10
A1
A428
A1307
A11
M11
A505

North East Cambridge Boundary
North East Cambridge Boundary 15km Buffer
South Cambridgeshire
Cambridge City
Strategic Road
Special Area of Conservation
Special Protection Area
Ramsar Sites

0 5 10 km

Map scale 1:180,000 @ A3

CB:CB EB:Packham_B LUC APNDX3_10860_NE_CAMBS_Roads_r1_A3L 10/12/2019
Source: NE, OS

South Cambridgeshire District Council

Appendix B

Attributes of European Sites

B.1 This appendix contains information about the European sites scoped into the HRA. Information about each site's area, the site descriptions, qualifying features and pressures and threats are drawn from Natural England's Site Improvement Plans (SIPs) **[See reference** 37**]**, Standard Data Forms or Ramsar Information Sheets available from the JNCC website **[See reference** 38**]** and Supplementary Advice Notes **[See reference** 39**]**, which advise on the sites features and how to implement the conservation objectives. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs **[See reference** 40**]**.

Eversden and Wimpole Woods SAC

Summary of reasons for designation

Qualifying species:

- S1308 Barbastelle Barbastella barbastellus which is a medium sized species of bat and is one of the UK's rarest mammals. Breading season for Barbastelle bat is between April and September **[See reference** 41**]**.
- The site is ancient woodland of ash-maple type which is now localised and in lowland England as a whole. Eversden and Wimpole Woods is one of the largest remaining woods of its type on the chalky boulder clay in Cambridge and contains a rich assemblage of woodland plants including some uncommon species such as the Barbastelle bat. The bats use the trees as a summer maternity roost where female bats gather to give birth to their young. The woodland is also used as a foraging area by the bats

and it is also a flight path when they are foraging outside the site **[See reference** 42**]**.

European site pressures and threats

Feature location / extent / condition unknown

- Two transects within the site are monitored each year as part of the National Bat Monitoring Programme (NBMP) however, there is some evidence that there could be other important foraging sites and other Barbastelle roosts close but not within the site.

Offsite habitat availability

- The bats have a limited area to roost and forage within the site and it is unclear which habitats they use in the wider countryside. Additional suitable habitat should be identified and managed long-term to improve and maintain it, in order to maintain a sustainable population. Local landowners should be given advice on how to manage important bat habitats.

Forestry and woodland management

- The woodland the bats depends on must be maintained in medium to longer term by ensuring that tall trees, especially oak, grow up to replace those currently in place.

Air pollution: Impact of atmospheric nitrogen deposition

- Nitrogen deposition exceeds site-relevant critical loads in the ancient woodland used by Barbastelle bats as a summer maternity roost where

female bats give birth and for foraging therefore, there is a risk of harmful effects on the bats **[See reference** 34**]**.

Conservation objectives

- Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:
  - The extent and distribution of the habitats of qualifying species.
  - The structure and function of the habitats of qualifying species.
  - The supporting processes on which the habitats of qualifying species rely.
  - The populations of qualifying species.
  - The distribution of qualifying species within the site **[See reference** 43**]**.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- Depends upon the maintenance of the extent, connectivity and quality of key habitat types for movement and foraging within the landscape including woodlands, treelines, linear ecological corridors such as rivers and species rich open habitats such grasslands, heathlands and wetlands.

Other comments

- None.

Devil's Dyke SAC

Devil's Dyke consists of a mosaic of CG3 Bromus erectus and CG5 Bromus erectus – Brachypodium pinnatum calcareous grasslands. It is the only known UK semi-natural dry grassland site for lizard orchid Himantoglossum hircinum.

Summary of reasons for designation

Annex I habitats:

- Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites).

European site pressures and threats

Current pressures

- Inappropriate scrub control.

Potential future threats

- Air pollution: impact of atmospheric nitrogen deposition.

Natural England: supplementary advice on conserving and restoring site features

- In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:
  - A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes.
  - Increases in undesirable species may result in an adverse effect on the habitats structure and function.
  - Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this habitat.
  - Air quality – exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats.

Conservation objectives

- Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:
  - The extent and distribution of qualifying natural habitats.
  - The structure and function (including typical species) of qualifying natural habitats.
  - The supporting processes on which qualifying natural habitats rely.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- The SAC's qualifying habitat relies on:
  - Thin, well-drained, lime-rich soils associated with chalk and limestone in low moderate altitudes.
  - Key structural, influential and/or distinctive species, such as grazers, surface borers, predators or to maintain the structure, function and quality of habitat.
  - Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. In particular, for species such as the Lizard orchid, Himantoglossum hircinum.
  - Active and ongoing conservation management is needed to protect, maintain or restore this habitat.

Other comments

- None.

Fenland SAC

The Fenland SAC is comprised of three fenland Sites of Special Scientific Interest: Woodwalton Fen, Wicken Fen and Chippenham Fen.

Each site generally consists of standing water bodies, ditch systems, bogs, marshes and broad-leaved woodland carr.

Summary of reasons for designation

- Annex I habitats: Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae).
- Annex II species: Spined Loach (Cobitis taenia), Great Crested Newt (Triturus cristatus).

European site pressures and threats

Current pressures

- Water pollution – nutrient enrichment of Chippenham Fen component, fed from a mixture of groundwater, rainfall and surface runoff.
- Hydrological changes related to public water supply abstraction.
- Air pollution: impact of atmospheric nitrogen deposition.

Potential future threats

- None identified.

Natural England: supplementary advice on conserving and restoring site features

- In addition to the above, the supplementary advice expands on the European site's vulnerabilities as follows:
    - A change in the range and geographic distribution across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes.

- Increases in undesirable species may result in an adverse effect on the habitats structure and function.
- Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with this habitat.
- Poor water quality, as a result of agricultural process and inadequate quantities of water can adversely affect the structure and function of this habitat type.
- Air quality – exceeding critical values for air pollutants may result in changes to habitat by modifying chemical substrates, damaging plant growth, changing vegetation composition and loss of species present in these habitats.
- Increased cover of trees and shrubs can result in desiccation of these habitats.
- Changes in land use on offsite habitat can result in deterioration of habitat within the SAC.
- Changes in sediment may lead to sub-optimal conditions for spined loach.
- Inadequate quantities of water can adversely affect the structure and function of this habitat type.

Conservation objectives

- Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:
  - The extent and distribution of qualifying natural habitats and habitats of qualifying species.
  - The structure and function (including typical species) of qualifying natural habitats.
  - The structure and function of the habitats of qualifying species.

- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.
- The populations of qualifying species.
- The distribution of qualifying species within the site.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- In general, qualifying habitats of the SAC rely on:
  - Key structural, influential and/or distinctive species, such as grazers, surface borers, predators or to maintain the structure, function and quality of habitat.
  - Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat.
  - Active and ongoing conservation management is needed to protect, maintain or restore this habitat.
- For each habitat, more specific examples have been provided.
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae); Purple moor-grass meadows.
  - Upwellings and springs from the aquifer provide water to the site.
  - Natural hydrological processes to provide the conditions necessary to sustain this habitat.
- Calcareous fens with Cladium mariscus and species of the Caricion davallianae; Calcium-rich fen dominated by great fen sedge (saw sedge).
  - Upwellings and springs from the aquifer provide water to the site.
  - Natural hydrological processes to provide the conditions necessary to sustain this habitat.
- In general, the qualifying species of the SAC rely on:

- The sites ecosystem as a whole (see list of habitats below).
- Maintenance of populations of species that they feed on (see list of diets below).
- Habitat connectivity is important for the viability of these species populations.

- Spined Loach
  - Habitat preferences – small streams, large rivers and both large and small drainage ditches with patchy cover of submerged (and possibly emergent) macrophytes.
  - Diet – food particles extracted from fine sediment.
  - Great Crested Newts Habitat preferences – requires aquatic habitat, such as ponds for breeding in areas such as pastoral and arable farmland, woodland and grassland.
  - Diet – aquatic invertebrates.

Other comments

- National Trust undertaking remedial land management work.

Ouse Washes SAC, SPA and Ramsar site

An extensive area of seasonally flooding wet grassland ('washland') with a diverse and rich ditch fauna and flora located on a major tributary of The Wash. The washlands support both breeding and wintering waterbirds.

Summary of reasons for designation

SAC qualifying species

- Annex II: Spined loach Cobitis taenia

SPA qualifying species

- Article 4.1, Annex 1 species (breeding season):
  - Ruff Philomachus pugnax; Spotted Crake Porzana porzana.
  - Annex I species (over winter): Bewick's Swan Cygnus columbianus bewickii; Hen Harrier Circus cyaneus; Ruff Philomachus pugnax; Whooper Swan Cygnus cygnus.
- Article 4.2 (migratory species – breeding season):
  - Black-tailed Godwit Limosa limosa limosa; Gadwall Anas strepera; Shoveler Anas clypeata.
- Article 4.2 (migratory species – over winter):
  - Black-tailed Godwit Limosa limosa islandica; Gadwall Anas strepera; Pintail Anas acuta; Pochard Aythya farina; Shoveler Anas clypeata; Wigeon Anas Penelope.
- Article 4.2 Assemblage qualification: regularly supports at least 20,000 waterfowl.

Ramsar criteria

- 1. Extensive area of seasonally-flooding washland.
- 2. Nationally scarce aquatic plants, relict invertebrates, assemblage of nationally rare breeding waterfowl.
- 5. Bird assemblages of international importance.

- 6. Water birds for potential future consideration.

European site pressures and threats

Current pressures

- Inappropriate water levels – interest features are being adversely affected by increased flooding.

Potential future threats

- Water pollution.

Conservation objectives

- Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features (SAC), or the aims of the Wild Birds Directive (SPA) by maintaining or restoring:
  - The extent and distribution of the habitats of qualifying species/features.
  - The structure and function of the habitats of the qualifying species/features.
  - The supporting processes on which the habitats of qualifying species/features rely.
  - The populations of qualifying species/features.
  - The distribution of qualifying species/features within the site.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- In general, the qualifying species of the SAC, SPA and Ramsar rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Habitat connectivity is important for the viability of this species population.
- Spined Loach
  - Habitat preferences – small streams, large rivers and both large and small drainage ditches with patchy cover of submerged (and possibly emergent) macrophytes.
  - Diet – food particles extracted from fine sediment.
- In general, the qualifying bird species of the SAC, SPA and Ramsar rely on:
  - The sites ecosystem as a whole (see list of habitats below).
  - Maintenance of populations of species that they feed on (see list of diets below).
  - Off-site habitat, which provide foraging habitat for these species.
  - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.
- Ruff
  - Habitat preferences – grassy tundra, lakes, farmland, on migration mudflat.
  - Diet – invertebrates, especially insects, some plant material.
- Spotted Crake
  - Habitat preferences – swamps and marsh.

- Diet – small aquatic invertebrates, parts of aquatic plants.

- Bewick's Swan
  - Habitat preferences – lakes, ponds and rivers, also estuaries on migration.
  - Diet – plant material in water and flooded pasture.
- Hen Harrier
  - Habitat preferences – moor, marsh, steppe and fields.
  - Diet – mostly, small birds, nestlings and small rodents.
- Whooper Swan
  - Habitat preferences – lakes, marshes & rivers.
  - Diet – aquatic vegetation also grazes on land.
- Black-tailed Godwit
  - Habitat preferences – marshy grassland and steppe, on migration mudflats.
  - Diet – invertebrates, some plant material.
- Gadwall
  - Habitat preferences – marshes, lakes, on migration also rivers, estuaries.
  - Diet – Leaves, shoots.
- Pintail
  - Habitat preferences – lakes, rivers and marsh.
  - Diet – omnivorous, feeds on mud bottom at depths of 10-30cm.
- Pochard
  - Habitat preferences – lakes and slow rivers on migration also estuaries.
  - Diet – mostly plant material, also small animals.

- Shoveler
  - Habitat preferences – shallow lakes, marsh, reedbed and wet meadow.
  - Diet – omnivorous, especially small insects, crustaceans, molluscs and seeds.
- Wigeon
  - Habitat preferences – marsh, lakes, open moor, on migration also estuaries.
  - Diet – mostly leaves, shoots, rhizomes and some seeds.

Other comments

- Long term tidal strategy - regular problems summer flooding- severe siltation of Great Ouse River. Smaller watercourses could drain into Great Ouse River and to Ouse Washes SPA/SAC. Large land holdings by RSPB, Cambridgeshire Wildlife Trust and Wetlands and Wildfowl Trust.

Chippenham Fen Ramsar

Summary of reasons for designation

- Criterion 1: Spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation.
- Criterion 2: The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.
- Criterion 3: The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (Selinum carvifolia).

European site pressures and threats

- Pressures and threats documented in the Fenland SAC Site Improvement Plan relate to the designated features of the SAC (see above) but are also likely to be relevant to the designated Ramsar features, particularly hydrological changes which are cited in the Ramsar Information Sheet.

Conservation objectives

- Not applicable.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- In general, the qualifying habitats of the Ramsar rely on:
  - Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat.
  - Insect, such as bees and flies for pollination of flowering plants.
  - Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat.
  - Management of habitats to protect, maintain and restore it.
- In general, the qualifying species of the Ramsar rely on:
  - Invertebrates: Diets – flowering plants, organic matter and other invertebrate species for food resources.

Other comments

- Inappropriate scrub control, cutting and mowing in several units contributing to unfavourable no change status.

Wicken Fen Ramsar

Summary of reasons for designation

- Criterion 1: One of the most outstanding remnants of the East Anglian peat fens. The area is one of the few which has not been drained.
- Traditional management has created a mosaic of habitats from open water to sedge and litter fields.
- Criterion 2: The site supports one species of British Red Data Book plant, fen violet (Viola persicifolia), which survives at only two other sites in Britain. It also contains eight nationally scarce plants and 121 British Red Data Book invertebrates.

European site pressures and threats

- Pressures and threats documented in the Fenland Site Improvement Plan relate to the designated features of the SAC (see above) but are also likely to be relevant to the designated Ramsar features, particularly hydrological changes which are cited in the Ramsar Information Sheet.

Conservation objectives

- Not applicable.

Non-qualifying habitats and species on which the qualifying habitats and/or species depend

- In general, the qualifying habitats of the Ramsar rely on:

  - Key structural, influential and/or distinctive species, such as grazers, surface borers, predators to maintain the structure, function and quality of habitat.
  - Insect, such as bees and flies for pollination of flowering plants.
  - Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat.
  - Management of habitats to protect, maintain and restore it.
- In general, the qualifying habitats of the Ramsar rely on:
  - Invertebrates: Diets – flowering plants, organic matter and other invertebrate species for food resources.

Other comments

- Issues caused by inappropriate water levels and scrub control in some areas. WLMP in place to address these issues.

Appendix C

Screening Matrix

C.1 The following section below shows which types of impacts on European sites could potentially result from each of the policies and site allocations in the NECAAP. Where a policy or site allocation is not expected to have a particular type of impact, a bullet point detailing this is below the name. Where a policy or site allocation could potentially have a certain type of impact, a bullet point detailing this is listed below the name. The final column sets out the nature of potential significant effects if they were to arise. Where uncertain or likely significant effects are identified, these are required to be considered further via Appropriate Assessment.

Chapter 1: Spatial Framework

Policy 1: A comprehensive approach at North East Cambridge

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy sets out the overarching principles and the provision of 8,350 new homes and 15,000 new jobs in North East Cambridge.

Potential effects if proposal implemented

- Increased air pollution.

- Disturbance from recreation.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Chapter 2: Climate Change, Energy, Water and Biodiversity

Policy 2: Designing for the Climate Emergency

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy promotes the sustainable design and construction within the NEC and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 3: Energy and associated infrastructure

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy primarily supports the transition to net zero and energy efficiency and will not directly result in development. However, this policy also makes provision of land to be safeguarded to allow for the expansion of the Milton Primary Sub-Station.

Potential effects if proposal implemented

- None.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No – this policy will result in small scale development that will not result in LSE on European sites and as such can be scoped out at the screening stage.

Policy 4a: Water Efficiency

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to water efficiency standards required for new development and will not result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 4b: Water quality and ensuring supply

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy ensures that there is adequate water supply for new development, that there is sufficient infrastructure and supply to ensure that there is no deterioration of water quality and will not result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 4c: Flood risk and sustainable drainage

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to requirements to mitigate for flood risk as part of development and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 5: Biodiversity and Net Gain

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the requirement to deliver biodiversity net gain as part of a development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 6a: Distinctive design for North East Cambridge

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the criteria for distinctive, high-quality and contemporary design within a development and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 6b: Design of mixed-use buildings

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the criteria for mixed-use development design and will not result in development and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 7: Creating high quality streets, and spaces and landscape

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the design of streets and spaces and will not directly result in development.

Potential effects if proposal implemented

- N/A

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No

Policy 8: Open spaces for recreation and sport

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the provision of open space and recreation site/facilities as part of residential development. This provides mitigation to alleviate pressure on European sites in the wider area.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 9: Density, heights, scale and massing

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the criteria for density, heights, scale and massing for buildings and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 10a: North East Cambridge Centres

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the design of centres and the criteria with which development should follow. This policy will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 10b: District Centre

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy will result in the provision of mixed-use development, including residential (800 units), employment (20,000sqm), retail (7,800sqm) and community use (7,100sqm).

Potential effects if proposal implemented

- Increased air pollution.
- Disturbance from recreation.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 10c: Science Park Local Centre

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy will result in the provision of mixed-use development, including employment (3,500sqm), retail (1,200sqm) and community use (150sqm).

Potential effects if proposal implemented

- Increased air pollution.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 10d: Station Approach

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy will result in the provision of mixed-use development, including residential (500 units), employment (12,000sqm),retail (1,200sqm) and community use (150sqm).

Potential effects if proposal implemented

- Increased air pollution.
- Disturbance from recreation.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 10e: Cowley Road and Greenway Neighbourhood Local Centres

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy will result in the provision of mixed-use development, including residential (700 units), employment (2,400sqm) and retail (1,000sqm).

Potential effects if proposal implemented

- Increased air pollution.
- Disturbance from recreation.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 11: Housing design standards

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the standards for housing design and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 12a: Business

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this makes provision for the development of 188,500m2 of employment land.

Potential effects if proposal implemented

- Increased air pollution.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 12b: Industry, storage and distribution

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy outlines the requirements for industrial development and encourages industrial development at specific locations within the NEC. This includes B2 (13,700sqm) and B8 (4,900sqm).

Potential effects if proposal implemented

- Increased air pollution.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 13a: Housing Provision

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy makes provision for 8350 dwellings within the NECAAP.

Potential effects if proposal implemented

- Increased air pollution.
- Disturbance from recreation.
- Change in water quantity and increased water pollution.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- Uncertain.

Policy 13b: Affordable housing

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy supports the development of affordable housing but will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 13c: Build to Rent

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy supports the delivery of built to rent schemes and outlines criteria to qualify under this scheme. This policy does not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 13d: Housing for local workers

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy supports the provision of housing for key workers in the area of the plan.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 13e: Custom build housing

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to custom built units and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 13f: Short term/corporate lets and visitor accommodation

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy supports and sets out criteria for the provision of new visitor accommodation but will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No – this policy will result in small scale changes to the use of existing buildings and will not result in LSE on European sites.

Policy 14: Social, community and cultural infrastructure

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – This policy supports the provision of new community, cultural and leisure facilities.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No – this policy will result in small scale changes to the use of existing buildings and will not result in LSE on European sites.

Policy 15: Shops and local services

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy supports the provision of retail within town centres.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No – this policy will result in small scale development that will not result in LSE on European sites.

Policy 16: Sustainable connectivity

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the provision of sustainable travel within the district and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 17: Connecting to the wider network

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the improvement of existing infrastructure for non-motorised users and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 18: Cycle and Micro Mobility Parking

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the provision of cycle parking and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 19: Safeguarding for public transport

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy will result in the improvement of existing public transport infrastructure, including the provision of mobility hubs.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 20: Last mile deliveries

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy will result in the development of a 1,500sqm of delivery hubs.

Potential effects if proposal implemented

- None – this policy will result in small scale development that will not result in LSE on European sites.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 21: Street hierarchy

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the road hierarchy within the NEC.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 22: Managing motorised vehicles

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out vehicular trip budgets and parking criteria and control of inappropriate parking as part of employment and residential development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 23: Comprehensive and Coordinated Development

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets the criteria for development within the NEC.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 24a: Land assembly

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets the criteria for development within the NEC.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 25: Environmental Protection

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy ensures that environmental impacts are fully considered in relation to development and will therefore not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 26: Aggregates and waste sites

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy relates to the continued operation of the aggregates facility and the relocation of waste facilities.

Potential effects if proposal implemented

- None – this policy will result in small scale development that will not result in LSE on European sites.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 27: Planning Contributions

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy sets out the requirements of contributions to mitigate the impact of development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 28: Meanwhile uses

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- Yes – this policy supports the provision of temporary consent of services and facilities on sites, which will not come forward in the short term.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No – this policy will result in small scale changes to the use of existing buildings and will not result in LSE on European sites.

Policy 29: Employment and Training

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to providing support to local residents and the Greater Cambridge economy through training and employment.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Policy 30: Digital infrastructure and open innovation

- This could potentially have a certain type of impact.

Likely activities (operation) to result as a consequence of the proposal

- None – this policy relates to the development design and will not directly result in development.

Potential effects if proposal implemented

- N/A.

Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?

- No.

Appendix D

Other Plans and Projects

District level Local Plans (strategic issues/'core strategies') providing for development

South Cambridgeshire Local Plan 2018 [See reference 44]

Plan Owner/Competent Authority

- South Cambridgeshire District Council.

Related work HRA/AA

- South Cambridgeshire Local Plan Submission Sustainability Appraisal Report and Habitats Regulations Screening Assessment (2014) **[See reference** 45**]**.

Notes on Plan documents

- The South Cambridgeshire Local Plan was adopted on September 2018 and continues to be effective until 2031. The Local Plan proposes the creation of 19,500 homes and the provision of 22,000 new jobs during the 2011-2031 time period.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- The HRA of the 2018 South Cambridgeshire Local Plan considered the following European Sites within the assessment:
  - Eversden and Wimpole Woods SAC (within the District)
  - Ouse Washes SAC, SPA and Ramsar (within a neighbouring District)
  - Devil's Dyke SAC (within a neighbouring District)
- The potential impacts on the designated sites were summarised as: physical habitat loss; impacts on migratory species; physical disturbance (through recreational pressures and improved transport infrastructure); changes in water quality and quantity, and atmospheric pollution.
- The HRA concluded that the proposed policies and allocations as worded within the Local Plan were unlikely to result in significant effects on the listed European Sites, in isolation or in combination with neighbouring plans or infrastructure projects. Therefore, there was no requirement for an appropriate assessment.

Cambridge City Local Plan 2018 **[See reference** 46**]**

Plan Owner/Competent Authority

- Cambridge City Council.

Related work HRA/AA

- Habitat Regulations Assessment: Screening Report for the Draft Cambridge Local Plan 2018 **[See reference** 47 and 48**]**.

Notes on Plan documents

- The Local Plan was adopted in October 2018 and continues to be effective until 2013 unless superseded. It sets out the vision, policies and proposals for the future development and land use in Cambridge between 2018 and 2031. The Plan proposes the provision of 35,773 homes and 22,100 new jobs.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- There are no European Sites within Cambridge itself, but the following designated sites within the wider area were considered as part of the assessment given their close proximity to the district boundary and/or due to their conservation objectives or interests:
  - Eversden and Wimpole Woods SAC
  - Ouse Washes SAC, SPA and RAMSAR
  - Devil's Dyke SAC
- Potential impacts considered included:
  - Physical habitat loss
  - Recreational pressure and disturbance
  - Impact on protected species outside the protected sites
  - Water quantity and quality

  - Air pollution

- The HRA concluded that the Local Plan policies and allocations were unlikely to have significant impacts on the conservation objectives of: Devil's Dyke SAC; Ouse Washes SAC, SPA and Ramsar; Eversden and Wimpole Woods SAC; or Fenland SAC and Ramsar sites. With regards to the possible impacts resulting from policies and allocations contained within the adopted Cambridgeshire and Peterborough Minerals and Waste LDF documents no adverse effects were identified on the listed European Sites.

Huntingdonshire Local Plan 2019 **[See reference** 49**]**

Plan Owner/Competent Authority

- Huntingdonshire District Council.

Related work HRA/AA

- Huntingdonshire Local Plan to 2036: Proposed Main Modifications 2018 Habitats Regulations Assessment **[See reference** 50**]**.

Notes on Plan documents

- The Local Plan was adopted in 2019 which outlines all policies and proposals until 2036. This replaces the Core Strategy 2009, Huntingdon West Area Action Plan 2011, and saved policies from the Local Plan 1995 and Local Plan Alteration 2002. The Local Plan proposes the delivery of 20,100 new homes and the provision of 14,400 new jobs between 2011-2036.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- European Sites assessed:
  - Ouse Washes SAC, SPA
  - Eversden and Wimpole Woods SAC
- Potential impacts considered:
  - Air pollution
  - Recreational pressures
  - Hydraulic conditions (drought and flooding)
  - Non-native species
  - Groundwater pollution
  - Water quality
- The HRA concluded that the Local Plan would not result in any significant effects on the integrity of the any designated sites included within the assessment, as a consequence of the proposed policies or allocations as currently worded. The Local Plan was also not considered to result in any significant effects as a result of in combination effects in conjunction with neighbouring authorities' local plans.

East Cambridgeshire Local Plan 2015 **[See reference** 51**]**

Plan Owner/Competent Authority

- East Cambridgeshire District Council.

Related work HRA/AA

- Habitats Regulation Assessment: East Cambridgeshire Local Plan (2018) **[See reference** 52**]**.

Notes on Plan documents

- The East Cambridgeshire Local Plan 2015 identifies policies and allocations up to 2031. The Plan will facilitate the need for 10,835 dwellings, and the creation of 6,000 new jobs between 2011 and 2031.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- The HRA scoped in the following designated sites at the screening stage:
  - Fenland SAC
  - Wicken Fen RAMSAR
  - Ouse Washes SAC, SPA, RAMSAR
  - Devil's Dyke SAC
- European Sites assessed:
  - Devil's Dyke SAC: Not screened out – taken to appropriate assessment (AA). Assumed potential impacts:
    - Physical habitat loss
    - Physical damage
    - Disturbance/recreational pressure
    - Atmospheric pollution

- Wicken Fen SAC, RAMSAR: Not screened out – taken to appropriate assessment (AA). Assumed potential impacts:
  - Physical habitat loss
  - Physical damage
  - Disturbance/recreational pressure
  - Water quantity
  - Water quality
  - Atmospheric pollution
- Ouse Washes SAC, SPA, RAMSAR: Not screened out – taken to appropriate assessment (AA). Assumed potential impacts:
  - Physical habitat loss
  - Physical damage
  - Disturbance/recreational pressure
  - Water quality
  - Water quantity

Conclusion of the HRA

- The East Cambridgeshire Local Plan was found to be compliant with the Habitats Regulations, and provided that the proposed recommendations within the report are followed, the proposed policies and allocations will not result in likely significant effects on designated sites.
- The recommendations below are as stated within the report:
  - The Local Plan adopts a precautionary approach and includes a requirement for applicable allocation site policies (i.e. site allocations in Ely and Littleport that fall within the Goose and Swan Functional Land IRZ) to include a requirement for a project-level HRA screening to demonstrate that proposed development will not have any adverse effect on Ouse Washes functional land.

- An additional paragraph to the supporting text of LP30 should be added which explains how land beyond the site boundary of a European site may also provide important functional habitat for qualifying bird species and to ensure that any 'windfall' greenfield sites that fall within the Goose and Swan Functional Land IRZ also demonstrate no adverse effects on the qualifying species of the Ouse Washes.
- Strengthening of policy Littleport6 to require a new Country Park that is "of a scale and quality to attract residents from the whole of Littleport, thereby creating a significant area of strategic open space". This would provide an open space for recreation, for both new and existing residents, which is a suitable alternative to the Ouse Washes. The policy could be further strengthened to clarify that the provision of a well-connected Green Infrastructure Network should include both internal connections as well as connections to the wider Green Infrastructure Network beyond the site allocation boundary.
- The Local Plan is strengthened at Policy LP21 Open Space, Sport and Recreational Facilities to ensure no likely significant effects on the Breckland and Devil's Dyke Natura 2000 sites as a result of increased recreational pressure arising from new residential development.
- Policy Isleham4 should include the requirement for project level HRA that should consider the effects of increased recreational pressure on Natura 2000 sites. Where there are risks, appropriate mitigation measures should be proposed.
- It will be important that all new residential development should deliver green infrastructure and open space in-line with the standards set out in Policy LP21 Open Space, Sport and Recreational Facilities and Annex A of the Local Plan.

Fenland Local Plan 2014 **[See reference** 53**]**

Plan Owner/Competent Authority

- Fenland District Council.

Related work HRA/AA

- Fenland Core Strategy (Further Consultation Draft) Habitats Regulations Assessment Screening Report (2012).

Notes on Plan documents

- The council is currently preparing a new Local Plan which will replace the current Fenland Local Plan adopted 2014 (originally described as the Fenland Core Strategy). The current Local Plan proposes the provision of 11,000 new homes and the creation of 40,000 new jobs.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- European Sites assessed:
  - Fenland SAC
  - Wicken Fen RAMSAR
  - Ouse Washes SAC, SPA, RAMSAR
- Potential impacts considered:
  - Physical habitat loss

- Physical damage
- Non-physical disturbance
- Contamination/pollution
- Water quantity
- Biological disturbance

Conclusion of the HRA

- The HRA concluded that the Local Plan would not result in any significant effects on the integrity of the any designated sites included within the assessment, as a consequence of the proposed policies or allocations as currently worded. The Local Plan was also not considered to result in any significant effects as a result of in combination effects in conjunction with neighbouring authorities' local plans.

West Suffolk: Forest Heath and St Edmundsbury Local Plan

Plan Owner/Competent Authority

- West Suffolk Council.

Related work HRA/AA

- Habitats Regulations Assessment of the Forest Heath Allocations Local Plan (2019).

Notes on Plan documents

- The West Suffolk Local Plan consists of the former Forest Heath and St Edmundsbury areas. It is comprised of the following documents:
  - Core Strategy (2010) former FHDC area
  - Core Strategy Single Issue Review (SIR) (2019)
  - Core Strategy (2010) Former SEBC area
  - Joint Development Management Policies Document 2015
  - Forest Heath Site Allocations Local Plan
- The Joint Development Management Policies Document outlined that the 15km buffer radiating from the North Cambridgeshire boundary encompasses a small section of the former Forest Heath area. Therefore the Core Strategy (2010) former FHDC area will be reviewed in relation to proposed policies and allocations that may have an adverse effect on designated sites.
- The Core Strategy SIR states that the Forest Heath area has quantified a total of 6800 homes are needed between 2011 and 2031, and a target of creating 7,300 additional jobs.

Conclusions on potential effects of relevance to European sites within scope of HRA of Greater Cambridge Local Plan and North East Cambridge Area Action Plan

- European Sites assessed:
  - Devil's Dyke SAC
  - Ouse Washes SAC, SPA and RAMSAR
  - Wicken Fen RAMSAR
- Potential effects to be considered during the assessment:

- Direct loss or physical damage due to construction
- Disturbance and other urban edge effects from construction or occupation of buildings
- Disturbance from construction or operation of roads
- Recreational pressure
- Water quantity
- Water quality
- Air quality

Conclusions from the HRA

- The HRA screening assessment could not rule out likely significant effects from the plan, either alone or in combination with other plan and projects, in relation to the following types of effects:
  - Direct loss or physical damage due to construction
  - Disturbance and other urban edge effects from construction or occupation of buildings
  - Disturbance from construction or operation of roads
  - Recreational pressure
  - Water quantity
  - Water quality
  - Air quality
- Therefore, an Appropriate Assessment (AA) was required to identify if any adverse effects on the integrity of any European sites would occur as a result of the list potential impacts. The Appropriate Assessment was able to rule out an adverse effect of the integrity of any European site either alone or in combination with other plans and projects.

Other relevant Development Plans

Cambridgeshire and Peterborough Minerals and Waste Local Plan **[See reference** 54**]**

Plan Owner/Competent Authority

- Cambridgeshire County Council and Peterborough City Council.

Related work HRA/AA

- Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036, Proposed Submission Draft, Habitats Regulations Assessment (2019).
- The HRA of the adopted Minerals and Waste Local Plan is not available and as such the findings detailed below are drawn from the Habitat Regulations Assessment of the draft plan.

Notes on Plan documents

- Cambridgeshire County Council and Peterborough City Council have prepared a joint Minerals and Waste Development Plan. The councils consulted on a Preliminary Draft Local Plan (May 2018); a Further Draft Local Plan (March 2019) and, a Proposed Submission Local Plan (November 2019). The final plan was adopted in July 2021.

Conclusions on potential effects of relevance to European sites within scope of HRA of

Cambridgeshire and Peterborough Minerals and Waste Local Plan

- European Sites assessed:
  - Ouse Washes SAC, SPA and RAMSAR
  - Eversden and Wimpole Woods SAC
  - Fenland SAC and Wicken Fen RAMSAR
  - Devils Dyke SAC
- Potential impacts considered:
  - Physical loss/damage off-site habitat
  - Changes in surface/groundwater hydrology
  - Water quality
  - Indirect disturbance – noise, vibration, lighting disturbance
  - Dust contamination
  - Air pollution
- The HRA scoped in the following designated sited at the screening stage:
  - Wicken Fen RAMSAR and Fenland SAC: Not screened out – taken to appropriate assessment (AA) – assumed potential impacts:
    - Changes in water quantity and/or quality
    - Introduction of invasive species
  - Ouse Wash SAC, SPA and RAMSAR: Not screened out – taken to appropriate assessment (AA) – assumed potential impacts:
    - Physical loss or damage of habitat (off-site, functionally connected)
    - Noise, vibration and light pollution
    - Changes in water quantity and/or quality
- The HRA scoped out the following designated sited at the screening stage:

- Eversden and Wimpole Woods SAC
- Devils Dyke SAC

Conclusion from the HRA:

- Following Stage 1 HRA Screening, it was not possible to screen out physical loss/damage to off-site habitat, changes in surface/groundwater hydrology, changes in water quality, disturbance from noise, vibration and/or light pollution, dust contamination or air pollution impacts arising from policies and sites. Subsequently, a Stage 2 Appropriate Assessment was carried out to assess these effects on the Ouse Washes, Nene Washes and Fenland (Wicken Fen) European sites.
- The Appropriate Assessment concluded that the MWLP will not result in significant adverse effects as a result of physical loss of off-site habitat, changes in surface/groundwater hydrology, changes in water quality, disturbance from noise, vibration and/or light pollution, dust contamination or air pollution impacts arising from policies and sites. For development coming forward on either the allocated sites or non-allocated sites, it is considered that there are sufficient mitigation measures set out in the MWLP itself, or elsewhere, such as via regulatory requirements managed by the Environment Agency.
- To conclude, provided the recommendations made in this Report are (where applicable) incorporated into the Local Plan, it is possible to conclude that the Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036, Proposed Submission Draft, is compliant with the Habitats Regulations and will not result in likely significant effects on any of the European sites identified, either alone or in combination with other plans and projects.

Cambridgeshire and Peterborough Strategic Spatial Framework **[See reference** 55**]**

Plan Owner/Competent Authority

- Cambridgeshire and Peterborough Combined Authority.

Notes on Plan documents

- The devolution deal is centred around achieving ambitious levels of growth across Cambridgeshire and Peterborough for the benefit of all our communities – namely over 100,000 new homes and 90,000 new jobs by 2036. The devolution deal between all Cambridgeshire and Peterborough Authorities and Government established that the Combined Authority will: Create a non-statutory spatial framework, which will act as a framework for planning across the Combined Authority area, and for the future development of Local Plans.
- No HRA has been carried out to date.

Cambridgeshire and Peterborough Combined Authority Local Transport Plan **[See reference** 56**]**

Plan Owner/Competent Authority

- Cambridgeshire and Peterborough Combined Authority.

Related work HRA/AA

- Cambridgeshire and Peterborough Combined Authority Local Transport Plan, Habitats Regulation Assessment Task 1 Screening (2019) **[See reference** 57**]**.

Notes on Plan documents

- This is the first Local Transport Plan for Cambridgeshire and Peterborough. It replaced the Interim Local Transport Plan, which was published in June 2017 and which was based upon the existing Local Transport Plans for Cambridgeshire (Local Transport Plan 3) and Peterborough (Local Transport Plan 4).
- The previous Local Transport Plan did not fully reflect the aspirations of the CPCA as set out by the then Mayor and in the wider CPCA 2030 Strategy and so a new LTP was developed. Details of projects still pending. The draft Local Transport Plan was launched on 17th June 2017 with the final plan published in January 2020. The Combined Authority has started work on a new Local Transport and Connectivity Plan with consultation on a new transport vision and aims in November 2021.

Conclusions on potential effects of relevance to European sites within scope of HRA of Cambridgeshire and Peterborough Combined Authority Local Transport Plan

- European Sites assessed:
  - Ouse Washes SAC, SPA and RAMSAR
  - Eversden and Wimpole Woods SAC
  - Fenland SAC and Wicken Fen RAMSAR
  - Devils Dyke SAC

- Potential impacts considered:
  - Direct impacts:
    - Habitat loss (including loss of breeding and resting sites)
    - Habitat fragmentation (including changes to habitat structure and function)
    - Wildlife casualties (due to increased frequency of traffic)
    - Disturbance and/or displacement of species due to increased frequency of transport
  - Indirect impacts:
    - Air pollution for designated sites within 200m (DMRB Vol 11 Section 3 Part 1)
    - Noise and vibration
    - Artificial lighting
    - Water pollution
    - Contamination

Conclusions from the HRA:

- This HRA Task 1 screening considers that the proposed Local Transport Plan, either alone or in-combination, is not likely to have a significant effect on any European site or their associated features.

Major infrastructure projects

The Oxford-Cambridge Arc [See reference 58 and 59]

Plan Owner/Competent Authority

- Government, local authorities across the Oxford to Cambridge Arc, Cambridgeshire and Peterborough Combined Authority, the Arc's four local enterprise partnerships (LEPs), and England's Economic Heartland.

Notes on Plan documents

- The project is still in its early development and in March 2019 a document was produced by the government which provides an early update on the work to develop a robust economic evidence base for the Arc. Following this in February 2021, the government published a policy paper for consultation that set out how they intend to develop a Spatial Framework to support sustainable economic growth in the Oxford to Cambridge Arc.
- The overarching ambition is to strengthen the corridor connecting Cambridge, Milton Keynes and Oxford by infrastructure and connectivity. Central to achieving this vision are completion of the new East-West Rail line connecting Oxford and Cambridge by 2030 and accelerating the development and construction of the Oxford-Cambridge Expressway. In addition to infrastructure, there is an ambition to build one million new homes by 2050.
- No HRA has been carried out to date.

Appendix E

Natural England Consultation Response of the HRA of Draft NECAAP

Date: 07 May 2020
Our ref: 315290
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Greg Macrdechian
Planning Policy Consultant
Greater Cambridge Shared Planning

BY EMAIL ONLY

Dear Mr Macrdechian

North East Cambridge Area Action Plan Draft Habitats Regulations Assessment

Thank you for seeking Natural England's views on the above in your email of 21 April 2020.

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.

Our comments on the draft Habitats Regulations Assessment (HRA) report prepared by LUC (March 2020) are provided below. These follow on from our response to the North East Cambridge Area Action Plan (NECAAP) Issues and Options 2019 consultation, in our letter dated 25 March 2019 (ref. 273507). It should be noted that we have only been able to undertake a preliminary review of the document given the short consultation period; our comments are therefore focused on key aspects of the report including findings and recommendations.

The HRA report confirms that the area covered by the NECAAP straddles the administrative boundaries of Cambridge City Council and South Cambridgeshire District Council who are taking a coordinated approach to development through provision of a joint AAP for the site. The NECAAP seeks the wider regeneration of this part of Cambridge with the creation of a revitalised, employment focussed area centred on the new transport interchange created by Cambridge North Station. Natural England notes and welcomes that preparation of the NECAAP has been informed by both adopted and emerging plans.

Chapter 3 Method

The assessment methodology outlined in Chapter 3 appears to be in general accordance with Conservation of Habitats and Species Regulations 2017 (as amended) requirements for HRA including assessment and interpretation of likely significant effect alone, and in-combination, and Appropriate Assessment. We welcome consideration of relevant case law including the recent *'People over Wind'* ruling which advocates that avoidance and mitigation measures cannot be relied upon at the HRA Screening Stage and must be tested through the Appropriate Assessment.

We generally agree with the European sites scoped in for assessment, identified in Table 2.1 and Figure 2.1 of Appendix 1. These include all sites within 15km of the LPA boundary and those beyond this distance with the potential to be affected by longer pathways for impact such as hydrological effects and recreational pressure. We advise that clarification is required to explain the screening out of Chippenham Fen Ramsar / Fenland SAC. Whilst this site is located beyond the 15km buffer our understanding is that it is dependent upon adequate supply of high quality groundwater from the same chalk aquifer serving the wider area, including NECAAP. The further

effects on water quantity and quality, associated with additional drawdown on the aquifer to meet the needs of all proposed development, i.e. in-combination effects, is a significant concern for water-dependent designated sites, including European sites such as Chippenham Fen Ramsar / Fenland SAC. With reference to the precautionary approach advocated in section 4.6 of the HRA it is not appropriate to screen out these sites on the basis of distance alone. An evidence based approach will need to be applied taking into consideration the findings and recommendations of the emerging Integrated Water Cycle Study being undertaken to inform preparation of the Greater Cambridge Local Plan.

Chapter 4 Screening Assessment

Natural England agrees that most of the policies within the NECAAP do not promote development and are therefore unlikely to have any significant effect on European sites. We generally support the screening out of those policies listed in sections 4.2 – 4.4. We agree that the policies listed in section 4.5 have pathways to European sites and likely significant effects cannot be ruled out at this stage.

We support the application of a precautionary approach to the use of set distances for assessing impacts, as set out in section 4.6.

Physical damage and habitat loss

We agree that there are unlikely to be any significant effects associated with direct physical damage or habitat loss, including to functionally linked land, given that none of the European sites are located within or close to the NECAAP development site. The potential exception to this is Eversden and Wimpole Woods Special Area of Conservation (SAC) given the extensive foraging range of the qualifying barbastelle bat feature.

Section 4.11 of the report identifies that important foraging areas for the barbastelle bat are likely to be focused within 8km of their core breeding zones. We generally agree with this although there doesn't appear to be any evidence to confirm that barbastelles and functional habitat is not located beyond 8km. It is widely known that barbastelles will forage up to 20km from their roost site. On this basis we suggest a more precautionary approach is applied, in line with that generally taken for major developments in the area, to rule out any impacts to SAC functional habitat. A policy requirement for development to confirm no adverse effect on SAC barbastelle functional habitat could suffice.

Non-toxic contamination

We generally support the no likely significant effect findings of the assessment presented in section 4.13 - 4.15. However, please see our advice above with regard to Eversden and Wimpole Woods SAC functional habitat.

Air pollution

We support the assessment presented in sections 4.16 – 4.34 focusing on emissions associated with increased vehicle traffic on the strategic road network identified in Appendix 3. This confirms that the Ouse Washes SAC, SPA and Ramsar site and Devil's Dyke SAC lie within 15km of the NECAAP boundary and within 200m of a strategic road. We welcome consideration of in-combination air quality effects in line with the requirements of the Wealden judgement[1]. Our advice is that consideration should also be given to any implications for air quality, and potentially water quality, associated with the recent CJEU judgment relating to the Dutch Nitrogen cases[2].

The Ouse Washes SAC, SPA and Ramsar site has been screened out as having no likely significant effect alone, and in-combination, on the basis that <1% of the site lies within 200m of a

[1] [2017] Env LR 31, [2017] EWHC 351 (Admin)

[2] Judgment in 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 Others,* found at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62017CJ0293

strategic road. We have concerns with this approach to screening out likely significant effect to European sites based on a minimum area of impact threshold, without any consideration as to whether the area supports qualifying features that are sensitive to the pollutants concerned. We are not aware of best practice guidance advocating this approach. Based on Natural England air quality guidance our advice is that the HRA should establish whether Ouse Washes qualifying features are present within 200m of the road and whether any such features are sensitive to pollutants from traffic emissions. If this is the case then further screening should be undertaken to identify whether sensitive qualifying features are likely to be exposed to emissions. Where this is the case screening thresholds, such as AADT and/or predicted emissions (process contributions) should be applied to identify whether predicted change is likely to be significant. If the screening is unable to conclude that predicted change alone, and/or in-combination, is unlikely to be significant, or where uncertainty remains, further detailed consideration of air quality impacts should be progressed through the Appropriate Assessment.

In our response to the Greater Cambridge Local Plan consultation we advised that the HRA should provide sufficient evidence to demonstrate no credible risk of air pollution impacts to Wicken Fen Ramsar and Fenland SAC, given that the sites lie just beyond the 200m screening distance. This is referenced in section 4.31 of the HRA and the assessment consequently applies a precautionary approach in its consideration of the issue. Natural England welcomes this and notes the confirmation that Wicken Fen is actually located 300m from the main A1123 at its nearest point. On this basis we support the conclusion that air pollution is unlikely to have a significant effect on Wicken Fen Ramsar and Fenland SAC.

Recreation

Natural England agrees with the screening out of likely significant effects for the Ouse Washes SAC, SPA and Ramsar site, Eversden and Wimpole Woods SAC and Devil's Dyke SAC based on limited impact pathways due to distance, in accordance with Natural England's SSSI Impact Risk Zones (IRZs).

Section 4.41 of the report suggests that Natural England has not set a recreational IRZ for Wicken Fen Ramsar and Fenland SAC since these sites are not considered to be at significant risk from recreational pressure. This is not quite accurate. Natural England has delayed setting a recreational pressure IRZ for the site pending analysis of the findings of the recently published Footprint Ecology Wicken Fen Visitor Survey[3] commissioned by the National Trust. In the meantime we would expect the findings and recommendations of this study to inform the assessment of recreational pressure impacts as part of the HRA process for relevant development proposals and plans. We therefore welcome application of a precautionary approach in assuming a 20km zone of influence for recreational impacts to Wicken Fen. Since NECAAP lies within 10km of the site we agree with the screening of likely significant effect.

Water Quantity and Quality

We agree that to fully understand the potential impacts of proposed development on European sites a review of relevant Water Cycle Studies (WCS) and liaison with the Environment Agency and relevant water companies will be required. This will need to include consideration of any potential implications for water quality associated with the CJEU ruling on the Dutch Nitrogen cases.

Please note our comments in relation to Chippenham Fen Ramsar and Fenland SAC above. The HRA will need to be informed by relevant evidence emerging from the Integrated Water Study, incorporating a Water Cycle Study, being prepared for the Greater Cambridge Local Plan.

Numerous designated sites within the district and beyond, including internationally designated sites such as Chippenham Fen, are dependent on adequate supply of high quality ground and/or

[3] Saunders P., Lake S., Lily D., Panter C., (2019) Visitor Survey of the National Trust's Wicken Fen 100 Year Vision Area. Unpublished Report by Footprint Ecology.

surface water supplied by the underlying chalk aquifer. The aquifer is under significant pressure from current abstraction; effects on water quantity and quality is already having an impact on many of these sites and the wider natural environment. Current abstraction rates are clearly not sustainable and the WCS will need to identify how growth requirements can be met in light of this. Alternative options to limit, and ideally reduce abstraction, will be required to ensure no further impact to the natural environment and deterioration in condition of designated sites. Natural England's advice is that it is not appropriate to screen out impacts to European sites that are dependent on the underlying aquifer, on the basis of distance alone; the assessment should await further evidence and recommendations emerging through the WCS.

Section 4.4 of the report concludes no likely significant effect on the Ouse Washes SAC, SPA, Ramsar site based on distance and limited hydrological connectivity with proposed NECAAP development. Natural England advises that consideration should be given to any likely changes in the flow and volume of water entering the River Cam and Ely Ouse associated with the proposed development. Reduced flows would have the potential to exacerbate siltation problems downstream of Denver. Siltation causes the Hundred Foot river to back up and this plays a significant role in the increased and prolonged flooding of the Ouse Washes. Whilst the Ouse Washes is screened as no likely significant effect we note that impacts are considered further through the Appropriate Assessment, which is then unable to conclude no adverse effect on the integrity of the European site. Water quantity impacts to the Ouse Washes therefore requires further review and the relevant sections of the HRA need to be updated accordingly. We suggest this is informed by the detailed findings and recommendations of the WCS.

Devil's Dyke SAC is not water-dependent hence we support the no likely significant effect conclusion.

Wicken Fen Ramsar and Fenland SAC are highly sensitive to changes in water quantity and quality. Based on this and hydrological connectivity with the River Cam we agree there is potential for development through NECAAP to have a likely significant effect alone, and in-combination.

We support the no likely significant effect conclusion in relation to Eversden and Wimpole Woods SAC given that the qualifying barbastelle bat SAC feature is not susceptible or hydrologically connected to water resources that could be impacted by the development.

Section 5 Appropriate Assessment
Natural England welcomes the approach to considering the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function. We welcome reference to Natural England's European site Site Improvement Plans and suggest that reference is also made to any additional information in the relevant Supplementary Advice Packages (SAPs).

Air quality
Please see our comments above regarding the need for further consideration of air quality impacts to the Ouse Washes SAC, SPA and Ramsar site.

Section 5.11 states that APIS data indicates nitrogen levels at Devil's Dyke SAC are within the lower half of the critical load range between 15 and 25 Kg N/ha/year at 15.6 Kg N/ha/year. Our advice is that for the purpose of assessing air quality impacts to designated site the lower critical load limit of the APIS range should be applied. Based on this nitrogen levels at the SAC are already exceeding the site critical load hence we welcome the proposal for further assessment of air quality impacts.

We agree with the statement in section 5.12 that NECAPP policies could provide some level of mitigation, for example Policy 14: Sustainable Connectivity, which will provide networks for sustainable modes of transport and will encourage active transport. However, we would advocate caution in relying on the mitigating effects of a policy which simply has the potential to limit the

level of increase in vehicles and associated emissions. In the absence of strict requirements the mitigating effects of this are, at best, uncertain. However, we support the proposal to use AADT traffic modelling data to fully inform the assessment of in-combination effects and to undertake air quality modelling if the 1,000 AADT threshold is exceeded, to assess adverse effect and the efficacy of any required avoidance and mitigation measures.

Recreation

We welcome reference to the Footprint Ecology Wicken Fen Visitor Survey. In light of the findings of this report and the significant level of growth proposed through NECAAP in-combination with growth in adjoining districts, we would advocate caution in assuming that existing management measures by the National Trust are sufficient to mitigate increased recreational pressure. Wicken Fen is a relatively small but popular 'destination site' where access is not entirely controlled through entry permit; there are numerous open access points and several public rights of way across the site. We strongly recommend that the consultants seek further advice on this from the National Trust as owners and managers of the site.

We agree that NECAAP policies such as Policy 23 Open Space could provide some safeguards and mitigation measures for recreational pressure. We particularly support the recommendation for strengthening of policy wording to include a commitment for development of 8,500 homes within 20km of a European site to provide greenspace specifically designed and managed to alleviate recreational pressure on European sites. However, our advice is that quantity of provision and long-term management, rather than simply the design of greenspace, will be critical to mitigating off-site recreational pressure impacts. Therefore, to provide the certainty required to demonstrate no adverse effect on the integrity of sites such as Wicken Fen, the HRA will need to provide additional clarity on mitigation to be delivered through this policy i.e. quantity and quality of open space provision and how delivery and management in-perpetuity will be secured.

Natural England provided detailed advice on the requirements for open space and green infrastructure provision in response to the NECAAP Issues and Options Consultation. Our advice is that the extent of accessible natural greenspace provision (i.e. excluding formal sports areas) should be proportionate to the scale of development, for example 8ha /1000 population is advocated through the Suitable Alternative Natural Green Space (SANGS) guidance to meet people's needs and protect more sensitive designated sites including European sites and SSSIs. Whilst quantity of provision should be broadly aligned with SANGS guidance, 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 space within 300m of everyone's home. Green infrastructure provision should seek to contribute towards the delivery of the objectives of the Cambridgeshire Green Infrastructure Strategy for habitat enhancement and improved connectivity. The AAP should not rely on existing green space such as Milton Country Park to meet people's recreational needs; the AAP should seek provision of similar area of open space to complement and connect the Country Park.

Water Quantity

Natural England agrees that a Water Cycle Study is required to fully assess the impacts of increased water demand through NECAAP, in-combination with other plans and policies, on Wicken Fen Ramsar and Fenland SAC and the Ouse Washes SAC, SPA and Ramsar site. As discussed above, this is currently being undertaken as part of the Integrated Water Study for the Greater Cambridge Local Plan.

Consideration should be given to our comments above regarding potential impacts to the Ouse Washes through reduction in flows in the River Cam and Ely Ouse.

We agree that NECAAP water-related policies have the potential to mitigate any water quantity related adverse effects to European sites. Our advice is that policy wording should be guided by the findings of the WCS. Where required, details of measures to mitigate adverse effects will need to be clearly specified along with a mechanism and timescale for delivery.

Please note our advice above with regard to impacts on the natural environment, including sites such as Chippenham Fen Ramsar and Fenland SAC, through over-abstraction from the underlying chalk aquifer. Alternative options are required to address current pressures and to ensure that future growth needs, including water demand, can be sustainably met without adverse effect on European sites and supporting habitat.

Water Quality

Water quality is critically important for Wicken Fen, which is largely rainwater-fed, and Chippenham Fen which is groundwater fed. Again we agree that the findings and recommendations of the emerging WCS are required to fully assess the impacts of increased demand for wastewater treatment through NECAAP, in-combination with other plans and policies, on Wicken Fen Ramsar and Fenland SAC, and also Chippenham Fen Ramsar. Reduced water quality, associated with lower volumes of water due to over-abstraction of the chalk aquifer, and the effects of this on both sites requires detailed consideration through robust modelling.

We agree that NECAAP policies, particularly *Policy 24 Water Quality, Demand and Efficiency in North East Cambridge*, have some potential to mitigate any water quality related adverse effects to European sites. We support the recommendations in section 5.35 for strengthening of policy wording, the most important of these being inclusion of a requirement for a higher standard of discharge to be met to ensure improved water quality in the River Cam. Our advice is that policy wording should be further guided by the findings of the WCS; details of measures to mitigate any adverse effects should be clearly specified along with a mechanism and timescale for delivery.

Conclusions and recommendations

We generally support the recommendations set out in section 6.4 of the HRA; however, please refer to our advice above with regard to:

- Inclusion of further consideration of air quality impacts to the Ouse Washes SAC, SPA and Ramsar site in addition to Devil's Dyke SAC;
- Consideration of potential reduced river volume/flow to impact on the Ouse Washes;
- Adoption of a more precautionary approach to impacts on Eversden and Wimpole SAC functional habitat;
- Further consideration of measures to mitigate recreational pressure impacts to Wicken Fen through discussion with the National Trust and robust policy wording (Policy 23) to ensure sufficient quantity, quality and long-term management of alternative natural greenspace;
- Updating the report in line with the findings and recommendations of the emerging WCS. This should be used to clarify hydrogeological connectivity (both surface and groundwater) between NECAAP and Wicken Fen and Chippenham Fen Ramsar sites through the HRA, to demonstrate that there will be no adverse effects on these components of Fenland SAC, through changes in water quantity and quality.

Natural England will be pleased to review further iterations of the HRA in due course through our Discretionary Advice Service (DAS). Given the short consultation period we have had limited opportunity to liaise with colleagues and the Environment Agency. Consequently we may raise additional comments through later stages of consultation.

I hope the above comments are helpful. If you have any queries relating to the advice in this letter please contact me on 020 802 65894.

Yours sincerely

Janet Nuttall
Sustainable Land Use Adviser

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