The Planning Inspectorate

REPORT on the IMPLICATIONS for EUROPEAN SITES Proposed A14 Cambridge to Huntingdon Improvement Scheme

An Examining Authority report prepared with the support of the Environmental Services Team

October 2015

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1.0 INTRODUCTION

Background

1.1 Highways England (the applicant) has applied to the Secretary of State for a Development Consent Order (DCO) under section 37 of the Planning Act 2008 (as amended) for the proposed A14 Cambridge to Huntingdon Improvement Scheme (the application). The Secretary of State has appointed an Examining Authority (ExA) to conduct an examination of the application, to report its findings and conclusions, and to make a recommendation to the Secretary of State as to the decision to be made on the application.

1.2 The relevant Secretary of State is the competent authority for the purposes of the Habitats Directive[1] and the Habitats Regulations[2] for applications submitted under the Planning Act 2008 regime (as amended). The findings and conclusions on nature conservation issues reported by the ExA will assist the Secretary of State in performing their duties under the Habitats Regulations.

1.3 This report compiles, documents and signposts information provided within the DCO application, and the information submitted throughout the examination by both the applicant and interested parties (IPs), up to 28 September 2015 in relation to potential effects to European Sites[3]. It is not a standalone document and should be read in conjunction with the examination documents referred to in this report.

1.4 It is issued to ensure that IPs including the statutory nature conservation bodies: Joint Nature Conservation Committee (JNCC)/ Natural England (NE); are consulted formally on Habitats Regulations matters. This process may be relied on by the Secretary of State for the purposes of Regulation 61(3) of the Habitats Regulations. Following consultation the responses will be considered by the ExA in making their recommendation to the Secretary of State and made available to the Secretary of State along with this report. The RIES is not revised following consultation.

1.5 The applicant has not identified any potential impacts on European sites in other EEA States[4] (APP-700). Only UK European sites are addressed in this report.

[1] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (as codified) (the 'Habitats Directive').

[2] The Conservation of Habitats and Species Regulations 2010 (as amended) (the Habitats Regulations).

[3] The term European Sites in this context includes Special Areas of Conservation (SACs) and candidate SACs, Special Protection Areas (SPAs), potential SPAs, Sites of Community Importance (SCIs), Ramsar sites, and any sites identified as compensatory measures for adverse effects on any of the above. For a full description of the designations to which the Habitats Regulations apply, and/ or are applied as a matter of Government policy, see PINS Advice Note 10 and the Habitats Regulations Assessment Handbook (DTA Publications July 2014).

[4] European Economic Area (EEA) States.

Documents used to inform this RIES

1.6 The applicant concluded within their DCO application that there would be no likely significant effects on all European sites screened. A No Significant Effects Report (NSER) titled Assessment of Implications on European Sites (AIES) Stage 1: No significant effects report and screening matrices (APP-700) were provided by the applicant in support of this conclusion.

Examination

1.7 The ExA concluded that the original matrices submitted as part of the AIES (APP-700) had imprecise references to the information supporting the conclusions of the assessment. Annex G of the ExA's Rule 6 letter (PD-003) highlighted the necessity for the submitted matrices to be updated with specific references identifying with greater precision where the relevant information could be found.

1.8 The original information relating to the Ouse Washes was provided in a single matrix and did not present information for each of the three separate designations. In response to the ExA's first questions (Q1.2.17) (PD-005) the applicant provided additional information regarding the separate features of the Ouse Washes SAC, SPA and Ramsar (submitted to the ExA for Deadline 2 REP2-003), however this information was not supplied in the format required in PINS Advice Note 10: Habitat Regulation Assessment relevant to nationally significant infrastructure projects.

1.9 The applicant supplied matrices in Advice Note 10 format which did include improved information about where to find the evidence, however information regarding the Ouse Washes was still presented in a single matrix (submitted to the ExA for Deadline 4 REP4-024).

1.10 Consequently at second questions (Q2.2.23) (PD-006) the ExA requested the information for each of the Ouse Washes designations be supplied in separate matrices and in the Advice Note 10 format. The ExA also reiterated the need for specific references to where the information could be found.

1.11 In response to second questions (REP7-043) the applicant supplied matrices for each of the three Ouse Washes designations including the specific references to relevant information. However, in their response to second questions at Deadline 7 (REP7-009) NE indicated that the Ouse Washes SPA matrix did not contain information for all the necessary designated features. NE concluded that the applicant had presented features consistent with the 1992 citation but should have also utilised the 2001 SPA review which lists a number of additional features.

1.12 At Deadline 8 NE presented a definitive list of all the features which they considered were relevant to the Ouse Washes SPA (REP8-004) and stated that these were agreed between NE and the applicant. In their response to the ExA's second written questions and other Deadline 7 submissions (REP8-015) the applicant indicated that at Deadline 9 they would provide amended matrices for the AIES to consolidate previous revisions and correct the qualifying features of the Ouse Washes SPA as agreed with NE.

1.13 A finalised full set of matrices for the AIES was submitted to the ExA at Deadline 9 (REP9-007). All the features agreed with NE at Deadline 8 were included in this version of the Ouse Washes SPA matrices.

Key Documents Considered in this Report

Application Documents

- Assessment of Implications on European Sites (AIES) Stage 1: No significant effects report. December 2014. Environmental Statement Appendix 11.12 (APP-700)
- Environmental Statement – Non Technical Summary. December 2014. Document 6.1 (APP-331)
- Environmental Statement – Chapter 1 - Introduction. December 2014 (APP-332)
- Environmental Statement – Chapter 2 - Location and Context. December 2014 (APP-333)
- Environmental Statement – Chapter 3 – Description of the Scheme. December 2014 (APP-334)
- Environmental Statement – Chapter 4 – Main Alternatives. December 2014 (APP-335)
- Environmental Statement – Chapter 5 – Consultation. December 2014 (APP-336)
- Environmental Statement – Chapter 6 – Approach to the EIA. December 2014 (APP-337)
- Environmental Statement – Chapter 7 – Traffic and transport. December 2014 (APP-338)
- Environmental Statement –Chapter 8 – Air Quality. December 2014. (APP-339)
- Environmental Statement – Chapter 9 – Cultural Heritage. December 2014 (APP-340)
- Environmental Statement – Chapter 10 – Landscape. December 2014 (APP-341)

- Environmental Statement – Chapter 11 – Nature Conservation. December 2014 (APP-342)
- Environmental Statement – Chapter 12 – Geology and Soils. December 2014 (APP-343)
- Environmental Statement –Chapter 13 – Materials. December 2014 (APP-344)
- Environmental Statement – Chapter 14 – Noise and Vibration. December 2014 (APP-345)
- Environmental Statement – Chapter 15 – Effects on all Travellers. December 2014 (APP-346)
- Environmental Statement – Chapter 16 – Community and Private Assets. December 2014 (APP-347)
- Environmental Statement – Chapter 17 – Road Drainage and the Water Environment. December 2014 (APP-348)
- Environmental Statement – Chapter 18 – Cumulative Effects and Impact Interactions. December 2014 (APP-349)
- Environmental Statement – Chapter 19 – Summary of the environmental impacts assessment. December 2014 (APP-350)
- Environmental Statement – Chapter 20 – Environmental Management. December 2014 (APP-351)
- Environmental Statement – Figure 11.14 - AIES European Sites. December 2014 (APP-401)

Relevant Representations

- Natural England – Relevant Representation. March 2015 (RR-630)
- Environment Agency – Relevant Representation. March 2015 (RR-639)

Deadline 1

- Highways England – Response to Relevant Representations. June 2015 (REP1-035)

Deadline 2

- Highways England – Response to ExA's first written questions Report 2: Biodiversity and Ecological Conservation. June 2015 (REP2-003)
- Natural England – Written Representation. 15 June 2015 (REP2- 150)
- Natural England – Written Representation Annexes. 15 June 2015 (REP2- 151)
- Huntingdonshire District Council – Local Impact Report. 15 June 2015 (REP2-180)

- South Cambridgeshire District Council – Local Impact Report. 15 June 2015 (REP2-189)

Deadline 4

- Highways England – Comments on Written Representations – Report 3 – Environmental Statutory Bodies. July 2015 (REP4-013)
- Highways England – AIES Amended Matrices. July 2015 (REP4-024)

Deadline 7

- Natural England – Response to ExA's Second Written Questions. 19 August 2015 (REP7- 009)
- Highways England - Response to ExA's Second Written Questions: Principal Issue 2 Biodiversity and Ecological Conservation. August 2015 (REP7-016)
- Highways England – AIES Ouse Washes Amended Matrices. August 2015 (REP7-043)

Deadline 8

- Natural England – Clarification regarding response to ExA's Second Written Questions. 1 September 2015 (REP8-004)
- Highways England – Comments on response to ExA's Second Written Questions and other Deadline 7 submissions. 2 September 2015 (REP8-015)

Deadline 9

- Highways England – AIES Revised Screening Matrices. 10 September 2015 (REP9-007)

Other Documents

- Rule 6 Letter. 17 April 2015 (PD-003)
- Examining Authority's First Written Questions. 21 May 2015 (PD-005)
- Examining Authority's Second Written Questions. 29 July 2015 (PD-006)

Structure of this RIES

1.14 The remainder of this report is structured as follows:

- **Section 2** identifies the European sites that have been considered within the DCO application and during the examination period, up to 28 September 2015. It provides an overview of the issues that have emerged during the examination.

- **Section 3** identifies the European sites and qualifying features screened by the applicant for potential likely significant effects, either alone or in-combination with other projects and plans. The section also identifies where IPs have disputed the applicant's conclusions, together with any additional European sites and qualifying features screened for potential likely significant effects during the examination.
- **Annex 1** presents the sites screened into the AIES by the applicant.
- **Annex 2** comprises matrices for those European sites and qualifying features with a potential for likely significant effects.

2.0 OVERVIEW

European Sites Considered

2.1 The project is not connected with or necessary to the management for nature conservation of any of the European sites considered within the applicant's assessment, as noted in paragraph 7.1.1 of the applicant's AIES (APP-700).

2.2 The applicant's AIES Report identified the following European sites (illustrated in APP-401) within the UK for inclusion within the assessment:

- Portholme SAC
- Ouse Washes SAC
- Ouse Washes SPA
- Ouse Washes Ramsar
- Eversden and Wimpole Woods SAC

2.3 The sites screened into the AIES by the applicant and their features are presented in Annex 1.

2.4 The applicant identified European sites at a range of distances from the proposed project for inclusion in the assessment. Firstly the applicant identified all European sites within 2km of the scheme in line with Design Manual for Roads and Bridges (DMRB) HD44/09 guidance. This is considered a precautionary distance for consideration of all European sites as the effects of habitat loss, fragmentation, inappropriate management, air pollution and introduction of invasive species are only likely to occur within less than 1km of the scheme.

2.5 The applicant also undertook a search for SACs where the scheme crosses/is adjacent to, upstream of, or downstream of, watercourses designated in part or wholly as a European site following guidance in DMRB HD 44/09.

2.6 The applicant also undertook a further search for European sites where bats are a primary qualifying feature within 30km of the scheme in line with DMRB HD44/09.

2.7 Finally the applicant undertook a search of European sites where wintering birds are qualifying features within 5km of the scheme. Wintering birds can range several kilometres from the site boundaries but the applicant considers that past 5km the size of the area potentially available to them is so large that it is highly unlikely that habitat further afield would be critical to the integrity of the site and the population of the species.

AIES Matters Considered During the Examination

2.8 The Examination has focussed on the need to determine the correct features of the designated sites potentially affected by the development. The first version of the matrices supplied by the applicant in their original AIES (APP-700) were satisfactory in terms of their presentation for both Portholme SAC and Eversden and Wimpole Woods SAC however the Ouse Washes matrix merged the SAC, SPA and Ramsar designations into one matrix in which the features under each designation were not presented separately. The ExA stated in Annex G of the Rule 6 letter (PD-003) that amendment of the matrices to more accurately identify evidence was recommended. The applicant subsequently resupplied the matrices (REP4-024) with improved signposting of the relevant evidence, and relevant paragraphs were identified rather than just section references. Though the Ouse Washes matrix still combined the SAC, SPA and Ramsar designations.

2.9 The ExA requested in Q2.2.23 of second written questions (PD-006) that separate matrices be supplied for the Ouse Washes SAC, the Ouse Washes SPA and the Ouse Washes Ramsar. The applicant subsequently supplied the three matrices for each of the Ouse Washes designations (REP7-043). The Ouse Washes SAC and the Ouse Washes Ramsar matrices were found to be satisfactory in terms of their presentation, however the features identified in the Ouse Washes SPA did not accord with those NE indicated needed to be included at Deadline 7 (REP7-009). The Ouse Washes SPA matrix included features identified in a 1992 citation for the SPA whereas NE indicated that the 2001 UK SPA review features should have been used, consequently a number of additional features needed to be included in the Ouse Washes SPA matrix.

2.10 At Deadline 8 the applicant indicated that the list of features associated with the Ouse Washes SPA had now been agreed with NE and that they would submit a matrix including all the agreed features at Deadline 9 (REP8-015). NE also provided confirmation that the list of features for the Ouse Washes SPA had been agreed with them (REP8-004).

2.11 At Deadline 9 the applicant provided a finalised set of matrices (REP9-007). The features included in the Ouse Washes SPA matrix matched those that NE had indicated had been agreed at Deadline 8.

3.0 LIKELY SIGNIFICANT EFFECTS

3.1 The applicant has described how they have determined what would constitute a 'significant effect' within their AIES report (APP-700). This follows EC guidance on habitats assessment (EC Guidance document: 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (2000)' and EC Guidance document: 'Assessment of plans and projects significantly affecting Natura 2000 sites (2001)').

3.2 The applicant has addressed potential in-combination effects within paragraph 2.2.4 of their AIES report (APP-700). The following projects have been considered in the in-combination assessment carried out by the applicant:

- Station area development, set within Cambridge city centre. Allocated in the Cambridge Local Plan for approximately 650 dwellings, employment, a hotel, leisure and arts uses, community uses and civic uses.
- University site, north-west Cambridge development, between Huntingdon Road and Madingley Road. This is a mixed-use development on University-owned farmland in the north-west quadrant of Cambridge, to create an extension to the city. Consisting of 150 hectares of residential housing, academic and research facilities, local centre and public amenities, plus site infrastructure and open greenspace.
- Cambridge Northern Fringe West (Orchard Park). Orchard Park is a mixed use development site bounded by the A14, Histon Road and Kings Hedges Road including up to 900 dwellings. The majority of the site has already been developed.
- Darwin Green/NIAB (north-west Cambridge-Huntingdon Road to Histon Road). Land between Huntingdon Road and Histon Road is a largely residential development of 1,000 dwellings, as well as associated facilities and services including a school, shops and community facilities.
- Cambridge Northern Fringe East and land surrounding the proposed Cambridge Science Park Station is a 75ha mixed-use development.
- Northstowe is an area of approximately 432 hectares, located to the east of Longstanton and to the north of Oakington, to accommodate a new town with a target capacity of 10,000 dwellings (aiming for at least 4,800 dwellings by 2016) and associated employment, services, facilities and infrastructure.

- Cambridge East Area Action Plan (AAP). Identified as a site for a sustainable new urban quarter of approximately 10,000-12,000 dwellings and associated development and land north of Cherry Hinton will deliver approximately 110.
- Land North of Waterbeach is a new town of 8,000 to 9,000 dwellings and associated uses proposed on the former Waterbeach Barracks and land to the east and north.
- Bourne Airfield is land south of the A428 based on Bourne Airfield which is allocated for the development of a new village of approximately 3,500 dwellings.
- Huntingdon West is envisaged as a vibrant part of the town enjoyed by residents, workers and visitors by 2026 in the Huntingdon West AAP (adopted 2011). To achieve this it is proposed to develop new and improved transport routes, provide modern residential, retail and office development, and enhance and enlarge Hinchingbrooke Country Park.
- RAF Brampton will be closed and a planning application has been submitted for 402 dwellings.
- Land off Ermine Street is allocated for development with an outline planning application currently in place for 1021 dwellings, a primary school, community facilities and associated works.
- Land north-west of Bearscroft Farm has outline planning permission approved for residential development to provide up to 753 dwellings, a primary school and associated improvements.
- Alconbury Weald has an outline planning application currently awaiting determination for employment, up to 5,000 dwellings, a mixed use hub and mixed use neighbourhood facilities.
- Common Barn Wind Farm, Southoe has current planning permission for the erection of three 125m wind turbines and associated development on land at Church Farm, Rectory Lane, Southoe.
- Woolley Hill Wind Farm has current planning permission for the erection of four 130.5m wind turbines and associated development on land east of Whitleather Lodge, Woolley Hill, Ellington.
- As part of the Targeted Improvement Programme (TIP) and Pinch Point Programme (PPP), Highways England is currently adding an additional lane to both eastbound and westbound directions of the A14 between junctions 31 (Girton) and 32 (Histon).
- Network Rail is currently carrying out a feasibility study to explore options for the closure of levels crossings on the East Coast Main Line. The proposals include the closure of the level crossing at Offord and the provision of a new road bridge to the north of the village.

3.3 The scope of the in-combination assessment was not disputed by NE.

3.4 The applicant's screening assessment (APP-700) concluded that the project would have **no likely significant effect**, either alone or in-combination with other projects or plans, on the qualifying features of the European site(s) listed below.

- Portholme SAC
- Ouse Washes SAC
- Ouse Washes SPA
- Ouse Washes Ramsar
- Eversden and Wimpole Woods SAC

3.5 The applicant's conclusions in relation to these sites and their features **were not disputed** by any IPs during the examination.

Summary of the AIES Screening outcome during the examination

3.6 A total of five European sites were screened by the applicant prior to examination (see Table 2.1). Of these sites, the applicant concluded that there would be no likely significant effect on the five European sites and their qualifying features (see Table 3.1). The IPs did not dispute the applicant's conclusion of no likely significant effects on these European sites and their qualifying features during the examination.

ANNEX 1: SITES SCREENED INTO THE HRA BY APPLICANT

Table 2.1: Sites Screened into the HRA by applicant

Name of European Site	**Features**
Portholme SAC	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) This large site represents lowland hay meadows in eastern England. It is the largest surviving traditionally-managed meadow in the UK, with an area of 104 ha of alluvial flood meadow (7% of the total UK resource). There has been a long history of favourable management and very little of the site has suffered from agricultural improvement, and so it demonstrates good conservation of structure and function. It supports a small population of snake's head fritillary Fritillaria meleagris.
Ouse Washes SAC	Spined loach Cobitis taenia The Ouse Washes represent spined loach Cobitis taenia populations within the River Ouse catchment. The Counter Drain, with its clear water and abundant macrophytes, is particularly important, and a healthy population of spined loach is known to occur.
Ouse Washes SPA	Bewick's swan, Cygnus columbianus bewickii, (Non-breeding) Whooper swan, Cygnus Cygnus, (Non-breeding) Eurasian wigeon, Anas penelope, (Non-breeding) Gadwall, Anas strepera, (Breeding) Eurasian teal, Anas crecca, (Non-breeding) Mallard, Anas platyrhynchos, (Breeding) Northern pintail, Anas acuta, (Non-breeding) Garganey, Anas querquedula, (Breeding) Northern shoveler, Anas clypeata, (Non-breeding) Northern shoveler, Anas clypeata, (Breeding) Hen harrier, Circus cyaneus, (Non-breeding) Ruff, Philomachus pugnax, (Breeding) Black-tailed godwit, Limosa limosa limosa, (Breeding) Waterbird assemblage Breeding bird assemblage
Ouse Washes Ramsar	The site is one of the most extensive areas of seasonally-flooding washland of its type in Britain.
	The site supports several nationally scarce plants, including small water pepper Polygonum minus, whorled water-milfoil Myriophyllum verticillatum, greater water parsnip Sium latifolium, river waterdropwort

	Oenanthe fluviatilis, fringed water-lily Nymphoides peltata, long-stalked pondweed Potamogeton praelongus, hair-like pondweed Potamogeton trichoides, grass-wrack pondweed Potamogeton compressus, tasteless water-pepper Polygonum mite and marsh dock Rumex palustris. Invertebrate records indicate that the site holds relict fenland fauna, including the British Red Data Book species large darter dragonfly Libellula fulva and the rifle beetle Oulimnius major. The site also supports a diverse assemblage of nationally rare breeding waterfowl associated with seasonally-flooding wet grassland.
	Assemblages of international importance: Species with peak counts in winter: 59133 waterfowl (5 year peak mean 1998/99-2002/2003)
	Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter: Tundra swan, Cygnus columbianus bewickii, NW Europe 1140 individuals, representing an average of 3.9% of the population (5 year peak mean 1998/9-2002/3) Whooper swan, Cygnus cygnus, Iceland/UK/Ireland 653 individuals, representing an average of 3.1% of the population (5 year peak mean 1998/9-2002/3) Eurasian wigeon, Anas penelope, NW Europe 22630 individuals, representing an average of 1.5% of the population (5 year peak mean 1998/9-2002/3) Gadwall, Anas strepera strepera, NW Europe 438 individuals, representing an average of 2.5% of the GB population (5 year peak mean 1998/9-2002/3) Eurasian teal, Anas crecca, NW Europe 3384 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3) Northern pintail, Anas acuta, NW Europe 2108 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3) Northern shoveler, Anas clypeata, NW & C Europe 627 individuals, representing an average of 1.5% of the population (5 year peak mean 1998/9-2002/3)
Eversden and Wimpole Woods SAC	Barbastelle Barbastella barbastellus The site comprises a mixture of ancient coppice

	woodland (Eversden Wood) and high forest woods likely to be of more recent origin (Wimpole Woods). A colony of barbastelle Barbastella barbastellus is associated with the trees in Wimpole Woods. These trees are used as a summer maternity roost where the female bats gather to give birth and rear their young. Most of the roost sites are within tree crevices. The bats also use the site as a foraging area. Some of the woodland is also used as a flight path when bats forage outside the site.

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ANNEX 2: STAGE 1 MATRICES: SCREENING FOR LIKELY SIGNIFICANT EFFECTS

Stage 1 Matrices: Screening for Likely Significant Effect

This annex of the RIES identifies the European sites and features potentially affected by the proposed development.

Key to Matrices:

✓	Likely significant effect cannot be excluded
×	Likely significant effect can be excluded
C	construction
O	operation
D	decommissioning

Information supporting the conclusions is detailed in footnotes for each table with reference to relevant supporting documentation.

Where an impact is not considered relevant for a feature of a European Site the cell in the matrix is formatted as follows:

n/a

Stage 1 Matrix 1: Portholme SAC

Site Code: UK0030054

Distance to project: 37 m to nearest point

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
6510 Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Evidence supporting conclusions

a: There would be no habitat loss from the site during the construction phase as the site is 37m from the nearest point of the scheme. As the site is an independent, isolated habitat, there would be no fragmentation either (see *paragraphs 6.2.2 to 6.2.4 in the AIES and Figure 11.14: AIES European sites*).

b: There would be no habitat loss during operation of the road as there are no effects on habitat loss/fragmentation, which necessarily occurs during site clearance in the construction phase.

c: The applicant contends that roads are not designed and managed to be decommissioned and thus consideration of effects during a decommissioning phase would be irrelevant. The operational design life of the road could have been given consideration however.

d: Best practice construction methods will prevent significant pollution during the construction phase. There would be an overall reduction in road surface area and a reduction in average traffic flows. This would result in benefits to the SAC related to decreased surface water run-off (and therefore flood risk and water quality improvements) and an improvement in air quality (due to a reduction in NOx and total nitrogen) in the operational phase. Changes in the water and air environment are predicted to be insignificant and in places beneficial (see *paragraphs 6.3.2 to 6.3.19 and 6.5.2 to 6.5.21 in the AIES*).

e: The scheme would not affect the traditional grazing and cutting for hay techniques currently employed at the SAC during either the construction or operational phases. Invasive species have been recorded near the scheme but best practice construction techniques would be used to control spread of such species where present during the construction phase (see *paragraphs 6.4.2 to 6.4.5 and 6.6.2 to 6.6.8 in the AIES*).

f: As there will be no habitat loss or fragmentation due to the scheme, there will be no in-combination effects with other developments (see *paragraphs 6.2.4; 6.3.8, 13, 17 1nd 19; 6.4.5 and 6.6.7 in the AIES*).

Stage 1 Matrix 2: Ouse Washes SAC

Site Code: UK0013011

Distance to project: 9.12 km to nearest point

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
1149 Spined loach *Cobitis taenia*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Evidence supporting conclusions

a: There would be no habitat loss from the site during the construction phase as the site is over 9km from the nearest point of the scheme. There would be no significant loss or fragmentation of habitat used by spined loach outside the SAC (see *paragraphs 6.2.5 and 6.2.6 in the AIES and Figure 11.14: AIES European sites*).

b: There would be no habitat loss during operation of the road as there are no effects on habitat loss/fragmentation, which necessarily occurs during site clearance in the construction phase.

c: The applicant contends that roads are not designed and managed to be decommissioned and thus consideration of effects during a decommissioning phase would be irrelevant. The operational design life of the road could have been given consideration however.

d: Changes in the water and air environment are predicted as unlikely to be significant and in places beneficial during both the construction and operation phases. The site or habitats likely to be used by spined loach from the site are not likely to be significantly affected (see *paragraphs 6.3.20 to 6.3.23 and 6.5.22 in the AIES*).

e: The scheme at its nearest point is beyond 9km from the SAC and there would be no change to the management of the site or any habitat significantly used by spined loach from the site during either the construction or operational phases. Invasive species have been recorded near the scheme but best practice construction techniques would control the spread of such species where present during the construction phase (see *paragraphs 6.4.6 and 6.6.9 to 6.6.12 in the AIES*).

f: Other projects in the area (e.g. large residential developments) could conceivably act in combination to affect habitat used by spined loach from the site or through changes to water quantity and quality. The distance from the site however, makes it unlikely that any in-combination effects on the site would occur. As the effects of the scheme are likely to be beneficial for changes in the water environment, no in-combination effects are predicted (see *paragraphs 6.2.10; 6.3.24; 6.5.22 and 6.6.11 in the AIES*).

Stage 1 Matrix 3: Ouse Washes SPA

Site Code: UK9008041

Distance to project: 9.12 km to nearest point

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
Bewick's swan; *Cygnus columbianus bewickii* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Whooper swan; *Cygnus cygnus* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Eurasian wigeon; *Anas penelope* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Gadwall; *Anas strepera* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Eurasian teal; *Anas crecca* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Mallard; *Anas platyrhynchos* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Northern pintail; *Anas acuta* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Garganey; *Anas querquedula* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Northern shoveler; *Anas clypeata* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	
Northern shoveler; *Anas clypeata* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	
Hen harrier; *Circus cyaneus* (Non-breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	
Ruff; *Philomachus pugnax* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Black-tailed godwit; *Limosa limosa limosa* (Breeding)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Waterbird assemblage	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Breeding bird assemblage	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Evidence supporting conclusions

a: There would be no habitat loss from the site during the construction phase as the site is over 9km from the nearest point of the scheme. There would be no significant loss or fragmentation of habitat used by mobile species from the SPA (see *paragraphs 6.2.5 to 6.2.9 in the AIES and Figure 11.14: AIES European sites*).

b: There would be no habitat loss during operation of the road as there are no effects of habitat loss/fragmentation, which necessarily occurs during site clearance in the construction phase.

c: The applicant contends that roads are not designed and managed to be decommissioned and thus consideration of effects during a decommissioning phase would be irrelevant. The operational design life of the road could have been given consideration however.

d: Changes in the water and air environment are predicted as unlikely to be significant and in places beneficial during both the construction and operation phases. The site or habitats likely to be used by species from the SPA are not likely to be significantly affected (see *paragraphs 6.3.20 to 6.3.23 and 6.5.22 in the AIES*).

e: The scheme would not affect the management of the site or any habitat significantly used by SPA species from the site during either the construction or operational phases. Invasive species have been recorded near the scheme but best practice construction techniques would control the spread of such species where present during the construction phase (see *paragraphs 6.4.6 and 6.6.9 to 6.6.12 in the AIES*).

f: Other projects in the area (e.g. large residential developments) could conceivably act in combination to affect habitat used by SPA species from the site or through changes to water quantity and quality. The abundance of suitable habitat in the area and distance from the SPA make it unlikely that any in-combination effects on the SPA would occur. As the effects of the scheme are likely to be beneficial for changes in the water environment, no in-combination effects are predicted (see *paragraphs 6.2.10; 6.3.24; 6.4.6; 6.5.22 and 6.6.11 in the AIES*).

Stage 1 Matrix 4: Ouse Washes Ramsar

Site Code: UK11051

Distance to project: 9.12 km to nearest point

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
Ramsar criterion 1 -Seasonally-flooding washland	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Ramsar criterion 2 - Nationally scarce plants												
Small water pepper *Polygonum minus*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Whorled water-milfoil *Myriophyllum verticillatum*,	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Greater water parsnip *Sium latifolium*,	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
River waterdropwort *Oenanthe fluviatilis*,	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Fringed water-lily *Nymphoides peltata*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Long-stalked pondweed *Potamogeton praelongus*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Hair-like pondweed *Potamogeton trichoides*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Grass-wrack pondweed *Potamogeton compressus*,	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
Tasteless water-pepper *Polygonum mite*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Marsh dock *Rumex palustris*.	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Ramsar criterion 2 - Relict fenland fauna, including British Red Data Book species												
Large darter dragonfly *Libellula fulva*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Rifle beetle *Oulimnius major*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Ramsar criterion 5 - Assemblages of international importance												
59133 waterfowl (5 year peak mean 1998/99-2002/2003)	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Ramsar criterion 6 – species/populations occurring at levels of international Importance: Qualifying species												

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
Bewick's swan *Cygnus columbianus bewickii*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Whooper swan *Cygnus Cygnus*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Eurasian wigeon *Anas Penelope*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Gadwall Anas strepera	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Eurasian teal *Anas crecca*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Northern pintail *Anas acuta*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c
Northern shoveler *Anas clypeata*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Evidence supporting conclusions

a: There would be no habitat loss from the site during the construction phase as the site is over 9km from the nearest point of the scheme. There would be no significant loss or fragmentation of habitat used by mobile species from the Ramsar site (see *paragraphs 6.2.5 to 6.2.9 in the AIES and Figure 11.14: AIES European sites*).

b: There would be no habitat loss during operation of the road as there are no effects on habitat loss/fragmentation, which necessarily occurs during site clearance at the construction phase.

c: The applicant contends that roads are not designed and managed to be decommissioned and thus consideration of effects during a decommissioning phase would be irrelevant. The operational design life of the road could have been given consideration however.

d: Changes in the water and air environment are predicted as unlikely to be significant and in places beneficial during both the construction and operation phases. The site or habitats likely to be used by features from the site are not likely to be significantly affected (see *paragraphs 6.3.20 to 6.3.23 and 6.5.22 in the AIES*).

e: The scheme would not affect the management of the site or any habitat significantly used by mobile species from the site during either the construction or operational phases. Invasive species have been recorded near the scheme but best practice construction techniques would control spread of such species where present during the construction phase (see *paragraphs 6.4.6 and 6.6.9 to 6.6.12 in the AIES*).

f: Other projects in the area (e.g. large residential developments) could conceivably act in combination to affect habitat used by mobile species from the site or through changes to water quantity and quality. The abundance of suitable habitat in the area and distance from the site make it unlikely that any in-combination effects on the site would occur. As the effects of the scheme are likely to be beneficial for changes in the water environment, no in-combination effects are predicted (see *paragraphs 6.2.10; 6.3.24; 6.4.6; 6.5.22 and 6.6.11 in the AIES*).

Stage 1 Matrix 5: Eversden and Wimpole Woods SAC

Site Code: UK0030331

Distance to project: >10 km to nearest point

European site features	Likely Effects of NSIP											
	Habitat loss / fragmentation			Indirect changes to conditions			Inappropriate management and alien introductions			In combination effects		
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D
1308 Barbastelle- *Barbastella barbastellus*	×a	×b	×c	×d	×d	×c	×e	×e	×c	×f	×f	×c

Evidence supporting conclusions

a: There would be no habitat loss from the site during the construction phase as the site is over 10km from the nearest point of the scheme. Habitat used by barbastelle bats from the SAC could conceivably be fragmented by the scheme if the SAC population used areas near to the scheme and connective habitat was affected. However, it is unlikely that the SAC population use any habitat areas near to the scheme (see *paragraphs 6.2.11 to 6.2.19 in the AIES and Figure 11.14: AIES European sites*).

b: There would be no habitat loss during operation of the road as there are no effects on habitat loss/fragmentation, which necessarily occurs during site clearance at the construction phase.

c: The applicant contends that roads are not designed and managed to be decommissioned and thus consideration of effects during a decommissioning phase would be irrelevant. The operational design life of the road could have been given consideration however.

d: Changes in the water and air environment are predicted to be insignificant and in places beneficial during both the construction and operational phases. No habitat likely to be used by SAC barbastelle bats is likely to be significantly affected (see *paragraphs 6.3.25 and 6.5.23 in the AIES*).

e: The scheme would not affect the management of the site or foraging / commuting habitat outside the site that is likely to be used by SAC bats during either the construction or operational phases. Invasive species have been recorded near the scheme but best practice construction techniques would control spread of such species where present during the construction phase (see *paragraphs 6.4.7 and 6.6.13 in the AIES*).

f: Other projects in the area (e.g. large residential developments) could conceivably act in combination to reduce the connectivity and foraging resource for barbastelle bats to the north of the area of importance for the SAC. However, the lack of connectivity between the area of importance for the SAC and the area in the vicinity of the scheme also suggests it is unlikely that any in combination effects on barbastelle bat habitat in the vicinity of the scheme would have an adverse effect on the SAC (see *paragraphs 6.2.20; 6.3.25; 6.4.7; 6.5.23 and 6.6.13 in the AIES*).