

**HABITATS REGULATIONS ASSESSMENT FOR AN
APPLICATION UNDER THE PLANNING ACT 2008**

A417 Missing Link

16 November 2022

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1. INTRODUCTION

Background

- 1.1 This document ("the HRA Report") is a record of the Habitats Regulations Assessment ("HRA") that the Secretary of State for Transport has undertaken under regulation 63 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations") in respect of the Development Consent Order ("DCO"), for the proposed "A417 Missing Link" ("the Development"). The HRA Report includes an Appropriate Assessment ("AA") for the purposes of regulation 63 of the Habitats Regulations.
- 1.2 The Habitats Regulations were amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 ("the 2019 Regulations") and these amendments were taken into account in the preparation of this HRA Report. Reference to the Habitats Regulations in this HRA Report are therefore to the latest amended version, unless otherwise stated.
- 1.3 National Highways, formerly Highways England ("the Applicant") submitted an application for development consent ("the Application") to the Planning Inspectorate ("the Inspectorate") on 1 June 2022 under section 37 of the Planning Act 2008 ("PA 2008"). The Development to which the Application relates is described in more detail in Section 2 of this HRA Report.
- 1.4 The Development constitutes a Nationally Significant Infrastructure Project ("NSIP") by virtue of it being the alteration of a highway within the meaning of sections 14(1)(h) and section 22 of the PA2008.
- 1.5 The Application was accepted for examination by the Inspectorate (under the delegated authority of the Secretary of State) on 29 June 2021.
- 1.6 The Applicant requested changes to the Development to which the Application relates during the examination, as set out in Section 2.3. of the Examining Authority's (ExA) Recommendation Report ("the Recommendation Report"). One specific change to the Development was put forward as a change request.
- 1.7 The change request was accepted into the Examination on 14 February 2022. The ExA determined the change was a 'material amendment' and issued a Procedural Decision confirming this on 17 February 2022.
- 1.8 The examination concluded on 16 May 2022. The ExA submitted the report of the examination, including its recommendation to the Secretary of State for Transport on 16 August 2022.
- 1.9 The Secretary of State's conclusions in relation to European sites have been informed by the Recommendation Report and documents and representations submitted during the examination.

Habitats Regulations Assessment

- 1.10 The Habitats Regulations provide for the designation of sites for the protection of certain species and habitats. These are collectively termed "European sites" and form part of a network of protected sites across the UK known as the "national site network". The UK Government is also a signatory to the Convention on Wetlands of International Importance 1972 ("the Ramsar Convention"). The Ramsar Convention provides for the listing of wetlands of international importance. UK Government policy is to give sites listed under this convention ("Ramsar sites") the same protection as European sites.

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- 1.11 For the purposes of this HRA Report, in line with the Habitats Regulations and relevant Government policy¹, the term “European sites” includes Special Areas of Conservation (SAC), candidate SACs, possible SACs, Special Protection Areas (SPA), potential SPAs, Sites of Community Importance, listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites.
- 1.12 Regulation 63(1) of the Habitats Regulations requires that:
- “(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which-*
- (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and*
- (b) is not directly connected with or necessary to the management of that site,*
- must make an appropriate assessment of the implications of the plan or project for that site in view of that site’s conservation objectives...”*
- 1.13 Regulation 64(1) goes on to state that:
- “(1) If the competent authority is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to paragraph (2), may be of a social or economic nature), it may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).”*
- 1.14 Additionally, Regulation 68 states that:
- “Where in accordance with regulation 64—*
- (a) a plan or project is agreed to, notwithstanding a negative assessment of the implications for a European site or a European offshore marine site, or*
- (b) a decision, or a consent, permission or other authorisation, is affirmed on review, notwithstanding such an assessment, the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected.”*
- 1.15 The Development is not connected with or necessary to the management of any European sites. Accordingly, the Secretary of State for Transport, as the competent authority for the purposes of Transport NSIPs, has undertaken an assessment in line with the requirements of the Habitats Regulations. This HRA Report (Sections 1 to 5) is the record of the appropriate assessment for the purposes of Regulation 63 of the Habitats Regulations.
- The Report on the Implications for European Sites (“RIES”) and consultation with the appropriate nature conservation body**
- 1.16 The ExA, with support from the Planning Inspectorate’s Environmental Services Team, produced a Report on the Implications for European Sites (“the RIES”) [PD-019]. The purpose of the RIES was to compile, document and signpost

¹ Paragraph 181 of the National Planning Policy Framework (NPPF)

information submitted by the Applicant and Interested Parties (“IPs”) during the examination up to and including Deadline 6 of the Examination (30 March 2022). It was issued to ensure that IPs, including Natural England (“NE”) and Natural Resources Wales (“NRW”) as the appropriate nature conservation bodies in respect of the Application for the Development, had been formally consulted on Habitats Regulations matters during the examination. The consultation period ran between 13 April 2022 and 6 May 2022 [ER 6.1.6].

- 1.17 Regulation 63(3) of the Habitats Regulations requires competent authorities (in this case the Secretary of State), if they undertake an AA, to consult the appropriate nature conservation body and have regard to any representations made by that body. Section 5.2 of this HRA sets out further information on how that consultation had been undertaken.
- 1.18 The Applicant provided comments on the RIES at deadline 8 (6 May 2022). Although specific comments on the RIES were not received by NE, further responses to the examination and to the Secretary of State’s further consultations were provided by NE in respect of Habitats Regulations matters.
- 1.19 A signed Statement of Common Ground (“SoCG”) between the Applicant and NE was submitted with the DCO application at Deadline 9 (18 May 2022). Subsequent references to the SoCG between the Applicant and NE in this HRA Report are to the Deadline 9 version. The SoCG confirmed that all matters relating to HRA were agreed between the two parties and that there were no HRA matters outstanding between them in respect of the Development.
- 1.20 The Applicant confirmed that agreement of the conclusions of the HRA Screening Report and HRA SIAA had been received from Natural Resources Wales [REP8-029]. Evidence of this agreement was provided at Deadline 9 [REP9-026] [ER 6.4.7].

Changes to the Application during examination

- 1.21 In respect of the material amendment to the Application identified above and described at Section 2.3 of the Recommendation Report, the Secretary of State notes that the changes would make no material difference to the outcome of the ES and Habitats Regulation Assessment (HRA) conclusions.

Documents referred to in this HRA Report

- 1.22 This HRA Report has taken account of and should be read in conjunction with the documents produced as part of the application and examination available on the Planning Inspectorate website.
- 1.23 The Applicant submitted with the DCO application:
 - “Environmental Statement: Habitats Regulations Assessment: Screening Report” (referred to as the “HRA Screening Report”) [APP-414]
 - “Environmental Statement: Habitats Regulations Assessment: Statement to Inform Appropriate Assessment (referred to as the “HRA SIAA”) [APP-415]
- 1.24 During the Examination Natural England (NE) stated that due to developing evidence the Severn Estuary Ramsar was functionally linked to the Proposed Development site and that this could result in an adverse effect on European eels. In response to the ExA’s request for further information the applicant submitted HRA Matrices for the Severn Estuary Ramsar Site at Deadline 3 [REP3-015].

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- 1.25 Also of relevance to the Applicant's HRA is Environmental Statement ("ES") Chapter 8 Biodiversity [APP-039], Environmental Statement Appendix 2.1 Environmental Management Plan [APP-317] and Environmental Statement Landscape and Ecological Management Plan [APP-321].
- 1.26 The above-mentioned documents are the principal documents prepared by the Applicant in support of HRA matters.

Structure of this HRA Report

- 1.27 The remainder of this HRA Report is presented as follows;
- Section 2 provides a general description of the Development.
 - Section 3 describes the location of the Development and its relationship with European sites.
 - Section 4 identifies the European sites and qualifying features subject to likely significant effects, alone or in combination with other plans or project (HRA Stage 1).
 - Section 5 considers adverse effects on the integrity of European sites, alone or in combination with other plans or projects and summarises the Secretary of State's appropriate assessment and conclusions (HRA Stage 2).
 - Section 6 summarises the Secretary of State's conclusion in respect of HRA Stages 1 and 2.

2. DEVELOPMENT DESCRIPTION

- 2.1 The Development Consent Order as applied would provide a new stretch of dual carriageway on the A417 between Cirencester and Gloucester.
- 2.2 The development would include dualling the existing A417 west of the Air Balloon roundabout and constructing a new section diverting away from the existing alignment between the Air Balloon roundabout and Cowley roundabout. That part of the current alignment would be de-trunked, retained and repurposed for both local access and recreational activity.
- 2.3 The Development lies entirely within the Cotswolds Area of Outstanding Natural Beauty and the administrative areas of Gloucestershire County Council, Cotswold District Council and Tewkesbury Borough Council, in England.
- 2.4 A description of the Development and its setting is included in Section 2 of the ES Chapter 2 [APP-033]. The Development is shown on the Site Location Plan [APP-005]. A plan showing the European sites considered in the Applicant's HRA Screening Report and Applicant's HRA SIAA report and their location relative to the Development, is provided in the Applicant's HRA Figures (Appendix B: European designated sites plan B.1.1.1).
- 2.5 The Development is proposed to be constructed within a period of three years (2023-2026). ES Appendix 2.1 Environmental Management Plan sets out that a detailed construction programme would be finalised by the contractor in advance of works. The EMP (construction) would include a detailed programme of construction which highlights the times and duration of works.
- 2.6 Following completion and once commissioning activities have taken place, the Development would be open to traffic and form part of the Strategic Road Network ("SRN").

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- 2.7 The Applicant's HRA Screening and HRA SIAA report consider the likely significant effects ("LSE") of the construction and operation of the Development. Decommissioning effects have not been assessed on the basis that the Development will form part of the SRN and operation of the road will be ongoing in perpetuity.
- 2.8 The potential effects on European sites associated with the construction, and operation of the Development are addressed in Section 4 of this HRA Report.

3. LOCATION OF THE DEVELOPMENT AND RELATIONSHIP WITH EUROPEAN SITES

Location and existing land use

- 3.1 The Development is located within the administrative areas of Gloucestershire County Council, Cotswold District Council and Tewkesbury Borough Council.
- 3.2 The proposed Order Limits encompass a range of land use types. Whilst predominantly consisting of agricultural land, the site includes exposed rock faces, veteran trees, ancient woodland and the ridges of the Cotswolds AONB, which form the wider landscape setting.
- 3.3 The Cotswold Way National Trail and the Gloucestershire Way long distance footpath both cross the Proposed Development Site. These facilitate non-motorised access in broadly all four compass directions through the surrounding landscape.
- 3.4 A more detailed description of the Proposed Development and the Proposed Development Site is provided in Chapter 2 of the Environmental Statement (ES) [APP033].

European sites potentially affected by the Development

- 3.5 The Development is not connected with or necessary to the management of any of the European sites considered within the Applicant's HRA Screening and HRA SIAA report.
- 3.6 The Applicant considered the potential for LSE on the following six European sites:
 - Cotswolds Beechwoods SAC
 - Wye Valley and Forest of Dean Bat Sites SAC
 - North Meadow and Clattinger Farm SAC
 - Severn Estuary SAC
 - Severn Estuary SPA
 - Severn Estuary Ramsar site
- 3.7 Plans showing the European sites identified in the Applicant's HRA Screening report and their location relative to the Development was provided as Appendix B in the Applicant's HRA Screening Report [APP-414]. The figures are reproduced as Figure 1 & 2 below.
- 3.8 The Applicant's approach to identifying relevant European sites which are to be scoped into the HRA assessment is explained at Section 2.4 of the Applicant's HRA Screening Report. The approach adopted included the identification of European sites in accordance with Design Manual for Roads and Bridges (DMRB) guidance LA 115 and thus considered the following screening criteria:
 - is within 2km (1.24 miles) of a European site or functionally linked land;
 - is within 30km (18.64 miles) of a SACs, where bats are noted as one of the qualifying interests;
 - crosses or lies adjacent to, upstream of, or downstream of, a watercourse which is designated in part or wholly as a European site;

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- has a potential hydrological or hydrogeological linkage to a European site containing a groundwater dependent terrestrial ecosystem (GWDTE) which triggers the assessment of European sites in accordance with LA 113 Road Drainage and the Water Environment.
 - has an affected road network (ARN) which triggers the criteria for assessment of European sites LA 105 any European site within 200m;
- 3.9 Of the six European sites considered, the Cotswold Beechwood SAC lies 291 metres from the DCO Boundary and directly adjacent to the Affected Road Network (ARN). The Wye Valley and Forest of Dean Bat Sites SAC is a composite site and is 13.7 miles west of the DCO Boundary and 7 miles from the ARN, at the closest point. North Meadow and Clattinger Farm SAC is 12.4 miles from the DCO Boundary and 23m from the ARN and the Severn Estuary SAC, SPA and Ramsar site is approximately 11 miles west of the DCO Boundary and 1.86 miles from the ARN (a section of Norman's Brook which runs adjacent to the Existing A417 will be subject to realignment as part of the scheme. This section is approximately 31 miles upstream from the Severn Estuary SAC's furthest upstream boundary).
- 3.10 The scheme, Cotswold Beechwoods SAC and North Meadow and Clattinger Farm SAC are located entirely within England and their boundaries do not overlap with areas of devolved administrations or with those of other European Economic Area (EEA) States.
- 3.11 Both Wye Valley and Forest of Dean Bat Sites SAC, and Severn Estuary SAC, Ramsar site and SPA (which overlap in extent), are partly located within England and the devolved administration of Wales. The screening matrices identify whether LSE will occur in relation to those European sites which fall partly within devolved administrations (as recommended by PINS Advice Note 10 Habitats Regulations Assessment).
- 3.12 The 2017 PINS Advice Note 10 has been referred to by the Applicant during the Examination. The Secretary of State notes that there has been an updated version of Advice Note 10 published in 2022.
- 3.13 No evidence was presented during the examination to suggest that effects from the Development could occur to any other European site. The Secretary of State is therefore satisfied that no other European site needs to be addressed in this HRA Report.

Figure 1 Location of the Development in relation to European sites potentially affected

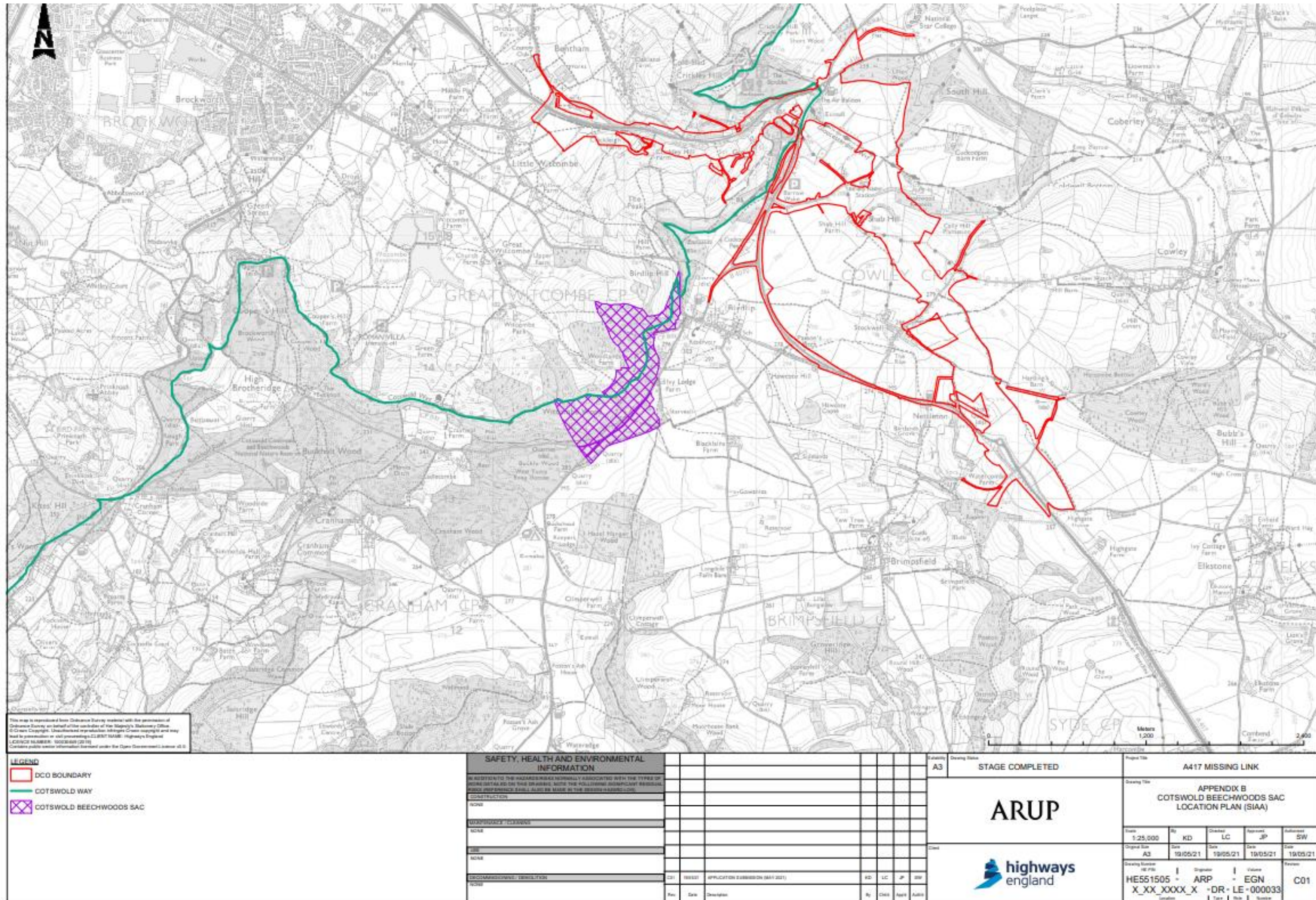
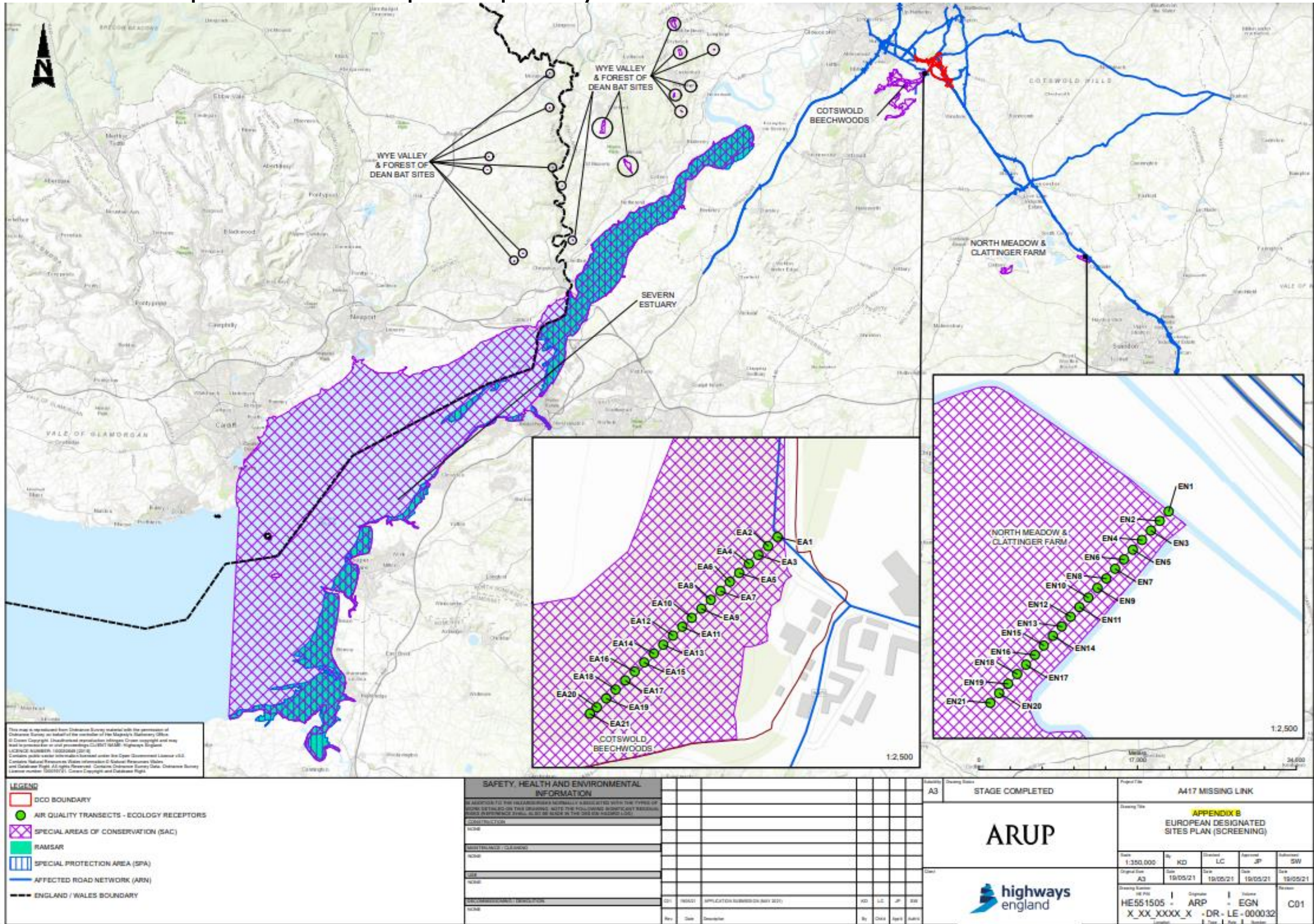


Figure 2 Location of the Development in relation to European sites potentially affected



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satisfied to adopt the rationale and conclusions of the ExA for those sites and features screened out of the LSE assessment.

Table 1 European sites and qualifying features screened into the Applicant's HRA Screening Report.

Protected Site	Distance from DCO boundary	Distance from ARN	Qualifying feature	Effects described in submission information	Effects presented in screening matrices as
Cotswold Beechwoods SAC UK0013658	291m	0m	H6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia), (note that this includes the priority feature "important orchid rich sites") H9130 Asperulo-Fagetum beech forests	Nitrogen deposition Excavation impacts on local hydrology and hydrogeology Increased visitor numbers due to connection of walking and cycling routes, resulting in habitat degradation	Air quality Water quality Recreational pressure
Wye Valley and Forest of Dean Bat SAC Sites UK0014794	13.7 miles	7 miles	S1303 Lesser horseshoe bat S1304 Greater horseshoe bat	Loss of functionally linked habitat for greater and lesser horseshoe bat foraging and commuting Increased mortality due to vehicle collisions	Habitat loss Disturbance
North Meadow and Clattinger Farm SAC UK0016372	12.4 miles	23m	H6510 Lowland hay meadows (<i>A. pratensis</i> , <i>S. officinalis</i>)	Nitrogen deposition	Air quality

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<p>Severn Estuary SAC UK0013030</p>	<p>11 miles</p>	<p>1.86 miles</p>	<p>H1110 Sandbanks which are slightly covered by sea water all the time H1130 Estuaries H1140 Mudflats and sandflats not covered by seawater at low tide H1170 Reefs H1330 Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) S1095 Sea lamprey, <i>Petromyzon marinus</i> S1099 River lamprey, <i>Lampetra fluviatilis</i> S1103 Twaite shad, <i>Alosa fallax</i></p>	<p>Ingress of pollutants Loss of functionally linked habitat for sea lamprey, river lamprey and twaite shad</p>	<p>Water quality Reduction of habitat area</p>
<p>Severn Estuary Ramsar UK11081</p>	<p>11 miles</p>	<p>1.86 miles</p>	<p>Estuaries Mudflats and sandflats not covered by seawater at low tide Atlantic salt meadows Sandbanks which are slightly covered by sea water all the time Reefs Migratory fish (sea lamprey, river lamprey, twaite shad)</p>	<p>Ingress of pollutants Loss of functionally linked habitat for sea lamprey, river lamprey and twaite shad.</p>	<p>Water quality Reduction of habitat area</p>

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			<p>Migratory fish (salmon, eel, sea trout, Allis shad)</p> <p>Internationally important populations of waterfowl</p> <p>Assemblage of nationally important populations of waterfowl</p>		
<p>Severn Estuary SPA UK9015022</p>	<p>11 miles</p>	<p>1.86 miles</p>	<p>Internationally important wintering populations (Berwick's swan)</p> <p>Internationally important migratory populations (common shelduck, gadwall, dunlin, common redshank, greater white fronted goose)</p> <p>Internationally important waterfowl assemblage</p>	<p>Ingress of pollutants</p>	<p>Water quality</p>

Conclusion of initial screening

- 4.8 The Applicant's HRA Screening Report [APP-414] concludes that the Development would have no LSE, either alone or in combination with other plans and projects, on Wye Valley and Forest of Dean Bat SAC Sites, North Meadow and Clattinger Farm SAC, Severn Estuary SAC and Severn Estuary SPA. This conclusion was reached for all potential effects considered and all qualifying features.
- 4.9 Potential LSE were identified from the Development alone on the Cotswold Beechwoods SAC and the Severn Estuary Ramsar site. The HRA screening assessment for these sites are discussed in turn below.

Wye Valley and Forest of Dean Bat SAC

- 4.10 The Applicant's screening assessment for the Wye Valley and Forest of Dean Bat SAC is presented in Table 2 of the Applicant's HRA Screening Report [APP-414]. Table C-3 of that same report also provides a PINS Screening Matrix on the SAC at Appendix C.
- 4.11 Lesser Horseshoe Bat. The HRA screening concludes that although records and survey data demonstrate that habitats within the scheme are used for foraging and commuting by lesser horseshoe bat, and that habitats in close proximity to the scheme are used as winter roosts, there are several breeding populations of lesser horseshoe bat using maternity roosts in much closer proximity to the scheme than the SAC population. Given this finding, the distance of the SAC from the scheme (>13 miles), and existing published studies on this species, it is not likely that the lesser horseshoe bats using habitats within and in close proximity to the scheme are part of the qualifying population within the SAC. The HRA screening therefore concludes a reduction in area of functionally linked habitats is not likely to occur and that no risk of mortality is identified in relation to the lesser horseshoe bat population of the SAC.
- 4.12 Greater Horseshoe Bat. Given the distance of the SAC from the scheme (>13 miles), survey data and existing published studies on this species, it is not likely that greater horseshoe bats use habitats within the DCO Boundary for foraging or commuting during the periods that they are roosting within the maternity or hibernation roosts within the SAC. It is concluded that a very small number of bats from the SAC use a transitional roost in close proximity to the scheme for a short period in late spring to early summer. Survey evidence does not indicate that these bats rely on foraging habitats within the scheme during this period. Therefore, no reduction in the area of functionally linked habitats is likely to occur as a result of the scheme in relation to the greater horseshoe bat population of the SAC.
- 4.13 The proportion of the SAC population crossing the A417 is estimated at 0.7% of the main maternity roost within the SAC and the bats are using this roost for approximately 10% of the year. The HRA Screening report therefore concludes that the increased risk of mortality to <1% of the SAC population for a short period each year is considered to represent a negligible impact upon the favourable conservation status of the qualifying population of greater horseshoe bat within the SAC.
- 4.14 Conclusion. As there are no elements of the proposals which are likely to have any significant impacts upon the SAC alone no in combination effects with other plans or projects are anticipated.

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North Meadow and Clattinger Farm SAC

- 4.15 The Applicant's screening assessment for the North Meadow and Clattinger Farm SAC is presented in Table 3 of the Applicant's HRA Screening Report [APP-414]. Table C-4 of that same report also provides a PINS Screening Matrix on the SAC at Appendix C.
- 4.16 The HRA Screening assessment has considered the impact of air quality on the designated features. The assessment of air quality impacts has concluded that during operation, the change in nitrogen deposition is less than 1% of the lowest critical load value. The highest change as a percentage of the lower critical load is 0.1%. Therefore, no degradation or loss of qualifying habitat via nitrogen deposition during operation is likely as a result of the scheme.
- 4.17 The magnitude of change in annual mean nutrient nitrogen deposition have been determined for the construction phase. The HRA Screening report has concluded that there is no change predicted (0.00 N/ha/yr) at the European site therefore no likely significant effect to the designated habitats as a result of the scheme via nitrogen deposition are likely during construction.
- 4.18 As there are no elements of the proposals which are likely to have any significant impacts upon the SAC alone no in combination effects with other plans or projects are anticipated.

Severn Estuary SAC

- 4.19 The Applicant's screening assessment for the Severn Estuary SAC is presented in Table 4 of the Applicant's HRA Screening Report [APP-414]. Table C-5 of that same report also provides a PINS Screening Matrix on the SAC at Appendix C.
- 4.20 Construction of the scheme will adopt a ground and surface water management plan to prevent the risk of pollution and contamination to ground and surface water, as is required to ensure wider legislative compliance. Adoption of these measures will avoid pollution of the general water environment during construction including any surface water or groundwater that could be linked to the SAC. No impacts on the SAC are anticipated from changes to surface water during operation due to the operational drainage design, including flow volume and quality control measures incorporated into the scheme design.
- 4.21 There will be no loss of Annex I habitats within the Severn Estuary SAC. Annex II species and the migratory fish assemblage (excluding eel) are not anticipated to utilise habitat within the affected reach of Norman's Brook as it is suboptimal for life stages and due to its size and temporal flow. Consequently, there is not anticipated to be any loss of functionally linked habitat for these species.
- 4.22 As there are no elements of the proposals which are likely to have any significant impacts upon the SAC alone no in combination effects with other plans or projects are anticipated.

Severn Estuary SPA

- 4.23 The Applicant's screening assessment for the Severn Estuary SPA is presented in Table 6 of the Applicant's HRA Screening Report [APP-414]. Table C-7 of that same report also provides a PINS Screening Matrix on the SAC at Appendix C.
- 4.24 Construction of the scheme will adopt Annex G Ground and Surface Water Management Plan of ES Appendix 2.1 EMP (Document Reference 6.4) to prevent the risk of pollution and contamination to ground and surface water, as is required to ensure wider legislative compliance. Adoption of these measures will avoid pollution of the general water environment during construction including

any surface water or groundwater that could be linked to the SPA. No impacts on the SPA are anticipated from changes to surface water during operation due to the operational drainage design, including flow volume and quality control measures incorporated into the scheme.

- 4.25 There will be no effect on populations of waterfowl due to the distance between the scheme and the SPA.
- 4.26 As there are no elements of the proposals which are likely to have any significant impacts upon the SAC alone no in combination effects with other plans or projects are anticipated.

Summary of sites with no LSE

- 4.27 The Secretary of State is satisfied that Natural England agreed with the applicant's conclusions for the above sites as evidenced by the final SoCG between the Applicant and NE, and that Natural Resources Wales agreed with the conclusions of the HRA Screening Report [REP9-026]. The Applicant's conclusion of no LSE to Wye Valley and Forest of Dean Bat SAC Sites, North Meadow and Clattinger Farm SAC, Severn Estuary SAC and Severn Estuary SPA alone or in combination, was also not disputed by any Interested Party ("IP") during the examination.
- 4.28 The Secretary of State has reviewed the information within the Applicant's LSE Report and the Recommendation Report and RIES. Based on this information, the Secretary of State agrees with the conclusion of no LSE on Wye Valley and Forest of Dean Bat SAC Sites, North Meadow and Clattinger Farm SAC, Severn Estuary SAC and Severn Estuary SPA as a result of the construction and operation of the Development, either alone or in combination with other plans and projects.

Cotswold Beechwoods SAC

- 4.29 The Applicant's screening assessment for the Cotswold Beechwoods SAC is presented in Table 1 of the Applicant's HRA Screening Report [APP-414]. Table C-2 of that same report also provides a PINS Screening Matrix on the SAC at Appendix C.
- 4.30 The magnitude of change in annual mean nutrient nitrogen deposition have been determined for the construction phase and no change is predicted. During operation, the scheme would result in a reduction in congestion and a reduction in associated traffic emissions with the air quality assessment of changes in annual mean nutrient nitrogen deposition in 2026 is predicted to show a decrease as a result of the scheme. As such, no significant effects upon local air quality as a result of the scheme are determined to be likely during construction or operation.
- 4.31 Cotswold Beechwoods SAC is underlain by the same Water Framework Directive groundwater body and principal aquifer as the scheme. Therefore there is potential for the scheme during construction and operation to cause water pollution to the groundwater of the SAC.
- 4.32 The Applicant has concluded that the land within the scheme does not drain into watercourses that are within, or connected to, the SAC therefore no risk of impacts to the supply or quality of surface water of the SAC are identified from construction or operation.

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- 4.33 Construction of the scheme will adopt a ground and surface water management plan to prevent the risk of pollution and contamination to ground and surface water, as is required to ensure wider legislative compliance. Adoption of these measures will avoid pollution of the general water environment during construction including any surface water or groundwater that could be linked to the site. No impacts on the site are anticipated from changes to surface water during operation due to the operational drainage design, including flow volume and quality control measures incorporated into the scheme design.
- 4.34 There is no potential effect from increased recreational pressure during construction. The Cotswold Crossing will reconnect walking and cycling routes along the Cotswold Way National Trail, which was previously severed by the Existing A417 trunk road. The potential exists for this to contribute to increased visitor pressure at the SAC during operation. In addition, reduced congestion may result in more visitors from areas to the north visiting the SAC via car which could also increase visitor pressure. Public access/disturbance is listed as a key threat to woodland habitats within the SAC within the Site Improvement Plan. Further assessment of information on visitor use of the SAC and the Crickley Hill area to the north is needed to predict potential changes and enable an assessment of the significance of potential impacts upon the SAC.
- 4.35 The Applicant's Screening concludes that there is the potential for LSE to the qualifying features of the SAC arising from the Development alone as a result of increased recreational pressure.
- 4.36 If further assessment of the scheme concluded that it would be likely to result in an increase in visitor pressure upon the SAC alone, the potential would exist for in combination effects with other plans and projects such as those that would increase residential units within 10km of the SAC.

Severn Estuary Ramsar

- 4.37 The Applicant's screening assessment for the Severn Estuary Ramsar was submitted at Deadline 3 [REP3-015]. Table 1 of that same report provides a PINS Screening Matrix on the Ramsar site.
- 4.38 Construction of the scheme will adopt a ground and surface water management plan to prevent the risk of pollution and contamination to ground and surface water, as is required to ensure wider legislative compliance. Adoption of these measures will avoid pollution of the general water environment during construction including any surface water or groundwater that could be linked to the site. No impacts on the site are anticipated from changes to surface water during operation due to the operational drainage design, including flow volume and quality control measures incorporated into the scheme design.
- 4.39 There will be no loss of habitat area within the Severn Estuary Ramsar from construction or operation of the scheme.
- 4.40 The realignment of Norman's Brook in the upper Severn catchment could potentially lead to the loss of functionally linked habitats utilised for life stages of fish species associated with the Ramsar site. However, fish habitat assessment carried out on the affected reach of Norman's Brook in October 2019 indicates that habitat within Norman's Brook is unlikely to support life stages of River or Sea Lamprey due to the small size and temporal nature of flow within this waterbody. Furthermore, significant in-stream barriers observed downstream of this reach are anticipated to present as complete barriers to upstream movement of these species. In addition, the affected reach of Norman's Brook does not support suitable habitat for any of the life stages of

Twaite Shad. The realignment of Norman's Brook in the upper Severn catchment may lead to the loss of habitats utilised for life stages of fish species. However, due to the small size and temporal nature of flow within this waterbody, Norman's Brook is anticipated to present sub-optimal habitat for Atlantic salmon and sea trout. Furthermore, significant in-stream barriers observed downstream of this reach are anticipated to present as complete barriers to upstream movement of these species. The affected reach of Norman's Brook does not support suitable habitat for any of the life stages of Allis Shad. The Applicant was not able to conclude that European eel would not be able to pass the in-stream barriers present downstream of the affected reach of Norman's Brook. Therefore, in the absence of mitigation measures, there is the possibility of eels being impacted by construction works. A likely significant effect cannot therefore be excluded for European eel, a qualifying interest feature of the Ramsar site.

- 4.41 No further loss of potentially functionally linked habitats for fish species associated with the Ramsar site would occur in the operational phase of the scheme.
- 4.42 There will be no effect on populations of waterfowl due to the distance between the scheme and the Ramsar site.
- 4.43 The Applicant's HRA Screening concludes that as a result of habitat loss and fragmentation, there is potential for LSE to the run of migratory fish between sea and river estuary arising from the Development.
- 4.44 If further assessment of the scheme, taking into account mitigation, concluded that construction phase impacts upon European eel could not be avoided, there would be potential for in combination effects with any other plans and projects that result in detrimental impacts to functionally linked watercourses of the Severn Estuary.

Summary of sites with LSE

- 4.45 Based on the information submitted above, the Secretary of State agrees with the Applicant's conclusion of LSE to Cotswold Beechwoods SAC and Severn Estuary Ramsar site alone. The conclusions were not disputed by any Interested Party ("IP") during the examination. These effects, together with any in combination effects, are therefore considered in the Secretary of State's appropriate assessment at Section 5 below.

Conservation objectives

- 4.46 As mentioned in paragraph 1.12 above, where an AA is required in respect of a European site, regulation 63(1) of the Habitats Regulations requires that it be an AA of the implications of the plan or project for the site in view of its conservation objectives. Government guidance⁴ also recommends that in carrying out the stage one assessment (screening), applicants must check if the proposal could have a significant effect on a European site that could affect its conservation objectives.

⁴ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site> (accessed 16/11/2022)

4.47 The conservation objectives relevant to this HRA Report, as published by NE and the Joint Nature Conservation Committee ("JNCC"), are provided in Annex 2 of this HRA Report.

Summary of European sites requiring AA

4.48 The Secretary of State has summarised the European sites, pathways of effect and qualifying features for which an AA is required in Table 2 below. The information is from the Applicant's HRA SIAA [APP-415] and the updates matrices for the Severn Estuary Ramsar Site [REP3-015].

Table 2 Summary of European sites and qualifying features requiring an appropriate assessment

European Site	Pathway of effect	Construction (C) / Operation (O)	Qualifying Features
Cotswold Beechwoods SAC	Habitat degradation from recreational pressure In combination effects with other plans and projects for the above effect.	O	Asperulo-Fagetum beech forests on neutral to rich soils Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia).
Severn Estuary Ramsar site	Loss of functionally linked habitats	C	Ramsar criterion 4 – this site is important for the run of migratory fish between sea and river estuary. Species include: <ul style="list-style-type: none"> • Salmon • Sea trout • Sea lamprey • Allis shad • Twaite shad • Eel It is also of importance for migratory birds during spring and autumn Ramsar criterion 8 – the fish of the estuarine and river system is one of the most diverse in Britain, with over 110 species recorded. The following species use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary:

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European Site	Pathway of effect	Construction (C) / Operation (O)	Qualifying Features
			<ul style="list-style-type: none"> • Salmon • Sea trout • Sea lamprey • River lamprey • Allis shad • Twaite shad • Eel <p>The site is important as a feeding and nursery ground for many fish species, particularly:</p> <ul style="list-style-type: none"> • Allis shad • Twaite shad

5. STAGE 2: APPROPRIATE ASSESSMENT

- 5.1 As LSE cannot be excluded in respect of two European sites the Secretary of State as the competent authority is required to undertake an AA to determine the implications for the conservation objectives of the affected European sites. In line with the requirements of Regulation 63 of the Habitats Regulations:

'the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site'; and

'In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given'.

- 5.2 As noted in Section 1 of this HRA Report, the competent authority is obliged to consult the appropriate nature conservation body and have regard to any representations made by that body. For this purpose, the ExA prepared a RIES as set out in Paragraphs 1.16 to 1.18 of this HRA Report. A RIES [PD-019] was published on 13 April 2022 and an opportunity for comments to be made on it was provided by Deadline 8. Although NE did not specifically provide a response to the RIES consultation, NE were actively engaged with the examination, including at deadlines following the issue of the RIES, and provided confirmation of their agreement with the Applicant's findings and outcomes in respect of HRA matters in their signed final SoCG at deadline 9.
- 5.3 The Applicant confirmed that agreement of the conclusions of the HRA Screening Report and HRA SIAA had been received from Natural Resources Wales [REP8-029]. Evidence of this agreement was provided at deadline 9 [REP9-026].
- 5.4 The Secretary of State is therefore satisfied that NE and NRW have been consulted in line with Regulation 63 of the Habitats Regulations.
- 5.5 In accordance with the precautionary principle embedded in the integrity test and established through case law, the competent authority (subject to Regulation 64) may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site, and this must be demonstrated beyond all reasonable scientific doubt⁵.

Adverse Effects on the Integrity ("AEoI") of the Cotswolds Beechwoods SAC

- 5.6 The Secretary of State has undertaken an objective scientific assessment of the implications of the Development on the qualifying features of the Cotswolds Beechwoods SAC, using best scientific knowledge. The assessment has been made in light of the conservation objectives for the SAC, which are set out in Annex 2 of this HRA Report. A summary of the Secretary of State's appropriate assessment is presented below.

⁵ CJEU Case C-127/02 Waddenzee 7 September 2004, Reference for a preliminary ruling from the Raad van State (Netherlands) in the proceedings: Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij.

Disturbance due to changes in recreational pressure

Alone

- 5.7 The Applicant's assessment of vulnerability due to changes in recreational pressure is presented in the Applicant's SIAA report. Paragraph 5.1.2 of the SIAA report sets out that the conservation objectives supplementary advice for the SAC indicates that recreational pressure is affecting the structure and function of the designated beech woodland habitat through impacts to the root zones of ancient trees.
- 5.8 The Cotswold Way crossing, proposed as part of the scheme, will reconnect walking routes along the Cotswold Way National Trail that is severed by the Existing A417. This improvement in connectivity between areas to the south and to the north of the scheme (particularly Crickley Hill Country Park) could potentially result in increased recreational pressure upon the SAC because it is linked to the scheme by the National Trail long distance footpath. In addition, reduced congestion on the A417 as a result of the scheme could result in more visitors visiting the SAC via vehicle, which could also increase visitor pressure. Increased visitor pressure could potentially damage the qualifying habitats of the SAC and affect the integrity of the site.
- 5.9 Likely changes to recreational pressure on the SAC have been assessed utilising data from published visitor studies from the SAC and Crickley Hill Country Park. This assessment has also considered the impact on visitor behaviour of the changes to public rights of way that form part of the scheme, particularly the provision of the new recreational route along part of the detrunked A417 (Air Balloon Way). Details of the assessment are set out in section 5 of the Applicant's SIAA report.
- 5.10 The SIAA concludes that the provision of the Air Balloon Way, associated additional car parking and other improvements to connected public rights of way will serve to meet the needs of the majority of existing and future visitors, and will divert/ concentrate visitors away from the SAC. It is not considered that an increase in recreational pressure as a result of the scheme would reduce the qualifying habitat features of the SAC.
- 5.11 Although integral measures within the scheme will divert visitor pressure away from the SAC, it is acknowledged that there is uncertainty to their efficacy and it would therefore not be robust to draw a conclusion of no adverse effect on integrity based on those measures. Therefore, additional precautionary mitigation will be provided in the form of measures to control recreational use of the SAC to address this uncertainty.

In combination effects

- 5.12 Natural England advice, based upon the Footprint Ecology visitor study, is that the impact risk zone for the SAC from increased recreational use should be screened within 15.4km of the SAC.
- 5.13 There are numerous residential projects in the categories of development that fall within a 15.4km radius of the SAC including site allocations within the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy. Major housing developments (EIA development) and residential site allocations within adopted planning policy that fall within 5km of the scheme are individually identified within ES Chapter 15 Assessment of Cumulative Effects (Document Reference 6.2). These sites and any other residential development with a net gain in residential units within 15.4km of the SAC could potentially contribute to in

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combination effects if the assessment of the scheme alone identified non significant effects from visitor pressure on the European site.

- 5.14 The visitor study was commissioned by the local planning authorities in the vicinity of the SAC to inform the production of a recreation mitigation strategy for the SAC in collaboration with Natural England.
- 5.15 The recreation mitigation strategy for the SAC is currently in preparation. The precautionary mitigation to be provided in relation to the scheme will be developed in consultation with Natural England and the relevant planning authorities. This will ensure that such measures align with the recreation mitigation strategy and will address any possibility of in combination effects.
- 5.16 The scheme is not considered to cause an increase in recreational pressure upon Cotswold Beechwoods SAC that would have any adverse effect on the site. This is because new alternative recreational provision integral to the scheme will divert visitor pressure away from the SAC. However there is uncertainty to the efficacy of these measures, and additional precautionary mitigation will be provided.
- 5.17 The signed SoCG between the Applicant and NE states NE's satisfaction with the methodology, approach, and findings in relation to the in combination assessment. The signed SoCG with Surrey County Council ("SCC") also confirms agreement with the Applicant's in combination assessment. The Secretary of State is satisfied that the approach to the assessment of in combination effects is appropriate.

Conclusion in respect of disturbance

- 5.18 The commitment to agree mitigation measures is identified in the Register of Environmental Actions and Commitments contained within ES Appendix 2.1 EMP, and documented in Annex D LEMP (Document Reference 6.4) of ES Appendix 2.1 EMP. The additional recreational control measures at the SAC will be developed in tandem with the recreation mitigation strategy currently being prepared by the local planning authorities. It is likely that the additional mitigation measures may include the provision of signage/interpretation boards to raise public awareness of the value of ancient woodland and trees, and the importance of respecting measures installed to reduce root compaction.
- 5.19 The Applicant's SIAA concludes that there will be no significant adverse effect upon the integrity of the SAC as a result of the scheme, either alone or in combination with other plans or projects.
- 5.20 The Secretary of State is satisfied that the control measures proposed in the SIAA are secured such that there would be no AEoI on the Cotswold beechwood SAC due to recreational disturbance, either alone or in combination with other plans or projects. This conclusion is consistent with NE's position, as confirmed in the final signed SoCG with the Applicant.

Adverse Effects on the Integrity ("AEoI") of the Severn Estuary Ramsar site

- 5.21 The Secretary of State has undertaken an objective scientific assessment of the implications of the Development on the qualifying features of the Severn Estuary Ramsar site, using best scientific knowledge. The assessment has been made in light of the conservation objectives for the SAC, which are set out in Annex 2 of

this HRA Report. A summary of the Secretary of State's appropriate assessment is presented below.

Alone

- 5.22 The potential for adverse effects on European eel was identified by the Applicant due to reduction in habitat area during the construction phase. The Applicant concluded that the Proposed Development would not adversely affect the integrity of the Severn Estuary Ramsar due to a number of mitigation measures that would be employed.
- 5.23 Mitigation measures for the fish assemblage (including European eel) within the affected reach of the tributary of Norman's Brook are described within paragraphs 8.9.103 – 8.9.104 and 8.10.198 – 8.10.199 of the Environmental Statement (ES) Chapter 8 Biodiversity. These measures would ensure that the impacts from construction of the scheme upon the fish assemblage (including European eel) would be negligible, and that the residual effects associated with the scheme upon the fish assemblage would be neutral and not significant (as per conclusion within paragraph 8.10.205 of the ES). As per ER 6.4.6 the mitigation measures are further secured by Requirement 3.
- 5.24 The mitigation measures that would ensure no significant upon European eel comprise:
- pre-construction fish surveys and a fish translocation prior to realignment of the tributary of Norman's Brook to ensure that the fish assemblage is protected from construction works as secured through commitment BD6 within the ES Appendix 2.1 EMP (Document Reference 6.4, APP-317).
 - sensitive timings of works during the construction phase and supervision by an ecological clerk of works to further minimise habitat damage and mortality/ injury of fish as secured through commitment BD28 within the ES Appendix 2.1 EMP (Document Reference 6.4, APP-317).
 - detailed design of the new river habitat within the diverted channel of the tributary of Norman's Brook would return the watercourse to a more natural form, improving conditions for fish passage compared to the existing channel that is modified by numerous weirs. This would include improving the potential of the watercourse to support European eel. This commitment is described within section 5.16 of Annex D Landscape and Ecological Management Plan (LEMP) of ES Appendix 2.1 EMP (Document Reference 6.4, APP-321).

In combination Assessment

- 5.22 The mitigation measures to be implemented would ensure that impacts of the scheme upon the European eel population associated with the Severn Estuary Ramsar site would be negligible. There are therefore no elements of the proposals which would adversely affect the integrity of the Severn Estuary Ramsar site, either alone or in combination with other plans or project.

Conclusion of the appropriate assessment and integrity test

- 5.25 As the competent authority for Transport related NSIPs the Secretary of State for Transport has undertaken an AA under Regulation 63 of the Habitats Regulations in relation to the Cotswold Beechwood SAC and Severn Estuary Ramsar site.

- 5.26 The Secretary of State is satisfied that, given the relative scale and magnitude of the identified effects on the qualifying features of these European sites and where relevant, the measures in place to avoid and reduce the potential harmful effects, there would not be any implications for the achievement of the conservation objectives for the Cotswold Beechwood SAC and River Severn Estuary Ramsar site arising from this development and is satisfied that the scheme will not adversely affect the integrity of those sites.

SUMMARY OF CONCLUSIONS

- 5.27 The Secretary of State has carefully considered all the information presented within the application, during the Examination and the representations made by IPs, along with the Recommendation Report and the responses to the Secretary of State's further consultations.
- 5.28 The Development is not directly connected with, or necessary to, the management of a European site, and is likely to have a significant effect on the Cotswold Beechwood SAC and River Severn Estuary Ramsar site. The Secretary of State therefore carried out an appropriate assessment to determine any adverse effects on the integrity of these European sites.
- 5.29 The Secretary of State concludes that the Project alone and in combination would not result in an adverse effect on the integrity of the Cotswold Beechwood SAC and River Severn Estuary Ramsar site.
- 5.30 The Secretary of State is satisfied that the overall coherence of the national site network would be protected by the implementation of mitigation measures secured through the dDCO.
- 5.31 The Secretary of State has therefore concluded, as competent authority for the purposes of the Habitats Regulations, that taking into account the package of mitigation measures which will be secured in the DCO and other documents, it is permissible for him to give consent for the Development.

Annex 1 Documents used to inform this HRA Report

Application Documents

- National Highways – Habitats Regulations Assessment Screening Report [APP-414]
- National Highways – Habitats Regulations Assessment Statement to Inform Appropriate Assessment [APP-415]

Examination documents produced by Applicant

- Updated HRA screening and integrity matrix for one European site (Severn Estuary Ramsar) [REP3-015].

Examination documents produced by Interested Parties

Deadline 1 submissions:

- Natural England – Written Representation [REP1-099]
- Natural England – Written Representation Annex A – responses to ExQ1 [REP1-100]
- Natural England - Written Representation - Annex B - Cotswold Beechwoods SAC - JNCC Standard Data Form [REP1-105]
- Natural England – Written Representation - Annex B - Cotswold Beechwoods SAC Map [REP1-106]
- Natural England - Written Representation - Annex B - North Meadow & Clattinger Farm SAC - JNCC Standard Data Form [REP1-113]
- Natural England Written Representation - Annex B - North Meadow & Clattinger Farm SAC Map [REP1-114]
- Natural England - Written Representation - Annex B - Severn Estuary Ramsar Site - Information Sheet on Ramsar Wetlands [REP1-117]
- Natural England - Written Representation - Annex B - Severn Estuary SAC - JNCC Standard Data Form [REP1-118]
- Natural England - Written Representation - Annex B - Severn Estuary SAC SPA Ramsar Site Map [REP1-119]
- Natural England - Written Representation - Annex B - Severn Estuary SPA - JNCC Standard Data Form [REP1-120]
- Natural England - Written Representation - Annex B - Wye Valley and Forest of Dean Bat Sites SAC - JNCC Standard Data Form [REP1-121]
- Natural England - Written Representation - Annex B - Wye Valley and Forest of Dean Bat Sites SAC Map [REP1-122]
- Natural England - Written Representation - Annex C - Response to the draft Habitat Regulations Assessment (HRA) Screening Report and the Statement to Inform Appropriate Assessment [REP1-123] Deadline 3 submissions:
- National Highways - HRA Matrices – Severn Estuary Ramsar Site [REP3- 015]

Deadline 6 submissions:

- Natural England Response to ExQ2 [REP6-035]

ExA Procedural Decisions

- The ExA's Written Questions (WQ) [PD-006]
- The ExA's Second Written Questions (ExQ2) [PD-010]

Statements of Common Ground

- Statement of Commonality – Annex C Draft Statement of Common Ground with Natural England [APP-419]
- Statement of Commonality – Annex C, Draft Statement of Common Ground with Natural England - Rev 1 [REP1-006]
- Statement of Commonality – Annex C Draft Statement of Common Ground with Natural England Rev 2 [REP3-005]

Other Documents

- Examining Authority's Written Questions ExQ1 [PD-008]
- National Highways Comments on Responses to the Examining Authority's Written Questions (ExQ1) [REP2-014]
- National Highways Deadline 9 (D9) Submission - 8.35 Comments on Responses received by Deadline [REP9-026]
- National Highways Deadline 8 (D8) Submission - 8.33 Comments on Responses received by Deadline 7 and 7a and Changes to the Application [REP8-029]

NB. This list is not exhaustive. The HRA Report is informed by the application and submissions to the examination, together with submissions after the close of examination.

Annex 2 Conservation Objectives

Available from: [REDACTED]

NB. In the case of all European sites identified below, the Conservation Objectives are to be read in conjunction with the accompanying Supplementary Advice documents, which provides more detailed advice and information to enable the application and achievement of the Objectives set out.

There are no conservation objectives published for Ramsar sites. For the purposes of this HRA Report, the Secretary of State is satisfied that the criteria of the Severn Estuary Ramsar site are reflected by the qualifying features for the Severn Estuary SAC and SPA. These conservation objectives have therefore been considered as a suitable proxy for the Ramsar site. More information on the Severn Estuary Ramsar can be found on the JNCC information sheet [untitled \(jncc.gov.uk\)](#)

Contswolds Beechwoods SAC (UK0013658)

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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, and
- The supporting processes on which qualifying natural habitats rely

Qualifying Features:

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco Brometalia); Dry grasslands and scrublands on chalk or limestone.

H9130. Asperulo-Fagetum beech forests; Beech forests on neutral to rich soils.

Wye Valley and Forest of Dean Bat Sites (UK0014794)

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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, and
- The distribution of qualifying species within the site.

Qualifying Features:

S1303. Rhinolophus hipposideros Lesser horseshoe bat

S1304. Rhinolophus ferrumequinum Greater horseshoe bat

North Meadow & Clattinger Farm SAC (UK0016372)

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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, and
- The supporting processes on which qualifying natural habitats rely

Qualifying Features:

H6510. Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)

Severn Estuary SAC (UK0013030)

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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, and,
- The distribution of qualifying species within the site.

Qualifying Features:

H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks

H1130. Estuaries

H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats

H1170. Reefs

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Atlantic salt meadows

S1095. *Petromyzon marinus*; Sea lamprey

S1099. *Lampetra fluviatilis*; River lamprey

S1103. *Alosa fallax*; Twait shad

Severn Estuary SPA (UK9015022)

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features

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- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the sit

Qualifying Features:

A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)

A048 *Tadorna tadorna*; Common shelduck (Non-breeding)

A051 *Anas strepera*; Gadwall (Non-breeding)

A149 *Calidris alpina alpina*; Dunlin (Non-breeding)

A162 *Tringa totanus*; Common redshank (Non-breeding)

A394 *Anser albifrons albifrons*; Greater white-fronted goose (Non-breeding)