

# A303 Sparkford to Ilchester Dualling Scheme TR010036

## 6.6 Habitat Regulations Assessment Finding of No Significant Effects Report

APFP Regulation 5(2)(a)  
Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009  
July 2018



Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms  
and Procedure) Regulations  
2009**

**A303 Sparkford to Ilchester Dualling  
Scheme**

Development Consent Order 201[X]

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**Habitat Regulations Assessment:  
Finding of No Significant Effects Report**

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# 1 Introduction

## 1.1 The purpose of this Habitat Regulations Assessment: Finding of No Significant Effects Report

- 1.1.1 The purpose of this Habitat Regulations Assessment: Finding of No Significant Effects Report is to present sufficient information to allow the Competent Authority to determine whether the A303 Sparkford to Ilchester Dualling scheme (hereafter referred to as 'the scheme') is likely to have significant effects on European sites either alone or in combination with other plans or projects.

## 1.2 Overview of the scheme

### Existing corridor

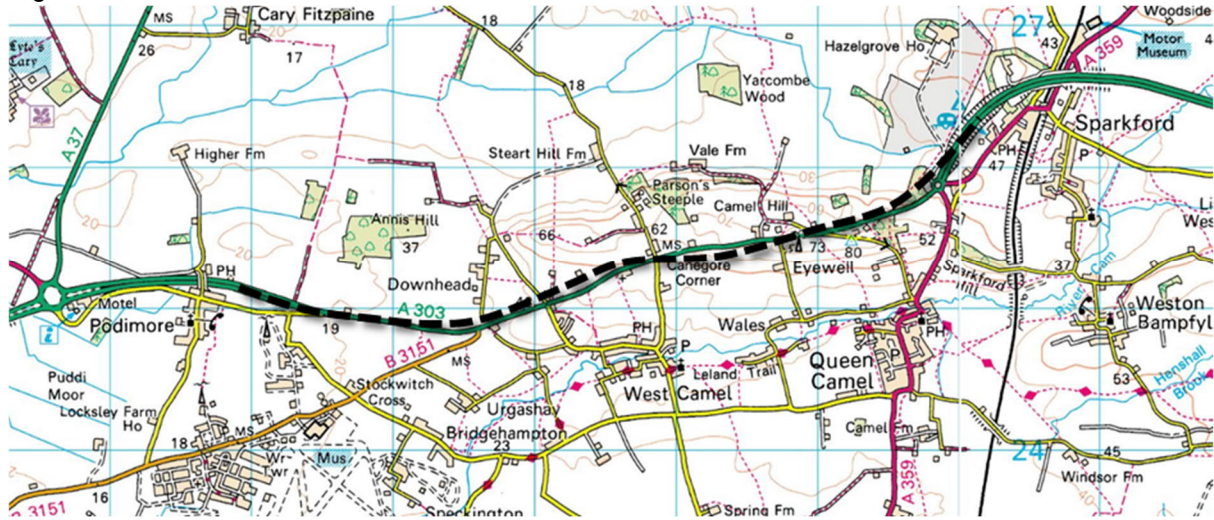
- 1.2.1 The A303 forms part of the strategic road network and a strategic link between the south-west peninsula and the rest of the south, south-east and London. The route is comprised of multiple road standards including dual carriageway, single carriageway, and single carriageway sections with overtaking lanes. Speed limits also vary between 40 miles per hour and 70 miles per hour depending on the character of the road and its surroundings.

### Existing road

- 1.2.2 The section of the A303 that is being upgraded as part of this project commences at the eastern limits of the existing dual carriageway Podimore Bypass. Travelling east, the route reaches the junction with the B3151 before bearing north east and rising upwards through Canegore Corner to reach the crest of Camel Hill at Eyewell. This section of the route is characterised by a single lane road, with double white lines prohibiting overtaking and subject to a 50mph speed limit. There are several priority junctions along the route giving access to the settlements of Queen Camel and West Camel to the south and Downhead to the north, as well as several farm accesses and parking laybys.
- 1.2.3 From the crest of Camel Hill, the route descends to meet the roundabout at the western limit of the dual carriageway at Sparkford Bypass (Hazlegrove Roundabout). This section comprises two lanes in the westbound direction, one lane in the eastbound direction and is also subject to a 50mph speed limit. Hazlegrove Roundabout forms a junction between the A303 and the A359 which runs south through Queen Camel and north-east through Sparkford. The roundabout also provides access to a service station, and to a school at Hazlegrove House.
- 1.2.4 The section of the A303 that is to be upgraded is almost 3.5 miles, or approximately 5.6 kilometres, in length.
- 1.2.5 The extents of the scheme are illustrated in Figure 1.1 below. The proposed red line boundary representing the full extent of the scheme can be seen in appendix B.



Figure 1.1: Scheme extents



Source: Mott MacDonald Sweco Joint Venture

### 1.3 Scheme proposals

1.3.1 The proposed scheme is to provide a continuous dual carriageway linking the Podimore Bypass and the Sparkford Bypass. The scheme would involve the removal of at-grade junctions and direct accesses. Hazlegrove Junction would be constructed to grade-separated standards and Downhead Junction and Camel Cross Junction would be constructed to compact grade-separated standards.

1.3.2 A description of the scheme is provided within Chapter 3 of this report.

### 1.4 The overseeing organisation

1.4.1 The overseeing organisation for this scheme is Highways England and the competent authority is the Secretary of State for Transport. This scheme meets the criteria to be considered as a Nationally Significant Infrastructure Project (NSIP) under the *Planning Act 2008* (the Act) and will therefore be examined by the Planning Inspectorate (PINS), who will make a recommendation as to whether to grant Development Consent Order to the Secretary of State for Transport.

### 1.5 Requirements of this Habitat Regulations Assessment

1.5.1 Decision makers, and those parties advising competent authorities, need to understand the implications of highway improvement projects on European sites, where such sites are designated for their conservation purposes<sup>1</sup>. Furthermore, decision makers must demonstrate that the requirements of the *Conservation of Habitats and Species Regulations 2017* (as amended) have been considered. These requirements originate from Article 6 of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. This is also known as the *Habitats Directive*. Provisions of the *Habitats Directive* have been implemented into UK legislation through

<sup>1</sup> DMRB (2009) Environmental Assessment: *Assessment of Implications on European Sites* Volume 11 Section 4 Part 1 HD 44/09

*The Conservation (Natural Habitats &c.) Regulations 1994* (as amended) and subsequently the *Conservation of Habitats and Species Regulations 2017* (as amended) (hereafter referred to as 'the Habitats Regulations').

- 1.5.2 The Habitat Regulations include measures to establish a network of sites designated with the intention of maintaining or restoring at a favourable conservation status, a range of habitats and species in their natural range. This ecological network is defined in HD 44/09, and comprises:
- Sites of Community Importance (SCIs)
  - Special Protection Areas (SPAs) and potential SPAs (pSPAs)
  - Special Areas of Conservation (SAC) and candidate or possible SACs (cSACs or pSACs)
- 1.5.3 The UK also has to meet its obligations under the Ramsar Convention<sup>2</sup> which identifies wetland sites of international importance.
- 1.5.4 The ecological network of designated sites may also be referred to as Natura 2000 or European sites.
- 1.5.5 There is a need to apply the Precautionary Principle where there is uncertainty or where harmful effects can be assumed in absence of evidence to the contrary. This means the conservation objectives should prevail where there is uncertainty, or where harmful effects must be assumed in the absence of contrary evidence. Assessment must be objective and proportionate. Any residual impact on a qualifying feature that is greater than negligible, would be considered potentially significant. The Habitats Regulation Assessment must consider whether a project is likely to have significant effects either alone or in combination with other plans and projects. The European Court judgement C - 127/02<sup>3</sup>, defines projects as 'the execution of construction works or of other installation or schemes' or 'other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources'.
- 1.5.6 If significant effects cannot be ruled out then the scheme should be subject to an Appropriate Assessment. That assessment is specifically required to inform the decision-making process where a project:
- is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and
  - is not directly connected with or necessary to the management of the site.
- 1.5.7 Appropriate Assessment is defined as the '...consideration of the impact on the integrity of the Natura 2000 site...'. The integrity of the site includes the 'coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified'<sup>4</sup>.

<sup>2</sup> *The Convention on Wetlands of International Importance* especially as Waterfowl Habitat, as amended in 1982 and 1987 (the 'Ramsar Convention').

<sup>3</sup> Judgement of the Court, Grand Chamber (2004). Case C 127/02. 9.

<sup>4</sup> Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC"

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## 2 Assessment methodology

### 2.1 Guidance

2.1.1 The assessment methods used to guide the screening and scoping process are detailed in the following documents:

- Habitats Regulation Assessment *Advice Note 10: Habitat Regulations Assessment relevant to nationally significant infrastructure projects*<sup>5</sup>.
- Design Manual for Roads and Bridges (DMRB) Volume 11, Section 4, Part 1 HD 44/09, 'Assessment of Implications (of Highways and/or Roads Projects) on European sites (including Appropriate Assessment)'<sup>6</sup>.

2.1.2 The above guidance includes an outline of the 5 stages of assessment. Each stage is only undertaken if the outcome from the previous stage requires it. Stage 1 is Screening. This Report is submitted to supply the information needed for Stage 1.

### Screening

2.1.3 This stage determines whether the scheme is likely to have significant effects on European site(s), alone or in combination with other plans or projects. Where Significant Effects are considered unlikely, the Screening Matrix should be submitted together with a completed Finding of No Significant Effects Report (FNSE) matrix as part of a Habitats Regulations report that presents fully reasoned representations.

2.1.4 In accordance with the DMRB, any European sites located within 2 kilometres of the scheme are to be assessed in accordance with the Habitats Regulations Assessment, along with any sites beyond the 2 kilometre radius that are hydraulically linked to the scheme and therefore could be subject to effects from changes in water quality as a result of the scheme. Due to the potentially large home ranges of bat species, SACs with Annex II bat species as qualifying features, located within a 30 kilometre radius of the scheme are also included in the assessment.

2.1.5 Where Screening identifies likely or uncertain effects, a more detailed assessment is required of the effects on the integrity of the European site(s). The first part of Screening requires consideration of whether the works are connected with the management of the European site(s) and whether they are emergency operations. The majority of highway projects are unlikely to be connected with the management of a European site(s), as, for the most part,

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<sup>5</sup> Infrastructure Planning Commission (2011) *Advice Note 10: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects* [online] available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2011/04/Advice-note-10-HRA-web.pdf> (last accessed June 2018).

<sup>6</sup> Highways England (2009) Design Manual for Roads and Bridges Volume 11 Section 4 Part 1 HD 44/09 *Assessment of Implications (of highways and / or road projects) on European Sites (including appropriate assessment)* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section4/hd4409.pdf> (last accessed June 2018).

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projects are not conceived for the purpose of conservation management of a site.

## In-combination assessment methodology

- 2.1.6 In-combination effects on Natura 2000 sites have been determined following a review of likely impacts resulting from the total change caused by other present or reasonably foreseeable plans or projects when considered together with the scheme.
- 2.1.7 Reasonably foreseeable plans or projects have been identified within a 2 kilometre study area from those European sites listed within this report that do not support bat qualifying features. For SACs that are designated due to Annex II bat species, the study area has been extended to 30 kilometres, in line with the reasons specified within paragraph 2.1.4.
- 2.1.8 This assessment includes development projects with valid planning permissions (including those under consideration by the planning authority), together with any other Nationally Significant Infrastructure Projects (NSIPs) for which Development Consent Order (DCO) consent has been granted or is currently under consideration by the Planning Inspectorate. It also includes projects appearing on the Highways England *Regional Investment Strategy 2015 - 2020*<sup>7</sup>, including those that would be delivered under the Highways Act 1980.
- 2.1.9 For the purposes of this assessment, the following criteria, based on the type and scale of potential effects generated by a proposed development, have been used to determine which planning applications would be appropriate for the purposes of an in-combination assessment:
- The development includes more than 1 hectare of development and which is not for a dwelling house development or
  - The development includes more than 150 dwelling houses or
  - The area of the development exceeds 5 hectares
- 2.1.10 This criterion is based on *The Town and Country Planning (Environmental Impact Assessment) Regulations 2017*.

## 2.2 Screening process

- 2.2.1 The screening process involves consideration of elements of the scheme that could potentially result in impacts to European sites; the qualifying features of the European sites and the conservation status of the qualifying interests; and the vulnerability of the European site's conservation objectives. The process takes into consideration the nature of the project works, and the cumulative impacts that could arise from the scheme in combination with other plans and projects.

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<sup>7</sup> Highways England (2015) *Road Investment Strategy for the 2015 to 2020 road period* [online] available at: <https://www.gov.uk/government/publications/road-investment-strategy-for-the-2015-to-2020-road-period> (last accessed June 2018).

- 2.2.2 'Stage 1 – Screening' must be undertaken in all cases. The further stages are only required where significant effects cannot be ruled out and the outcome of the previous stage indicates that the next stage is necessary.
- 2.2.3 The screening assessment has considered the European sites' conservation objectives and vulnerabilities in relation to the following potential likely significant effects:
- reduction of habitat area
  - disturbance to key species
  - habitat or species fragmentation
  - reduction in species density
  - changes in key indicators of conservation value (such as water quality)
  - climate change
- 2.2.4 A search was undertaken in 2016 for all European sites within 2 kilometres of the A303, in line with DMRB HD44/09 guidance. A distance of 2 kilometres is considered a precautionary distance for consideration of all European sites as the effects of habitat loss, fragmentation, disturbance to key species and the effect on emissions of air pollution. For example, localised air quality impacts from highways are considered most likely to occur within 200 metres of major roads. Effects of air quality changes on European sites more than 200 metres from major roads will be considerably smaller, although it should be noted and commented on that they could be felt at a wider geographical (regional) level in combination with air quality effects from other plans and projects.
- 2.2.5 In addition, sites in hydrological connectivity with the scheme could also be affected, and so, searches were undertaken for European sites where the scheme crosses/is adjacent to, upstream of, or downstream of European sites following guidance in DMRB HD 44/09<sup>8</sup>.
- 2.2.6 Furthermore, sites which are designated for mobile species that travel beyond the boundaries of the designated site, such as bats and birds could be affected by the scheme if designated species travel within the zone of influence of the impacts of the scheme.
- 2.2.7 A search was carried out for European sites where bats are a primary qualifying feature within 30 kilometres of the scheme in line with DMRB HD44/09, which is based on studies of movements of bats between summer and winter roosts. This search found that there are three European sites located within 30 kilometres of the scheme designated for bat species, which would be screened in for further assessment (full details are provided in Chapter 4 of this report).
- 2.2.8 In order to inform the assessment, a suite of bat surveys was completed covering the scheme extent and the surrounding landscape during 2017 and

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<sup>8</sup> Highways England (2009) Design Manual for Roads and Bridges Volume 11 Section 4 Part 1 HD 44/09 *Assessment of Implications (of highways and / or road projects) on European Sites (including appropriate assessment)* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section4/hd4409.pdf> (last accessed June 2018).

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2018 in accordance with the *Bat Conservation Trust Good Practice Guidelines*<sup>9</sup>. The surveys included:

- Bat roost assessments and further nocturnal emergence/ return surveys (where necessary) of buildings within 250 metres of the scheme.
- Bat roosts assessments followed by climb and inspect surveys and nocturnal emergence/ return surveys (where necessary) of trees within 250 metres of the scheme.
- Bat activity surveys along the scheme extent.
- Deployment of static bat detectors at 18 locations along the extent of the scheme.
- Crossing point surveys of linear features to be bisected by the proposals (12 locations in total).
- Hibernation surveys of potentially suitable sites within 250 metres of the scheme.

2.2.7 The significant bat survey effort, detailed above, which was completed at the site in accordance with good practice guidelines is considered sufficient to determine the presence or likely absence of bat species within the extent of the scheme that are primary qualifying species of the relevant SACs. This enables an assessment of whether the scheme will result in a significant impact on these qualifying features of European sites.

2.2.8 Refer to the **Appendix 8.4 Bat Technical Report (document reference TR010036/APP/6.3)** that forms part of the Environmental Statement for further information.

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<sup>9</sup> Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. Third Edition.



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## **3 The scheme**

### **3.1 Scheme description**

#### **Introduction**

- 3.1.1 The scheme follows the existing corridor of the A303 very closely. It is generally considered to be an online solution although is often deliberately aligned just to the side of the existing carriageway to allow re-use of the existing route for local access, avoid property or facilitate construction. At its maximum off-set, the route is typically 100 metres either north or south of the existing A303.
- 3.1.2 The section of the scheme that is to be upgraded is approximately 5.6 kilometres long. The footprint of the red line boundary is anticipated to be approximately 117 hectares.

#### **Description (mainline)**

- 3.1.3 At its western limits, the scheme ties in with the existing dual carriageway A303 Podimore Bypass. Travelling eastwards, the route initially follows the existing A303 closely until the B3151 before moving north of the existing carriageway and rising up to the south of Downhead, before crossing over the existing A303 at Conegore Corner. The route then takes a southerly alignment briefly before meeting up with the existing road again to pass between a Scheduled Monument and a Ministry of Defence (MOD) signal station at the crest of Camel Hill. Finally, the route then bypasses the existing Hazlegrove Roundabout to the north through Hazlegrove House Registered Park and Garden in a false cutting, before tying into the existing A303 north of Sparkford Village.

#### **Description (junctions)**

- 3.1.4 A new all movements grade separated junction will be provided in the vicinity of the Hazlegrove Roundabout. This will enable free flowing passage of traffic on the A303. The junction will incorporate entry and exit slip roads in both directions providing connections to Hazlegrove House, the A359, access to villages south of the route and access to properties at Camel Hill to the north of the route. A limited movements junction comprising eastbound slips only will be provided in the vicinity of Downhead. A limited movement junction will be provided in the vicinity of the junction with the B3151 comprising westbound exit and entry slip roads.

#### **Description (side roads)**

- 3.1.5 A new all movements grade-separated junction would be provided in the vicinity of the Hazlegrove Roundabout. This will enable free flowing passage of traffic on the A303. The junction will incorporate entry and exit slip roads in both directions providing connections to Hazlegrove House, the A359, access to villages south of the route and access to properties at Camel Hill to the north of the scheme. The junction design is currently evolving as part of on-going discussions with environmental stakeholders.



- 3.1.6 A limited movements junction, comprising eastbound slips only, will be provided in the vicinity of Downhead. A limited movement junction will be provided in the vicinity of the junction with the B3151 comprising westbound exit and entry slip roads.

## Description (drainage)

- 3.1.7 In order to comply with the legal requirements of the *Water Resources Act 1991*, the scheme drainage comprises:
- Wet attenuation ponds with flow control devices restricting the outflow flow rate to external watercourses.
  - Trapped gullies and catch-pits on side roads to intercept run-off.
  - Runoff from embankments will be collected and conveyed via Highways England maintained ditches or filter-drains.
  - Manually operated penstocks provided immediately prior to all outfalls leading to a watercourse and upstream of attenuation pond flow control devices.

## 3.2 Construction requirements

- 3.2.1 The construction footprint covers an area of approximately 117 hectares along a 5.6 kilometre stretch of the A303, which includes both temporary and permanent works. The extent of excavation works for the construction of the scheme is currently estimated to be approximately 774,000m<sup>3</sup>.
- 3.2.2 The following construction elements would be required as part of the scheme:
- Construction of permanent overbridges and underpasses.
  - Road surface and pavement installation.
  - Installation of new drainage features including outfalls, drains and balancing ponds.
  - Construction of temporary haul routes and road bridges.
  - Diversion of existing underground services.
  - Diversion of road users on existing road infrastructure.
- 3.2.3 The above elements would require vegetation removal. The scheme would result in approximately 77 hectares of temporary habitat loss. This would include approximately 36 hectares of arable land, 19 hectares of poor semi-improved grassland, 19 hectares of improved grassland, 0.6 hectares of amenity grassland, 1.9 hectares of broadleaved woodland, 0.5 hectares of broadleaved parkland and scattered trees and 7.7 kilometres of hedgerow. Land take for the scheme would result in 13.7 hectares of permanent habitat loss to accommodate the road layout. This would include approximately 5 hectares of arable land, 4 hectares of poor semi-improved grassland, 4 hectares of improved grassland, 0.7 hectares of broadleaved woodland and 2.8 kilometres of hedgerow.
- 3.2.4 Replacement planting and habitat creation would be completed at the site. This would include approximately 4.7 hectares of woodland, approximately 20

hectares of native trees and shrubs, 20 hectares of amenity grassland, approximately 10.5 kilometres of hedgerow, approximately 7.7 hectares of wildflower and species rich grassland and approximately 1.7 hectares of wet grassland.

- 3.2.5 In order to comply with the legal requirements of the *Water Resources Act 1991*, measures would be taken during the construction phase to prevent pollutants entering surrounding watercourses. This would include adherence to the Construction Industry Research and Information Association (CIRIA) C532 *Control of Water Pollution from construction sites*<sup>10</sup>, Environmental good practice on site<sup>11</sup>, and the Environment Agency's *Groundwater Protection: Principles and Practice (GP3)*<sup>12</sup>.
- 3.2.6 Decommissioning has not been included within the scope of the scheme. Typically, highway schemes are designed to have a material life-span of between 20 and 40 years before major maintenance and upgrading is required. However, the road scheme is anticipated to be in place without significant reconstruction or reconfiguration for approximately 60 years. It is considered highly unlikely that the new road would be decommissioned after this time, as the road would have become an integral part of the infrastructure in the area.
- 3.2.7 For full details of construction activities refer to **Chapter 2, The Scheme (document reference TR010036/APP/6.1)** which forms part of the Environmental Statement.

### 3.3 Consultation to date

- 3.3.1 An initial ecology consultation meeting was held with Natural England, the Mott MacDonald Sweco Joint Venture Lead Ecologist, Mott MacDonald Sweco Joint Venture Environmental co-ordinator and Highways England on the 2 May 2017. The purpose of the meeting was to discuss the proposed survey methodology for bats, general protected species surveys and to develop mitigation ideas and to confirm Natural England's current biodiversity principles.
- 3.3.2 Specific impacts on European sites were not discussed in detail at this initial meeting but the proposed bat survey methodology, to aid the assessment of likely impacts on the Mells Valley SAC; North Somerset and Mendip Bats SAC and Bracket's Coppice SAC was discussed and Natural England agreed with the proposed survey effort. The known presence of lesser horseshoe bats *Rhinolophus hipposideros* in the scheme study area was commented on by Natural England. Natural England also commented that consideration needs to be given to potential bat crossing points on the chosen route and how to mitigate against road kill and habitat severance.
- 3.3.3 Further discussion on the content and conclusions of this document have been held with Natural England as the scheme has developed, and a summary of the meeting discussions is provided in appendix C.

<sup>10</sup> Construction and Research Association (2001). (CIRIA) C532 *control of water pollution from construction sites, guidance for consultants and contractors*.

<sup>11</sup> CIRIA (2016). *Environmental good practice on site pocket book* (fourth edition)

<sup>12</sup> Environment Agency (2013). *Groundwater protection: Principles and practice (GP3)*. Version 1.1.

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- 3.3.4 During the consultation process, Natural England requested that in addition to those sites listed in section 4.2 below, Salisbury Plain SAC is screened into the HRA in order to assess potential air quality impacts on the SAC that could arise as a result of in-combination effects from the scheme, along with the proposed A303 Stonehenge scheme which is being promoted by Highways England. However, Salisbury Plain SAC is located approximately 35.5 kilometres north-east of the scheme, beyond the screening criteria listed in this report. The A303 Stonehenge scheme does not also meet the criteria listed in section 2.1.7 to be included within the in-combination assessment.
- 3.3.5 In addition, traffic modelling undertaken for the scheme indicates that the change in traffic flows due to the A303 Sparkford scheme on roads east of the village of West Knoyle would be below the applicable DMRB criteria for undertaking an air quality assessment. As such, there is no impact pathway for air quality between the A3030 Sparkford to Ilchester scheme and Salisbury Plain SAC. Therefore, as per DMRB guidance (HA207/07, PART 11 SECTION 3), no air quality assessment beyond the West Knoyle location (to the east of the scheme) is required for the scheme, and this had not been undertaken. The opening year for the A303 Stonehenge scheme is 2026, which is 3 years after the opening year for the A303 Sparkford scheme. Therefore, due to the A303 Sparkford scheme not triggering the need for an assessment and the difference in opening years, it is considered appropriate to exclude Salisbury Plan SAC from this report.

## 4 Screening assessment

### 4.1 Proximity to European sites

- 4.1.1 The scheme is not directly connected with the management of European sites, and fulfils the description for a 'project'. Therefore, the scheme has been subject to further screening for likely effects.
- 4.1.2 DMRB screening matrices can be found in Chapter 5 of this report. These tables present the information required to confirm that there are no likely significant effects on European sites.
- 4.1.3 The Planning Inspectorate's (PINS) screening matrices can be found in appendix A. These can be cross referenced with the DMRB screening matrices and detail the evidence to support the assessment of likely significant effects. These are a requirement of PINS Advice Note 10<sup>13</sup>.
- 4.1.4 Information regarding the location and reasons for designation of European sites has been collected in 2017 via the online database Multi-Agency Geographic Information for the Countryside (MAGIC), as shown in Table 4.1.

Table 4.1: Guideline screening criteria

Site data	Source	Method
Statutory Designated Sites including Special Protection Areas (SPAs), Special Areas of Conservation (SAC) and Ramsar and candidate or potential SACs, SPAs and Ramsar	MAGIC <sup>14</sup> database	Internet-based search of the study area and online request using a minimum 2 kilometres search radius from the scheme boundary.
SACs and candidate / potential SACs designated for bat populations	MAGIC <sup>14</sup> database	SACs designated for bats were searched, using 30 kilometres radius around the site, through MAGIC database.
Where the scheme crosses / is adjacent to, upstream of, or downstream of, watercourses designated in part or wholly as an SAC, SPA and Ramsar	MAGIC <sup>14</sup> database	Internet-based search of hydrological connectivity for SACs where the scheme crosses/is adjacent to, upstream of, or downstream of, watercourses designated in part or wholly as a European site.

### 4.2 European sites potentially affected by the scheme

- 4.2.1 The internet based search found that the scheme was not located within 2 kilometres of any SACs, SPAs or Ramsars (or any proposed, potential or candidate sites).

<sup>13</sup> *The Planning Inspectorate (2017) Advice Note 10: Habitat Regulations Assessment relevant to nationally significant infrastructure projects* [online] available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/> (last accessed March 2018).

<sup>14</sup> MAGIC (2018) MAGIC interactive mapping [online] available at: <http://magic.defra.gov.uk/> (last accessed January 2018).

- 4.2.2 The closest European sites to the scheme is the Somerset Levels and Moors SPA / Ramsar located approximately 7.3 kilometres to the west of the scheme. Although greater than 2 kilometres from the scheme, these European sites are hydraulically linked to the scheme as drainage on site flows into watercourses that ultimately connect to the SPA / Ramsar. Via the drainage system, the SPA / Ramsar are a substantial distance from the scheme (approximately 15.5 kilometres at its closest point).
- 4.2.3 In addition, the following European sites are located within 30 kilometres of the scheme and support Annex II bat species; therefore, these designations could potentially be affected as a result of the scheme:
- Mells Valley SAC
  - North Somerset and Mendip Bat SAC
  - Bracket's Coppice SAC
- 4.2.4 The location of these European Sites in relation to the scheme are shown on the Ecological Constraints Plan in appendix B.
- 4.2.5 During the consultation process, Natural England requested that Salisbury Plain SAC is screened into the Habitat Regulations Assessment (HRA) in order to assess potential air quality impacts on the SAC that could arise as a result of in-combination effects from the scheme along with the proposed A303 Stonehenge scheme. Salisbury Plain SAC is located approximately 35.5 kilometres north-east of the scheme. Traffic modelling undertaken for the scheme indicates that the change in traffic flows due to the A303 Sparkford to Ilchester Dualling scheme on roads east of the village of West Knoyle, would be below the applicable DMRB criteria for undertaking an air quality assessment. Therefore, as per DMRB guidance (HA207/07, PART 11 Section 3), no air quality assessment beyond the West Knoyle location has been undertaken. The opening year for the A303 Stonehenge scheme would be 2026, which would be 3 years after the opening year for the A303 Sparkford to Ilchester Dualling scheme. Therefore, due to the A303 Sparkford to Ilchester Dualling scheme not triggering the need for an assessment and the difference in opening years, an assessment of in-combination effects will be considered as part of the assessment for the A303 Stonehenge scheme.
- 4.2.6 The HRA Screening Matrices for these 4 sites can be found in Chapter 5 of this report.

### **4.3 Proposed developments considered within the in-combination assessment**

- 4.3.1 The proposed developments that meet the criteria detailed in paragraphs 2.1.10 to 2.1.13 considered within the in-combination assessment for each of the European sites are listed below.

#### **Mells Valley SAC**

- Hinkley Pont C Connection Project (approximately 27 kilometres from the SAC).

### **North Somerset and Mendip Bat SAC**

- Hinkley Pont C Connection Project (approximately 350 metres from the SAC).
- Hinkley Point C Nuclear Power Station (approximately 26 kilometres from the SAC).
- Seabank 3 Combined Cycle Gas Turbine (CCGT) Project (approximately 19 kilometres from the SAC).
- Portsihead Branch Line – Metro West Phase 1 (approximately 8 kilometres from the SAC).

### **Bracket's Coppice SAC**

- A358 Taunton to Southfields Dualling (approximately 19 kilometres from the SAC).
- Solar Farm at Lady Carolines Drive, Bryanston (approximately 22.5 kilometres from the SAC).

### **Somerset Levels and Moors SPA**

- Hinkley Pont C Connection Project (approximately 2 kilometres from the SPA / Ramsar).
- A358 Taunton to Southfields Dualling (approximately 4 kilometres from the SPA / Ramsar).

### **Somerset Levels and Moors Ramsar**

- Hinkley Pont C Connection Project (approximately 2 kilometres from the Ramsar).
- A358 Taunton to Southfields Dualling (approximately 4 kilometres from the Ramsar).

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## 5 Habitat Regulations Assessment Stage 1 - Screening

### 5.1 Introduction

5.1.1 The following Stage 1 Habitat Regulations Assessment (HRA) (screening level) (contained in Tables 5.1, 5.2, 5.3, 5.4 and 5.5) has been produced to assess the potential effects resulting from the construction and operation of the scheme and the likely significant effect on the European sites and qualifying features. The assessment includes an appraisal of the effects of any other plans or projects which, in combination with the proposed development, might be likely to have a significant effect on the European sites.

5.1.2 The screening assessment has been carried out considering the following impacts that might lead to significant effects on the 4 European sites identified as potentially being affected:

- reduction of habitat area
- disturbance to key species
- habitat or species fragmentation
- reduction in species density
- changes in key indicators of conservation value (such as water quality)
- climate change



Table 5.1: Stage 1 Habitat Regulations Assessment Screening Matrix Mells Valley SAC

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>		
Natura 2000 Sites under Consideration:	Mells Valley SAC	
Date: 20.07.18	Author: V Coulthard	Verified: J Barrett
<b>Description of Project/Plan:</b>	Please refer to Chapters 1 and 2	
Size and scale (road type and probable traffic volume)	The overall footprint of the red line boundary would be approximately 117 hectares in size and 5.6 kilometres in length. The proposed scheme is a dual carriageway. The annual average daily traffic (AADT) flows for 2023 (the opening year of the scheme) is 33,100 to the nearest 100 vehicles.	
Land-take	The scheme does not require any land take from the European designated sites.	
Distance from the European Site or key features of the site (from edge of the project assessment corridor)	Mells Valley SAC is located approximately 22 kilometres north of the scheme.	
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	There would not be a requirement for resources from the European designated sites as a result of the proposed works.	
Emissions (for example polluted surface water runoff – both soluble and insoluble pollutant, atmospheric pollution)	<p>Construction activities are likely to cause a localised and temporary reduction in air quality due to emissions from construction vehicles and localised congestion.</p> <p>Additional hard standing and road drainage would be required as part of the scheme. Surface water runoff would be attenuated to ensure there is no increase in surface water run-off rates.</p> <p>Reduction in air quality due to traffic pollutants is usually localised (to 200 metres).</p>	
Excavation requirements (for example impacts of local hydrogeology)	The extent of excavation works for the construction of the scheme is approximately 774,000m <sup>3</sup> .	
Transportation requirements	Transportation of materials, site operatives and machinery would be required to facilitate the works during construction. It is anticipated that there would be increased congestion on the A303 due to the transportation of machinery and materials, although the scope of works and access routes are unknown at this stage.	
Duration of construction and operation	Construction is currently programmed to commence in March 2020. The duration of construction would be 2.5 years.	
<b>Description of avoidance and/or mitigation measures:</b>		
<b>Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:</b>		
Nature of proposals	No specific measures are required to mitigate impacts to the SAC, as likely significant effects are not anticipated as a result of the scheme.	
Location	Not applicable	
Evidence for effectiveness	Not applicable	
Mechanism for delivery (legal conditions,	Not applicable	
Other	Not applicable	
<b>Characteristics of European Site(s):</b>		

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
<b>A brief description of the European Site should be produced, including information on:</b>	
Name of European Site and its EU code	Mells Valley SAC – UK0012658
Location and distance of the European Site from the proposed works	Mells Valley SAC is located approximately 22 kilometres north of the scheme.
European Site size	Mells Valley SAC is 28.62 hectares in size.
Key features of the European Site including the primary reasons for selection and any other qualifying interests	<p><b>Annex I habitats that are a primary reason for selection of this site:</b> Not applicable</p> <p><b>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-brometalia</i>)</li> <li>• Caves not open to the public</li> </ul> <p><b>Annex II species that are a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Greater horseshoe bat <i>Rhinolophus ferrumequinum</i></li> </ul>
Vulnerability of the European Site – any information available from the standard data forms	<p>The following activities have a high negative effect on the European site:</p> <ul style="list-style-type: none"> <li>• Outdoor sports and leisure activities</li> <li>• Recreational activities</li> <li>• Grazing</li> <li>• Other human intrusions and disturbances</li> <li>• Unknown threat or pressure</li> <li>•</li> </ul> <p>Due to the nature of the scheme, only the unknown threat or pressure is of relevance when considering the potential effects of the scheme on the designated site.</p>
European Site conservation objectives	<p>To 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:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of qualifying natural habitats and habitats of qualifying species.</li> <li>• The structure and function (including typical species) of qualifying natural habitats.</li> <li>• The structure and function of the habitats of qualifying species.</li> <li>• The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</li> <li>• The populations of qualifying species.</li> <li>• The distribution of qualifying species within the site.</li> </ul>
<b>Assessment Criteria</b>	

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
<b>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.</b>	
<p>The scheme is not anticipated to have any direct adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, such as from habitat loss or degradation, disturbance to key species or species fragmentation, either alone or in combination with other projects.</p> <p>The SAC is a substantial distance from the scheme (&gt;22 kilometres) and therefore impacts to Annex I habitats are not anticipated. In terms of Annex II bat species, this has been determined using guidance produced by the Bat Conservation Trust (BCT)<sup>15</sup>. BCT provide details of core sustenance zones, which include the area required from a roost to sustain the population. Any impacts within these zones could have a significant impact on bats. The Core Sustenance Zone for greater horseshoe bats is considered to be 3 kilometres and therefore the site is well outside of this core zone and no impacts on foraging bats associated with the SAC are anticipated.</p> <p>The site is designated for its maternity colony and whilst a proportion of the population also hibernates at the site, other hibernation sites remain unknown. Greater horseshoe bats may travel up to 50 kilometres between maternity and hibernation roosts so there is a potential that if there are suitable hibernation sites (for example cellars, caves, ice houses) within and around the scheme footprint, bats from this SAC could use hibernation sites near / within the scheme and could therefore be impacted (for example loss of hibernation site or loss of habitat connectivity/severance of commuting routes and risk of impacts to individual bats).</p> <p>The 2017 / 2018 bat surveys did not confirm any greater horseshoe bat roosts and no potential greater horseshoe hibernation sites have been identified within 500 metres of the scheme. Roosting and hibernation sites outside of this area would be highly unlikely to be subject to direct impacts from the scheme, such as noise, vibration, artificial lighting and air emissions. Two greater horseshoe bat calls were recorded on static bat detectors that were situated adjacent to the A303 on the south side of the road. These were recorded in July and September. These results indicate very low greater horseshoe activity and rule out the possibility that there are any significant roosts are within proximity of the scheme. Therefore, likely significant effects on the integrity of the European site, as a result of the scheme, can be excluded.</p>	
<b>Initial Assessment</b>	
<b>The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:</b>	
Reduction of habitat area	The scheme does not require any land take within the European designated site and would have no direct or indirect impacts on areas of habitat associated with the site. Therefore, no reduction in habitat would occur as a result of the scheme.
Disturbance to key species	Due to the distance of the European site from the scheme (>22 kilometres) and the lack of impact pathways, species within the European site would not be subject to disturbance impacts (directly or indirectly).
Habitat or species fragmentation	<p>The scheme does not require any land take within the European designated site and therefore Annex I habitats would not be fragmented. The 2017 bat activity and internal surveys have found no evidence of greater horseshoe roosts or potential for hibernation roosts within 500 metres of the scheme.</p> <p>Static bat detectors picked up 2 greater horseshoe recordings adjacent to the A303 on the south side of the road. Two passes across the whole survey period, over very different months, represents a very low number and does not indicate that there are any significant greater horseshoe bat commuting routes; foraging habitat or roosts within the ZOI of the scheme. Therefore, it is not considered that the severance of hedgerows or removal of other habitats along the scheme would impact on greater horseshoe bats associated with the SAC.</p>

<sup>15</sup> Bat Conservation Trust (2016). Core Sustenance Zones: Determining zone size.

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Reduction in species density	Due to the distance of the SAC from the scheme (>22 kilometres) and the lack of impact pathways a reduction in species density of Annex I habitats is not anticipated. The 2017 / 2018 bat activity and internal surveys have found no evidence of greater horseshoe roosts or potential for hibernation roosts within 500 metres of the scheme and very low levels of greater horseshoe bat activity with only 2 passes recorded throughout the surveys. There would therefore be no loss or direct impact on greater horseshoe bat roosts as a result of the scheme and no severance of significant commuting or foraging habitats for greater horseshoe bats. Therefore, a reduction in numbers of greater horseshoe bats within the SAC would not occur as a result of the scheme.
Changes in key indicators of conservation value (such as water quality)	Due to the distance between the scheme and the SAC (>22 kilometres) and the intervening countryside, and the lack of impact pathways, it is not considered that the scheme would result in adverse changes to key indicators, cause Annex I habitats to become less favourable or reduce the SACs conservation value.  There is no direct hydrological connectivity to the SAC and as such it would not be impacted in the event of a pollution incident associated with the works.
Climate change	There is potential for the scheme to cause a slight increase in atmospheric pollution during construction, thereby contributing to climate change which could ultimately impact on the habitats supported by the SAC through changes in temperature and rainfall. However, these effects would be temporary in nature and the improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed, thereby reducing emissions. Therefore, changes are unlikely to give rise to a significant effect at a national scale.  Annex I habitats or Annex II species (the greater horseshoe bat colony of the SAC) would not be significantly affected by the scheme. Adverse effects to the SAC and qualifying features due to climate change would therefore not occur.
<b>Describe any likely impacts on the European site as a whole in terms of:</b>	
Interference with the key relationships that define the structure of the site	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme would impact the structure of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
Interference with key relationships that define the function of the site.	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme would impact the function of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the function of the European site are anticipated.
<b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b>	
Reduction of habitat area	No likely significant effects
Disturbance to key species	No likely significant effects
Habitat or species fragmentation	No likely significant effects
Reduction in species density	No likely significant effects
Changes in key indicators of conservation value (such as water quality)	No likely significant effects
Climate change	No likely significant effects

**Plan or Project Name: A303 Sparkford to Ilchester Dualling**

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.**

None of the elements above are anticipated to have any direct or indirect adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated site, or its conservation objectives to maintain the favourable status of Annex I habitats and Annex II bat species.

**In-combination effects:**

Under the Habitats Regulations, the Secretary of State is obliged to consider whether other plans or projects in combination with the scheme might affect European sites.

A review completed of the relevant Local Authority planning portals and the National Infrastructure Planning website found there to be one large scale (NSIP) development, Hinkley Point C Connection Project, within 30 kilometres of the SAC that meet the criteria set out in section 2.1.13. Refer to Table 5a for an assessment of in-combination effects.

Table 5a: In-Combination Effects on the Mells Valley SAC

Scheme	Distance from SAC	Potential impact		In-combination effects
		Habitat loss	Disturbance to key species	
Hinkley Point C Connection Project	27 kilometres	The scheme is located a significant distance from the SAC and therefore impacts to Annex I habitats will not occur. It is well outside the typical range of greater horseshoe bats (3 to 5 kilometres from the roost). It is unlikely that any direct or indirect effects on roosts, foraging habitat or daily commuting routes would result from the development proposal.	Due to the distance of the scheme from the SAC disturbance to greater horseshoe bats through noise, lighting or human disturbance is not anticipated. No adverse effect on the integrity of the bat population of this SAC would therefore arise.	Both the A303 scheme and Hinkley Point C Connection scheme are a significant distance from the SAC; it has been assessed that neither will have likely significant effects on the SAC. Additionally, the schemes are in opposite directions from the SAC (south-east and north-west respectively). Therefore, an in-combination effect is not anticipated.

**No likely significant effects on the European site are anticipated, either alone, or in combination with other projects.**

Outcome of screening stage (delete as appropriate).	No significant effect likely
Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete as appropriate and attach relevant correspondence).	<b>YES</b>  Natural England were consulted in March 2018 and July 2018. Confirmation of Natural England's agreement with the conclusions are contained in appendix D

Table 5.2: Stage 1 Habitat Regulations Assessment Screening Matrix: North Somerset and Mendip Bats SAC

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Natura 2000 Sites under Consideration:	North Somerset and Mendip Bats SAC
Date: 20.07.18	Author: V Coulthard   Verified: J Barrett
<b>Description of Project/Plan:</b>	Please refer to Chapters 1 and 2 above
Size and scale (road type and probable traffic volume)	The overall footprint of the red line boundary would be approximately 117 hectares and 5.6 kilometres in length. The proposed scheme is a dual carriageway. The annual average daily traffic (AADT) flows for 2023 (the opening year of the scheme) is 33,100 to the nearest 100 vehicles.
Land-take	The scheme does not require any land take from the European designated sites.
Distance from the European Site or key features of the site (from edge of the project assessment corridor)	North Somerset & Mendip Bats SAC is located approximately 29 kilometres north of the scheme.
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	It is not anticipated that there would be a requirement for resources from the European designated sites as a result of the proposed works.
Emissions (for example polluted surface water runoff – both soluble and insoluble pollutant, atmospheric pollution)	<p>Construction activities are likely to cause a localised and temporary reduction in air quality due to emissions from construction vehicles and localised congestion.</p> <p>Additional hard standing and road drainage would be required as part of the scheme. Surface water runoff would be attenuated to ensure there is no increase in surface water run-off rates.</p> <p>Reduction in air quality due to traffic pollutants is usually localised (to 200 metres).</p>
Excavation requirements (for example impacts of local hydrogeology)	The extent of excavation works for the construction of the scheme would be approximately 774,000m <sup>3</sup> .
Transportation requirements	Transportation of materials, site operatives and machinery would be required to facilitate the works during construction. It is anticipated that there would be increased congestion on the A303 due to the transportation of machinery and materials, although the scope of works and access routes are unknown at this stage.
Duration of construction and operation	Construction is currently programmed to commence in March 2020. The duration of construction would be 2.5 years.
<b>Description of avoidance and/or mitigation measures:</b>	
<b>Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:</b>	
Nature of proposals	No specific measures are required to mitigate impacts to the SAC, as likely significant effects are not anticipated as a result of the scheme.
Location	Not applicable
Evidence for effectiveness	Not applicable
Mechanism for delivery (legal conditions,	Not applicable
Other	Not applicable
<b>Characteristics of European Site(s):</b>	
<b>A brief description of the European Site should be produced, including information on:</b>	
Name of European Site and its EU code	North Somerset & Mendip Bats – UK0030052

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Location and distance of the European Site from the proposed works	North Somerset & Mendip Bats is located approximately 29 kilometres north of the scheme.
European Site size	North Somerset & Mendip Bats is 557.67 hectares in size.
Key features of the European Site including the primary reasons for selection and any other qualifying interests	<p><b>Annex I habitats that are a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Semi-natural dry grasslands and facies on calcareous substrates (<i>Festuco-Brometalia</i>).</li> <li>• Tilio-Acerion forests of slopes, screes and ravines.</li> </ul> <p><b>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Caves not open to the public.</li> </ul> <p><b>Annex II species that are a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Lesser horseshoe bat <i>Rhinolophus hipposideros</i>.</li> <li>• Greater horseshoe bat <i>Rhinolophus ferrumequinum</i>.</li> </ul>
Vulnerability of the European Site – any information available from the standard data forms	<p>The following activities have a high negative effect on the European site:</p> <ul style="list-style-type: none"> <li>• Grazing</li> <li>• Interspecific floral relations</li> <li>• Other urbanisation, industrial and similar activities</li> <li>• Unknown threat or pressure</li> </ul> <p>Due to the nature of the scheme, only the unknown threat or pressure is of relevance when considering the potential effects of the scheme on the designated site.</p>
European Site conservation objectives	<p>To 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:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of qualifying natural habitats and habitats of qualifying species.</li> <li>• The structure and function (including typical species) of qualifying natural habitats.</li> <li>• The structure and function of the habitats of qualifying species.</li> <li>• The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</li> <li>• The populations of qualifying species.</li> <li>• The distribution of qualifying species within the site.</li> </ul>
<b>Assessment Criteria</b>	
<b>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.</b>	
<p>The scheme is not anticipated to have any direct adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, such as from habitat loss or degradation, disturbance to key species or species fragmentation, either alone or in combination with other projects.</p> <p>The scheme is sufficiently far from the site that Annex I habitats within the site would not be affected. In terms of Annex II bat species supported by the SAC using guidance produced by the Bat Conservation Trust (BCT)<sup>16</sup>. BCT provide details of core sustenance zones, which include the area required from a roost to sustain the population. Any impacts within these zones could have a significant impact on bats.</p>	

<sup>16</sup> Bat Conservation Trust (2016). Core Sustenance Zones: Determining zone size.



**Plan or Project Name: A303 Sparkford to Ilchester Dualling**

The Core Sustainance Zone for greater horseshoe bats is considered to be 3 kilometres and for lesser horseshoe bats is 2 kilometres. Therefore, the site is well outside of this core zone and no impacts on foraging bats associated with the SAC are likely.

The SAC contains an exceptionally good range of the sites used by greater horseshoe bats, comprising 2 maternity sites in lowland north Somerset and a variety of cave and mine hibernation sites in the Mendip Hills. Greater horseshoe bats are known to travel up to 50 kilometres between maternity and hibernation roosts. However, the 2017 / 2018 bat activity and internal surveys, have found no evidence of greater horseshoe bat roosts or potential for hibernation roosts within 500 metres of the scheme. Roosting and hibernation sites outside of this area would be highly unlikely to be subject to direct impacts from the scheme, such as noise; vibration; artificial lighting and air emissions. Two greater horseshoe bat calls were recorded on static bat detectors that were situated adjacent to the A303 on the south side of the road. These were recorded in July and September. These results indicate very low greater horseshoe activity and therefore rules out the possibility that there are any significant roosts within proximity of the scheme.

For lesser horseshoe bats, the distance between hibernation and maternity roosts is generally no more than 5 to 10 kilometres. No lesser horseshoe bats were recorded during the 2017/ 2018 bat surveys. Therefore, impacts to lesser horseshoe bats associated with the SAC are considered highly unlikely to occur as a result of the scheme.

Overall, likely significant effects on the integrity European site, as a result of the scheme, can be excluded.

**Initial Assessment**

**The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:**

Reduction of habitat area	The scheme does not require any land take within the European designated site and would have no direct or indirect impacts on areas of habitat associated with the site. Therefore, no reduction in habitat would occur as a result of the scheme.
Disturbance to key species	Due to the distance of the European site from the scheme (>29 kilometres), species within the European site would not be subject to disturbance impacts (directly or indirectly).
Habitat or species fragmentation	The scheme does not require any land take within the European designated site and therefore Annex I habitats would not be affected. The 2017 / 2018 bat activity and internal surveys have found no evidence of greater or lesser horseshoe roosts or potential for hibernation roosts within 500 metres of the scheme. Static bat detectors did not record any lesser horseshoe bats and only picked up 2 greater horseshoe recordings adjacent to the A303 on the south side of the road. Two greater horseshoe passes across the whole survey period, over very different months, represents a very low number and does not indicate that there are any significant greater horseshoe bat commuting routes, foraging habitats or roosts within the ZOI of the scheme. Therefore, the severance of hedgerows along the scheme is not anticipated to impact on greater or lesser horseshoe bats associated with the SAC.
Reduction in species density	Due to the significant distance of the scheme from the SAC and the lack of impact pathways, there would be no reduction in species density within Annex I habitats as a result of the scheme. The 2017 / 2018 bat activity and internal surveys have found no evidence of greater or lesser horseshoe roosts or potential for hibernation roosts within 500 metres of the scheme. There would therefore be no loss or direct impact on greater or lesser horseshoe bat roosts as a result of the scheme. In addition, there would be no severance of significant commuting or foraging habitats for these species, with no lesser horseshoe bats recorded and only 2 greater horseshoe bat passes recorded throughout the surveys. Therefore, a reduction

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
	in numbers of greater or lesser horseshoe bats using the SAC is not anticipated.
Changes in key indicators of conservation value (for example, water quality)	Due to the distance between the scheme and the SAC (>29 kilometres) and the intervening countryside, and the lack of impact pathways, it is not considered that the scheme would result in adverse changes to key indicators, cause Annex I habitats to become less favourable or reduce the SACs conservation value. There is no direct hydrological connectivity to the SAC and as such it would not be impacted in the event of a pollution incident associated with the works.
Climate change	There is potential for the scheme to cause a slight increase in atmospheric pollution during construction, thereby contributing to climate change which could ultimately impact on the habitats supported by the SAC through changes in temperature and rainfall. However, the improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed, thereby reducing emissions. Therefore, changes are unlikely to give rise to a significant effect at a national scale. The Annex I habitats and greater and lesser horseshoe bat colonies will not be significantly affected by the scheme. Adverse effects to the SAC and qualifying features due to climate change will therefore not occur.
<b>Describe any likely impacts on the European site as a whole in terms of:</b>	
Interference with the key relationships that define the structure of the site	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme will impact the structure of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
Interference with key relationships that define the function of the site.	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme will impact the function of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the function of the European site are anticipated.
<b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b>	
Reduction of habitat area	No likely significant effects
Disturbance to key species	No likely significant effects
Habitat or species fragmentation	No likely significant effects
Reduction in species density	No likely significant effects
Changes in key indicators of conservation value (for example, water quality)	No likely significant effects
Climate change	No likely significant effects
<b>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</b>	
None of the elements above are anticipated to have any direct or indirect adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, or its conservation objectives to maintain the favourable status of Annex I habitats and Annex II bat species. <b>In-combination effects:</b> Under the Habitats Regulations, the Secretary of State is obliged to consider whether other plans or projects in combination with the scheme might affect European sites. A review completed of the relevant Local Authority planning portals and the National Infrastructure Planning website found there to be 4 large scale (NSIP) developments within 30 kilometres of the SAC that meet the criteria set out in section 2.1.13. These are Hinkley Point C Nuclear Power Station; the Hinkley Point C Connection project; Seabank 3 Combined Cycle Gas Turbine (CCGT) Project and the	

**Plan or Project Name: A303 Sparkford to Ilchester Dualling**

Portishead Branch Line - MetroWest Phase 1. Refer to Table 5B for an assessment of in-combination effects.

Table 5B: In-Combination Effects on the North Somerset and Mendip Bat SAC

Scheme	Distance from SAC	Potential impact		In-combination effects
		Habitat loss	Disturbance to key species	
Hinkley Point C Connection Project	350 metres at closest point	Construction and operational phase activities will not impact upon Annex I habitats. Elements of the scheme are within the typical foraging range of lesser and greater horseshoe bats. Therefore, works could result in habitat fragmentation. However, measures have been proposed to mitigate such impacts. The HRA concludes that there would be no likely significant effects on the SAC (agreed with Natural England).	Annex I habitats will not be subject to disturbance impacts as a result of the scheme. The scheme is unlikely to result in noise disturbance to bats. However, artificial lighting will be required as part of the scheme which could disturb bat species associated with the SAC. However, measures have been proposed to mitigate such impacts. The HRA concludes that there would be no likely significant effects on the SAC (agreed with Natural England).	The A303 scheme and Hinkley Point C connection Project are a significant distance from each other (approximately 29 kilometres). Annex II bat species may be subject to habitat loss/ fragmentation and disturbance as a result of the Hinkley scheme in the absence of mitigation) and with mitigation, likely significant effects are not anticipated. However, the A303 scheme is well beyond their foraging range and therefore they will not be subject to in-combination effects as a result of this scheme.
Hinkley Point C Nuclear Power Station	26 kilometres	The Environmental Statement for the scheme did not include reference to potential effects on the North Somerset and Mendip Bat SAC and therefore it is assumed that, due to the distance of the scheme from the SAC (almost 30 kilometres), an impact on the SAC was not anticipated.		Due to the lack of information on impacts to the SAC available for the scheme, a full in-combination assessment cannot be made. However, both the A303 scheme and Hinkley Point C Nuclear Power Station scheme are a significant distance from the SAC. Additionally, the schemes are in different directions from the SAC (south-east and west respectively). Therefore, an in-combination effect is not anticipated.
Seabank 3 Combined Cycle Gas Turbine (CCGT) Project	19 kilometres	A scoping report was submitted for the scheme in 2013, which did not include reference to potential effects on the SAC. No further documents have been uploaded to the National Infrastructure Planning website following the scoping report.		The scoping report did not make an assessment of potential effects on the SAC. Also, it appears that this project is not currently active. Therefore, assessment of the potential for in-combination impacts from this scheme cannot be completed.
Portishead Branch Line - MetroWest Phase 1	8 kilometres	The project is currently at scoping stage and as such bat data has not yet been obtained. The HRA states: 'Key species from the SAC, namely greater and lesser horseshoe bats are known to be present close to the proposed development site. It is possible that the bats are moving between the two sites especially greater horseshoes which can travel significant distances between roosts. The known habitat for these species is outside of the works footprint therefore no disturbance is anticipated. However, surveys of suitable habitat on, or very close to the site habitat will be		As a detailed assessment of potential adverse effects of the scheme on the SAC has not been completed, a full assessment of the potential for in-combination effects cannot be completed. However, A303 and Portishead schemes are in opposite directions from the SAC (south-east and north-west respectively), reducing the probability of the schemes

Plan or Project Name: A303 Sparkford to Ilchester Dualling			
		undertaken should any works have the potential to cause disturbance. In the case that these species are identified, mitigation to prevent disturbance will be implemented.'	giving rise to in-combination effects.
<b>No likely significant effects on the European site are anticipated, either alone, or in combination with other projects.</b>			
Outcome of screening stage (delete as appropriate).		No significant effect likely	
Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete as appropriate and attach relevant correspondence).		<b>YES</b> Natural England were consulted in March 2018 and July 2018. Confirmation of Natural England's agreement with the conclusions are contained in appendix D	

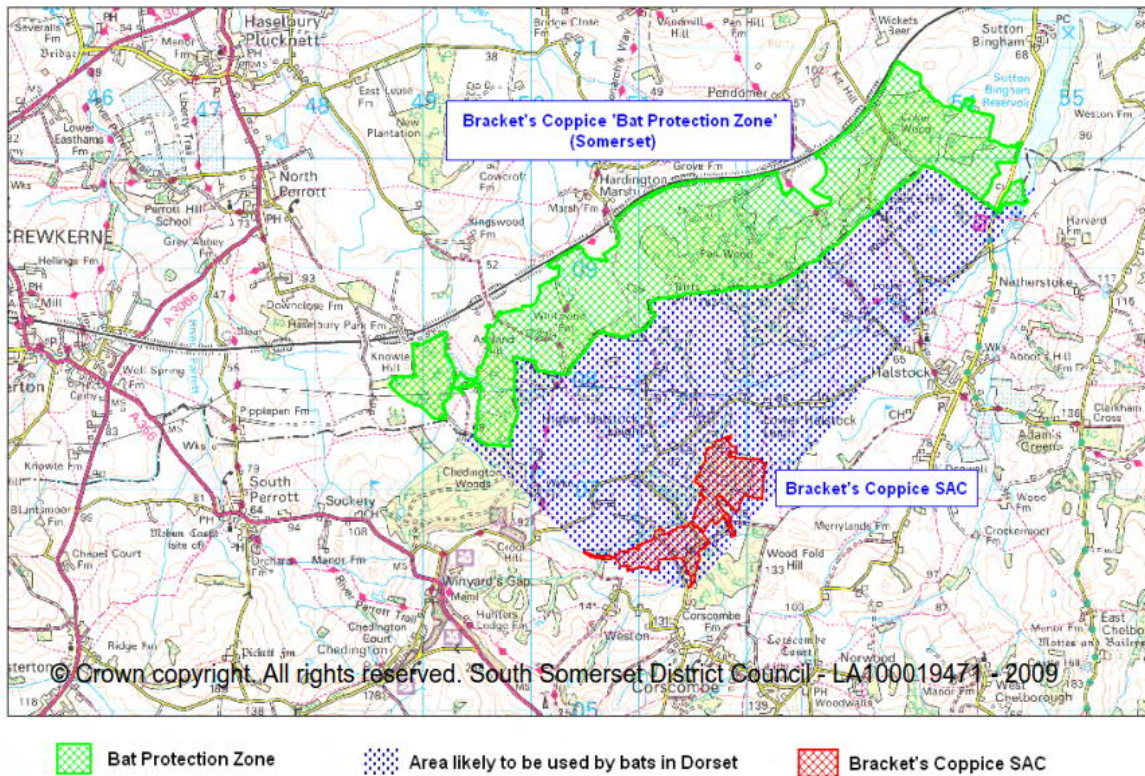
Table 5.3: Stage 1 Habitat Regulations Assessment Screening Matrix: Bracket's Coppice SAC

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Natura 2000 Sites under Consideration:	Bracket's Coppice SAC
Date: 20.07.18	Author: V Coulthard   Verified: J Barrett
<b>Description of Project/Plan:</b>	Please refer to chapters 1 and 2
Size and scale (road type and probable traffic volume)	The overall footprint of the red line boundary would be approximately 117 hectares and 5.6 kilometres in length. The proposed scheme is a dual carriageway. The annual average daily traffic (AADT) flows for 2023 (the opening year of the scheme) is 33,100 to the nearest 100 vehicles.
Land-take	The scheme does not require any land take from the European designated sites.
Distance from the European Site or key features of the site (from edge of the project assessment corridor)	Bracket's Coppice SAC is located approximately 17 kilometres south of the scheme.
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	It is not anticipated that there would be a requirement for resources from the European designated sites as a result of the proposed works.
Emissions (for example polluted surface water runoff – both soluble and insoluble pollutant, atmospheric pollution)	Construction activities are likely to cause a localised and temporary reduction in air quality due to emissions from construction vehicles and localised congestion.  Additional hard standing and road drainage would be required as part of the scheme. Surface water runoff would be attenuated to ensure there is no increase in surface water run-off rates.  Reduction in air quality due to traffic pollutants is usually localised (to 200 metres).
Excavation requirements (for example impacts of local hydrogeology)	The extent of excavation works for the construction of the scheme would be approximately 774,000m <sup>3</sup> .
Transportation requirements	Transportation of materials, site operatives and machinery will be required to facilitate the works during construction. It is anticipated that there would be increased congestion on the A303 due to the transportation of machinery and materials, although the scope of works and access routes are unknown at this stage.
Duration of construction and operation	Construction is currently programmed to commence in March 2020. The duration of construction would be 2.5 years.
<b>Description of avoidance and/or mitigation measures:</b> <b>Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:</b>	
Nature of proposals	No specific measures are required to mitigate impacts to the SAC as likely significant effects are not anticipated as a result of the scheme.
Location	Not applicable
Evidence for effectiveness	Not applicable
Mechanism for delivery (legal conditions,	Not applicable
Other	Not applicable
<b>Characteristics of European Site(s):</b> <b>A brief description of the European Site should be produced, including information on:</b>	
Name of European Site and its EU code	Bracket's Coppice – UK0030095

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Location and distance of the European Site from the proposed works	Bracket's Coppice is located approximately 17 kilometres south of the proposed route options.
European Site size	Bracket's Coppice is 53.56 hectares in size.
Key features of the European Site including the primary reasons for selection and any other qualifying interests	<p><b>Annex I habitats that are a primary reason for selection of this site:</b> Not applicable</p> <p><b>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>).</li> </ul> <p><b>Annex II species that are a primary reason for selection of this site:</b></p> <ul style="list-style-type: none"> <li>• Bechstein's bat <i>Myotis bechsteini</i>.</li> </ul>
Vulnerability of the European Site – any information available from the standard data forms	<p>The following activities have a high negative effect on the European site:</p> <ul style="list-style-type: none"> <li>• Grazing</li> <li>• Problematic native species</li> <li>• Air pollution and air-borne pollutant</li> </ul> <p>Due to the nature of the scheme and the substantial distance from the SAC, none of the above threats or pressures are of relevance when considering the potential effects of the scheme on the designated site.</p>
European Site conservation objectives	<p>To 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:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of qualifying natural habitats and habitats of qualifying species.</li> <li>• The structure and function (including typical species) of qualifying natural habitats.</li> <li>• The structure and function of the habitats of qualifying species.</li> <li>• The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</li> <li>• The populations of qualifying species.</li> <li>• The distribution of qualifying species within the site.</li> </ul>
<p><b>Assessment Criteria</b>  <b>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.</b></p>	
<p>The scheme is not anticipated to have any direct adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, such as from habitat loss or degradation, disturbance to key species or species fragmentation, either alone or in combination with other projects.</p> <p>Due to the substantial distance of the SAC from the scheme (&gt;17 kilometres), impacts on Annex I habitats are not anticipated. In terms of Annex II bat species, this has been determined using guidance produced by the Bat Conservation Trust (BCT). BCT provide details of core sustenance zones, which include the area required from a roost to sustain the population. Any impacts within these zones could have a significant impact on bats. The Core Sustenance Zone for Bechstein's bat is considered to be 1 kilometre, therefore, the scheme is well outside of this core zone and no impacts on foraging bats associated with the SAC are likely. This is further supported by the South Somerset District Council Core Strategy: Issues and Options Screening Report for Bracket's Coppice SAC 2008 which suggests a Bat Protection Zone around the SAC and identifies that development within this zone could have significant effects. Refer to Figure 5.1 below for the location of the Bat Protection Zone in proximity to the SAC.</p>	

**Plan or Project Name: A303 Sparkford to Ilchester Dualling**

Figure 5.1: Location of Bat Protection Zone in proximity to Bracket's Coppice SAC



As the proposals are well outside this zone (refer to Appendix B for the scheme location, which is situated approximately 17 kilometres north of Bracket's Copse SAC), it can be concluded that there is unlikely to be any impacts on bats associated with this SAC. Therefore, likely significant effects on the integrity of the European site, as a result of the scheme, can be excluded.

**Initial Assessment**

**The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:**

Reduction of habitat area	The scheme does not require any land take within the European designated site and will have no direct or indirect impacts on areas of habitat associated with the site. Therefore, no reduction in habitat will occur as a result of the scheme.
Disturbance to key species	Due to the distance of the European site from the scheme (>17 kilometres) and the lack of impact pathways, species within the European site would not be subject to disturbance impacts (directly or indirectly).
Habitat or species fragmentation	The scheme does not require any land take within the European designated site. As such Annex I habitats would not be affected.
Reduction in species density	Due to the distance of the SAC from the scheme and the distance of the qualifying species and habitats from the scheme, there would be no reduction in species density as a result of the scheme.
Changes in key indicators of conservation value (for example, water quality)	Due to the distance between the scheme and the SAC (>17 kilometres) and the intervening countryside, it is not considered that the scheme would result in adverse changes to key indicators, cause habitats to become less favourable or reduce the SACs conservation value. There is no direct hydrological connectivity to the SAC and as such it would not be impacted in the event of a pollution incident associated with the works.
Climate change	There is potential for the scheme to cause a slight increase in atmospheric pollution during construction, thereby contributing to



<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>				
	climate change which could ultimately impact on the habitats supported by the SAC through changes in temperature and rainfall. However, these would be temporary in nature the improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed. Therefore, changes are unlikely to give rise to a significant effect at a national scale. Annex I habitats and Annex II bat species (the Bechstein's bat colony) of the SAC would not be significantly affected by the scheme. Adverse effects to the SAC and qualifying features due to climate change would therefore not occur.			
<b>Describe any likely impacts on the European site as a whole in terms of:</b>				
Interference with the key relationships that define the structure of the site	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme would impact the structure of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.			
Interference with key relationships that define the function of the site.	Due to the distance of the scheme from the European site and the lack of impact pathways, it is not anticipated that the scheme will impact the function of Annex I habitats at the SAC. Therefore, no significant effects on the integrity of the function of the European site are anticipated.			
<b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b>				
Reduction of habitat area	No likely significant effects			
Disturbance to key species	No likely significant effects			
Habitat or species fragmentation	No likely significant effects			
Reduction in species density	No likely significant effects			
Changes in key indicators of conservation value (for example, water quality)	No likely significant effects			
Climate change	No likely significant effects			
<b>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</b>				
None of the elements above are anticipated to have any direct or indirect adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, or its conservation objectives to maintain the favourable status of Annex I habitats or Annex II species (Bechstein's bats).				
<b>In-combination effects:</b>				
Under the Habitats Regulations, the Secretary of State is obliged to consider whether other plans or projects in combination with the scheme might affect European sites. A review completed of the relevant Local Authority planning portals and the National Infrastructure Planning website found there to be one development, a solar farm at Lady Carolines Drive, Bryanston, within 30 kilometres of the SAC that meet the criteria set out in section 2.1.13. Within the Highways England <i>Regional Investment Strategy 2015-2020</i> , is a proposed road widening scheme along the A358 at Taunton, which has also been included in the assessment of in-combination effects. Refer to Table 5C for an assessment of in-combination effects on the SAC.				
Table 5C: In-combination effects on Bracket's Coppice SAC				
Scheme	Distance from SAC	Potential impact		In-combination effects
		Habitat loss	Disturbance to key species	
A358 Taunton to Southfields Dualling scheme	19 kilometres	Due to the distance of scheme from the SAC, loss of Annex I habitats will not occur. The scheme is well outside the 'Bat Protection Zone' and 'Core Sustainance Zone' for	Due to the distance of the scheme from the SAC disturbance to greater horseshoe bats through noise, lighting or human disturbance is not anticipated. No adverse effect on the integrity of the	Both the A303 and A358 schemes are a significant distance from the SAC; it has been assessed that neither would have likely significant effects on the SAC. Additionally, the

Plan or Project Name: A303 Sparkford to Ilchester Dualling				
		the SAC and therefore loss of Annex II bat foraging habitat is not anticipated.	bat population of this SAC would therefore arise.	schemes are in different directions from the SAC (north and north-west respectively). Therefore, an in-combination effect is not anticipated.
Solar Farm at Lady Carolines Drive, Bryanston	22.5 kilometres	Due to the distance of scheme from the SAC, loss of Annex I habitats will not occur. The scheme is well outside the 'Bat Protection Zone' and 'Core Sustenance Zone' for the SAC and therefore loss of Annex II bat foraging habitat is not anticipated.	Due to the distance of the scheme from the SAC disturbance to greater horseshoe bats through noise, lighting or human disturbance is not anticipated. No adverse effect on the integrity of the bat population of this SAC would therefore arise.	Both the A303 and Solar Farm schemes are a significant distance from the SAC; it has been assessed that neither would have likely significant effects on the SAC. Additionally, the schemes are in different directions from the SAC (north and east respectively). Therefore, an in-combination effect is not anticipated.
<b>No likely significant effects on the European site are anticipated, either alone, or in combination with other projects.</b>				
Outcome of screening stage (delete as appropriate).		No significant effect likely		
Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete as appropriate and attach relevant correspondence).		<b>YES</b> Natural England were consulted in March 2018 and July 2018. Confirmation of Natural England's agreement with the conclusions are contained in appendix D.		

Table 5.4: Stage 1 Habitat Regulations Assessment Screening Matrix Somerset Levels and Moors SPA

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Natura 2000 Sites under Consideration:	Somerset Levels and Moors SPA
Date: 20.07.18	Author: V Coulthard   Verified: J Barrett
<b>Description of Project/Plan:</b>	Please refer to Chapters 1 and 2 above
Size and scale (road type and probable traffic volume)	The overall footprint of the red line boundary would be approximately 117 hectares and 5.6 kilometres in length. The proposed scheme is a dual carriageway. The annual average daily traffic (AADT) flows for 2023 (the opening year of the scheme) is 33,100 to the nearest 100 vehicles.
Land-take	The scheme does not require any land take from the European designated site.
Distance from the European Site or key features of the site (from edge of the project assessment corridor)	The Somerset Levels and Moors SPA is located approximately 7.3 kilometres west of the scheme. The Wet Moor Site of Special Scientific Interest (SSSI) component of the SPA is located 15.5 kilometres downstream of the scheme along the River Cam and the River Yeo. The King Sedgemoor SSSI component of the SPA is located downstream of the scheme along the River Cary. This designation is 17.9 kilometres downstream via Park Brook and 20 kilometres downstream via Dyke Brook.
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	There would not be a requirement for resources from the European designated site as a result of the scheme.
Emissions (for example, polluted surface water runoff – both soluble and insoluble pollutant, atmospheric pollution)	<p>Construction activities are likely to cause a localised and temporary reduction in air quality due to emissions from construction vehicles and localised congestion.</p> <p>Additional hard standing and road drainage would be required as part of the scheme. Surface water runoff would be attenuated to ensure there is no increase in surface water run-off rates.</p> <p>Reduction in air quality due to traffic pollutants is usually localised (to 200 metres).</p>
Excavation requirements (for example, impacts of local hydrogeology)	The extent of excavation works for the construction of the scheme would be approximately 774,000m <sup>3</sup> .
Transportation requirements	Transportation of materials, site operatives and machinery would be required to facilitate the works during construction. It is anticipated that there would be increased congestion on the A303 due to the transportation of machinery and materials, although the scope of works and access routes are unknown at this stage.
Duration of construction and operation	Construction is currently programmed to commence in March 2020. The duration of construction would be 2.5 years.
<b>Description of avoidance and/or mitigation measures:</b>	
<b>Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:</b>	
Nature of proposals	No specific measures are required to mitigate impacts to the SPA, as likely significant effects are not anticipated as a result of the scheme.
Location	Not applicable
Evidence for effectiveness	Not applicable
Mechanism for delivery (legal conditions,	Not applicable
Other	Not applicable
<b>Characteristics of European Site(s):</b>	

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
<b>A brief description of the European Site should be produced, including information on:</b>	
Name of European Site and its EU code	Somerset Levels and Moors SPA - UK9010031
Location and distance of the European Site from the proposed works	Somerset Levels and Moors SPA is 7.3 kilometres from the scheme.
European Site size	Somerset Levels and Moors SPA is 6,388.49 hectares in size.
Key features of the European Site including the primary reasons for selection and any other qualifying interests	<p>This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p><b>Over winter:</b></p> <p>Bewick's Swan <i>Cygnus columbianus bewickii</i>, 191 individuals representing at least 2.7% of the wintering population in Great Britain (5-year peak mean 1991/2 - 1995/6).</p> <p>Golden Plover <i>Pluvialis apricaria</i>, 3,029 individuals representing at least 1.2% of the wintering population in Great Britain (5-year peak mean 1991 / 2 – 1995 / 6).</p> <p>This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p>Shoveler <i>Anas clypeata</i>, 501 individuals representing at least 1.3% of the wintering Northwestern/Central Europe population (5 -year peak mean 1991 / 2 – 1995 / 6).</p> <p>Teal <i>Anas crecca</i>, 13,307 individuals representing at least 3.3% of the wintering Northwestern Europe population (5-year peak mean 1991 / 2 – 1995 / 6).</p> <p>Wigeon <i>Anas penelope</i>, 13,661 individuals representing at least 1.1% of the wintering Western Siberia / Northwestern / Northeastern Europe population (5-year peak mean 1991 / 2 – 1995 / 6).</p> <p><b>Assemblage qualification: A wetland of international importance.</b></p> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.</p> <p>Over winter, the area regularly supports 72,874 individual waterfowl (5-year peak mean 1991 / 2 – 1995 / 6) including: Snipe <i>Gallinago gallinago</i>, Lapwing <i>Vanellus vanellus</i>, Pintail <i>Anas acuta</i>, Gadwall <i>Anas strepera</i>, Shoveler <i>Anas clypeata</i>, Teal <i>Anas crecca</i>, Wigeon <i>Anas penelope</i>, Golden Plover <i>Pluvialis apricaria</i>, Bewick's Swan <i>Cygnus columbianus bewickii</i>, Whimbrel <i>Numenius phaeopus</i>.</p>
Vulnerability of the European Site – any information available from the standard data forms	<p>The following activities have a high negative effect on the European site:</p> <ul style="list-style-type: none"> <li>• Cultivation</li> <li>• Modification of cultivation practices</li> <li>• Human induced changes in hydraulic conditions</li> </ul>

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	Due to the nature of the scheme and the substantial distance from the SAC, none of the above threats or pressures are of relevance when considering the potential effects of the scheme on the designated site.
European Site conservation objectives	<p>To ensure that the integrity of the SPA 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:</p> <ul style="list-style-type: none"> <li>• The extent and distribution of qualifying natural habitats and habitats of qualifying species.</li> <li>• The structure and function (including typical species) of qualifying natural habitats.</li> <li>• The structure and function of the habitats of qualifying species.</li> <li>• The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely.</li> <li>• The populations of qualifying species.</li> <li>• The distribution of qualifying species within the site.</li> </ul>
<p><b>Assessment Criteria</b>  <b>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.</b></p>	
<p>The scheme is not anticipated to have any direct adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, such as from habitat loss or degradation, disturbance to key species or species fragmentation, either alone or in combination with other projects.</p> <p>The scheme is located approximately 7.3 kilometres from the Somerset Levels and Moors SPA. The SPA is hydraulically connected to the scheme via proposed drainage that would link to existing drains and ditches that outfall into watercourses, which ultimately flow into the European designated site. At its closest hydraulic link (to the Wet Moor SSSI component of the SPA), the SPA is 15.5 kilometres downstream of the scheme.</p> <p>The SPA comprises a large area of floodplain, made up of areas of managed wet grassland and fen habitat, which drains through a network of ditches, rhynes, drains and rivers. These wetland habitats support the Annex I overwintering bird species that the SPA is designated for. As such, the SPA is sensitive to changes in water levels and water quality that could arise from the scheme.</p> <p>Due to the distance of the scheme from the SPA, changes in water levels would not occur. Any hydrological changes that could potentially arise due to an increase in impermeable areas as a result of the scheme would affect land immediately adjacent to the scheme; the SPA would be unaffected.</p> <p>Due to the distance of the designation from the scheme and the scheme design, no effects to water quality are anticipated.</p> <p>There is the potential for pollution events to occur during the construction phase, which could result in pollutants or sediments entering the surrounding drainage network. There is a potential impact pathway to the SPA, given that the scheme and the SPA are hydraulically linked. However, the SPA is located a substantial distance downstream (15.5 kilometres) and therefore any pollution entering the drainage system would be diluted to such an extent that pollution reaching the SPA habitats would be greatly reduced from the source. In addition, the SPA is made up on numerous separate component areas, located apart from each other reducing the potential that the SPA as a whole would be subject to pollution effects in the event that a spillage occurs on site. Wading bird species are the qualifying features of the SPA; these are mobile species with the ability to move between different areas of the SPA. Therefore, if 1 SPA component is affected, the bird species would be able to utilise areas of habitat within other components of the SPA. As such, in the event of a pollution event occurring during the construction phase, the qualifying features of the SPA would not be significantly affected.</p> <p>An assessment of operational phase routine runoff has been undertaken using the Highways Agency Water Risk Assessment Tool (HAWRAT), as prescribed in Method A of the Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 10, <i>Road Drainage and the Water Environment</i> (DMRB HD45/09). This assessment predicts concentrations of pollutants in untreated and undiluted highway runoff; it then predicts concentrations of pollutants after mixing within the receiving waterbody;</p>	

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and finally, it assesses in-river impacts. The assessment found that the Water Framework Directive (WFD) Environmental Quality Standards would not be breached by routine runoff from the scheme for receiving waterbodies (refer to Chapter 3 of this report for further details).

The Method D assessment (DMRB HD45/09) for accidental spillages of polluting substances from roads has also been carried out, which found there to be a low risk of accidental spillages during the operational phase of the scheme. In the event that an accidental spillage did occur, the scheme design features would ensure that pollutants spilled remain within the boundary of highways drainage and would not enter surrounding watercourses (refer to Chapter 3 for further details).

There would be no impacts to the surrounding drainage network during the construction phase and WFD Environmental Quality Standards of downstream watercourses would remain at acceptable levels during the operational phase. The scheme would not lead to any significant adverse effects to the Somerset Levels and Moors SPA.

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**The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:**

Reduction of habitat area	The scheme does not require any land take within the European designated site and would have no direct or indirect impacts on areas of habitat associated with the site. Therefore, no reduction in habitat would occur as a result of the scheme.
Disturbance to key species	Habitats within and surrounding the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore Annex I overwintering bird species would not be present within the vicinity of the scheme. Due to the distance of the European site from the scheme (>7 kilometres), species within the European site would not be subject to disturbance impacts (directly or indirectly).
Habitat or species fragmentation	The scheme is over 7 kilometres from the SPA and would not require any land take from within the European designated site. Habitats within the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore Annex I overwintering bird species would not be present within the vicinity of the scheme. Therefore, habitat or species fragmentation would not occur as a result of the scheme.
Reduction in species density	Habitats within the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore Annex I overwintering bird species would not be present within the vicinity of the scheme. Due to the distance of the SPA from the scheme (>7 kilometres) a reduction in species density would not occur.
Changes in key indicators of conservation value (for example, water quality)	The scheme would not lead to any significant adverse effects to water quality within the Somerset Levels and Moors SPA. Due to the substantial distance between the scheme and the SPA, any pollutants entering the surrounding drainage network during construction would be greatly diluted if and by the time they reached the SPA. In addition, the SPA is made up on numerous separate component areas, located apart from each other preventing the SPA as a whole being subject to pollution effects in the event that a spillage occurs on site. A HAWRAT assessment completed for the scheme found that WFD Environmental Quality Standards would remain within acceptable levels within surrounding watercourses during the operational phase. Therefore, changes in water quality within the SPA would not occur as a result of the scheme.
Climate change	There is potential for the scheme to cause a slight increase in atmospheric pollution during construction, thereby contributing to climate change which could ultimately impact on the habitats within the SPA through changes in temperature and rainfall. However, these effects would be temporary in nature and the

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	improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed, thereby reducing emissions. Therefore, changes are unlikely to give rise to a significant effect at a national scale. Adverse effects to the SPA and qualifying features due to climate change will therefore not occur.
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**Describe any likely impacts on the European site as a whole in terms of:**

Interference with the key relationships that define the structure of the site	Due to the distance of the scheme from the European site, it is not anticipated that the scheme would impact the structure of Annex I habitats at the SPA. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
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Interference with key relationships that define the function of the site.	Due to the distance of the scheme from the European site, it is not anticipated that the scheme would impact the structure of Annex I habitats at the SPA. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
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**Indicate the significance as a result of the identification of impacts set out above in terms of:**

Reduction of habitat area	No likely significant effects
Disturbance to key species	No likely significant effects
Habitat or species fragmentation	No likely significant effects
Reduction in species density	No likely significant effects
Changes in key indicators of conservation value (for example, water quality)	No likely significant effects
Climate change	No likely significant effects

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.**

None of the elements above are anticipated to have any direct or indirect adverse impact upon the qualifying reasons for the selection of the European designated site, or its conservation objectives to maintain its favourable status.

**In-combination effects:**

Under the Habitats Regulations, the Secretary of State is obliged to consider whether other plans or projects in combination with the scheme might affect European site.

A review completed of the relevant Local Authority planning portals and the National Infrastructure Planning website found there to be one large scale (NSIP) development, Hinkley Point C Connection Project, that meets the criteria set out in section 2.1.13 and is within 2 kilometres of the SPA. There were no other European sites either within 2 kilometres of the designation or hydraulically linked, according to the South Somerset District Council Planning portal or National Infrastructure Planning website. However, Highways England are currently in the design phase for a road widening scheme along the A358 at Taunton; this scheme has been included within the assessment of in-combination effects. Refer to Table 5D for the assessment.

Table 5D: In-Combination Effects on the Somerset Levels and Moors SPA

Scheme	Distance from SPA	Potential impact	In-combination effects
		Changes to water quality	
Hinkley Point C Connection Project	2 kilometres	The Somerset Levels and Moors SPA is included in the HRA for this scheme. However, it is anticipated that the scheme will give rise to likely significant effects on overwintering birds and habitat loss only; water quality impacts are not anticipated as a result of the scheme.	The Hinkley Point C Connection Project will not impact upon water quality within the SPA. Therefore, this scheme will not give rise to in-combination effects on the designated site.

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>			
A358 Taunton to Southfields Dualling scheme	4 kilometres	The scheme is at an early stage so HRA screening has not been completed. The scheme is 4 kilometres from the SPA at its closest point. Mitigation measures will be incorporated into the scheme design during both the construction and operational phases to contain any run-off within highways drainage. Therefore, significant effects to water quality within the SPA are unlikely to occur.	The scheme is approximately 14 kilometres from the Wet Moor SSSI component and 13 kilometres from the King Sedgemoor SSSI component of the SPA (parts of the SPA that are hydraulically linked to the A303 scheme). Distances between the A358 scheme and these SPA components will be much greater along the drainage network. Due to the large distances that pollutants would need to travel along drains and watercourses from either scheme to arrive at these SPA components, and the scheme drainage design which would contain run-off within highways drainage, impacts to water quality within the SPA are unlikely. The scheme is therefore unlikely to give rise to significant in-combination effects on the SPA.
<b>No likely significant effects on the European site are anticipated, either alone, or in combination with other projects.</b>			
Outcome of screening stage (delete as appropriate).		No significant effect likely	
Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete as appropriate and attach relevant correspondence).		<b>YES</b> Natural England were consulted in March 2018 and July 2018. Confirmation of Natural England's agreement with the conclusions are contained in appendix D.	



Table 5.5: Stage 1 Habitat Regulations Assessment Screening Matrix Somerset Levels and Moors Ramsar

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
Natura 2000 Sites under Consideration:	Somerset Levels and Moors Ramsar
Date: 20.07.18	Author: V Coulthard   Verified: J Barrett
<b>Description of Project/Plan:</b>	Please refer to chapters 1 and 2 above
Size and scale (road type and probable traffic volume)	The overall footprint for the scheme is approximately 91 hectares in size and 5.6 kilometres in length. The proposed scheme is a dual carriageway. The annual average daily traffic (AADT) flows for 2023 (the opening year of the scheme) is 33,100 to the nearest 100 vehicles.
Land-take	The scheme does not require any land take from the European designated site.
Distance from the European Site or key features of the site (from edge of the project assessment corridor)	The Somerset Levels and Moors Ramsar is located approximately 7.3 kilometres west of the scheme. The Wet Moor Site of Special Scientific Interest (SSSI) component of the Ramsar is located 15.5 kilometres downstream of the scheme along the River Cam and the River Yeo. The King Sedgemoor SSSI component of the Ramsar is located downstream of the scheme along the River Cary. This designation is 17.9 kilometres downstream via Park Brook and 20 kilometres downstream via Dyke Brook.
Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)	There would not be a requirement for resources from the European designated site as a result of the scheme.
Emissions (for example, polluted surface water runoff – both soluble and insoluble pollutant, atmospheric pollution)	<p>Construction activities are likely to cause a localised and temporary reduction in air quality due to emissions from construction vehicles and localised congestion.</p> <p>Additional hard standing and road drainage would be required as part of the scheme. Surface water runoff would be attenuated to ensure there is no increase in surface water run-off rates.</p> <p>Reduction in air quality due to traffic pollutants is usually localised (to 200 metres).</p>
Excavation requirements (for example, impacts of local hydrogeology)	The extent of excavation works for the construction of the scheme is 773,960m <sup>3</sup> .
Transportation requirements	Transportation of materials, site operatives and machinery would be required to facilitate the works during construction. It is anticipated that there would be increased congestion on the A303 due to the transportation of machinery and materials, although the scope of works and access routes are unknown at this stage.
Duration of construction and operation	Construction is currently programmed to commence in March 2020. The duration of construction would be 2.5 years.
<b>Description of avoidance and/or mitigation measures:</b> <b>Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:</b>	
Nature of proposals	No specific measures are required to mitigate impacts to the SAC as likely significant effects are not anticipated as a result of the scheme.
Location	Not applicable
Evidence for effectiveness	Not applicable
Mechanism for delivery (legal conditions,	Not applicable
Other	Not applicable

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
<b>Characteristics of European Site(s):</b> <b>A brief description of the European Site should be produced, including information on:</b>	
Name of European Site and its EU code	Somerset Levels and Moors Ramsar - UK11064
Location and distance of the European Site from the proposed works	Somerset Levels and Moors Ramsar is 7.3 kilometres from the scheme.
European Site size	Somerset Levels and Moors Ramsar is 6,388.49 hectares in size
Key features of the European Site including the primary reasons for selection and any other qualifying interests	<p>The primary reasons for selecting this site are:</p> <p><b>Ramsar criterion 2:</b> Supports 17 species of British Red Data Book invertebrates.</p> <p><b>Ramsar criterion 5:</b> Assemblages of international importance: Species with peak counts in winter: 97155 waterfowl (5-year peak mean 1998/99-2002/2003)</p> <p><b>Ramsar criterion 6:</b> Species/populations occurring at levels of international importance.</p> <p>Qualifying Species/populations (as identified at designation). Species with peak counts in winter: Tundra swan <i>Cygnus columbianus bewickii</i>, NW Europe 112 individuals, representing an average of 1.3% of the GB population (5-year peak mean 1998/92002/3). Eurasian teal <i>Anas crecca</i>, NW Europe 21231 individuals, representing an average of 5.3% of the population (5-year peak mean 1998/9-2002/3). Northern lapwing <i>Vanellus vanellus</i>, Europe breeding 36580 individuals, representing an average of 1% of the population (5-year peak mean 1998/92002/3).</p> <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter: Mute swan <i>Cygnus olor</i>, Britain 842 individuals, representing an average of 2.2% of the population (5-year peak mean 1998/92002/3). Eurasian wigeon <i>Anas penelope</i>, NW Europe 25759 individuals, representing an average of 1.7% of the population (5-year peak mean 1998/9-2002/3). Northern pintail <i>Anas acuta</i>, NW Europe 927 individuals, representing an average of 1.5% of the population (5-year peak mean 1998/92002/3). Northern shoveler <i>Anas clypeata</i>, NW &amp; C Europe 1094 individuals, representing an average of 2.7% of the population (5-year peak mean 1998/9-2002/3).</p>
Vulnerability of the European Site – any information available from the standard data forms	Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: No factors reported
European Site conservation objectives	None provided.
<b>Assessment Criteria</b> <b>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.</b>	

### Plan or Project Name: A303 Sparkford to Ilchester Dualling

The scheme is not anticipated to have any direct adverse impact upon the habitats and species which are a qualifying reason for the selection of the European designated sites, such as from habitat loss or degradation, disturbance to key species or species fragmentation, either alone or in combination with other projects.

The scheme is located approximately 7.3 kilometres from the Somerset Levels and Moors Ramsar. The Ramsar is hydraulically connected to the scheme via proposed drainage that would link to existing drains and ditches that outfall into watercourses, which ultimately flow into the European designated site. At its closest hydraulic link (to the Wet Moor SSSI component of the Ramsar), the Ramsar is 15.5 kilometres downstream of the scheme.

The Ramsar comprises a large area of floodplain, made up of areas of managed wet grassland and fen habitat, which drains through a network of ditches, rhynes, drains and rivers. These wetland habitats support the overwintering bird and Red Data Book invertebrate species that the Ramsar is designated for. As such, the Ramsar is sensitive to changes in water levels and water quality that could arise from the scheme.

Due to the distance of the scheme from the Ramsar, changes in water levels would not occur. Any hydrological changes that could potentially arise due to an increase in impermeable areas as a result of the scheme would affect land immediately adjacent to the scheme; the Ramsar would be unaffected. Due to the distance of the designation from the scheme and scheme design, no effects to water quality are anticipated.

There is the potential for pollution events to occur during the construction phase, which could result in pollutants or sediments entering the surrounding drainage network. There is a potential impact pathway to the Ramsar, given that the scheme and the Ramsar are hydraulically linked. However, the Ramsar is located a substantial distance downstream (15.5 kilometres) and therefore any pollution entering the drainage system would be diluted to such an extent that pollution entering the Ramsar habitats would be greatly reduced from the source of pollution. In addition, the Ramsar is made up on numerous separate components, located apart from each other, preventing the Ramsar as a whole being subject to pollution effects. Therefore, the integrity of populations of Red Data Book invertebrate species supported by the Ramsar would not be significantly affected. Wading bird species designated under the Ramsar are mobile species with the ability to move between different areas of the Ramsar.

Therefore, if one Ramsar component is affected, the bird species would be able to utilise areas of habitat within other components of the Ramsar. As such, in the event of a pollution event occurring during the construction phase, the qualifying features of the Ramsar would not be significantly affected.

An assessment of routine runoff has been undertaken using the Highways Agency Water Risk Assessment Tool (HAWRAT), as prescribed in Method A of the Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 10, *Road Drainage and the Water Environment* (DMRB HD45/09). This assessment predicts concentrations of pollutants in untreated and undiluted highway runoff; it then predicts concentrations of pollutants after mixing within the receiving waterbody; and finally, it assesses in-river impacts. The assessment found that the Water Framework Directive (WFD) Environmental Quality Standards would not be breached by routine runoff from the scheme for receiving waterbodies (refer to Chapter 3 of this report for further details).

The Method D assessment (DMRB HD45/09) for accidental spillages of polluting substances from roads has also been carried out, which found there to be a low risk of accidental spillages during the operational phase of the scheme. In the event that an accidental spillage did occur, the scheme design features would ensure that pollutants spilled would remain within the boundary of highways drainage and would not enter surrounding watercourses (refer to Chapter 3 of this report for further details).

There would be no impacts to the surrounding drainage network during the construction phase and WFD Environmental Quality Standards of downstream watercourses would remain at acceptable levels during the operational phase. The scheme would not lead to any significant adverse effects to the Somerset Levels and Moors Ramsar.

#### Initial Assessment

**The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:**

Reduction of habitat area	The scheme does not require any land take within the European designated site and would have no direct or indirect impacts on areas of habitat associated with the site. Therefore, no reduction in habitat would occur as a result of the scheme.
Disturbance to key species	Habitats within and surrounding the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore they are highly unlikely to be present

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
	within the vicinity of the scheme. Due to the distance of the European site from the scheme (>7 kilometres), invertebrate and bird species within the European site would not be subject to disturbance impacts (directly or indirectly).
Habitat or species fragmentation	The scheme is over 7 kilometres from the Ramsar and does not require any land take from within the European designated site. Habitats within the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore they are highly unlikely to be present within the vicinity of the scheme. Therefore, habitat or species fragmentation would not occur as a result of the scheme.
Reduction in species density	Habitats within the scheme area have been assessed as offering low potential for supporting overwintering bird species and therefore they are highly unlikely to be present within the vicinity of the scheme. Due to the distance of the Ramsar from the scheme (>7 kilometres) a reduction in species density would not occur.
Changes in key indicators of conservation value (for example, water quality)	The scheme would not lead to any significant adverse effects to water quality within the Somerset Levels and Moors Ramsar. Due to the substantial distance between the scheme and the Ramsar, any pollutants entering the surrounding drainage network during construction would be greatly diluted if and by the time they reached the Ramsar. In addition, the Ramsar is made up of numerous separate component areas, located apart from each other preventing the Ramsar as a whole being subject to pollution effects in the event that a spillage occurs on site. A HAWRAT assessment completed for the scheme found that WFD Environmental Quality Standards would remain within acceptable levels within surrounding watercourses during the operational phase. Therefore, changes in water quality within the Ramsar would not occur as a result of the scheme.
Climate change	There is potential for the scheme to cause a slight increase in atmospheric pollution during construction, thereby contributing to climate change which could ultimately impact on the habitats within the Ramsar through changes in temperature and rainfall. However, these would be temporary in nature and the improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed, thereby reducing emissions. Therefore, changes are unlikely to give rise to a significant effect at a national scale. Adverse effects to the Ramsar and qualifying features due to climate change will therefore not occur.
<b>Describe any likely impacts on the European site as a whole in terms of:</b>	
Interference with the key relationships that define the structure of the site	Due to the distance of the scheme from the European site, it is not anticipated that the scheme would impact the structure of Annex I habitats at the Ramsar. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
Interference with key relationships that define the function of the site.	Due to the distance of the scheme from the European site, it is not anticipated that the scheme would impact the structure of Annex I habitats at the Ramsar. Therefore, no significant effects on the integrity of the structure of the European site are anticipated.
<b>Indicate the significance as a result of the identification of impacts set out above in terms of:</b>	
Reduction of habitat area	No likely significant effects
Disturbance to key species	No likely significant effects
Habitat or species fragmentation	No likely significant effects
Reduction in species density	No likely significant effects

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>			
Changes in key indicators of conservation value (for example, water quality)	No likely significant effects		
Climate change	No likely significant effects		
<b>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</b>			
None of the elements above are anticipated to have any direct or indirect adverse impact upon the qualifying reasons for the selection of the European designated site, or its conservation objectives to maintain favourable status.			
<b>In-combination effects:</b>			
Under the Habitats Regulations, the Secretary of State is obliged to consider whether other plans or projects in combination with the scheme might affect European sites.			
A review completed of the relevant Local Authority planning portals and the National Infrastructure Planning website found there to be one large scale (NSIP) development, Hinkley Point C Connection Project, that meets the criteria set out in section 2.1.13 and is within 2 kilometres of the Ramsar. There were no other European sites either within 2 kilometres of the designation or hydraulically linked. However, Highways England are currently in the design phase for a road widening scheme along the A358 at Taunton; this scheme has been included within the assessment of in-combination effects. Refer to Table 5E for the assessment.			
Table 5E: In-Combination Effects on the Somerset Levels and Moors Ramsar			
Scheme	Distance from SPA	Potential impact Changes to water quality	In-combination effects
Hinkley Point C Connection Project	2 kilometres	The Somerset Levels and Moors Ramsar is included in the HRA for this scheme. However, it is anticipated that the scheme will give rise to likely significant effects on overwintering birds and habitat loss only; water quality impacts are not anticipated as a result of the scheme.	The Hinkley Point C Connection Project will not impact upon water quality within the Ramsar. Therefore, this scheme will not give rise to in-combination effects on the designated site.
A358 Taunton to Southfields Dualling scheme	4 kilometres	The scheme is at an early stage so HRA screening has not been completed. The scheme is 4 kilometres from the Ramsar at its closest point. Mitigation measures will be incorporated into the scheme design during both the construction and operational phases to contain any run-off within highways drainage. Therefore, significant effects to water quality within the Ramsar are unlikely to occur.	The scheme is approximately 14 kilometres from the Wet Moor SSSI component and 13 kilometres from the King Sedgemoor SSSI component of the Ramsar (parts of the Ramsar that are hydraulically linked to the A303 scheme). Distances between the A358 scheme and these Ramsar components will be much greater along the drainage network. Due to the large distances that pollutants would need to travel along drains and watercourses from either scheme to arrive at these Ramsar components, and the scheme drainage design which would contain run-off within highways drainage impacts to water quality within the Ramsar are unlikely. The scheme is therefore unlikely to give rise to significant in-combination effects on the Ramsar.
<b>No likely significant effects on the European site are anticipated, either alone, or in combination with other projects.</b>			
Outcome of screening stage (delete as appropriate).		No significant effect likely	

<b>Plan or Project Name: A303 Sparkford to Ilchester Dualling</b>	
<p>Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete as appropriate and attach relevant correspondence).</p>	<p><b>YES</b></p> <p>Natural England were consulted in March 2018 and July 2018. Confirmation of Natural England's agreement with the conclusions are contained in appendix D.</p>

## **6 Conclusions**

- 6.1.1 Stage 1 Habitat Regulations Assessment Screening Matrices have been completed for the Mells Valley SAC; the North Somerset and Mendip Bat SAC; Bracket's Coppice SAC and the Somerset Levels and Moors SPA / Ramsar. The assessment has concluded that there would not be likely significant effects upon these European sites, either alone, or in combination with other schemes as a result of the A303 Sparkford to Ilchester Dualling scheme.

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## Appendix A: Screening matrices

Potential effects upon the European sites which are considered within Habitat Regulations Assessment Stage 1 Report are listed below:

- Reduction in habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (for example, water quality)
- Climate change

The European Sites included within the screening assessment are:

- Mells Valley Special Area of Conservation (SAC) (Table A.1)
- North Somerset and Mendip Bats SAC (Table A.2)
- Bracket's Coppice SAC (Table A.3)
- The Somerset Levels and Moors SPA (Table A.4)
- The Somerset Levels and Moors Ramsar (Table A.5)

Evidence of likely significant effects on their qualifying feature is detailed within the footnotes to the screen matrices below.

Matrix Key:

- ✓ = Likely significant effect cannot be excluded
- ✗ = Likely significant effect can be excluded
- C = construction
- O = operation



Table A.1: Mells Valley SAC PINS Screening Matrix

Name of European site: Mells Valley SAC														
EU Code: UK0012658														
Distance to NSIP: 22 kilometres north														
European site features	Likely effects of NSIP													
	Reduction in habitat area		Disturbance to key species		Habitat or species fragmentation		Reduction in species density		Changes in key indicators of conservation value		Climate change		In-combination effects	
Effect														
Stage of development	C	O	C	O	C	O	C	O	C	O	C	O	C	O
<b>Annex I habitats</b>														
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-brometalia)	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
Caves not open to the public	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
<b>Annex II species</b>														
Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> )	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xb	Xb	Xb Xc	Xb Xc

- (a) The scheme is a substantial distance from the SAC (>22 kilometres) and therefore will not result in a reduction in the habitat area; disturbance to key species within the SAC; habitat or species fragmentation or changes in key indicators of conservation value. Refer to appendix B for a plan showing the location of the scheme in proximity to the SAC. In-combination effects with other developments are not anticipated. Refer to Table 5.1 of this report for further details.
- (b) Effects on the SAC due to climate change as a result of the scheme are not anticipated to be significant. The improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed. Please refer to Table 5.1 of this report and **Chapter 13, Climate of the Environmental Statement (document reference TR010036/APP/6.1)** for further details.
- (c) Bat surveys completed for the scheme recorded very low numbers of greater horseshoe bats within the vicinity of the scheme. Therefore, it is not considered that the scheme will impact upon habitats supporting greater horseshoe bats associated with the SAC, either during construction or operation. In-combination effects with other developments are not anticipated. Refer to **Appendix 8.4 Bat Technical Report (document reference TR010036/APP/6.3)** for further information. Relevant information is summarised within Table 5.1 of this report.

Table A.2: North Somerset and Mendip Bat SAC PINS Screening Matrix

Name of European site: North Somerset and Mendip Bat SAC														
EU Code: UK0030052														
Distance to NSIP: 29 kilometres north														
European site features	Likely effects of NSIP													
	Reduction in habitat area		Disturbance to key species		Habitat or species fragmentation		Reduction in species density		Changes in key indicators of conservation value		Climate change		In-combination effects	
Effect														
Stage of development	C	O	C	O	C	O	C	O	C	O	C	O	C	O
<b>Annex I habitats</b>														
Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-brometalia</i> )	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
Tilio-Acerion forests of slopes, screes and ravines	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
Caves not open to the public	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
<b>Annex II species</b>														
Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> )	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xb	Xb	Xc	Xc
Greater horseshoe bat ( <i>Rhinolophus ferrumequinum</i> )	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xb	Xb	Xc	Xc

- (a) The scheme is a substantial distance from the SAC (>29 kilometres) and therefore will not result in a reduction in the habitat area; disturbance to key species within the SAC; habitat or species fragmentation or changes in key indicators of conservation value. Refer to appendix B for a plan showing the location of the scheme in proximity to the SAC. In-combination effects with other developments are not anticipated. Refer to Table 5.2 of this report for further details.
- (b) Effects on the SAC due to climate change as a result of the scheme are not anticipated to be significant. The improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed. Please refer to Table 5.2 of this report and the **Chapter 13, Climate of the Environmental Statement (document reference TR010036/APP/6.1)** for further details.

- (c) Bat surveys completed for the scheme recorded very low numbers of greater horseshoe bats and no lesser horseshoe bats within the vicinity of the scheme. Therefore, it is not considered that the scheme will impact upon habitats supporting species associated with the SAC, either during construction or operation. In-combination effects with other developments are not anticipated. Refer to the Table 5.2 of this report and **Appendix 8.4 Bat Technical Report (document reference TR010036/APP/6.3)** for further details.

Table A.3: Bracket's Coppice SAC PINS Screening Matrix

Name of European site: Bracket's Coppice SAC															
EU Code: UK0030095															
Distance to NSIP: 17 kilometres south															
European site features	Likely effects of NSIP														
	Reduction in habitat area		Disturbance to key species		Habitat or species fragmentation		Reduction in species density		Changes in key indicators of conservation value		Climate change		In-combination effects		
Effect															
Stage of development	C	O	C	O	C	O	C	O	C	O	C	O	C	O	
<b>Annex I habitats</b>															
Molinia meadows on calcareous, peaty or clayey-silt-laden-soils ( <i>Molinion caeruleae</i> )	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xa Xb	Xa Xb
<b>Annex II species</b>															
Bechstein's bats ( <i>Myotis bechsteinii</i> )	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xc	Xb	Xb	Xc	Xc

- (a) The scheme is a substantial distance from the SAC (>17 kilometres) and therefore will not result in a reduction in the habitat area; disturbance to key species within the SAC; habitat or species fragmentation or changes in key indicators of conservation value. Refer to appendix B for a plan showing the location of the scheme in proximity to the SAC. In-combination effects with other developments are not anticipated. Refer to Table 5.3 of this report for further details.
- (b) Effects on the SAC due to climate change as a result of the scheme are not anticipated to be significant. The improvements to the A303 are anticipated to reduce congestion and provide a more consistent traffic speed. Please refer to Table 5.3 of this report and the **Chapter 13, Climate of the Environmental Statement (document reference TR010036/APP/6.1)** for further details.
- (c) Bat surveys completed did not record any Bechstein's bats within the extent of the scheme. The scheme is also well outside the Core Sustenance Zone and Bat Protection Zone for Bechstein's bat. Therefore, it is not considered that the scheme will impact upon habitats supporting species associated with the SAC, either during construction or operation. In-combination effects with other developments are not anticipated. Refer to **Appendix 8.4 Bat Technical Report**

**(document reference TR010036/APP/6.3)** for further information. The relevant information is summarised within Table 5.3 of this report.

Table A.4: Somerset Levels and Moors SPA PINS Screening Matrix

<b>Name of European site: Somerset Levels and Moors SPA</b>														
EU Code: UK9010031														
Distance to NSIP: 7.3 kilometres west														
European site features	Likely effects of NSIP													
	Reduction in habitat area		Disturbance to key species		Habitat or species fragmentation		Reduction in species density		Changes in key indicators of conservation value		Climate change		In-combination effects	
Effect														
Stage of development	C	O	C	O	C	O	C	O	C	O	C	O	C	O
<b>Qualifying overwintering bird species</b>														
Article 4.1: Populations of European importance of the species listed on Annex I of the Directive*	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa Xb Xc	Xa Xb Xc
Article 4.2: Populations of European importance of the migratory species**	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa Xb Xc	Xa Xb Xc
Article 4.2: Regularly supports an assemblage of international importance***	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa Xb Xc	Xa Xb Xc

\*Bewick's swan (*Cygnus columbianus bewickii*); golden plover (*Pluvialis apricaria*)

\*\*Shoveler (*Anas clypeata*); teal (*Anas crecca*); wigeon (*Anas penelope*)

\*\*\*Snipe (*Gallinago gallinago*), lapwing (*Vanellus vanellus*), pintail (*Anas acuta*), gadwall (*Anas strepera*), shoveler (*Anas clypeata*), teal (*Anas crecca*), wigeon (*Anas penelope*), golden plover (*Pluvialis apricaria*), Bewick's swan (*Cygnus columbianus bewickii*), whimbrel (*Numenius phaeopus*)

- (a) The scheme is a significant distance from the SPA (>7 kilometres). Therefore, the scheme will not directly affect habitats or species within the SPA. The habitats in proximity to the scheme have been assessed as offering low potential for over wintering birds. Therefore, the scheme will not result in a reduction in the habitat area; disturbance to key species within the SPA; habitat or species fragmentation; or reduction in species density. Refer to appendix B for a plan showing the location of the scheme in proximity to the SPA. In-combination effects with other developments are not anticipated. Refer to Table 5.4 of this report for further details.
- (b) The distance of the scheme from the SPA and disparate nature of SPA components would mean that impacts to water quality within the European site would not occur during the construction or operational phase. Refer to Table 5.4 of this report for further details.
- (c) Effects on the SPA due to climate change as a result of the scheme are not anticipated to be significant. The improvements to the A303 are expected to

reduce congestion and provide a more consistent traffic speed. In-combination effects with other developments are not anticipated. Please refer to Table 5.4 of this report and **Chapter 13, Climate of the Environmental Statement (document reference TR010036/APP/6.1)** for further details.

Table A.5: Somerset Levels and Moors Ramsar PINS Screening Matrix

Name of European site: Somerset Levels and Moors Ramsar														
EU Code: UK11064														
Distance to NSIP: 7.3 kilometres west														
Designated site features	Likely effects of NSIP													
	Reduction in habitat area		Disturbance to key species		Habitat or species fragmentation		Reduction in species density		Changes in key indicators of conservation value		Climate change		In-combination effects	
Effect														
Stage of development	C	O	C	O	C	O	C	O	C	O	C	O	C	O
<b>Ramsar criterion 2</b>														
17 species of British Red Data Book invertebrate	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa	Xa
													Xb	Xb
													Xc	Xc
<b>Ramsar criterion 5</b>														
Assemblages of international importance	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa	Xa
													Xb	Xb
													Xc	Xc
<b>Ramsar criterion 6</b>														
Qualifying species/populations: Species with peak counts in winter*	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa	Xa
													Xb	Xb
													Xc	Xc
Species/populations identified subsequent to designation for possible future consideration under criterion 6: Species with peak counts in winter**	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xb	Xb	Xc	Xc	Xa	Xa
													Xb	Xb
													Xc	Xc

\*Tundra swan (*Cygnus columbianus bewickii*); Eurasian teal (*Anas crecca*); northern lapwing (*Vanellus vanellus*)

\*\*Mute swan (*Cygnus olor*); Eurasian wigeon (*Anas penelope*) Northern pintail (*Anas acuta*) Northern shoveler (*Anas clypeata*)

- (a) The scheme is a substantial distance from the Ramsar (>7 kilometres). Therefore, the scheme will not directly affect habitats or species (including birds and invertebrates) within the Ramsar. The habitats in proximity to the scheme have been assessed as offering low potential for over wintering birds. Therefore, the scheme will not result in a reduction in the habitat area; disturbance to key

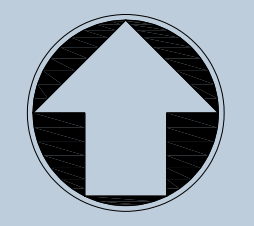
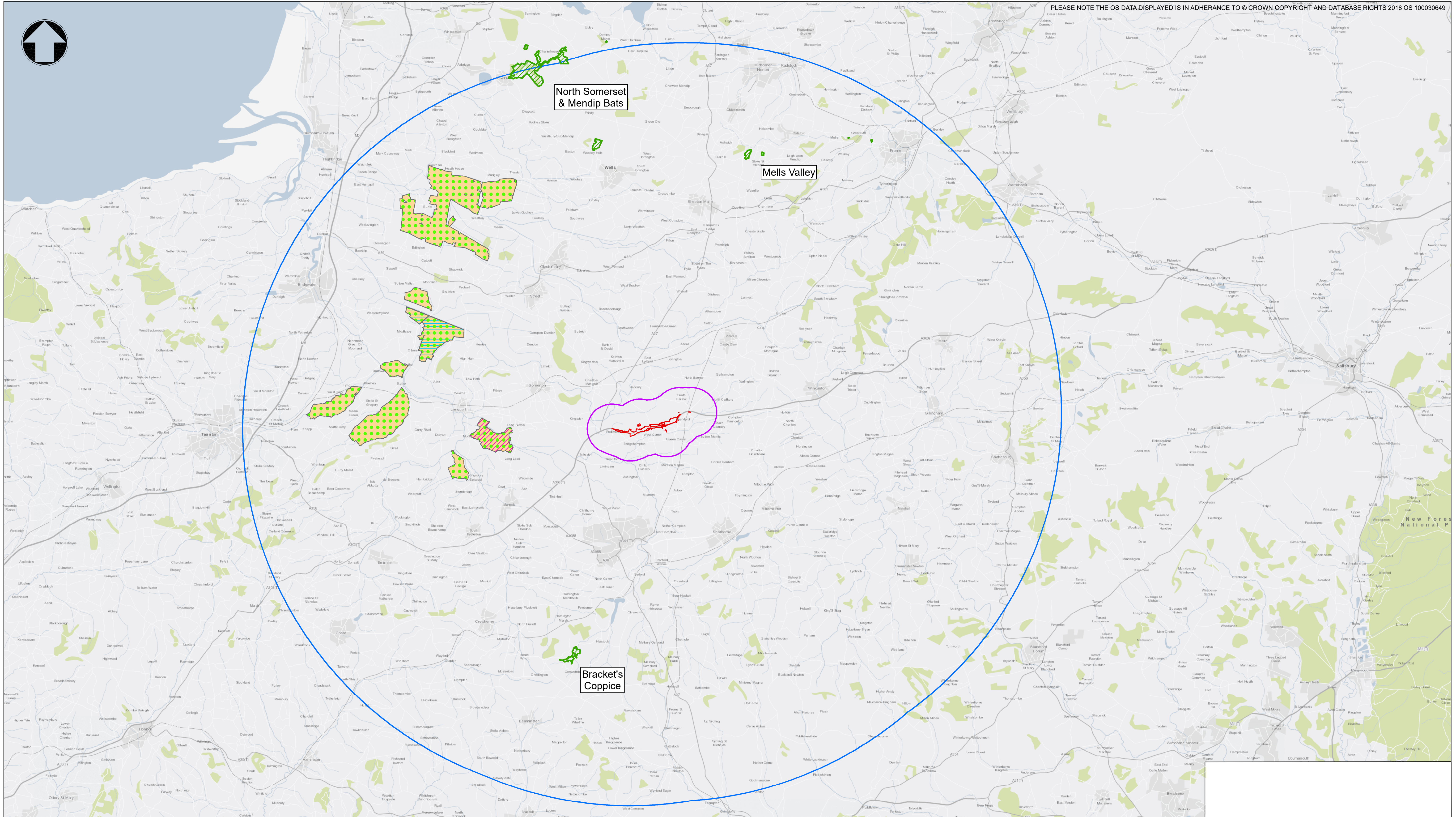
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species within the Ramsar; habitat or species fragmentation; or reduction in species density. Refer to appendix B for a plan showing the location of the scheme in proximity to the Ramsar. In-combination effects with other developments are not anticipated. Refer to Table 5.5 of this report for further details.

- (b) The distance of the scheme from the Ramsar and disparate nature of Ramsar components would mean that impacts to water quality within the European site would not occur during the construction or operational phase. Refer to Table 5.5 of this report for further details.
- (c) Effects on the Ramsar due to climate change as a result of the scheme are not anticipated to be significant. The improvements to the A303 are expected to reduce congestion and provide a more consistent traffic speed. In-combination effects with other developments are not anticipated. Please refer to Table 5.5 of this report and **Chapter 13 Climate of the Environmental Statement** (*document reference TR010036/APP/6.1*) for further details.

## **Appendix B: Ecological constraints plan**



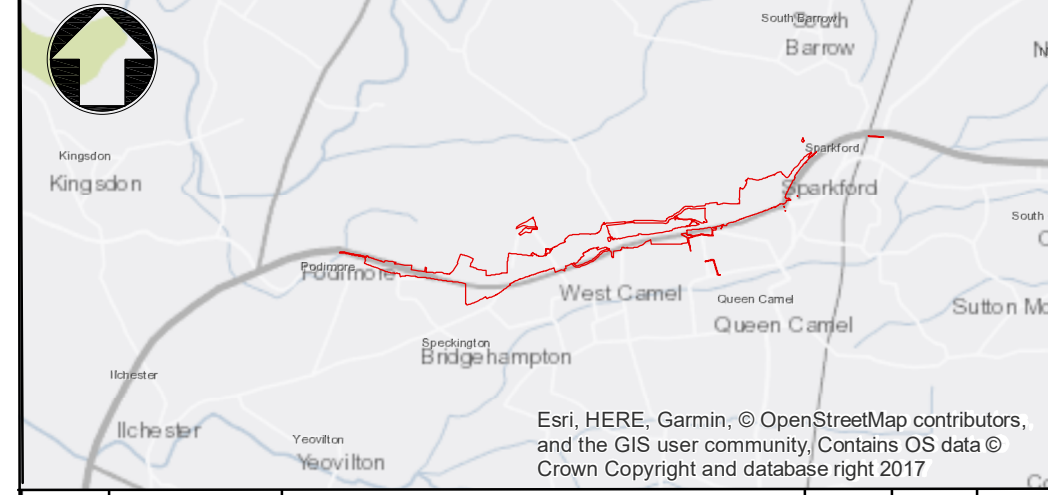


North Somerset & Mendip Bats

Meads Valley

Bracket's Coppice

- KEY**
- PROPOSED RED LINE BOUNDARY
  - 2KM SCHEME BUFFER
  - 30KM SCHEME BUFFER
  - KINGS SEDGEMOOR SITE OF SPECIAL SCIENTIFIC INTEREST
  - SOMERSET LEVELS AND MOORS RAMSAR
  - SOMERSET LEVELS AND MOORS SPECIAL PROTECTED AREA
  - SPECIAL AREAS OF CONSERVATION WITHIN 30KM DESIGNATED FOR THEIR BAT QUALIFYING FEATURES
  - WET MOORS SITE OF SPECIAL SCIENTIFIC INTEREST



Project Title		A303 SPARKFORD TO ILCHESTER DUALLING			
Drawing Title		EUROPEAN DESIGNATED SITES WITHIN 30 KILOMETRES OF THE SCHEME			
Drawing Status		Published - DEFINITION		Suitability A3	
Scale	NTS	Designed	ER	Drawn	ER
Original Size	A1	Date	JULY 2018	Date	JULY 2018
Checked	VC	Approved	NE	Date	JULY 2018
Drawing Number		HE551507- MMSJV - EBD-		Project Ref. No. 389107	
HE PIN	000	Originator	- RP- LB-	Volume	0021
REV.	DATE	AMENDMENT DETAILS	ORIG	CHKD	APPD

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## **Appendix C: Natural England meeting minutes**

**Highways England RIS Schemes: A358 Taunton to Southfields and A303 Sparkford to Ilchester Dualling**

**Initial Ecology Consultation Meeting**

<b>Date:</b>	Tuesday 2 May 2017	<b>Time:</b>	11:00 - 12:30
<b>Location:</b>	Natural England, Horizon House, Bristol		
<b>Attendees:</b>	Julia Barrett (JB), Mott MacDonald Sweco Simon Mason (SM), Mott MacDonald Sweco Vicky Hollands (VH), Mott MacDonald Sweco Andrea Evans (AE), Mott MacDonald Sweco Oliver Lowe (OL), Natural England Simon Stonehouse (SS), Natural England Hannah Nelson (HN) Highways England		
<b>Apologies:</b>	N/A		

No.	Actions/Key Messages	Owner
<b>1.0</b>	<b>Welcome and Introductions</b>	
	All attendees introduced themselves.	
<b>2.0</b>	<b>Safety Moment</b>	
	VH explained that a Health and Safety issue faced by surveyors onsite during the bat survey season is fatigue. MM compensate for this by using staff on a rota and having accommodation nearby.	
<b>3.0</b>	<b>Background to the Scheme (s)</b>	
	JB gave an overview of both schemes, how the options have been chosen, the DCO submission date of May 2018 and expected construction start date of 2020.	
<b>4.0</b>	<b>Purpose of the Meeting</b>	
	JB explained that the purpose of the meeting was to discuss survey methodology for bats, general protected species surveys and develop mitigation and NE principles.	
<b>5.0</b>	<b>Bat Survey Methodology</b>	
	OL confirmed that NE are happy with the general scope of the surveys outlined in the bat survey methodology memo, however concerns were raised regarding the length of the transect surveys. OL suggested that the transect routes could be shortened. SM explained that although the transects are long, surveys are still in	OL

No.	Actions/Key Messages	Owner
	<p>line with the 2016 Bat Conservation Trust (BCT) guidelines (suggests transect lengths of 3-5km). The number of point counts along each transect has been increased from 8 to 10 to provide more data along the long transects. SM also explained that 3 statics are being used per transect.</p> <p>SS agreed the survey effort sounds sufficient but would check with NE bat advisor.</p> <p>SM explained that lesser horse and barbastelle have been identified within the scheme extents of the A358 and A303. The need for additional radiotracking studies for both schemes was discussed and it was concluded that the need for this should be determined by the results of the initial bat activity and roost surveys. Radio tracking is an intrusive method and should only be used where sufficient data cannot be obtained by non-intrusive survey methods. The proximity of various bat Special Areas of Conservation (SACs) to the schemes was also discussed. Previous radiotracking information on Hestercombe House SAC was shown which illustrates that bats associated with this SAC use a core area to the west of the M5 corridor and were unlikely to use habitats within A358 scheme. SM asked NE to comment on the requirement of radio tracking for both schemes. OE will discuss with the NE bat advisor to get clarification and will provide written advice.</p> <p>OL mentioned that due to the presence of late emerging species such as lesser horseshoe, bat activity surveys should be extended to up to 3 hours after sunset to ensure activity was recorded.</p> <p>SM expressed concern that due to land access issues some areas may not be subject to a survey during all or part of the survey season. OL explained that it should be made clear why access couldn't be obtained and a record of what efforts have been made to obtain access should be kept.</p>	
	<p>The need for landscape-scale bat surveys was discussed. A deviation from the bat memo which was submitted to NE in advance of the meeting was discussed, with SM suggesting that due to the number of surveys being undertaken in the 2017 season MM are looking to delay the Landscape transects until 2018. The other surveys will provide robust data for assessing the impacts and any necessary licence applications in advance of the DCO application. The primary aim of the landscape transects is to provide baseline data for monitoring impacts post construction. Undertaking landscape surveys in 2018 would provide this baseline data in advance of construction. OL to speak to NE bat advisor and will confirm whether undertaking landscape scale transects in 2018</p>	OL

No.	Actions/Key Messages	Owner
	post DCO application would be acceptable and provide written advice on this.	
<b>6.0</b>	<b>Outline of broad ecological surveys for both schemes</b>	
	<p>VH and AE gave a broad overview of what surveys are being undertaken for each scheme and what notable species have been found to date for both schemes.</p> <p>VH informed NE that lesser horse shoe bats, water voles, reptiles, great crested newts, a dormouse starter nest and evidence of badgers have been identified within the study area of the A303.</p> <p>AE informed NE that dormice, have been identified within 2 of the twenty-three dormouse sites set up across the A358, great crested newts have been identified within one of the 114 ponds, in addition a barbastelle bat was caught whilst mist netting, evidence and badgers, water vole and otters have also been identified within the study area of the A358.</p> <p>SM enquired about the survey effort required for terrestrial invertebrates, SM to put together a survey methodology so NE can comment.</p> <p>SS mentioned that the A358 scheme will have a low risk to birds from the Somerset Level SAC from water run off pollution. SM asked for NE if wintering bird surveys were required for both schemes SS confirmed these were not necessary.</p>	SM and OL
<b>7.0</b>	<b>New GCN policies and application for RIS Schemes</b>	
	<p>VH enquired whether the new GCN licencing policy would be relevant to both schemes. OL explained that out of the 4 new policies 3 would be relevant and can assist MM with no additional charge.</p> <p>VH to send memo to NE regarding GCN mitigation for the A303, which NE will provide comments on.</p>	
<b>8.0</b>	<b>Land Access</b>	
	<p>JB and SM explained that land access for the A358 is a problem as we have a number of areas with no access and areas where land owners have not responded. SS and OL said it should be made clear why access couldn't be obtained and records of what efforts have been made to gain access should be kept.</p>	
<b>9.0</b>	<b>Mitigation</b>	
	<p>NE stated that the usual advice applies, avoid, minimise, mitigate and compensate. HN stated that HE is pushing a drive towards no net loss of habitat.</p>	

<b>No.</b>	<b>Actions/Key Messages</b>	<b>Owner</b>
	<p>SM and AE mentioned that there is a large area of ancient woodland that will be directly impacted by the A358 scheme. OL said there is good standing advice on the loss of ancient woodland but could provide more specialist advice.</p> <p>SS explained that evidence needs to be provided that every effort has to be made to avoid or minimise the impact to ancient woodland.</p> <p>VH explained that an area of ancient woodland on the A303 was going to be directly impacted by the scheme, however the route alignment has been changed to avoid this, but there will still be indirect impacts through air quality.</p>	
<b>10.0</b>	<b>Future engagement / Environmental Working Group</b>	
	<p>JB confirmed the NE that face to face engagement for broader environmental issues should be held every 4 months, with more focused engagement for specialist areas.</p>	
<b>11.0</b>	<b>AOB</b>	
	<p>SS confirmed that landscape advice would be provided as and when required.</p>	

## **Appendix D: Natural England confirmation email**

Bennett, Sophie

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From: Routh, Charles (NE) <charles.routh@naturalengland.org.uk>  
Sent: 13 July 2018 10:38  
To: Bennett, Sophie; Coulthard, Vicky C  
Cc: Barrett, Julia I  
Subject: RE: Follow-up from NE Mott meeting yesterday

Dear Vicky/Sophie,

1. As discussed at our meeting of the 9<sup>th</sup> July, NE's view with respect to the issue of screening out Salisbury Plain SAC from further assessment in the HRA is as follows. Our understanding of the HRA process is that:  
a) There is a requirement to consider "in-combination effects" as part of the process. Whilst the contribution of this scheme may be small, and alone can be dismissed, it may, in combination with other schemes (in particular the A303 Stonehenge scheme) result in a likely significant effect, notwithstanding the fact that alone impacts can be dismissed, nor that any effect is likely to be dwarfed by the effects of the A303 Stonehenge scheme. However, on reflection, it may be reasonable to argue that if there is certainty that the A303 Stonehenge scheme will consider the A303 Sparkford scheme as part of its in-combination assessment, then, in the eventuality that the assessment finds that there is an adverse effect on integrity (AEOI), then the A303 Stonehenge scheme cannot be permitted. Thus there would be no risk of a likely significant effect on Salisbury Plain SAC in permitting the A303 Sparkford scheme.
2. In other regards, we have reviewed the HRA version 7 (July 2018) and concur with its conclusions.
3. We have undertaken a high level review of the Outline Environmental Management Plan (OEMP), and have no comments to make.
4. I query the minutes: "CR satisfied that the HRA can be submitted to PINS in its current form as his view on this will be captured in the Statement of Common Ground (SoCG)." I have no view on this.
5. I'm finding it hard to compare the habitat gains and losses, as they use different habitat categories. Would be good to fit the categories to those in the Chief Highway Engineer Memorandum 422/18, and present in a single table to make comparisons easy.

I hope this covers everything.

Charles Routh  
Lead Advisor, Planning & Licencing, Somerset, Avon and Wiltshire Area Team, Natural England. 07990 773630

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**From:** Bennett, Sophie [mailto:Sophie.Bennett@mottmac.com]  
**Sent:** 13 July 2018 08:49  
**To:** Routh, Charles (NE) <charles.routh@naturalengland.org.uk>  
**Cc:** Barrett, Julia I <Julia.Barrett@mottmac.com>; Coulthard, Vicky C <Vicky.Coulthard@mottmac.com>  
**Subject:** RE: Follow-up from NE Mott meeting yesterday

Good morning Charles

Many thanks again for your time on Monday. Please see attached for a record of our discussions. Please can you review and let us know if you have any comments?

If you could please confirm that you have no comment on the screening conclusions of the HRA, and you have no comment on the OEMP, that would be great.

Please do let me know if you have any questions.

Kind regards

Sophie

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**From:** Coulthard, Vicky C  
**Sent:** 12 July 2018 15:25  
**To:** Routh, Charles (NE) <charles.routh@naturalengland.org.uk>  
**Cc:** Barrett, Julia I <Julia.Barrett@mottmac.com>; Bennett, Sophie <Sophie.Bennett@mottmac.com>  
**Subject:** RE: Follow-up from NE Mott meeting yesterday

Hi Charles,

These have been drafted so we should be able to get them to you shortly.

Regards,

**Vicky Coulthard**  
MSc BA (Hons)  
Environmental Co-ordinator

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**From:** Routh, Charles (NE) [<mailto:charles.routh@naturalengland.org.uk>]  
**Sent:** 12 July 2018 14:57  
**To:** Coulthard, Vicky C <[Vicky.Coulthard@mottmac.com](mailto:Vicky.Coulthard@mottmac.com)>  
**Subject:** RE: Follow-up from NE Mott meeting yesterday

Hi Vicky, just to say, I'll send through an email around the points below when I've had minutes of the meeting.

Charles Routh  
Lead Advisor, Planning & Licencing, Somerset, Avon and Wiltshire Area Team, Natural England. 07990 773630

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**From:** Coulthard, Vicky C [<mailto:Vicky.Coulthard@mottmac.com>]  
**Sent:** 10 July 2018 14:24  
**To:** Routh, Charles (NE) <[charles.routh@naturalengland.org.uk](mailto:charles.routh@naturalengland.org.uk)>; Bennett, Sophie <[Sophie.Bennett@mottmac.com](mailto:Sophie.Bennett@mottmac.com)>  
**Subject:** RE: Follow-up from NE Mott meeting yesterday

Hi Charles,

Thank you for coming to meet us yesterday – it was good to catch up about the scheme prior to submission. Also, thanks for sending over the contact details for David Westbrook in licencing. We will be sure to issue the licenses as per your email below.



In terms of the Defra metric, we will amend the Statement of Common Ground to reflect your comments below and appreciate that Natural England encourage its application, where possible. At this stage, we won't be able to include it within our Environmental Statement as the document has, unfortunately, already been finalised. However, we can consider including the metric when we update the report following comments from PINS and we can gauge their view on it at this time.

Following our meeting yesterday, would you be able to send over an email confirming that you have no comment on our Outline Environmental Management Plan (OEMP) and the screening conclusions of the HRA? In the email you may want to express your views on including in-combination effects on Salisbury Plain SAC and this is something that can be picked up at a later stage?

We will send over the meeting minutes shortly.

Many thanks,

**Vicky Coulthard**  
MSc BA (Hons)  
Environmental Co-ordinator

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**From:** Routh, Charles (NE) [<mailto:charles.routh@naturalengland.org.uk>]

**Sent:** 10 July 2018 08:34

**To:** Bennett, Sophie <[Sophie.Bennett@mottmac.com](mailto:Sophie.Bennett@mottmac.com)>; Coulthard, Vicky C <[Vicky.Coulthard@mottmac.com](mailto:Vicky.Coulthard@mottmac.com)>

**Subject:** Follow-up from NE Mott meeting yesterday

Sophie/Vicky,

Good to see you both yesterday.

1. I said I'd send details of where to send species licencing documentation. When you send it to the normal mailbox ([wildlife@naturalengland.org.uk](mailto:wildlife@naturalengland.org.uk)?), I suggest you also send to: [David.Westbrook@naturalengland.org.uk](mailto:David.Westbrook@naturalengland.org.uk) (cc myself) saying that this is the NSIP case and your timeframe aspirations.
2. Following our meeting yesterday I was talking to our national transport lead who passed on the attached. To whit while there is no planning requirement to use the Defra biodiversity metric, there is a Highways England aspiration to do so if only for their internal reporting. It really isn't that complex, and I'm sure we can come to an agreement if you've not got all the data. Happy to chat through. In so far as the SoCG said something like "Natural England advised the metric was not appropriate" I think a better reflection of the conversation was

that I agreed that it was not necessary in planning terms when it was suggested that it was not appropriate given the high level of linearity of the scheme. Anyway, happy to chat through. You might want to get a view on what your client wants. We certainly encourage developers to apply the metric.

Charles Routh

Lead Advisor, Planning & Licencing, Somerset, Avon and Wiltshire Area Team, Natural England. 07990 773630

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