HABITATS REGULATIONS ASSESSMENT FOR AN APPLICATION UNDER THE PLANNING ACT 2008

A303 Amesbury to Berwick Down ('A303 Stonehenge')

12 NOVEMBER 2020

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1. INTRODUCTION

Background

1.1 This document is a record of the Habitats Regulations Assessment ("HRA") that the Secretary of State for Transport has undertaken under regulation 63 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations") in respect of the Development Consent Order ("DCO"), for the proposed 'A303 Amesbury to Berwick Down ('A303 Stonehenge')' ("the Development"). This document ("the HRA Report") includes an appropriate assessment for the purposes of regulation 63 of the Habitats Regulations.

1.2 Highways England ("the Applicant") submitted the application to the Planning Inspectorate ("the Inspectorate") on 19 October 2018 under section 31 of the Planning Act 2008 (as amended) ("PA 2008"). The Development to which the Application relates is described in more detail in Section 2 of this HRA Report.

1.3 The Development constitutes a Nationally Significant Infrastructure Project (NSIP) by virtue of it being the "construction" of a highway within the meanings of sections 14(1)(h) and 22(1)(a) of the PA2008.

1.4 The application for the Development was accepted for examination by the Inspectorate (under the delegated authority of the Secretary of State) on 16 November 2018.

1.5 The Applicant submitted requests to make changes to the Development to which the Application relates during the examination, as set out in Section 2.3. of the Examining Authority's (ExA) Recommendation Report. Eight specific changes to the Proposed Development were put forward by the Applicant on 5 August 2019. The Applicant deemed these to be non-material changes.

1.6 The ExA accepted the changes as being 'non-material' amendments and issued a Procedural Decision confirming this on 27 September 2019. The ExA was content that the effect of the amendments was not so material as to warrant a new application and that they do not give rise to any new or different significant environmental effects.

1.7 The examination concluded on 3 October 2019. The ExA submitted the report of the examination, including its recommendation to the Secretary of State for Transport on 2 January 2020.

1.8 The Secretary of State's conclusions in relation to European sites have been informed by the ExA's Recommendation Report, documents and representations submitted during the examination, and responses to the Secretary of State's requests for comments and further information issued on 4 May 2020, 16 July 2020 and 20 August 2020, as described below.

Habitats Regulations Assessment

1.9 Council Directives 92/43/EEC ("the Habitats Directive") and 2009/147/EC ("the Birds Directive") provide for the designation of sites for the protection of certain species and habitats. The sites designated under these Directives are collectively termed European sites and form part of a network of protected sites across Europe, known as the Natura 2000 network. In the UK the Habitats Regulations transpose these Directives into national law and apply up to the 12 nautical mile limit of territorial waters.

1.10 The UK Government is also a signatory to the Convention on Wetlands of International Importance 1972 ("the Ramsar Convention"). The Ramsar Convention provides for the listing of wetlands of international importance. UK Government policy is to give sites listed under this convention ("Ramsar sites") the same protection as European sites.

1.11 For the purposes of this HRA Report, in line with the Habitats Regulations and relevant Government policy, the term European sites includes Special Areas of Conservation (SAC), candidate SACs (cSAC), possible SACs (pSAC), Special Protection Areas (SPA), potential SPAs (pSPA), Sites of Community Importance (SCI), listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites.

1.12 Regulation 63 of the Habitats Regulations requires that:

> *"(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which-*
>
> *(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and*
>
> *(b) is not directly connected with or necessary to the management of that site,*
>
> *must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives…"*

1.13 The Development is not connected with or necessary to the management of any European sites. Accordingly, the Secretary of State for Transport, as the competent authority for the purposes of Transport NSIPs under the PA2008, has undertaken an assessment in line with the requirements of the Habitats Regulations. This HRA Report is the record of the appropriate assessment for the purposes of regulation 63 of the Habitats Regulations.

The Report on the Implications for European Sites and Consultation with the Appropriate Nature Conservation Body

1.14 The ExA, with support from the Inspectorate's Environmental Services Team, produced a Report on the Implications for European Sites ("the RIES"). The purpose of the RIES was to compile, document and signpost information submitted by the Applicant and Interested Parties ("IPs") during the examination up to and including deadline 7 of the examination. It was issued to ensure that IPs, including Natural England ("NE") as the appropriate nature conservation body in respect of the Application for the Development, had been formally consulted on Habitats Regulations matters during the examination. The consultation period ran between 3 September 2019 and 25 September 2019.

1.15 Regulation 63(3) of the Habitats Regulations requires competent authorities (in this case the Secretary of State), if they undertake an appropriate assessment, to consult the appropriate nature conservation body and have regard to any representations made by that body.

1.16 The Applicant and Wiltshire Council (WC) provided comments on the RIES at deadline 9. Although specific comments on the RIES were not received from NE, the ExA requested further information from NE regarding HRA matters on the 3 September 2019 and NE responded on the 6 September 2019. The

Applicant also responded to the ExA's request for further information at deadline 9.

1.17 A draft Statement of Common Ground ("SoCG") between the Applicant and NE was first submitted at deadline 2 of the examination, with an updated version submitted at deadline 7 (9 August 2019), and a signed version accepted as an additional submission and dated 18 September 2019. Subsequent references to the SoCG in this HRA Report are to the final signed version submitted as an additional submission, labelled as 'Rev 2', and signed by both parties on 18 September 2019 (unless otherwise stated). The SoCG confirmed that all matters relating to HRA were agreed between the two parties and that there were no HRA matters outstanding between them in respect of the Development.

1.18 As noted above, the Secretary of State issued a request for comments and further information on 4 May 2020, which included matters of HRA for NE. Further consultations undertaken by the Secretary of State on 16 July 2020 and 20 August 2020 were not specifically on matters of HRA; however, the Applicant did provide an Environmental Statement (ES) signposting document ("Additional submission Location of Environmental Statement (ES) documents and ES documents that have been corrected, replaced, or added to since submission of the application" dated August 2020), which was added to the Secretary of State's consultation on 20 August 2020 and included reference to the Applicant's Habitats Regulations Assessment. NE provided a consultation response to that document. The Secretary of State is satisfied that NE have been consulted and has been given suitable opportunities to make representations in accordance with regulation 63(3) of the Habitats Regulations.

Changes to the Application during Examination

1.19 In respect of the non-material amendments to the Application identified above and described at Section 2.3 of the ExA's Recommendation Report, the Secretary of State is satisfied that the changes constituted non-material amendments that did not have any bearing on HRA matters. No specific updates were made to the Applicant's HRA documentation in light of the changes.

1.20 The Secretary of State concludes that the findings in the Applicant's HRA (as described below) are unaffected by the non-material amendments.

Documents Referred to in this HRA Report

1.21 This HRA Report has taken account of and should be read in conjunction with the documents produced as part of the application and examination, together with the responses to the Secretary of State's request for comment and further information, as listed in Annex 1 to this HRA Report.

1.22 The Applicant submitted two HRA reports as part of their DCO application, entitled "Appendix 8.24: Habitat Regulations Assessment (HRA) Likely Significant Effects Report" (hereafter referred to as the "Applicant's LSE Report") and "Appendix 8.25: Habitat Regulations Assessment (HRA): Statement to Inform Appropriate Assessment" (hereafter referred to as the "Applicant's SIAA Report"). A plan showing the European sites considered in the Applicant's HRA reports and their location relative to the Development was provided as "Additional Submission 4: A drawing showing all six European

sites identified in the Habitats Regulation Assessment reports", dated December 2018.

1.23 At deadline 6 the Applicant submitted "Document 8.43 Habitat Regulations Screening Assessment Clarification Note – Stone curlew plot sift" (hereafter referred to as the "stone curlew plot sift"), which was also included as Appendix 1 to the draft SoCG with NE at deadline 7. The same document forms Appendix 1 to Appendix A of the final SoCG with NE dated 18 September 2019.

1.24 The Applicant also included an HRA clarification technical note as Appendix A to the draft SoCG between the Applicant and NE at deadline 7, entitled "Appendix A – Habitat Regulations Screening Assessment - Clarification Technical Note (07 August 2019)" (hereafter referred to as the "HRA Clarification Technical Note"). This HRA Clarification Technical Note is also included as Appendix A to the final SoCG between the Applicant and NE. Appendix 1 to the HRA Clarification Technical Note is the stone curlew plot sift (as noted above) and Appendix 2 comprises "Water Issues Related to River Avon SAC". References in this report are to the HRA Clarification Technical Note as contained within the final SoCG between the Applicant and NE dated 18 September 2019, unless otherwise stated.

1.25 The HRA Clarification Technical Note was submitted to provide clarification on the following matters assessed in the Applicant's LSE Report:

- Oxides of nitrogen (NO_x) concentrations and nitrogen deposition on the Salisbury Plan SAC;
- phosphatic chalk and any effects of it on the River Avon SAC; and,
- hydrology and any effects on the River Avon SAC.

1.26 It also clarified the following matters from the Applicant's SIAA Report, including:

- likely scale of impact on stone curlew at Normanton Down, including mitigation measure that are to be incorporated; and
- details regarding the replacement breeding plot within the Parsonage Down National Nature Reserve (NNR)/Site of Special Scientific Interest (SSSI), which is part of the Salisbury Plain SAC.

1.27 Also of relevance to the HRA is "Document 8.58 – Stone curlew breeding plot specification" (including confidential drawing), submitted at deadline 9 by the Applicant. This provides a specification for the four stone curlew breeding plots proposed to be provided by the Applicant and managed for the purposes of Requirement 12 of the DCO (see Section 5 of this report). Confidential ES Figure 11.8 ("Document 8.10.7.1 Ec.1.17 iii Confidential Appendix") provided at deadline 2, also presents the location of the existing stone curlew breeding plot, together with the indicative locations of the replacement breeding plot at Parsonage Down and new stone curlew plot proposed at Winterbourne Down.

1.28 At deadline 7 an Errata Report was provided by the Applicant ("Document 8.42 Errata report"), which included at Appendix C "Figure 1 Map of Southern England Showing Location of Bridge Sampling Sites". This Figure was previously missing from Appendix D to the Applicant's SIAA Report (the Bridge Shading Study (December 2017)). The Applicant's ES signposting document, included with the Secretary of State's consultation of 20 August 2020, also identified that the Applicant's SIAA Report is to be read in conjunction with the deadline 7 Errata report.

1.29 The above-mentioned documents are the principal documents prepared by the Applicant in support of HRA matters.

Structure of this HRA Report

1.30 The remainder of this HRA Report is presented as follows

- Section 2 provides a general description of the Development.
- Section 3 describes the location of the Development and its relationship with European sites.
- Section 4 identifies the European sites and qualifying features subject to likely significant effects, alone or in-combination with other plans or project.
- Section 5 considers adverse effects on the integrity of European sites, alone or in-combination with other plans or projects.
- Section 6 summarises the Secretary of State's appropriate assessment and HRA conclusions.

2. DEVELOPMENT DESCRIPTION

2.1 The Development mainly follows the existing A303 between Amesbury in the east and Berwick Down in the west. It lies entirely in the County of Wiltshire. The Development would comprise the construction of a new two-lane dual carriageway between Amesbury and Berwick Down. It would be approximately 8 miles (13km) in length, including a 2 mile (3.3km) length of tunnel under the Stonehenge, Avebury and Associated Sites World Heritage Site (WHS).

2.2 Key elements are:

- A northern bypass of Winterbourne Stoke with a viaduct over the River Till valley;
- A new junction between the A303 and A360 to the west of, and outside, the WHS, replacing the existing Longbarrow roundabout;
- A tunnel approximately 2 miles (3.3km) in length past Stonehenge; and
- A new junction between the A303 and A345 at the existing Countess roundabout.

2.3 A description of the Development site and setting can be found on Document 2.1: Location Plan, on the Scheme Boundary Plan Appendix A of Document 1.1: Introduction to the Application, and in more detail in Document 2.2: Land Plans. Document 6.1 ES Chapter 2: The Scheme also describes the Development, with supporting ES Figures 2.1 to 2.7. A plan showing the European sites considered in the Applicant's HRA reports and their location relative to the Development is provided in "Additional Submission 4: A drawing showing all six European sites identified in the Habitats Regulation Assessment reports".

2.4 The Development is proposed to be constructed over some five years. ES Chapter 2 explains that for the purposes of the EIA and the traffic assessment, two principal phases of the construction programme for the main works have been identified. These correspond to:

a. Phase 1, when Winterbourne Stoke bypass, Longbarrow Junction and Countess Roundabout flyover are under construction (likely 2021-2023); and
b. Phase 2, when the construction of the tunnel is the primary construction activity (2024 onwards). The Winterbourne Stoke bypass, Longbarrow Junction and Countess Roundabout flyover constructed in Phase 1 would be operational.

2.5 Following completion of the Development, the new road would form part of the A303 Trunk Road and part of the strategic road network. The new road would be managed on a day to day basis using the proposed monitoring and control systems for the scheme, including CCTV cameras and variable message signs. Long-term maintenance and repairs would be undertaken as required to maintain the appropriate standards for the strategic road network.

2.6 Paragraph 2.2.1 of the Applicant's LSE Report states that "*The HRA covers the construction and operation phases of the Scheme. The Scheme is not considered to have a decommissioning stage as it is expected to be in place in perpetuity. Therefore no decommissioning impacts are discussed in this report*". As such, decommissioning is not presented in the Applicant's HRA reports and matrices.

2.7 Chapter 2 of the ES explains the design life of the Development is considered to be 120 years and that it is highly unlikely that the Development would be demolished before the end of its design life, therefore decommissioning is not considered in the ES. It also explains, however, that consideration is given, where relevant, to dismantling and replacing particular elements of the Scheme once they reach the end of their design life, where significant effects are likely.

2.8 The potential effects on European sites associated with the construction, and operation of the Development are addressed in Section 4 of this HRA Report.

3. LOCATION OF THE DEVELOPMENT AND RELATIONSHIP WITH EUROPEAN SITES

Location and Existing Land Use

3.1 The Development predominantly follows the existing A303 between Amesbury and Berwick Down. The local landscape is largely in agricultural use, consisting of rolling countryside creating a series of ridge lines, valleys and downland. Three watercourses, the River Till and River Wylye in the west and River Avon in the east, have created valley systems which provide views within the valleys and along ridges.

3.2 There are a series of Public Rights of Way (PRoW) that cross the landscape but facilitate access across the site and through the WHS. A number are currently severed by the A303.

3.3 There are a significant number of heritage designations within, or in close proximity to the Development. This includes the WHS, together with additional, numerous scheduled monuments, listed buildings, a Registered Historic Park and Garden (RHPG), three conservation areas and a significant number of archaeological non-designated assets. The A303 presently runs through the WHS and its alignment is currently within 165 metres (m) of the iconic stone circle.

European Sites Potentially Affected by the Development

3.4 The Applicant considered the potential for likely significant effects (LSE) on the following six European sites.

- River Avon SAC;
- Salisbury Plain SAC;
- Salisbury Plain SPA;
- Chilmark Quarries SAC;
- Mottisfont Bats SAC; and
- Mells Valley SAC.

3.5 A plan showing all six European sites identified in the HRA reports and their location relative to the Proposed Development was provided in the Applicant's Additional Submission 4 "A drawing showing all six European sites identified in the Habitats Regulation Assessment reports". This figure is reproduced as Figure 1 below.

3.6 The Applicant's approach to identifying relevant European sites is explained at Paragraph 2.3.2 of the Applicant's LSE Report.

3.7 The approach adopted was broadly as follows (in accordance with Design Manual for Roads and Bridges (DMRB) guidance HD44/09):

- All sites within 2km of the route corridor;
- SACs within 30km of the route corridor where bats are one of the qualifying features; and
- "*Where a project will potentially cross or will lie adjacent to, upstream of, or downstream of, a watercourse which is designated in part or wholly as a SAC or SPA, consideration should be given to potential impacts on European Sites within the same river, lake or reservoir catchment, or at*

greater distance in[sic] *an effect pathway exists (for example, in respect to flight paths or feeding areas of birds outside and SPA)*".

3.8 Of the six European sites considered, three are located within or adjacent to the Development. The Development requires a crossing of the River Till, north of Winterbourne Stoke. The River Till is a component SSSI of River Avon SAC. The Development also involves working adjacent to a further component SSSI of the River Avon SAC, namely the River Avon System SSSI, east of Amesbury.

3.9 Salisbury Plain SAC is located immediately adjacent to the Development boundary near Bulford camp in the eastern part of the Development and is adjacent to the Development boundary at two locations: (i) at the Diversion Route to the north of the Development and (ii) at Parsonage Down near the western end of the Development.

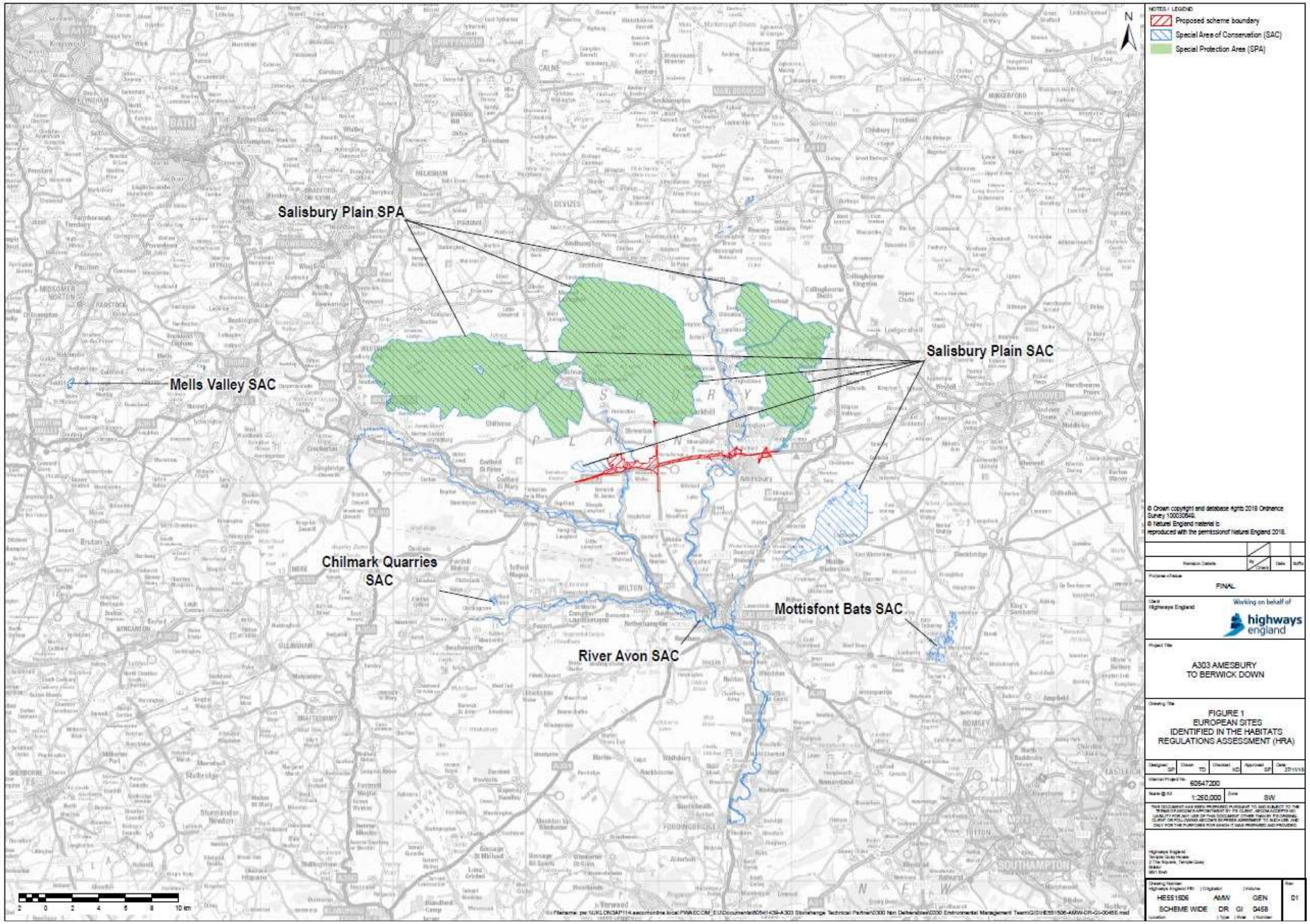
3.10 Salisbury Plain SPA is located adjacent to the Development boundary along the Diversion Route to the north of the Development.

3.11 The remaining three SACs, Chilmark Quarries SAC, Mottisfont Bats SAC, and Mells Valley SAC, have been considered for their bat qualifying features being located within 30km of the Development. They are located at a distance of 11km, 20km, and 29.3km (respectively) from the Development.

3.12 As discussed at Section 5 below, mitigation is proposed by the Applicant for the loss of an existing stone curlew breeding plot in the form of a replacement stone curlew breeding plot. The replacement plot is to be located outside of the Salisbury Plain SPA but within the Salisbury Plain SAC at Parsonage Down NNR/SSSI.

3.13 No evidence was presented during the examination to suggest that effects from the Development could occur to any other European site. The Secretary of State is therefore satisfied that no other European site needs to be addressed in this HRA Report.

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



4. ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS (LSE)

Potential Effects from the Development

4.1 Sections 2.1 and 2.2 of the Applicant's LSE Report outline the Applicant's approach to screening for LSE. Paragraph 2.2.5 of the Applicant's LSE Report states that the HRA has been conducted in accordance with the ruling of the European Court of Justice (ECJ) in People Over Wind, Peter Sweetman v Coillte Teoranta (C-323/17) (the "People over Wind judgment")[1]. However, the Secretary of State notes discussions during the examination and in the ExA's Recommendation Report with regards to the People over Wind judgment and the Applicant's reliance on measures. This is discussed further below.

4.2 The Applicant's LSE Report identifies the following impact types associated with the construction and operation of the Development as having the potential to give rise to LSE on European sites:

- Reduction in habitat area;
- Disturbance to key species;
- Habitat or species fragmentation;
- Reduction in species density;
- Changes in key indicators of conservation value (water quality etc); and
- Climate change.

4.3 No evidence was presented during the examination that the development was likely to give rise to any other effects on European sites.

Sites and Features which could be affected

4.4 The Applicant's LSE Report screened those European sites and qualifying features identified in Table 4.1 below to establish if significant effects were likely. The Secretary of State is content that this list includes all the sites and qualifying features which require to be considered.

4.5 The Applicant provided screening matrices (consistent with a DMRB HD44/09 presentational format) for the six European sites considered. These are presented in Tables 3.1 to 3.6 of the Applicant's LSE Report. Section 4 to the Applicant's LSE Report summarises the conclusions in respect of LSE and Appendix C to the Applicant's LSE Report contains HRA screening matrices for the six European sites in the format prescribed by the Inspectorate's Advice Note 10[2].

[1] ECJ case reference C-323/17, available: http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN

[2] https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

Table 4.1 European sites and qualifying features screened into Applicant's HRA

European site	Pathway of effect	Relevant qualifying features
River Avon SAC UK0013016	Water quality	Watercourses of plain to montane levels Atlantic salmon (*Salmo salar*) Brook lamprey (*Lampetra planeri*) Bullhead (*Cottus gobio*) Sea lamprey (*Petromyzon marinus*) Desmoulin's whorl snail (*Vertigo moulinsiana*)
	Shading of the River Till	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey
	Shading of the River Till	Desmoulin's whorl snail
	Blockage of fish passage	Atlantic salmon Brook lamprey Bullhead Sea lamprey
	Geology and hydrology – changes to water level and flow	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey Desmoulin's whorl snail

European site	Pathway of effect	Relevant qualifying features
	Disturbance (noise and vibration)	Atlantic salmon Brook lamprey Bullhead Sea lamprey
	Spread of invasive species	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey Desmoulin's whorl snail
	Air quality - in-combination effects (vehicle exhaust emissions)	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey Desmoulin's whorl snail
Salisbury Plain SAC UK0012683	Air quality - dust deposition	Semi-natural dry grasslands and scrubland facies on calcareous substrates Marsh fritillary butterfly (*Euphydryas (Eurodryas, Hypodryas) aurinia*)
	Air quality – in-combination effects (vehicle exhaust emissions)	Semi-natural dry grasslands and scrubland facies on calcareous substrates Marsh fritillary butterfly
	Creation of replacement stone curlew plot during construction	Semi-natural dry grasslands and scrubland facies on calcareous substrates

European site	Pathway of effect	Relevant qualifying features
		Marsh fritillary butterfly
	N/A – not considered in the HRA screening on the basis that it is "*Not present in affected area*" (matrix 2 of Applicant's LSE Report)	*Juniperus communis* (formations on heaths and calcareous grasslands)
Salisbury Plain SPA UK9011102	Loss of breeding plots	Stone curlew (*Burhinus oedicnemus*)
	Non-recreational disturbance	Stone curlew
	Recreational pressure – in-combination effects	Stone curlew
	Loss of breeding plots	Hen harrier (*Circus cyaneus*) Common quail (*Coturnix coturnix*) Hobby (*Falco subbuteo*)
	Non-recreational disturbance	Hen harrier Common quail Hobby
	Recreational pressure – in-combination effects	Hen harrier Common quail Hobby
Chilmark Quarries SAC UK0016373	Loss of connecting habitat Operational impacts e.g. fragmentation of populations, road collisions	Barbastelle bat (*Barbastella barbastellus*) Greater horseshoe bat (*Rhinolophus ferrumequinum*) Lesser horseshoe bat (*Rhinolophus hipposideros*) Bechstein's bat (*Myotis bechsteinii*)
Mottisfont Bats SAC UK0030334	Loss of connecting habitat Operational impacts e.g. fragmentation of populations, road collisions	Barbastelle bat

European site	Pathway of effect	Relevant qualifying features
Mells Valley SAC UK0012658	Loss of connecting habitat Operational impacts e.g. fragmentation of populations, road collisions	Greater horseshoe bat
	N/A – not considered due to distance from Development and absence of potential effect pathway	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometailia)* (*important orchid sites) Caves not open to the public

Conservation Objectives

4.6 The conservation objectives for European sites define the desired state for a European site when it will contribute to favourable conservation status for the designated features. The conservation objectives, as published by NE and the Joint Nature Conservation Committee (JNCC) are provided in Annex 2 of this HRA Report.

Assessment of In-combination Effects

4.7 Section 2.4 of the Applicant's LSE Report describes the criteria applied to determine relevant plans and projects for consideration as part of an in-combination assessment. The plans and projects identified and considered by the Applicant are:

- Wiltshire Core Strategy (Adopted 2015);
- Local Transport Plan 3: Joint Strategy for South Hampshire (to 2031);
- Wiltshire Local Transport Plan (2011 – 2026);
- Draft Devizes Neighbourhood plan (2014);
- Winchester District Local Plan Part 1 (Adopted 2013);
- Winchester District Joint Core Strategy DPD (Adopted 2013);
- Southampton Adopted Core Strategy (amended 2015);
- Warminster Neighbourhood Plan (2015 – 2026);
- New Forest District Local Plan (2016 – 2036);
- Test Valley Borough Revised Local Plan (Adopted 2016); and
- Army Basing Programme (announced 2015).

4.8 The Secretary of State is content that all plans and projects with the potential to have significant in-combination effects with the Development in terms of the HRA have been identified. The Secretary of State is also satisfied that the scope and approach to the assessment of in-combination effects was not the subject of any dispute during the examination. This is further evidenced by NE's deadline 2 submission in response to the ExA's First Written Questions, which confirmed they are satisfied with the scope of the Applicant's HRA in-combination assessment. WC also confirmed at deadline 2 in response to the ExA's Written Questions that they were not aware of any other plans or projects that should be included in the Applicant's HRA in-combination assessment.

LSE Screening Conclusions

4.9 The Applicant's LSE Report concludes that the Development would have no LSE, either alone or in-combination with other plans and projects, on the following European sites and their qualifying features:

- Chilmark Quarries SAC;
- Mottisfont Bats SAC; and
- Mells Valley SAC.

4.10 Potential LSEs were identified for the River Avon SAC, Salisbury Plain SAC, and Salisbury Plain SPA, although not for all qualifying features. The screening assessment for these sites are discussed in turn below.

Chilmark Quarries SAC, Mottisfont Bats SAC, and Mells Valley SAC

4.11 These three SAC sites were screened into the Applicant's LSE Report based on their bat qualifying features and by virtue of being located within 30km of the Development. As noted in Table 4.1 above and in the Applicant's LSE Report, Mells Valley SAC is also designated for its Annex 1 habitat qualifying features. The Applicant's LSE Report states that the Annex I habitat qualifying features of the Mells Valley SAC were not considered further for the purpose of LSE due to the distance of the SAC from the Development (29.3km). The Secretary of State is also of the view that there is no potential for LSE on these habitat features due to the distance from the Development and absence of a potential effect pathway.

4.12 The Applicant's LSE Report concludes no LSE on the bat qualifying features of these three SACs, largely on the basis of the geographic separation of the SACs from the Development and on this basis, that any foraging and commuting routes in and around the Proposed Development are not considered part of the core roost resource zone. Tables 3.4 to 3.6 of the Applicant's LSE Report, together with HRA screening matrices 4, 5 and 6 at Appendix C of that report, summarise the Applicant's conclusions of no LSE in respect of these sites.

4.13 The Applicant's conclusion of no LSE for Chilmark Quarries SAC, Mottisfont Bats SAC, and Mells Valley SAC was not disputed or otherwise referred to by any IP during the examination.

4.14 The Secretary of State has reviewed the information within the Applicant's LSE Report and the ExA's Recommendation Report and RIES. Based on this information, the Secretary of State agrees with the conclusion of no LSE to these sites as a result of the construction and operation of the Development, either alone or in combination with other plans and projects.

River Avon SAC

4.15 As identified in Table 4.1 above, the Applicant considered several potential effects for LSE. The Applicant concluded no LSE for all potential effects considered except for potential shading of the River Till, which was considered to have potential for LSE on all qualifying features except Desmoulin's whorl snail. Each effect considered for LSE is expanded on below.

Water quality

4.16 The Applicant's LSE Report concludes no LSE to the River Avon SAC from potential surface water quality effects. The LSE Report references the implementation of the following measures in reaching this conclusion (see Table 3.1 of the Applicant's LSE Report):

- Construction period measures incorporated into the Outline Environmental Management Plan (OEMP)[3] to be delivered through the Construction Environmental Management Plans (CEMPs)[4]; and

[3] Final version is Version 8 dated 18 May 2020 and submitted in response to Secretary of State's request for further information

[4] Annex A.2 to the OEMP shows the relationships between the OEMP and the proposed CEMPs and other management plans for the Development

- Operational measures which have been physically incorporated into the engineered design, required to meet the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and Environmental Permitting (England and Wales) regulations 2010[5].

4.17 The Secretary of State notes the discussions during the Examination with regards to the application of the People over Wind judgment in respect of measures relied upon at the HRA screening stage, and that the ExA determined that measures have been relied upon in reaching the conclusion of no LSE in respect to water quality, as stated in the ExA's Recommendation Report.

4.18 The Secretary of State has had regard to the People over Wind judgment particularly the taking into account of any measures intended to avoid or reduce the harmful effects at the LSE screening stage. The Secretary of State concludes that, the measures set out in the OEMP and the engineered design of the Development, are a necessary consideration in the finding of LSE and an appropriate assessment is required in respect of water quality effects on the River Avon SAC. Therefore, these effects have been carried forward to the Secretary of State's appropriate assessment at Section 5 below.

Shading of the River Till – all qualifying features except Desmoulin's whorl snail

4.19 The Secretary of State has reviewed the information within the Applicant's LSE Report and the ExA's Recommendation Report and RIES. Based on this information, the Secretary of State agrees with the Applicant's conclusion of potential LSE from the anticipated shading of the River Till on all qualifying features, except Desmoulin's whorl snail (discussed below), as a result of the Development alone. This effect is associated with potential overshadowing from the Development's proposed bridges over the River Till (both the permanent viaduct and the temporary bridge for construction). This effect has therefore been carried forward to the Secretary of State's appropriate assessment at Section 5 below.

Shading of the River Till – Desmoulin's whorl snail

4.20 The Secretary of State understands from the Applicant's LSE Report and through the ExA's questioning during the examination (as reported in the RIES and ExA's Recommendation Report), that the Applicant concludes no LSE arising from the effect of potential shading of the River Till to the Desmoulin's whorl snail qualifying feature of the River Avon SAC as no construction works would occur within suitable habitat where the species has been recorded and that it is absent from the section of the River Till within the Development boundary due to the lack of suitable habitat within a 2km stretch around the proposed crossing.

4.21 NE and the Environment Agency (EA) did not identify any concerns with regards to the Applicant's conclusions in respect of overshading effects on Desmoulin's whorl snail. NE also confirmed in their final SoCG with the Applicant that there is "*no need for an appropriate assessment for effects on Desmoulin's whorl snail*".

[5] The Secretary of State considers that this reference should be to The Environmental Permitting (England and Wales) Regulations 2016

4.22 The Secretary of State has taken into account the views of NE and the information provided by the Applicant through the LSE Report and provided during the examination, and Appendix 2 to the HRA Clarification Technical Note (appended to the SoCG with the Applicant), and is satisfied that there will be no LSE from shading of River Till on Desmoulin's whorl snail, either alone or in-combination with other plans and projects.

Blockage of fish passage

4.23 The Applicant's LSE Report identified that no features of the Development will be constructed within the River Avon SAC or within 8m of its banks so there will be no risk of physical blockage to fish passage. The 8m distance is necessary to comply with EA requirements on main rivers (and as a commitment, is secured in MW-BIO3 of the OEMP). The Applicant's assessment and conclusions of no LSE on fish passage has not been commented on or otherwise disputed by IPs during the examination.

4.24 The Secretary of State agrees with the Applicant's conclusion that there would be no LSE from the Development on fish passage given the absence of structures located within the SAC itself or within 8m of its banks.

Geology and hydrology – changes to water level and flow

4.25 The Applicant's LSE Report concludes that although the presence of underground structures for the River Till viaduct could 'theoretically' cause interference to groundwater flow in close proximity to the groundwater-fed Rivers Avon and Till, it is considered unlikely to occur because of the River Till viaduct design having been optimised to place them as far away from the River Till as possible (Table 3.1 of the Applicant's LSE Report). On this basis, the Applicant concludes no LSE from this pathway to any of the qualifying features.

4.26 The Secretary of State notes concerns raised by IPs at various stages of the examination and at pre-examination, including the EA, NE, and Stonehenge Alliance, with regards to the Applicant's assessment of groundwater levels and flows. The Secretary of State also notes the further questions issued by the ExA during the examination on this matter, and subsequent submissions from the Applicant, including the HRA Clarification Technical Note.

4.27 The final SoCG between the Applicant and the EA issued at Deadline 9 records agreement that "*The integrity of the River Till and River Avon SAC will not be significantly affected subject to the appropriate controls within the DCO application and any required environmental permits or licence*", and that final SoCG between the Applicant and NE records that, following the issuing of the Applicant's HRA Clarification Technical Note, NE agree with the Applicant's conclusion that no LSE is anticipated to occur on the River Avon SAC, and therefore an appropriate assessment is not required.

4.28 The Secretary of State notes the discussions during the Examination with regards to the application of the People over Wind judgment in respect of measures relied upon at the HRA screening stage, and that the ExA determined that measures have been relied upon in reaching the conclusion of no LSE in respect to changes to geology and hydrology in the ExA's Recommendation Report.

4.29 The Secretary of State has had regard to the People over Wind judgment in consideration of any measures that avoid or reduce the harmful effects at the LSE screening stage. As for water quality above, the Secretary of State

concludes that the measures set out in the OEMP (specifically measures MW-WAT10 and MW-G7) and the engineered design of the Development, are necessary to avoid or reduce harmful effects and an appropriate assessment is required in respect of geology and hydrology effects on the River Avon SAC. Therefore, these effects have been carried forward to the Secretary of State's appropriate assessment at Section 5 below.

Noise and vibration disturbance

4.30 The Applicant's LSE Report concludes no LSE to the River Avon SAC qualifying features from noise and vibration disturbances during the construction or operation of the Development. The Applicant clarified during the examination in response to the ExA's First Written Questions that there is no piling proposed within the channels of the River Till or River Avon, as secured through the Development design, and there are commitments made with regards to non-impact piling, exclusion zones, sensitive lighting and suitable ecological supervision at the River Till viaduct as part of the OEMP.

4.31 The Applicant's LSE Report (HRA screening matrix 3) identifies that short-term disturbance during construction of the River Till viaduct supports is not likely to affect the spawning of salmon or other SAC fish species because the stretch of the River Till crossed by the Development does not have suitable spawning habitat. It also states that the River Till dries seasonally and only flows for approximately three to six months per year over winter to spring; therefore, noise and vibration would not affect fish at all when carried out during the dry period. In addition, the Applicant states that construction work would be at least 8m from the River Till to comply with EA requirements on main rivers and the bored piling construction method would render insignificant noise and vibration even if undertaken during a time when there was flow in the river.

4.32 The Secretary of State notes there is no specific restriction within the DCO, OEMP or other document to restrict the Applicant to carrying out these works in the "dry period". However, it is noted that the OEMP secures that construction works would be at least 8m from the River Till and measure MW-BIO3 of the OEMP also requires the use of a low vibration and low noise piling method for the construction of both the temporary bridge and the permanent viaduct to reduce the vibration and noise impacts on the aquatic ecology within the river.

4.33 No specific operational noise or vibration effects were identified by the Applicant in their LSE Report or ES and potential effects during operation were not identified or challenged by IPs during the examination.

4.34 The ExA determined in their Recommendation Report that the Applicant has relied upon measures to conclude no LSE in respect of construction noise and vibration effects, namely measures relating to the distance of works and low vibration and low noise piling methods. The Secretary of State has considered the People Over Wind judgment and concurs with the ExA; therefore, effects of construction noise and vibration have been carried forward to the Secretary of State's appropriate assessment in Section 5 below.

Spread of invasive species

4.35 The Applicant's LSE Report states that the Development will not spread invasive species as there are none present in the section of the River Till SAC where works will take place. The Applicant's LSE Report also states that the contractor will be required to implement control measures through the OEMP (identified as PW-BIO1 and MW-BIO5), as necessary, to prevent introduction

or spread of invasive species in order to comply with the Wildlife and Countryside Act 1981.

4.36 The Secretary of State notes that the EA initially raised a concern at deadline 2 of the examination with regards to invasive species as a risk to the River Till and River Avon during construction and requested that appropriate control measures be adequately detailed in the DCO and OEMP. The final SoCG between the Applicant and the EA records agreement between the parties and states "*that the risk of spreading non-native species has been adequately assessed as part of the Habitats Regulations Assessment…*" and that "*It is agreed that appropriate management of the risk from non-native species is secured through item PW-BIO1, MW-BIO5 and MW-BIO6 of the OEMP. The EA will be consulted on the development of the CEMPs.*" No other concerns were raised with regards to the spread of invasive species during the examination.

4.37 The Secretary of State is of the view that measures presented in the OEMP are relevant to reaching a conclusion of no LSE; therefore, the Secretary of State has considered this potential effect in the appropriate assessment at Section 5 below.

Air quality

4.38 The Applicant's assessment of air quality effects on the River Avon SAC during construction and operation is presented across Chapters 5 and 8 of the ES and Appendix D of the Applicant's LSE Report. The location of the modelled receptor points with respect of the SAC is shown on ES Figures 5.2 to 5.5. The Applicant's LSE Report concludes that air quality effects, with particular reference to NO_x, will not result in LSE to the River Avon SAC either alone or in-combination with other plans or projects.

4.39 The Applicant's assessments identify that only the vegetation within 5m of the Countess Roundabout would experience NO_x levels above the critical NO_x level temporarily during construction phase 1 and then fall below the NO_x critical level during construction phase 2 in 2024 (Receptor E6 – River Avon System). Receptor E9 – River Till within 5m of the scheme also experiences NO_x levels above the critical level during construction phase 1 (falling below in construction phase 2); however, in both cases the change in total NO_x concentration at this receptor is a net improvement as a result of the Development.

4.40 Furthermore, the affected vegetation in River Avon SAC is stated in ES Chapter 8 and the Applicant's LSE Report as being "*phosphate limited*" and therefore the increase in NO_x levels is unlikely to significantly affect the vegetation in these locations. The Applicant's assessment identifies that all other modelled receptor points would not exceed the critical level during any phase of construction.

4.41 The Applicant's LSE Report also concluded no LSE to the River Avon SAC as a result of the operational Development, as the air quality modelling data identified that all modelled receptor points are expected to remain below the critical level during the operational phase.

4.42 In respect to nitrogen deposition, the Applicant concludes that for all assessment scenarios during construction and operation at the River Avon SAC, the change in nitrogen deposition rates between the future baseline and 'do something' scenarios are negative, i.e. an improvement as a result of the Development.

4.43 The Applicant identified a pathway for in-combination operational air quality effects associated with the implementation of the Army Basing Programme at Salisbury Plain and housing and employment growth, as set out in the Wiltshire Core Strategy and other strategic plans. The Applicant's LSE Report identifies that increases in the volume of vehicles using the A303 and other roads within the Affected Road Network (ARN) from the in-combination plans/ projects have been factored into the modelled operational scenarios and a conclusion of no LSE can be drawn as either the critical level for NO_x will not be exceeded under any modelled future scenario including the Development, at any modelled transect, or where it is exceeded the Development will result in either a negligible change in NO_x/ nitrogen deposition or a net improvement.

4.44 No IPs contested the Applicant's conclusions during the examination. Additionally, the Secretary of State notes NE's response at deadline 2 to the ExA's First Written Questions in respect to the Applicant's assessment of NO_x and no LSE to the River SAC, which stated they are satisfied with the Applicant's assessment of the effects of NO_x and confirmed that the vegetation associated with the River Avon SAC is phosphate limited and that NO_x levels are unlikely to affect the vegetation within the SAC.

4.45 The Secretary of State is therefore content to conclude that there would be no LSE to the River Avon SAC from air quality effects during the construction or operation of the Development, either alone or in-combination with other plans or projects.

Salisbury Plain SAC

4.46 As noted in Table 4.1 above, the *Juniperus communis* (formations on heaths and calcareous grasslands) qualifying feature of the Salisbury Plain SAC was screened out of further consideration for all potential effects in the Applicant's LSE Report. This is on the basis that it is "*Not present in affected area*" (see matrix 2 of the Applicant's LSE Report). The Secretary of State notes that this conclusion has not been disputed by any IPs during the examination. The Secretary of State concurs there will be no LSE to this qualifying feature on this basis.

4.47 Potential effects on the remaining qualifying features, namely the semi-natural dry grasslands and scrubland facies on calcareous substrates and Marsh fritillary butterfly, are discussed in turn below.

Air quality changes – dust deposition

4.48 The Applicant's LSE Report concludes the potential for LSE associated with dust deposition during construction to the SAC, particularly around the location of the Winterbourne Stoke bypass. The Secretary of State agrees with the Applicant's conclusion and this potential effect has been carried forward to appropriate assessment at Section 5 below.

4.49 The Applicant's LSE Report concludes that no dust deposition is expected during the operation of the Development. The Secretary of State has reviewed the information provided to the examination and the ExA's Recommendation Report and RIES and is content to conclude that there will be no LSE arising from dust during operation.

Air quality changes – NOx and nitrogen deposition

4.50 As identified in Appendix D to the Applicant's LSE Report, only receptor E3 (within 10m of the road) will experience concentrations of NO_x above the critical load during construction phases 1 and 2, with all other modelled receptors being well below the critical level during both phases 1 and 2 (see tables D.2.1 and D.2.2). However, receptor E3 will experience a net reduction in concentrations between the 'do minimum' and 'do something' scenarios during both modelled construction scenarios, i.e. an improvement as a result of the Development. The Applicant therefore concludes no LSE associated with air quality changes (NOx and nitrogen deposition) arising from the construction of the Development on the Salisbury Plain SAC.

4.51 The Applicant's HRA Clarification Technical Note provided further clarification on the Applicant's screening assessment in their LSE Report with regards to operational NO_x concentrations and nitrogen deposition on the Salisbury Plain SAC.

4.52 The HRA Clarification Technical Note describes that in respect of the SAC, "*NO_x concentrations at the modelled locations are forecast to be low in 2026 with the A303 Scheme in operation (e.g. 7 µgm-3 at Parsonage Down)*" and that "*air quality modelling shows they will be below the critical level in all assessment years (2021, 2024, 2026) on all transects associated with Salisbury Plains SAC (Transects E1, E2, E3, E11, E12, and E13), when the baseline concentrations, traffic growth between the baseline and operational phase and the A303 Scheme is included (i.e. the 'in combination scenario').*"

4.53 The data for nitrogen deposition rates is provided at Appendix D to the Applicant's LSE Report. The data shows that deposition rates on most Salisbury Plain SAC transects (E1, E2, E11 and E13) will be no worse or marginally (up to 0.2 kgN/ha/yr) better with the Development in operation than they would be in 2026 without the Development. The Applicant identifies an exception at transects E3 (at the closest point to the road) and E12 (up to 15m into the SAC at Parsonage Down), where the operational Development will raise deposition rates by 0.1 kgN/ha/yr compared to the 2026 situation without the Development. However, the Applicant concludes this "*is a very small difference (less than 1% of the lowest part of the critical load range) and a substantial net reduction in deposition is still forecast by 2026, to the extent that on transect E3 the critical load would no longer expected to be exceeded at all.*" For this reason, a conclusion of no LSE is reached by the Applicant.

4.54 The Applicant considered the potential for in-combination effects as a result of air quality changes during operation associated with the implementation of the Army Basing Programme at Salisbury Plain and housing and employment growth, as set out in the Wiltshire Core Strategy and other strategic plans. The Applicant's LSE Report concludes that any such increases in the number of vehicles using the A303 and other roads within the ARN have been modelled and that a conclusion of no LSE can be drawn. This is on the basis that either the critical level for NO_x would not be exceeded under any modelled future scenario including the Development, at any modelled transect, or where it is exceeded the Development would result in either a negligible change in NO_x concentrations or there would be a net improvement compared to existing and future baseline conditions in the absence of the Development.

4.55 The Secretary of State understands that no IPs raised substantive issues with the Applicant's position. In addition, the final SoCG between the Applicant and NE records that "*Natural England agrees that namely for Salisbury Plain SAC*

'significant effects are not anticipated' from NOx emissions, or nitrogen deposition from the Scheme."

4.56 The Secretary of State has considered the information provided by the Applicant, and in the ExA's Recommendation Report and RIES, and is content to conclude that there would be no LSE to the Salisbury Plain SAC from air quality changes associated with NO_x and nitrogen deposition during the construction and operation of the Development, either alone or in-combination with other plans or projects.

Creation of replacement stone curlew breeding plot during construction

4.57 Although not explicitly considered as an effect in the Applicant's LSE Report, the Secretary of State is aware that as a proposed measure for the avoidance of AEoI to the Salisbury Plain SPA (see Section 5 below), the Applicant will be providing a replacement stone curlew breeding plot located within Parsonage Down NNR, within the Salisbury Plain SAC.

4.58 The Secretary of State has therefore considered the potential for LSE to the SAC as a result of the creation of the breeding plot. The Secretary of State concurs with the view of the Applicant and NE, including that contained within their responses to the ExA's request for further information on this matter, that there would be no LSE to the SAC on the basis that the total area of grassland for the plot amounts to 0.005% of the total area of the SAC and the replacement plot is located within land that does not contain any features for which the SAC is designated. Additionally, the Applicant considers that the plot will not constitute a loss of habitat but rather a change to the grassland structure and the approach to the provision of stone curlew plots is consistent with the existing approach to providing stone curlew plots in the SAC.

4.59 The Secretary of State therefore concludes no LSE on the basis of the small-scale effect and the absence of qualifying features in the area affected by the creation of the replacement stone curlew breeding plot.

Salisbury Plain SPA

4.60 The Applicant's LSE Report concludes the potential for LSE to the stone curlew qualifying feature of the SPA arising from the following effects:

- net loss of stone curlew breeding opportunities as a result of construction;
- non-recreational (construction-related) disturbance to breeding stone curlew; and
- in-combination effects with other plans and projects due to increased visitor-related disturbance during operation of the Development.

4.61 The Secretary of State agrees with this conclusion and effects to the stone curlew qualifying feature of the SPA are considered in the appropriate assessment in Section 5 below.

4.62 The Applicant concludes no LSE for all other qualifying features, namely hen harrier, common quail and hobby, in respect of all impact pathways considered. This is on the basis that hen harrier does not breed in the SPA and that its overwintering roost sites are well known and are located more than 10km from the Development. In respect of quail and hobby, these features are not tied to specific breeding plots and are less sensitive to disturbance than other qualifying features of the SPA.

4.63 The Applicant's conclusions of no LSE either alone or in-combination for these three species has not been disputed by any IPs during the course of the examination. The Secretary of State notes that NE also agreed with the Applicant's conclusion, stating in response to the ExA's First Written Questions at deadline 2 that they "*concur with the applicant's conclusion of no likely significant effects on the other qualifying features* [except stone curlew]".

4.64 Having considered the information, the Secretary of State is of the view that there would be no LSE to the hen harrier, quail, and hobby qualifying features of the Salisbury Plain SPA either alone or in-combination with other plans or projects.

Summary of European sites requiring appropriate assessment

4.65 The Secretary of State has summarised the European sites, pathways of effect and qualifying features for which an appropriate assessment is required in Table 4.2 below.

Table 4.2 Summary of European sites and qualifying features requiring an appropriate assessment

European Site	Pathway of effect	Construction (C) / Operation (O)	Qualifying Features
River Avon SAC	Water quality	C, O	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey Desmoulin's whorl snail
	Shading of River Till	C, O	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey
	Invasive species	C	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey Desmoulin's whorl snail
	Geology and hydrology – changes to water level and flow	C, O	Watercourses of plain to montane levels Atlantic salmon Brook lamprey Bullhead Sea lamprey
	Noise and vibration	C	Atlantic salmon Brook lamprey Bullhead Sea lamprey

European Site	Pathway of effect	Construction (C) / Operation (O)	Qualifying Features
Salisbury Plain SAC	Air quality - dust deposition	C	Semi-natural dry grasslands and scrubland facies on calcareous substrates Marsh fritillary butterfly
Salisbury Plain SPA	Loss of breeding plots	C	Stone curlew
	Non-recreational disturbance	C	Stone curlew
	Recreational pressure – in-combination effects	O	Stone curlew

4.66 The Secretary of State has considered the Applicant's conclusions and the ExA's Recommendation Report and RIES for all other European sites, qualifying features and pathways of effect that are not set out above and concludes that there would be no LSE.

5. APPROPRIATE ASSESSMENT

5.1 As LSE cannot be excluded, the Secretary of State, as the competent authority is required to undertake an appropriate assessment to determine the implications for the conservation objectives of the affected European sites. In line with the requirements of regulation 63 of the Habitats Regulations, the competent authority:

> '*…may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site…In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given'.*

5.2 As noted in Section 1 of this HRA Report, the competent authority is obliged to consult the appropriate nature conservation body and have regard to any representations made by that body. For this purpose, the ExA prepared a RIES as set out in Paragraphs 1.14 to 1.18 of this HRA Report, and the Secretary of State is satisfied that NE have been consulted in line with regulation 63 of the Habitats Regulations.

5.3 If the competent authority cannot exclude adverse effects on the integrity of the affected European sites (AEoI) on the basis of objective scientific evidence, then it can only consent a plan or project if it complies with the requirements of regulation 64 of the Habitats Regulations. It provides that the competent authority may agree to the plan or project only if satisfied that there are no alternative solutions to the delivery of the plan or project that would have lesser effects on the European sites, and that the plan or project must be delivered for imperative reasons of overriding public interest. In addition, regulation 68 requires compensatory measures to be secured which maintain the overall coherence of the Natura 2000 network.

Adverse Effects on the Integrity of the European sites

5.4 As set out in paragraph 4.6 of this HRA Report, the appropriate assessment has been made in light of the conservation objectives for the relevant sites which are included in Annex 2 of this document.

River Avon SAC

Water Quality Effects

5.5 The Applicant's LSE Report did not identify a LSE due to water quality effects; however, this effect was discussed further during the examination and due to the reliance placed on mitigation measures to reach the Applicant's conclusion of no LSE, the Secretary of State has considered this potential effect in the appropriate assessment.

5.6 The Applicant's LSE Report identified that construction and operation of the Development "*theoretically carries the risk of effects on water quality including: surface water run-off; siltation downstream due to excavation of materials and the subsequent deposition of soils, sediments and other construction materials; spillage of fuels or other contaminating substances and the mobilisation of contamination following disturbance of contaminated ground or groundwater, release or leaching of substances (e.g. cement or*

grout) used in the tunnelling process, which may negatively impact groundwater quality." It then concludes that, in practice there will be no effect since the Development has been designed such that it complies with the water quality protection requirements of the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and Environmental Permitting (England and Wales) Regulations 2016, and construction impacts are controlled through the OEMP.

5.7 Measures for the protection of the SAC water quality during construction are set out in the OEMP, including: preliminary works measures PW-WAT1 (pollution control), PW-WAT2 (surface water drainage) and PW-WAT3 (site drainage); and main works measures MW-WAT1 to MW-WAT10, MW-WAT14 and MW-WAT15 (monitoring). Measure MW-MAT2 also includes for the production of Materials Management Plan (MMP) in accordance with the CL:AIRE Definition of Waste: Code of Practice. These measures are ultimately to be delivered through contractual requirements and the CEMPs and associated management plans. For example, MW-WAT2 requires a Water Management Plan to be produced and MW-WAT4 a Pollution Incident Control Plan, as part of the Emergency Preparedness and Response Plan (MW-G20).

5.8 The OEMP is a certified document in the DCO and Requirement 4 of the DCO secures that the main and preliminary works must be undertaken in accordance with the OEMP. The CEMPs subsequently produced by the contractor must also be in accordance with the OEMP. The measures in the OEMP include industry standard measures to be implemented for pollution control and protection of watercourses, as identified in the Applicant's ES. In most cases, these measures are to be approved by the Secretary of State, in consultation with the EA and WC, including measures PW-WAT2, MW-WAT2, MW-WAT4 (as part of MW-G20), MW-WAT5, MW-WAT7 and MW-WAT10. The pollution control measures within the CEMP are also to be approved by the Secretary of State (measure PW-WAT1). Measures PW-WAT3, MW-WAT3, MW-WAT6, MW-WAT8 and MW-WAT9 require agreement with the EA and WC, adherence to standards, and granting of permits/consents (as required).

5.9 Requirement 10 of the DCO also secures the drainage system for the Development and states that:

> *"10 .—(1) No part of the authorised development is to commence until written details of the drainage system to be constructed for that part, based on the mitigation measures included in the environmental statement and including a timetable for implementation and means of pollution control and for the management of flood risk, have been submitted to and approved in writing by the Secretary of State, following consultation with the planning authority on matters related to its functions, and the Environment Agency.*
>
> *(2) The drainage system must be constructed in accordance with the approved details referred to in sub-paragraph (1) prior to that part of the authorised development becoming open for public use."*

5.10 Measure MW-WAT14 (surface drainage strategy) also states that "*the main works contractor shall ensure that the surface water drainage system reflects the mitigation measures identified within the ES and conforms with Requirement 10 of the DCO*." Appendix 11.3 to the ES, submitted at deadline 2 of the examination, sets out the strategy and preliminary drainage design for the operational Development, and outlines the methodology proposed to mitigate significant impacts upon the water environment.

5.11 The Applicant's SIAA Report states that measures are embedded into the design of the Development in order to meet relevant legislative requirements, in particular the Environmental Damage (Prevention and Remediation) Regulations 2015 and Environmental Permitting (England and Wales) Regulations 2016. The measures have been derived from the Pollution Prevention Guidelines (PPG5) Works or Maintenance In or Near Water and DMRB Volume 11, Section 3, Part 10: Road Drainage and the Water Environment. ES Chapter 11 Road Drainage and Water Environment contains more details of all measures included in the design, specifically at Section 11.8.

5.12 No works will be required within the River Till channel itself and measures D-BIO1 and MW-BIO3 of the OEMP secures the design of the viaduct and temporary bridge, and ensures none of the supports will be located within 8m of the river channel, to comply with EA requirements on main rivers.

5.13 The Applicant's LSE Report does not identify any other plans or projects likely to act in-combination with the Development in respect to the River Avon SAC and water quality effects and this was not disputed during the examination.

5.14 The Secretary of State is satisfied that the design and control measures proposed are secured such that there would no AEoI on the River Avon SAC due to potential water quality effects, either alone or in-combination with other plans or projects.

Shading of the River Till

5.15 The Applicant's LSE and SIAA Reports consider the potential effect of loss of vegetation (and thus potential soil erosion) due to shading from the construction of the River Till viaduct, arising from both the temporary bridge and the operational viaduct. The Applicant's SIAA identifies that this has the potential to exacerbate the following pressures identified on the Site Improvement Plan: siltation; water pollution; changes in species distributions; and habitat fragmentation.

5.16 The Applicant's SIAA Report concludes that shading of the River Till from the proposed viaduct will not result in an AEoI of the River Avon SAC. Section 6.1 of the Applicant's SIAA Report explains that this conclusion is reached predominantly on the basis of the design of the proposed viaduct, which has been designed specifically to avoid impacts to the River Avon SAC and its qualifying features. The Applicant's SIAA Report explains that the design has been informed by a study into the effects of shading produced by permanent bridges of various designs and sizes (presented in Appendix D to the Applicant's SIAA Report, together with missing Figure 1 to this appendix provided as Appendix C to the deadline 7 Errata Report) and a shading modelling study of the proposed viaduct design (presented in Appendix E to the SIAA Report).

5.17 The design of the proposed permanent viaduct is secured by measure D-BIO1 of the OEMP, which states that "*The River Till viaduct is to comprise a twin deck viaduct structure with a minimum 7m open gap between the bridge decks. The locations of the piers and foundations shall be a minimum of 8m outside of the boundary of the River Till section of the River Avon SAC.*"

5.18 The Applicant's SIAA Report describes the temporary construction crossing at the River Till, which will be a bailey-bridge type structure and will be in place for a relatively short period of 2 years (unless otherwise agreed). The Applicant's SIAA Report describes that the risk of any shading causing loss of

vegetation, and therefore erosion of bare ground, is therefore considerably less than for the permanent viaduct. The Applicant has, however, determined that in order to render this risk negligible, the construction crossing has been designed to be as narrow as possible, consisting of a single lane structure approximately 4-5m wide. The Secretary of State notes that the assessment of the River Avon SAC in ES Chapter 8 concludes no AEoI on the habitats of the SAC or SSSI with reference to the bridge being approximately 6m wide (rather than approximately 4-5m wide) and that the bridge would not be present for long enough to cause an irreversible effect on the habitats present within the SAC and SSSI. With this design of a single lane width, vegetation beneath the temporary bridge is expected to survive the shading and fully recover from any reduction in growth after removal of the temporary bridge.

5.19 The Secretary of State has considered the evidence with regards to potential shading and the temporary bridge and is content that a maximum width of 6m for the temporary bridge, which is also to be located outside of the SAC at a distance of at least 8m from the boundary and not be in the same location for a period of more than two years, unless otherwise agreed with NE and the EA (as per measure MW-BIO3), has been assessed by the Applicant and given the duration it would be in place, would not result in an AEoI to the River Avon SAC.

5.20 The design of the temporary bridge is secured through the OEMP as measure MW-BIO3 (River Till ecological mitigation), which states "*The main works contractor shall ensure that the temporary bridge over the River Till is raised a minimum of 1m above the valley floor with supports located outside of the river channel and at least 8m from the boundary of the River Till section of the River Avon SAC. The bridge shall be restricted to a maximum 6m width and shall not be in the same location for a period of more than two years. In the event that it was necessary to extend the use of the temporary bridge beyond two years, the condition of the vegetation would be assessed and there would be consultation with the Environment Agency and Natural England as to whether the bridge should be retained in place for the minimum additional time necessary, or re-positioned*".

5.21 The Applicant's SIAA Report also explains that the River Till in the area of the proposed viaduct does not currently support *Ranunculus* but is instead bordered by pasture, and that NE have confirmed that they would require this grassland to continue beneath the viaduct and that any conversion to bare ground via shading would be deemed an adverse effect on the integrity of the SAC. The Applicant states that the data from their study indicates that the stretch of the River Till beneath the proposed viaduct will continue to be vegetated and that "*The shading cast by the viaduct will be less than the level of shading that could be likely cast in a natural situation by dense bankside tree cover, as already occurs along the River Till immediately south of the A303*".

5.22 Measures are described in the Applicant's SIAA Report at paragraph 6.1.9 to manage the vegetation under the River Till viaduct during both construction and for a period of at least five years after the completion of the viaduct. These include re-seeding areas of the adjacent floodplain affected by construction and mowing of the retained vegetation within the SSSI during the construction period. The Applicant's SIAA Report identifies the possibility of restoring grazing to this area once the pasture has re-established; however, also notes concerns with regards to excessive trampling and a risk of erosion and siltation that could arise from such grazing. To ensure such grazing does

not have a detrimental effect on the grassland, the Applicant's SIAA Report describes mowing initially in the post-construction period, followed by a trial under the viaduct but outside of the SSSI to assess whether grazing can be resumed. The Applicant states that an area around the central span of the viaduct will be fenced to exclude livestock and control poaching. The fenced zone, including the SSSI and adjacent grassland, will remain in place for at least 5 years after completion of the viaduct and the area will be permanently fenced if this is necessary to avoid adverse effects of grazing and trampling under the viaduct.

5.23 Measures in respect to the ecological mitigation at the River Till are secured through measure MW-BIO3 of the OEMP. In respect of vegetation, MW-BIO3 states "*The main works contractor shall re-establish any habitats lost as a result of temporary land-take in the River Till valley (chainage 3+800m to 4+300) following construction. Monitoring of vegetation during both the construction and operation phases shall be undertaken by the ECoW (or appropriate specialist), until such time as the habitat has been restored to the satisfaction of the Authority*". In respect of fencing, ES Figure 2.5 A-S– Environmental masterplan (Revision 2.0) (at Figure 2.5D) identifies the "*Area of habitat retention and reinstatement between viaduct supports and inclusion of livestock fencing*" at the River Till viaduct. These ES figures are certified as part of the ES in Schedule 12 of the DCO.

5.24 The OEMP is a certified document in the DCO and Requirement 4 of the DCO secures that the main and preliminary works must be undertaken in accordance with the OEMP. The CEMPs subsequently produced must also be in accordance with the OEMP.

5.25 The Secretary of State is satisfied that measure MW-BIO3 secures the re-establishment of habitats, including reseeding of areas of adjacent floodplain at the River Till, and monitoring of the vegetation during construction and operation to ensure vegetation is suitably established. Fencing to exclude livestock and prevent excessive is proposed as per the ES, supported by the Environmental masterplan, thus the risk of erosion and siltation due to excessive grazing is to be avoided.

5.26 The Secretary of State notes that the Applicant's conclusion of no AEoI of the River Avon SAC due to shading effects to the River Till were not disputed by any IP during the examination. The final SoCG between the Applicant and NE did not record specific agreement with regards to this potential effect; however, no objections were recorded during the examination on this matter.

5.27 The Applicant's LSE Report does not identify any other plans or projects likely to act in-combination with the Development in respect to the River Avon SAC and the effect of shading of the River Till and this has not been disputed during the examination.

5.28 The Secretary of State is satisfied that the design and control measures secured are such that there would be no AEoI on the River Avon SAC arising as a result of shading of the River Till, either alone or in-combination with other plans or projects.

<u>Geology and hydrology – changes to water level and flow</u>

5.29 The Applicant's LSE Report did not identify a LSE due to changes in water level and flow during construction or operation of the Development; however, this potential effect was discussed further during the examination and due to the reliance placed on measures that avoid or reduce effect, as noted in Section 4

above, the Secretary of State has considered this potential effect at the appropriate assessment stage.

5.30 The Secretary of State notes that relevant matters were raised by IPs during the pre-examination and examination stage with regards to the Applicant's assessment of groundwater levels and flows, including:

- concerns raised by the EA at the pre-examination stage regarding groundwater levels and flows as a result of the bored tunnel;
- concerns raised by NE regarding the Applicant's groundwater flow modelling and how changes in groundwater flow could affect the Desmoulin's whorl snail, and the potential for the Development to cause an increase in phosphate levels within the River Avon SAC due to phosphatic chalk leachate; and
- concerns raised by Stonehenge Alliance regarding over abstraction and increased pollution as a threat to the integrity of the River Avon SAC; concern that potential impacts appear to have been limited to the design of the proposed new bridge over the River Till; insufficient hydrological and groundwater models; no assurance that dewatering will not occur; and concern that untreated run-off from Blick Mead could potentially flow into the River Avon SAC.

5.31 The Applicant's LSE Report considered impacts to local hydrogeology and discusses the design of the River Till viaduct and temporary bridge, including their location away from the River Till (as least 8m) to avoid obstruction of water flow over the floodplain and to comply with common law requirements not to increase flood risk. OEMP measures D-BIO1 and MW-BIO3 secure the design of the viaduct and bridge, together with their location being at least 8m from the boundary of the River Till section of the River Avon SAC.

5.32 The Applicant's LSE report assessment also considered the construction of the tunnel as part of the Development. Stating that the tunnel construction techniques (such as the use of the tunnel boring machine) will be adopted to limit the requirement for dewatering during construction. The Applicant's deadline 2 response to the ExA's First Written Questions reiterated their view that there would be no LSE to the River Avon SAC as dewatering is unlikely to be required for the construction of the tunnel or portals and that construction activities are likely to be above the water table. Appendix A to the HRA Clarification Technical Note includes further clarification with regards to the assessment of hydrological effects on the River Avon SAC, including the assessment of temporary dewatering during construction.

5.33 In respect of dewatering during construction, OEMP measure D-CH32 states that "*close faced tunnel techniques…*" will be used, which reduces the need for dewatering. Measure MW-WAT8 of the OEMP requires techniques which minimise the need for and extent of dewatering and groundwater abstraction. MW-WAT8 also specifies that where dewatering is required, the contractor will need to obtain the necessary authorisations to enable such dewatering activities. Measure MW-WAT10 of the OEMP secures a Groundwater Management Plan (GMP) to be prepared and approved by the Secretary of State, in consultation with the EA, WC and NE regarding elements of the GMP which may impact the River Avon SAC. Measure MW-WAT15 requires groundwater monitoring where necessary and agreed as part of the GMP.

5.34 In respect of abstraction during construction, the Applicant re-iterated at deadline 6, in response to the ExA's Second Written Questions, that "*based on*

the current design and construction methods, no abstraction of groundwater is anticipated" although "*It is possible that temporary and localised groundwater control could be required for the construction of the tunnel portal slab".* As noted for dewatering above, the OEMP measures in MW-WAT8 requires "*construction techniques which minimise, so far as reasonably practicable, the need for and extent of dewatering and groundwater abstraction*".

5.35 The HRA Clarification Technical Note (at Appendix A) further clarifies the Applicant's assessment of permanent effects on groundwater and surface water associated with the construction of the Development. It identifies that the construction of the tunnel below the groundwater level could lead to interference to the groundwater flow as set out in ES Appendix 11.4, and with reference to the numerical modelling undertaken by the Applicant, as presented in ES Appendix 11.4, describes the results of the modelling. The modelling predicts that the effects of the tunnel on groundwater would be minimal during normal summer flow or drought conditions, and that there would be negligible changes in flow in any reach of the River Avon or the River Till at low flows in an average year. The model predicts the greatest changes in groundwater level at the tunnel would be if the water table is exceptionally high, but in all three modelled scenarios the modelling shows that changes in groundwater level would not extend to the groundwater-dependent riparian zone of the River Avon south of the A303. It also predicts that the River Avon and River Till flow changes associated with the Development are less than 0.1% and 0.2% of existing flow rates, as summarised in ES Appendix 11.4 and ES Appendix 11.6.

5.36 A summary of the non-significant effects is presented in ES Appendix 11.6 where it concludes that the effect of the Development on groundwater baseflow, alteration to hydrological regime, and alteration to flood levels and overland flow paths will be neutral due to the design measures identified in Table 2 regarding protection of surface and groundwater from construction of the tunnel and bridges, which are secured through the OEMP.

5.37 With regards to concerns in respect to the Applicant's groundwater modelling, the Secretary of State has reviewed the information and considered the views of IPs, including the EA who confirmed in their final SoCG with the Applicant that the "*The methodologies used for the A303 groundwater numerical model (including groundwater flood risk) and the groundwater impact assessment have been agreed with the EA as being appropriate*" and that "*It is agreed that the ground investigations that have been conducted are appropriate to enable an adequate assessment of impacts for the submitted scheme on groundwater and surface water receptors. Highways England acknowledge that further ground investigation may be required to support the construction phase and detailed design.*" The Secretary of State is satisfied with the view of NE and the EA that the Applicant's model has undergone "*sensitivity testing to verify it under different conditions and has been independently review*[sic] *to confirm that it is both robust and precautionary*".

5.38 The HRA Clarification Technical Note at Appendix A also clarifies the assessment of permanent effects to groundwater and surface water associated with the operation of the Development. It describes that the main impacts for the operational Development are related to the road drainage. Appendix 11.3: Road Drainage Strategy submitted at deadline 2 provides a summary of the proposed road drainage for the Development. As noted previously above, the final drainage scheme is secured by Requirement 10 of the DCO. This secures that the final drainage scheme must be approved by the Secretary of State, in

consultation with WC (as planning authority) and the EA, and that this must be based on the mitigation measures in the ES, which include Appendix 11.3. ES Appendix 11.4: Groundwater Risk Assessment includes the assessment of the Development on groundwater during operation and concludes no significant impact on groundwater levels, flow and quantity.

5.39 The SoCG between the Applicant and the EA records that it is agreed that through the road drainage strategy, as secured through Requirement 10 of the DCO, the Development once constructed has the potential to provide significant betterment in terms of water quality and spillage control when compared to the existing situation.

5.40 The draft SoCG between the Applicant and NE submitted at deadline 2 recorded matters remaining under discussion in respect of Desmoulin's whorl snail and the Applicant's groundwater flow modelling. In response to concerns raised, the Applicant submitted the HRA Clarification Technical Note (see Appendix A and Appendix 2 to the note). The HRA Clarification Technical Note summarises the modelling presented in ES Appendix 11.4 with respect to the riparian wetlands at the River Avon which support Desmoulin's whorl snail, and concludes no LSE to the Desmoulin's whorl snail qualifying feature of the SAC, as the modelling shows the effects of the Development would not extend to the area of Desmoulin's whorl snail and its supporting habitat.

5.41 From the information provided, NE agreed in the final SoCG that no LSE is anticipated to occur on the River Avon SAC and that an appropriate assessment is not required. It is noted in the SoCG that NE also initially advised a specific monitoring plan for groundwater levels and water quality monitoring for the Desmoulin's whorl snail. The Applicant's response in the SoCG was that they consider that the "*screening out of effects on the River Avon SAC means groundwater monitoring is not required.*" However, the Applicant states notwithstanding this, they have agreed to carry out general monitoring of groundwater as set out in the OEMP. The Applicant directs to measure MW-WAT10 (Groundwater Management Plan).

5.42 The draft SoCG between the Applicant and NE at deadline 2 identified a potential concern of NE with regards to the absence of consideration of phosphatic chalk in the Applicant's LSE Report for the River Avon SAC. In response the Applicant provided clarification and justification in their HRA Clarification Technical Note at Appendix 1. The HRA Clarification Technical Note refers to leachate tests undertaken and as presented in ES Chapter 10 and ES Appendix 10.1, which reported concentrations of orthophosphate below the laboratory detection limit. Therefore, the Applicant considered it unlikely that the phosphatic chalk yields concentrations of dissolved phosphorus that would change the phosphorus levels of the groundwater. In the final SoCG, NE agreed with the Applicant's justification and the conclusion of no LSE from such an effect. The final SoCG between the Applicant and the EA also records agreement that a low solubility means that the phosphatic chalk is unlikely to be a problem with respect to the River Avon. The SoCG records agreement to measures MW-GEO7 and MW-WAT2 of the OEMP, which secure an MMP. The MMP would form part of the CEMP and is to be approved by the Secretary of State in consultation with the EA.

5.43 During the decision period, and with respect to nutrient levels (including phosphates) affecting the River Avon SAC, the Stonehenge Alliance brought to the Secretary of State's attention that WC are currently unable to permit development that increases foul water/sewage demand unless mitigation is provided. The Secretary of State considers, on the basis of the Applicant's

findings with respect to the likely phosphate concentrations and the mitigation measures secured through the DCO described above in respect to both groundwater and water quality (including pollution, surface water run-off and ground treatment measures considered in the "water quality effects" sub-section above), there would be no AEoI on the River Avon SAC as a result of the Development arising from the issues raised by the Stonehenge Alliance response.

5.44 NE also initially raised concerns regarding the Applicant's HRA assessment citing that it did not appear to consider any impacts on the River Avon if the proposed new alignment of the river alongside reconnection of the floodplain/wetland habitat creation is implemented at Countess Roundabout, which NE stated is in the River Avon Restoration Plan. The Applicant confirmed during the examination, and as recorded in the final SoCG between the Applicant and NE, that the Development would not prevent the construction of the proposed River Avon Improvement (River Avon Appraisal and Design Package, Reach A603/A604 Countess Outline Design), as the Development would only modify the existing highway toe drain and would not involve any works in the area shown for the proposed improvement. The final SoCG between the Applicant and NE confirms that it is agreed between the parties that the Development would not prevent the construction of the proposed improvement project. The Secretary of State is satisfied that the Development would not preclude or interfere with the construction of the River Avon improvement scheme.

5.45 The Secretary of State notes the SoCG between the Applicant and the EA which states "*The integrity of the River Till and River Avon SAC will not be significantly affected subject to the appropriate controls within the DCO application and any required environmental permits or licence*".

5.46 The Applicant did not identify the potential for in-combination effects from changes to groundwater levels or flows, beyond the potential relationship with the proposed River Avon improvement project (as noted above), and the Secretary of State is not aware of any other plans or projects likely to act in-combination to result in potential in-combination effects.

5.47 Having considered the Applicant's modelling and testing results, the representations of IPs and the design and mitigation measures proposed by the Applicant, the Secretary of State is satisfied that the measures described above are sufficiently secured by relevant provisions in the DCO such that reliance can be placed on them to conclude no AEoI to the River Avon SAC in respect of potential changes to groundwater levels and flow, including matters of potential phosphate release, both alone or in-combination with other plans or projects.

Invasive species

5.48 The Applicant's LSE Report did not identify LSE due to the risk of spreading invasive species during construction; however, the Secretary of State notes initial concerns of the EA with regards to the potential risk, and the reliance on measures to control the spread of invasive non-native species during construction. Invasive species is a pressure/ threat identified in the Site Improvement Plan for the SAC. Therefore, having regard to the People over Wind judgment, the Secretary of State has considered this potential effect in the appropriate assessment.

5.49 The Applicant's LSE Report concludes no LSE on the basis that there are none present in the section of the River Till SAC where works will take place and the contractor will implement control measures as necessary to prevent introduction or spread of invasive species in order to comply with the Wildlife and Countryside Act 1981.

5.50 Measures the Applicant includes in their final OEMP to control the spread of invasive non-native species comprise: PW-BIO1 (biosecurity); MW-BIO5 (biosecurity); and MW-BIO6 (invasive species). These include measures to be employed by the contractor such as toolbox talks, exclusion zones, method statements on suitable working practices, which will include but not be limited to the cleaning of equipment (including boots) and vehicles on and off site and between sites, vegetation clearance methods (such as treatments / timings) and the segregation of vegetation arisings, including suitable disposal methods. Measures PW-BIO1 and MW-BIO5 stipulate that the contractor shall be cognisant of the findings of any pre-works invasive non-native species floral survey and any ongoing management measures, and that should invasive non-native species be present within the works then an appropriate invasive Species Management Plan will be produced and in consultation with NE. Requirement 6 of the DCO secures the final pre-construction survey work prior to the commencement of the authorised development, which is required to reflect what is contained in the ES. ES Chapter 8 Biodiversity specifies invasive species surveys in the list of further ecological surveys to be undertaken prior to construction to update the baseline surveys.

5.51 The Applicant's LSE Report does not identify any other plans or projects likely to act in-combination with the Development in respect to the spread of invasive species and this was not disputed during the examination.

5.52 The Secretary of State acknowledges the agreement between the Applicant and the EA in respect of the management of invasive non-native species and the measures proposed. The Secretary of State notes that no other IPs, including NE, have disputed the Applicant's conclusion of no LSE.

5.53 The Secretary of State is confident that the measures proposed by the Applicant to identify and control the spread of invasive species, should they be identified, will be effective. With these measures in place the Secretary of State concludes that there would be no AEoI on the River Avon SAC as a result of the Development.

Noise and vibration during construction

5.54 The Applicant confirmed in response to the ExA's First Written Questions that no piling is proposed within the channels of the River Till or River Avon through the design of the Development. Within the OEMP, the Applicant has included a commitment to non-impact piling techniques within measure MW-BIO3. Measure MW-BIO3 includes ecological mitigation measures for the River Till, including that both the temporary bridge and the permanent foundations will not be located within 8m from the boundary of the River Till section of the River Avon SAC.

5.55 Measure MW-G9 (piling risk assessments) of the OEMP includes for the undertaking of environmental risk assessments if piling is proposed in the River Till Valley, which is to include considerations of environmental constraints as shown on the Environmental Constraints Plan (Annex A.1 to the OEMP) and in other measures, including MW-BIO3, D-N014 ("Piling at the Countess Junction shall be non-impact piling") and MW-WAT7 (control of

pollution to waterbodies). Measure D-BIO2 (River Till Viaduct) stipulates the design of the viaduct and that the locations of the piers and foundations shall be a minimum of 8m outside of the boundary of the River Till section of the River Avon SAC.

5.56 Requirement 4 of the DCO secures that the main works must be carried out in accordance with the OEMP, and the preliminary works must be carried out in accordance with the preliminary works OEMP. The OEMP is a certified document in Schedule 12 of the DCO. Requirement 4 also secures the production of the CEMPs.

5.57 The Applicant's LSE Report referred to the seasonal drying of the River Till and that noise and vibration would not affect fish at all when carried out during the dry period. However, the Secretary of State is not aware of any secured commitment to work in the dry period and therefore, this has not been relied upon in reaching the Secretary of State's conclusions. The Secretary of State notes the agreement of NE and the EA with respect to the area of River Till crossed by the Proposed Development does not have suitable spawning habitat for fish species, and as noted above, this stretch dries seasonally approximately three to six months per year over winter to spring.

5.58 The Applicant did not identify any plans or projects that could result in in-combination effects with the Development due to noise or vibration. Reviewing the information, the Secretary of State is satisfied that would be no additional effects from other plans or projects that could act in-combination with the Development to result in AEoI.

5.59 Having considered these measures, the Secretary of State is satisfied to conclude that they are sufficiently secured by relevant provisions in the DCO and with the implementation of such measures no AEoI are anticipated to the River Avon SAC, either alone or in-combination with other plans or projects.

Salisbury Plain SAC

Air quality effects – dust deposition during construction

5.60 The Applicant's LSE Report concludes at Table 3.2 that dust deposition during construction of the Development alone, in particular around the Winterbourne Stoke bypass, has the potential to result in LSE to the semi-natural dry grasslands and scrubland facies on calcareous substrates and Marsh fritillary butterfly qualifying features of the SAC.

5.61 The Development at the Winterbourne Stoke bypass will bring the A303 within 60m of the Parsonage Down SSSI component of Salisbury Plain SAC. The Applicant's SIAA Report identifies that dust deposition can have adverse effects on the calcareous grassland vegetation if uncontrolled, which would exacerbate the pressures 'changes in species distribution' identified on the Site Improvement Plan for the SAC.

5.62 The Applicant's conclusion in their SIAA Report is that AEoI to the Salisbury Plain SAC can be avoided with the implementation of "plainly established and uncontroversial" measures to control dust emissions and that a high level of confidence can be placed on this conclusion.

5.63 The measures to control dust emissions are included in the OEMP, specifically measures PW-AIR1, MW-AIR1, and MW-AIR2, and in ES Appendix 5.4: Construction Air Quality and Mitigation. The OEMP is a certified document to the DCO (at Schedule 12) and forms a framework document for the CEMPs to be subsequently produced for the Development by the contractor. The CEMPs

are secured by Requirement 4 of the DCO and, as specified in the aforementioned measures in the OEMP, dust management is proposed to managed in accordance with best practicable means, including the measures listed in the Institute of Air Quality Management (IAQM) Guidance[6] and in respect of "all high-risk site works close to sensitive receptors" further standard good practice measures and site-specific measures are to be employed, as set out in Appendix 5.4 of the ES. The CEMPs are secured by Requirement 4 of the DCO and the Secretary of State is the approving body, in consultation with those relevant bodies specified in the OEMP.

5.64 During the examination, NE confirmed at deadline 2 their satisfaction that the that the dust suppression measures set out in the OEMP would satisfactorily address any potential effects of dust deposition. No IP has disputed the Applicant's conclusion that the measures within the OEMP will be sufficient to conclude no AEoI to the Salisbury Plain SAC during construction.

5.65 The Applicant's SIAA does not identify any in-combination effects for this impact pathway and the Secretary of State notes this was not disputed by IPs during the examination.

5.66 The Secretary of State considers that the proposed measures are sufficient and has confidence that there would be no AEoI to the Salisbury Plain SAC as a result of the Development, either alone or in-combination with other plans or projects.

Salisbury Plain SPA

Loss of stone curlew breeding plot

5.67 The Applicant's SIAA Report considers the direct loss of a successful stone curlew breeding plot located immediately south of Parsonage Down as a result of the construction of the Development. This breeding plot lies within the Development boundary in the area for the Winterbourne Stoke bypass, but outside of the SPA boundary. The location of the existing plot is shown on the confidential figure provided to the examination at deadline 2 within "Document 8.58 – Stone curlew breeding plot specification" (hereafter referred as the "stone curlew breeding plot specification"). The Applicant identifies that although this plot is outside the SPA, it is used by the same population of stone curlew that nest within the SPA and a net reduction in the number of successful stone curlew plots will result in a net reduction in breeding opportunities for the species, which could affect the ability of Salisbury Plain SPA to achieve its conservation objectives.

5.68 The Applicant identifies, in agreement with NE and RSPB, that to address the loss of the breeding plot, a replacement plot will be created prior to the loss of the existing plot ensuring no net loss of breeding plots in the Salisbury Plain area. The Secretary of State is aware that the Applicant is also proposing to provide a total of four breeding plots for stone curlew, of which one represents the replacement stone curlew breeding plot and will be provided at Parsonage Down. This plot constitutes the measure to address the direct loss of the existing stone curlew breeding plot. This replacement breeding plot has therefore been considered under the effect of loss of breeding plots here. The additional three breeding plots are provided on a more precautionary basis

[6] Institute of Air Quality Management. 2014. Guidance on the Assessment of Dust from Demolition and Construction. Accessed at http://www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf

and are discussed in relation to recreational displacement in-combination below.

5.69 The Applicant proposes the creation of the replacement stone curlew breeding plot, at Parsonage Down, which is located outside of the SPA but within the boundary of the Salisbury Plain SAC, approximately 500m from the existing plot and at a greater distance from the Development. The location of the proposed replacement plot and the existing stone curlew plot to be lost to the Development are shown on confidential ES Figure 8.11 ("Document 8.10.7.1 Ec.1.17 iii Confidential Appendix ES Figure 8.11 Schedule 1 Annex 1").

5.70 Specific management measures for the replacement plot are included in the stone curlew breeding plot specification, which is a certified document in Schedule 12 of the DCO. The Applicant's SIAA Report describes that "the breeding plot will be 1.2ha in area to allow for a surrounding fence and a long grass margin. The fence will be fitted with predator-resistant electric wire in addition to spikes to stop crows and other corvid predators using the posts as perches." The stone curlew breeding plot specification states that it is anticipated that the replacement stone curlew breeding plot will be provided as "scraped plots", but that "fallow plots" could be provided in the instance where this is not practicable. The specification and management requirements for both plot types are set out in sections 3 and 4 of that document. It also includes reference to fencing, as applicable.

5.71 Reference to the creation of the replacement stone curlew plot is also included at measure PW-BI05 of the OEMP, together with monitoring of the newly created nesting plot and measures to deter the use of the Development by stone curlew (see disturbance effects below). Measure MW-BIO8 also includes reference to monitoring of the newly created nesting plot and measures to deter the use of the Development by stone curlew during the main works.

5.72 The creation of the replacement plot is secured by Requirement 12 of the DCO, with reference to the stone curlew breeding plot specification. The Secretary of State issued a consultation on revised wording to Requirement 12 on 4 May 2020, following the close of examination. Requirement 12(1), (2) and (5) specifically relate to the proposed replacement breeding plot at Parsonage Down and secures that no part of the preliminary works shall begin until the undertaker (Highways England) has submitted written details to the Secretary of State demonstrating that the land has been secured for the replacement stone curlew breeding plot, including details of the regime of management measures. This is subject to approval by the Secretary of State following consultation with NE. The Requirement ensures that the undertaker must provide the replacement stone curlew breeding plot prior to the beginning of any works to remove the existing stone curlew breeding plot. The replacement stone curlew breeding plot must also be maintained in accordance with the approved written details. Requirement 12 requires that selection of land, management, and duration/timings are in accordance with the stone curlew breeding plot specification, which is certified in Schedule 12 of the DCO.

5.73 The Secretary of State notes that the proposed location for the replacement breeding plot lies outside the DCO boundary within Parsonage Down NNR, and that the final SoCG between the Applicant and NE records that a s253 agreement under the Highways Act 1980 is being progressed with the landowner.

5.74 In any event, Requirement 12(1)(a)(i) specifies that the Applicant must submit to the Secretary of State for approval, and prior to commencement of preliminary works, details demonstrating how the Applicant has secured "*land to ensure the provision of the replacement stone curlew breeding plot*" and, in 12(1)(a)(ii), "*a regime of management measures substantially in accordance with the stone curlew breeding plot specification*".

5.75 The stone curlew breeding plot specification also refers to the annual management of the replacement stone curlew breeding plot, including an agreement that it be maintained for a minimum period of 15 years from the date it is put in place (see paragraph 5.1 of that document). The final SoCG between the Applicant and NE also states that it is agreed that "*The stone curlew mitigation breeding plot at Parsonage Down will be managed by Natural England for 10 years post construction, 15 years total.*" and as noted above, states that a s253 legal agreement is currently being progressed to secure the delivery of this plot. Requirement 12 of the DCO at 12(1)(a)(ii) requires written details to include "*…a regime of management measures substantially in accordance with those contained in the stone curlew breeding plot specification*" and at 12(2)(b) that the undertaker must "*maintain the replacement stone curlew breeding plot, in accordance with the details approved by the Secretary of State under sub-paragraph (1)(b).*"

5.76 The Secretary of State is confident that Requirement 12 secures the appropriate management of the replacement stone curlew breeding plot and concurs with the view of NE that the management of stone curlew plots is a relatively simple measure to implement.

5.77 The final SoCG between the Applicant and NE and between the Applicant and RSPB record both parties are satisfied with the mitigation measures proposed for the likely loss of a historically active stone curlew breeding plot, together with the siting of the replacement plot at Parsonage Down. NE also confirmed that the specifications of the replacement stone curlew plot and fencing have been agreed.

5.78 As noted above, the Secretary of State issued a consultation on the wording of Requirement 12 on 4 May 2020. In response to the consultation, NE and WC confirmed their agreement to the revised wording. The Applicant also confirmed they are content for Requirement 12 in Schedule 2 to the draft DCO to be amended to reflect the drafting proposed by the Secretary of State.

5.79 The Stonehenge Alliance responded to the Secretary of State's consultation of 4 May 2020 stating, with reference to potential disturbance associated with recreation during operation and construction disturbance to stone curlew already nesting and feeding in areas closer than the RSPB reserve from the time that preliminary works begin, that "*…It is therefore <u>at least</u> essential in our view that all new Stone curlew plots are in place and in operation before Scheme construction begins. There is no assurance in the Draft DCO that this would be the case*". Stonehenge Alliance also state that "*Furthermore, it is our understanding that at the present time, not all of the additional Stone curlew plots have been secured: we would expect that, should the DCO be granted, it would be on condition that all such plots are secured and will be in operation before any preliminary work begin*". Matters of recreational disturbance effects are discussed below.

5.80 The Secretary of State is aware that the replacement breeding plot will be located in the Salisbury Plain SAC and this has been considered in Section 4 above. As noted above, the Secretary of State is satisfied that there would be

no LSE to the SAC as a result of the proposed replacement stone curlew breeding plot.

5.81 The measures proposed including the replacement plot and appropriate management, secured through DCO Requirement 12 together with relevant measures included in the OEMP, are sufficient to conclude there would be no AEoI on the stone curlew population of the Salisbury Plain SPA.

Non-recreational disturbance to stone curlew during construction

5.82 The Applicant's LSE Report and SIAA Report identified the potential for LSE associated with construction activity/personnel disturbance of breeding stone curlew using the identified and affected breeding plot at Parsonage Down prior to its removal (see loss of breeding plots above).

5.83 The Applicant's SIAA Report identified that effects of disturbance could occur from any construction works within 500m of stone curlew nesting plots that take place during the breeding season and which represent a level of activity that exceeds the current levels to which those plots are exposed. The Applicant identifies that the only location where such disturbance could occur is when the single existing plot north of the A303 at Parsonage Down is to be removed. The Applicant's SIAA Report describes that distance, landform, existing background activity, and the location of the new A303 at greater distance, would avoid disturbance to other known stone curlew plots, including at the Normanton Down RSPB reserve. Appendix A to the HRA Clarification Technical Note also expands on the rationale for the Applicant's screening out of disturbance effects to breeding plots at Normanton Down RSPB reserve and to the stone curlew breeding plot south-west of Winterbourne Stoke (also screened out of effect in the Applicant's SIAA Report).

5.84 It is noted that the final SoCG between the Applicant and NE records NE's agreement that the "*justification as to why no adverse effects are envisaged on the stone curlew breeding plot to the south-west of Winterbourne Stoke appears reasonable*".

5.85 Measures are proposed in the form of the replacement plot to be created in advance of construction (as discussed above) and following this, the making of the existing plot unsuitable to discourage any attempt at breeding that would subsequently expose stone curlew to disturbance during construction. The replacement plot is secured by Requirement 12 of the DCO. Requirement 12(2)(a) of the DCO specifies that the replacement stone curlew breeding plot is to be provided prior to the beginning of any works to remove the existing stone curlew breeding plot. Measures to deter stone curlew from nesting within, or within close proximity to the Development are secured by OEMP measure PW-BIO5 for the preliminary works, which also includes reference to the replacement plot, and MW-BIO8 for the main works.

5.86 The Applicant's SIAA Report refers to measures ensuring that the clearance of the existing stone curlew plot to be lost to the Development takes place outside the stone curlew breeding season of March to August and that the replacement plot is ready for use by stone curlew by the breeding season at the start of construction, as discussed above. The OEMP at PW-BIO5 includes measures in respect of Schedule 1/Annex 1 breeding birds, ensuring that any Schedule 1/Annex 1 species or its dependent young must not be disturbed while at or building a nest. It also includes measures specifically for stone curlew disturbance and the replacement breeding plot.

5.87 Measure MW-BIO8 includes proposed measures to deter stone curlews from nesting within, or in proximity of the Development prior to the commencement of works and that deterrent measures are proposed to be employed prior to the breeding season (March to August) to deter prospecting pairs. The Applicant acknowledges the risk that even with deterrent measures, stone curlew may still choose to nest within the Development boundary. MW-BIO8 also includes for liaison with NE and RSPB in the event that nesting stone curlews are found within the plots established as part of Development, within the Development boundary, or are recorded within 500m of the works area, with the aim to identify and agree the specific and appropriate measures and monitoring to be undertaken to avoid disturbance of the nesting pair.

5.88 Requirement 12(2) of the DCO ensures that the replacement stone curlew breeding plot is in place prior to the beginning of any works to remove the existing stone curlew breeding plot. NE will be consulted in respect of Requirement 12 and for those aspects of the preliminary works (and preliminary works CEMP) that are relevant to their roles and responsibilities (measure PW-G1 of the OEMP), together with those aspects of the main works and main works CEMPs relevant to their roles and responsibilities (measure MW-G5 of the OEMP).

5.89 In addition, the Applicant's SIAA Report states that all construction staff working within 500m of the plot will also be given a toolbox talk regarding the sensitivity of stone curlew. Although it does not specifically refer to stone curlew, measure MW-G18 of the OEMP secures the delivery of toolbox talks and training on environmental obligations. Table 2.1 of the OEMP also identifies that all site staff are to receive general environmental awareness training and undertake work in accordance with all works Method Statements and toolbox talks. As noted above, PW-BIO5 and MW-BIO8 include measures to deter nesting stone curlew from nesting within or in close proximity to the Development and/or also ensure disturbing activities are avoided within 500m of a stone curlew nesting site.

5.90 The final SoCG between the Applicant and the RSPB, dated 25 September 2019, records in respect of construction mitigation that it is agreed "*indirect disturbance impacts on breeding stone curlew can be avoided with the implementation of suitable working practices during the construction phase*".

5.91 The Secretary of State is content that the necessary measures are secured through the OEMP and DCO Requirements and on that basis an AEoI can be excluded in respect of non-recreational disturbance to stone curlew during construction of the Development.

Recreational pressure – in-combination effects

5.92 The Applicant's LSE and SIAA Reports identify that the operation of the A303 may facilitate recreational disturbance of stone curlew at Normanton Down. This is due to the placement of the A303 in a tunnel at this location, which will open the area to recreational activity (as the existing A303 currently acts as a barrier between Normanton Down and the WHS), potentially resulting in recreational users on the footpath through Normanton Down crossing the existing fence-line and disturbing the stone curlew plots. Stone curlew are known to be highly vulnerable to disturbance by walkers and dogs.

5.93 The Applicant's SIAA Report states that the Development would not provide unrestricted access to farmland south of the A303 and public access is expected to continue to be on the existing byways. However, this increased

tourism could operate in-combination with an increase in the local population due to housing growth (such as that set out in the Wiltshire Core Strategy) and its associated increase in local recreational use of PRoW to increase the risk of disturbance of some stone curlew plots in the area. The report identifies that "*if the number of disturbing events increases above the threshold of tolerance of individual pairs of stone curlews, then in combination, this may result in greater long-term disturbance on breeding stone curlew and an indirect adverse permanent effect on nesting success locally.*"

5.94 As mitigation, the Applicant initially agreed the provision of an additional stone curlew breeding plot to be located on the RSPB's reserve at Winterbourne Down. This plot would be provided prior to the closure to traffic of the existing A303 route at Normanton Down. Confidential figure ES Figure 11.8 submitted at deadline 2 shows the indicative location of the additional stone curlew breeding plot to be provided within the RSPB reserve at Winterbourne Down. The Applicant's SIAA Report states that there is a high degree of confidence that the additional stone curlew plot will be utilised, as it "*to be provided in a suitable area on suitable soil close to an existing plot that has been regularly used by stone curlew, and the plot will be designed and delivered in conjunction with RSPB in an manner that has been successful with the other plots around the Salisbury Plain area. RSPB has agreed to maintain this plot.*"

5.95 The Applicant's SIAA Report considers that as a precautionary measure the improvement in the nesting opportunities available in this location would ensure no adverse effect on the integrity (structure and function) of the SPA, even if there was some disturbance post-construction at Normanton Down.

5.96 The Secretary of State notes the ExA's questioning and representations made on the matter of recreational effects and proposed mitigation by the Applicant and IPs. Reference was made to the current fencing and signs at Normanton Down (and potentially enhanced fencing) to deter users of the byway from entering on to Normanton Down; however, the Applicant clarified that this was not relied upon for their conclusions in the Applicant's SIAA Report, and this has similarly not been relied upon in the Secretary of State's appropriate assessment here.

5.97 During the examination, discussion was also held in respect of using monitoring and 'trigger points' to determine effective mitigation for the purposes of the HRA; however, at deadline 6 it was confirmed by the Applicant that this approach was not being pursued and the Applicant intends to provide a further two additional stone curlew breeding plots. Thus, a total of three "additional stone curlew breeding plots" are now proposed, together with the "replacement stone curlew breeding plot" described for loss of breeding plots above. NE and RSPB's responses at deadline 6 demonstrated they were content with the Applicant's proposal for two additional plots.

5.98 The likely location of the two additional stone curlew breeding plots is not yet confirmed. However, to support and determine the location of the additional stone curlew breeding plots, the Applicant also provided the stone curlew plot sift document at deadline 6 (also included as Appendix 1 to HRA Clarification Technical Note). The stone curlew plot sift document describes the rationale, method and desk study applied to determine the location of the two additional stone curlew breeding plots. The Applicant agreed with NE and RSPB that the additional plots should be located within the SPA+5km zone and preferably within 5km of the Development. The sift document identifies that using a three stage plot search that a total of approximately 18.44km2 (1,844ha) of land with potential for the two additional stone curlew plots to be located, within

5km of the Development and within 5km of the SPA inclusive (noting that each plot requires 2ha).

5.99 The Secretary of State is satisfied the stone curlew plot sift document provides sufficient certainty that the additional plots can be delivered within the framework of parameters and management measures set out in that document. There appears to be an abundance of available land in which the additional plots could be sited that would meet the necessary criteria and specifications as set out in the stone curlew plot sift document. In addition, the Secretary of State is confident that the practice of providing replacement plots for stone curlew is an effective and reliable form of mitigation, which has been applied successfully in the area for many years. The Secretary of State concurs with the position of the Applicant, that the stone curlew breeding plot specification are "*based upon the best scientific research available in the field and informed by techniques of proven and demonstrable success in increasing the stone curlew breeding population in and around the Salisbury Plain SPA*", and have been developed in agreement with NE and the RSPB.

5.100 The Secretary of State is also confident, as supported by NE, that the management of the stone curlew plots is relatively simple to implement. NE describe the management measures in their response at deadline 2 to the ExA's First Written Questions as in essence, controlling any excessive vegetation on the plot using the stock on the holding outside of the breeding season.

5.101 The Applicant identifies in the stone curlew plot sift that its commitment to the additional two plots, as a precautionary approach, will increase the confidence that any in-combination recreational disturbance impacts would not result in a net loss of stone curlew nesting opportunities. This is also stated to be agreed in the final SoCG between the Applicant and NE and the Applicant and RSPB.

5.102 At deadline 6, the RSPB additionally commented that these additional plots should be secured in the DCO. The Stonehenge Alliance also expressed concern at deadline 7 with regards to the certainty that these plots would be delivered in the absence of the inclusion of the plots in the DCO.

5.103 It is likely that these two additional plots will be located outside of the DCO boundary and as such, will require landowner agreement. The Applicant expressed an aim to secure final landowner agreements by the close of the examination; however, in the Applicant's closing submission (Document 8.70 – Closing Submission" dated 2 October 2019) an update was provided on the landowner negotiations stating that "…*despite advanced negotiations with landowners, this has not been possible at the time of writing of this Closing Submission. As such, in the response submitted at Deadline 9 [REP9-031] to the Examining Authority's Rule 17 request dated 3 September 2019 [PD-017] the Applicant has included a requirement in the latest version of the dDCO (Requirement 12) which secures the provision and maintenance of the stone curlew breeding plots by reference to the specification referred to above (a certified document). The Secretary of State is required to certify their satisfaction with the proposed plots prior to their provision.*"

5.104 As quoted above, the Applicant included towards the end of the examination at deadline 9 an additional Requirement (Requirement 12) in the draft DCO to secure the delivery of both the replacement stone curlew breeding plot and the three additional stone curlew breeding plots. In addition, the Applicant submitted the stone curlew breeding plot specification document, as referenced in Requirement 12.

5.105 The stone curlew breeding plot specification includes reference to the suitability criteria requirements as included in the stone curlew breeding sift and also describes at Section 4 that it is anticipated that "*one of the additional stone curlew breeding plots will be provided as scraped plots (however, should it not be practicable to provide a scraped plot for these purposes, a fallow plot could be provided instead)"* and that *"For the remaining two additional stone curlew breeding plots, should it not be practicable to provide a fallow plot location (as described above) then it would be suitable to provide a scraped breeding plot.*"

5.106 The proposed wording of Requirement 12 has been the subject to further consultation by the Secretary of State after the close of examination. Requirement 12(3), (4) and (5) are specific to the additional stone curlew breeding plots, and state that no part of the authorised development may commence until the undertaker has submitted written details demonstrating the land for the additional stone curlew plot has been secured and in relation to those plots, a regime of management measures and timetable for their implementation. This is to be approved by the Secretary of State following consultation with NE. Requirement 12 also states that the undertaker must provide and maintain the additional stone curlew plots in accordance with the approved timetable and details.

5.107 In response to the Secretary of State's consultation, NE and WC confirmed agreement to the revised wording. The Applicant also confirmed they are content for Requirement 12 in Schedule 2 to the draft DCO to be amended to reflect the drafting proposed by the Secretary of State.

5.108 The Stonehenge Alliance responded to the consultation stating, with reference to potential disturbance associated with recreation during operation and construction disturbance to stone curlew already nesting and feeding in areas closer than the RSPB reserve from the time that preliminary works begin, that "…*It is therefore <u>at least</u> essential in our view that all new Stone curlew plots are in place and in operation before Scheme construction begins. There is no assurance in the Draft DCO that this would be the case*". Stonehenge Alliance also state that "*Furthermore, it is our understanding that at the present time, not all of the additional Stone curlew plots have been secured: we would expect that, should the DCO be granted, it would be on condition that all such plots are secured and will be in operation before any preliminary work begin*".

5.109 The Secretary of State is satisfied that Requirement 12 ensures that no part of the authorised Development can commence until the undertaker (Highways England) has provided written details demonstrating that it has secured the land for the additional stone curlew breeding plots and details of the management and timetable for implementation of the plots, and that this is required to be approved by the Secretary of State in consultation with NE.

5.110 As the provision of the "additional stone curlew breeding plots" is for the purposes of mitigating potential recreational impacts, including in-combination effects, and ensuring the maintenance or restoration of the stone curlew population of the SPA, the Secretary of State is content that the additional stone curlew breeding plots do not need to be in place and available to the stone curlew prior to works commencing to reach a conclusion of no AEoI of the SPA. Noting, as above, that the details of the management, including timetable, and the land will be provided and approved prior to the commencement of the authorised works, the Secretary of State considers it acceptable that the additional stone curlew breeding plots be in place and available following the opening of the Development, as stated in the stone

curlew breeding plot specification certified document, which is linked to Requirement 12 of the DCO. Whilst the timetable for the additional stone curlew breeding plots is not explicitly fixed by the DCO, the Secretary of State is responsible for approving the timetable in consultation with NE.

5.111 The Secretary of State is confident that the measures proposed are effective, reliable and proven methods. The Secretary of State is satisfied that Requirement 12 of the DCO secures the measures providing certainty beyond reasonable scientific doubt that there would be no loss of breeding opportunities for the stone curlew population of the Salisbury Plain SPA, as a result of a potential increase in recreational disturbance should it arise from the Development alone (due to the removal and downgrading of the existing A303), or in-combination with other plans or projects.

6. HRA CONCLUSIONS

6.1 As the competent authority for Transport NSIPs as defined under the PA2008, the Secretary of State for Transport has undertaken an appropriate assessment under Regulation 63 of the Habitats Regulations in relation to the following European sites:

- River Avon SAC;
- Salisbury Plain SAC; and
- Salisbury Plain SPA.

6.2 The Secretary of State is satisfied that, given the relative scale and magnitude of the identified effects on the qualifying features of these European sites and where relevant, the measures in place to avoid and reduce the potential harmful effects, there would not be any implications for the achievement of the conservation objectives for those European sites. Those conservation objectives are set out in Annex 2 of this HRA Report.

6.3 Based on the submissions to the examination as summarised in the ExA's RIES and Recommendation Report, together with the further consultations undertaken by the Secretary of State after the close of examination, the Secretary of State is satisfied that the views of NE as the appropriate nature conservation body have been considered and that they are in agreement with the scope and conclusions of the Applicant's HRA.

6.4 The Secretary of State concludes that the Development would not result in any adverse effects on integrity of any of the qualifying features for which the River Avon SAC, Salisbury Plain SAC, and Salisbury Plain SPA are designated, either alone or in combination with other plans and projects.

Annex 1 Documents used to inform this HRA Report

Application Documents

- A303 Amesbury to Berwick Down Environmental Statement (including supporting figures and appendices) (Documents 6.1 to 6.4)
- Appendix 8.24: Habitat Regulations Assessment (HRA) Likely Significant Effects Report
- Appendix 8.25 – Habitat Regulations Assessment (HRA) Statement to Inform Appropriate Assessment
- Appendix 2.2 – Outline Environmental Management Plan (updated during the course of the examination)

Examination Documents produced by Applicant

- Statement of Common Ground between Highways England and Natural England
- Statement of Common Ground between Highways England and the Environment Agency
- Statement of Common Ground between Highways England and Wiltshire Council
- Statement of Common Ground between Highways England and the Royal Society for Protection of Birds
- Response to the ExA's First Written Questions
- Response to the ExA's Second Written Questions
- Response to the ExA's Request for Further Information
- Additional Submission: Environmental Masterplan - Figure A to S Revision 2
- Additional Submission 4: A drawing showing all six European sites identified in the Habitats Regulation Assessment reports
- Document 8.23: Implications of 2018 Ground Investigations to the Groundwater Risk Assessment
- Document 8.24: Groundwater Monitoring 2018-19, Conceptual Model Review
- Document 8.25: Supplementary Groundwater Model Runs to Annex 1 Numerical Model Report
- Document 8.43 Habitat Regulations Screening Assessment Clarification Note – Stone curlew plot sift (at deadline 6, and also appended to final SoCG with NE)
- Document 8.45 – Errata Report (deadline 7)
- Document 8.58 – Stone curlew breeding plot specification (deadline 9)

Examination Documents produced by Interested Parties

- Submissions of Natural England
- Submissions of the Environment Agency
- Submissions of Wiltshire Council
- Submissions of the Royal Society for Protection of Birds
- Submissions of Stonehenge Alliance
- Submissions of M&R Hosier

ExA Procedural Decisions

- Report on the Implications for European Sites Proposed A303 Amesbury to Berwick Down ('A303 Stonehenge')
- ExA's First Written Questions
- ExA's Second Written Questions
- ExA's Requests for Further Information under Rule 17 of The Infrastructure Planning (Examination Procedure) Rules 2010

Submissions after close of examination

- Natural England's responses to Secretary of State consultation
- Wiltshire Council's response to Secretary of State consultation
- Stonehenge Alliance's responses to Secretary of State consultation
- Highways England's response to Secretary of State consultation cover letter
- Highways England Document 6.3 (8) Final Outline Environmental Management Plan - Revised response to Department for Transport request for further information, May 2020
- Highways England Additional submission: Location of Environmental Statement (ES) documents and ES documents that have been corrected, replaced, or added to since submission of the application, August 2020

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

Annex 2 Conservation Objectives

Available from:
http://publications.naturalengland.org.uk/category/6490068894089216

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

River Avon SAC (UK0013016)

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species; and,
- The distribution of qualifying species within the site.

Salisbury Plain SAC (UK0012683)

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

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

Salisbury Plain SPA (UK9011102)

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

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;
- The supporting processes on which the habitats of the qualifying features rely;
- The population of each of the qualifying features; and
- The distribution of the qualifying features within the site.