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BY EMAIL ONLY

Dear Sir/Madam,

The Planning Act 2008 – Section 89 and The Infrastructure Planning (Examination Procedure) Rules 2010 – Rule 8, Rule 13 and Rule 16

Application by Highways England for an Order Granting Development Consent for the A303 Amesbury to Berwick Down

Thank you for your consultation on the above dated 11 April 2019. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

The Examining Authority's first Written Questions and requests for information (ExQ1)

Responses to the specific questions raised are set out in the annex to this letter.

Final Written Representations on the DCO application

Summary position

Broadly speaking, Natural England is supportive of the application with regards to its impacts on biodiversity, subject to passing the tests of the Habitats Regulations, and comments below. It seems reasonable to conclude that the scheme will deliver net gain for biodiversity, given the generally low value of the habitats being destroyed, and the large extent of high value habitat being created, and their large extent. Moreover the habitat creation proposed will provide significant linear habitat connectivity. However the DCO documentation does not present this information as per the Chief Highway Engineer Memorandum 422/18 *Supporting Transparency around our Biodiversity Performance* and so we are unable to draw a robust conclusion around the net impact on biodiversity net gain.

We have not scrutinised the application closely with respect to its landscape impacts, as it does not impact on a protected landscape, and we feel that other parties can advise more meaningfully on the landscape impacts of the scheme.

We have not scrutinised the application closely with respect to its impacts on people's access to the countryside, although at the level we have looked at it, it would appear to be beneficial.

Chalk habitat creation

The embankments, cuttings and other areas proposed as species rich chalk grassland, if

appropriately established and managed, have the potential to become a superb mosaic of priority habitats, important not only for the area of new habitat created, but also for the habitat connectivity provided. Collectively, a number of local wildlife organisations have aspirations to link Salisbury Plain (probably the world's largest expanse of species rich chalk grassland), to Porton Down (a very significant area of species rich chalk grassland). The habitat creation in this application will go a long way to realising this ambition, and in itself will link Salisbury Plain, via Parsonage Down, to the cluster of chalk grassland habitats around Stonehenge itself. For more information see the attached "Porton to Plain" project report. This begins to establish a coherent ecological network (c.f. NPPF para 170) in this area.

However, we have a number of concerns with respect to detail of these areas within the DCO application.

First, we had hoped that the DCO would include infrastructure to allow grazing animals (most likely sheep) to be used for vegetation management on the larger areas of embankments and cuttings. This would deliver ecologically (and most likely financially) better outcomes compared to mechanical management options, without compromising road safety. Mechanical management tends to produce a far more homogeneous habitat lacking in the micro habitats that are essential for many species. However, we note that there does not appear to be any fencing included between the road and these areas, nor any provision of water infrastructure. We advise that designing the scheme so that can be used where areas are reasonably large would deliver ecologically and financially beneficial outcomes compared to other management options. Retro fitting such infrastructure would be impracticable.

Secondly, we note that the Environmental masterplan includes numerous areas of shrub planting. These are liable to become management liabilities requiring expenditure on scrub control much greater than if left unplanted and likely to be detrimental in the long term to biodiversity. We are not clear what the purpose of planting these areas is, and advise each area is only retained if there is a good reason to do so.

Third, we advise that the PROW and PMA route west of Green Bridge One is separated from the species rich chalk grassland to the north. Lack of fencing is likely to cause significant difficulties due to conflict between dogs (and their owners) and any stock management.

Please also see "Construction Impacts" in the annex.

Green Bridges

We welcome the use of green bridges as part of the project. As with the embankments and cuttings, they will help achieve defragmentation of the landscape for wildlife, allowing species that are functionally impeded by the existing road to move through the landscape more readily. They will also make the landscape more permeable for people. In particular, we are keen to make Parsonage Down National Nature Reserve more accessible to the wider public, and so the provision of a circular walking route from Winterbourne Stoke via Green Bridge 1 is especially welcome.

Hedgerows

We advise that, unless there is a good reason, hedges should be used to separate arable land from species rich chalk grassland, as this will help reduce spray drift onto the grassland, and provide a valuable habitat in its own right. These benefits will outweigh the negative effect of encouraging the spread of scrub onto the species rich chalk grassland, provided the species mix for the hedge does not include rapidly spreading species such as dogwood or blackthorn. These should be excluded from the planting mix. On this basis, it would appear that there are additional locations where hedgerow planting may be beneficial.

We also advise that there is an opportunity to manage hedgerows that come into temporary ownership of Highways England during the construction period. A number of these are in very poor ecological condition (lacking thick woody cover at the base of the hedge). The scheme presents a great opportunity to coppice and or gap up these hedges, and leave them in a much better condition.

Woodland creation

Whilst early successional chalk habitats are the primary ecological aspiration from the scheme, the modest levels of woodland creation provide useful landscaping and are not without their ecological benefits in terms of habitat diversity in general and for key bat species in particular.

Provision for bats

The ES para 8.9.153 identifies the key commuting routes impacted (for the most significant species, barbastelle):

The connective feature between Scotland Lodge and Parsonage Down. We advise that all efforts are made to discourage bats from using the original crossing point at a height level likely to result in mortality, but rather to cross at a safe height or use green bridge 1. More detail should be provided as to what has been considered, what has been discounted and why, and how effective the proposed measures are likely to be. The overall impact on bats will be influenced by the timings of mitigation. We advise that, to minimise impacts on bats, mitigation planting should occur, and be functionally effective, prior to the severance of flight paths.

The footpath adjacent to the River Till. This route is unlikely to be impacted upon as the road will be elevated.

The underpass at Vespasian's Camp. The area between and including this underpass and the eastern cut and cover should be designed to encourage bats to cross over the cut and cover area. Additional planting in this area should be considered to achieve this. As above, the overall impact on bats will be influenced by the timings of mitigation. We advise that mitigation planting should occur, and be functionally effective, prior to the severance of flight paths.

Community engagement

The scheme may provide excellent opportunities to involve volunteers in delivering some of the natural environment aspects of the scheme. Natural England are discussing with Highways England how opportunities to do this can be realised, potentially within the Community Liaison section of the future CEMP.

Habitats Regulation Assessment

Natural England is having ongoing discussions with Highways England around this, and will be dealt with outside this representation.

Charles Routh

Team leader – Wiltshire Conservation Team, Somerset, Avon and Wiltshire Area Team, Natural England. [REDACTED]

Annex – Response to the Examining Authority’s first Written Questions and requests for information (ExQ1)

<p>Applicant Natural England Wiltshire Council</p>	<p>Cumulative and in-combination assessments</p> <p>The ExA notes the separate legislative requirements for EIA cumulative assessment and HRA in-combination assessment.</p> <ul style="list-style-type: none"> i. Can the Applicant explain why the list of plans and projects presented in sections 2.4 of the Likely Significant Effects report [APP-265] and 3.4 of the Statement to Inform Appropriate Assessment [APP-266] makes no references to the consideration of ‘other developments’ with the potential for cumulative impacts as presented in section 15.2.20 of ES Chapter 15 [APP-053]. ii. Can the Applicant confirm that there are no pathways for in-combination effects between these projects identified in [APP-053] and the Proposed Development? iii. Can NE and Wiltshire Council comment on their satisfaction with the scope of the plans and projects identified for the purposes of the in-combination assessment as presented in sections 2.4 and 3.4 of [APP-265] and [APP-266] respectively? 	<p>Natural England is satisfied with the scope of the plans and projects identified for the purposes of the HRA in-combination assessment.</p>
<p>Applicant Natural England RSPB Environment Agency</p>	<p>Green Bridges</p> <p>Para 8.8.5 of the ES refers to the use of Green Bridges to provide sheltered crossing features to reduce mortality and improve connectivity to existing habitat features to aid crossing by bats and other species. These are supplemented by having the Scheme in cutting for much of its length and by the provision of false cuttings, typically two metres or</p>	<p>We do not normally assess development proposals for impacts on protected species outside of designated sites.</p>

	<p>more in height, to encourage birds and bats to fly over the height of most vehicles.</p> <ul style="list-style-type: none"> i. Is the width and design of the proposed Green Bridges sufficient to have a material effect in achieving this objective? ii. Are there additional design features that could be incorporated to increase the effectiveness of the Green Bridges in this regard? iii. How does the proposed scheme compare with the status quo in terms of fragmentation of habitats and potential for species mortality? 	
Applicant Natural England	<p>Mammal underpasses</p> <p>With regard to para 8.8.8 [APP-046] what evidence is there of features such as mammal underpasses being used by relevant species to maintain connectivity with foraging areas?</p>	We do not normally assess development proposals for impacts on protected species outside of designated sites.
Applicant Natural England	<p>Bat hibernation features</p> <p>How would the bat hibernation features (para 8.8.9 [APP-046] effectively compensate for the loss of the underpass near the eastern portal?</p>	We do not normally assess development proposals for impacts on protected species outside of designated sites.
Applicant Natural England	<p>Water environment</p> <p>The strategy for managing surface water run-off referred to in paragraph 8.8.13 appears to be of some importance to maintenance of the health of watercourses and groundwater, particularly the Rivers Till and Avon catchments.</p> <ul style="list-style-type: none"> i. How will these proposals be secured through the DCO? 	For all of these questions we feel that the applicant is better placed than Natural England to advise.

	<ul style="list-style-type: none"> ii. What proposals have been included for the monitoring of water quality during the construction and operation of the scheme? iii. How would the proposed scheme perform in terms of water quality in comparison with the status quo? iv. Will the works at the eastern end of the scheme which affect the River Avon catchment be accompanied by measures to improve the quality of existing run-off through the provisions of the drainage strategy [APP-281] and if so, where is that set out? 	
<p>Natural England RSPB Environment Agency</p>	<p>Habitat creation</p> <p>Do you agree that the proposed habitat creation east of Parsonage Down would be an effective means of complementing and enhancing the existing National Nature Reserve and improving connectivity of new and existing habitats along the length of the scheme?</p>	<p>Yes. Parsonage Down National Nature Reserve (NNR) is a very high quality, but relatively homogeneous, area of calcareous grassland. To increase its habitat diversity would adversely affect the special features for which it has been designated. To create an area of much more diverse habitat immediately adjacent to it would achieve greater habitat diversity without compromising the existing quality of the NNR. Thus it would be a highly effective means of complementing and enhancing the existing National Nature Reserve.</p> <p>Being non-linear, it would provide only modest improvements in connectivity between Parsonage Down and the other habitat creation along the scheme, but we anticipate it would act as a “pump” for the various invertebrate species we hope will colonise the other habitats created along the scheme.</p>
<p>Natural England</p>	<p>Construction impacts</p>	<ul style="list-style-type: none"> i. We see no reason why the construction mitigation measures proposed in paragraph 8.8.25 of the ES can't be satisfactorily

<p>RSPB Environment Agency</p>	<ul style="list-style-type: none"> i. Are you satisfied that the construction mitigation measures proposed in paragraph 8.8.25 of the ES can be satisfactorily secured through the draft OEMP? ii. Are there any other measures which should be included in the OEMP? 	<p>secured through the draft OLEMP.</p> <ul style="list-style-type: none"> ii. There are a number of detailed points around the OLEMP which Natural England believes, if addressed, would improve the biodiversity outcomes from the scheme: <ul style="list-style-type: none"> a) A high level aspiration for the chalk grassland habitat is to achieve high levels of habitat heterogeneity. The specifications in the OLEMP seem likely to achieve low heterogeneity, due to uniform prescriptions for seed bed preparation, sowing regimes (including plug planting) and post sowing management. b) Care needs to be taken in managing the transition from arable to chalk grassland to minimise weed burden. Arable land usually carries a low weed burden and in that respect is very good for establishing chalk grassland. There is a danger that arable land, if left abandoned for a season, will develop a high weed burden which may contaminate areas going to chalk grassland (either through wind blow, or via soil transfer). c) The land to the south of Parsonage Down is not treated differently in the OLEMP, though as we understand it, will not be receiving any chalk deposition. As such the specification in the OLEMP needs to reflect this, and the transition from arable to grassland managed carefully to avoid weed burden. d) The opportunity for temporary “pop up” habitats during construction e.g. arable
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		<p>annuals strewn on spoil heaps does not seem to feature in the OLEMP.</p> <p>e) There is also an opportunity to manage hedgerows that come into temporary ownership of Highways England during the construction period. A number of these are in very poor ecological condition (often lacking woody cover at the base of the hedge). The scheme presents a great opportunity to coppice and or gap up these hedges, and so improve their ecological condition.</p> <p>f) Removal of plastic tubing/tree guards once they are redundant.</p> <p>We advise that the OLEMP is reviewed and these points considered. Natural England is in ongoing discussions with Highways England over these matters.</p>
<p>Natural England Environment Agency Wiltshire Council</p>	<p>Compensatory provision</p> <p>Paragraph 8.9.4 identifies the loss of a small area of Chalk Grassland at the Countess Cutting CWS.</p> <p>Do you consider that the proposed replacement area would amount to satisfactory compensation for the loss of this feature?</p>	<p>Yes</p>
<p>Natural England</p>	<p>Impact on Salisbury Plain SAC</p> <p>Are you satisfied that the dust suppression measures set out in the OEMP would satisfactorily address any potential for potential harmful dust deposition in those parts of the SAC that lie relatively close to the works (ie within 200 metres)?</p>	<p>Yes</p>
<p>Environment Agency</p>	<p>Impact on River Avon SAC</p>	<p>i) Yes. ii) Yes.</p>

<p>Natural England</p>	<ul style="list-style-type: none"> i. Are you satisfied that forecast levels of NO_x during the construction phase in 2021 would not exceed the critical level for vegetation except within 5m of the Countess roundabout (paragraph 8.9.24)? ii. Do you agree with the statement that the vegetation which is one of the reasons for the designation of the Avon SAC is phosphate limited rather than nitrogen-limited, and that NO_x levels associated with the construction phase are unlikely to affect the vegetation within the SAC? 	
<p>Environment Agency Natural England RSPB</p>	<p>Stone curlew</p> <ul style="list-style-type: none"> i. Do you agree that the proposed new Stone Curlew breeding plot within Parsonage Down SSSI and NNR described in paragraph 8.9.28 of the ES would provide effective compensation for the loss of an existing permanent plot to the south of the Winterbourne Stoke bypass? ii. Can Natural England comment on the Applicant's proposed approach to address indirect effects on functionally linked habitat of the Salisbury Plain SPA features (namely Stone Curlew), in particular: <ul style="list-style-type: none"> a. The proposed approach which includes 'habitat modification' within another European site (Salisbury Plain SAC). The Applicant proposes to mitigate effects within the SPA by directly altering habitat within the SAC; b. the acceptability of the applicant's proposed approach to habitat modification within the SAC in the light of the conservation objectives for that site; and c. the Applicant's conclusion of no likely significant effects on the other qualifying features of the 	<ul style="list-style-type: none"> i) Yes ii) <ul style="list-style-type: none"> a) While habitat within boundary of the SAC will be modified, it is of moderately low quality and not SAC qualifying habitat. We are satisfied this is consistent with the Habitats Regulations. Indeed, irrespective of the effects for Stone Curlew, the modification will provide a gain for biodiversity through providing greater habitat diversity on the NNR (as per APP-266 5.1.6). b) See a) above. c) We concur with the applicant's conclusion of no likely significant effects on the other qualifying features.

	<p>SPA, and hence only stone curlew are presented as a feature of the site in the Applicant's integrity matrices (Appendix C, matrix 2 of [APP-266]).</p> <p>The Applicant states at paragraphs 5.1.5 and 5.3.6 of [APP-266] that the locations of 'replacement' and 'additional stone curlew breeding plots have been agreed with NE and RSPB respectively. Paragraphs 5.1.7 and 5.3.8 also state that NE and the RSPB have agreed to take on the long-term management of these plots.</p> <p>iii. Can NE and RSPB comment on the extent to which the location and specification and long-term management of a 'replacement' and additional' breeding plot has been agreed with the Applicant, and can the Applicant explain how these are to be secured as part of the DCO or other legal mechanism?</p> <p>iv. Can NE and the RSPB provide further commentary on what long term management of these plots entails and the extent to which the Applicant relies on the success of these measures to conclude no AEOI for the Salisbury Plain SPA?</p> <p>v. Can the Applicant explain the extent to which long term management provisions are included for within the provisions of the DCO and whether there is any potential for conflict between these provisions and any long-term management objectives that may be delivered separately by NE or the RSPB?</p>	<p>iii) Natural England can confirm that we have agreed on the location and specification of the Plot located on Parsonage Down NNR, which, for instance, will include badger proof fencing to enhance the likely productivity (in terms of stone curlew chicks) of the plot.</p> <p>iv) Long term management is detailed in the OLEMP para 11.3.1. The management of the replacement plot will be relatively simple and low cost (in essence, controlling any excessive vegetation on the plot using the stock on the holding outside of the breeding season). While the applicant does rely on the success of this measure to conclude no AEOI, it is a very simple measure to implement.</p>
<p>Environment Agency Natural England</p>	<p>Stone curlew</p> <p>Do you agree that the scheme would not have any likely significant adverse impact on any other identified stone curlew breeding plot in the vicinity of the scheme and that</p>	<p>We can confirm that we agree that the scheme would not have any likely significant adverse impact on any other identified stone curlew breeding plot in the vicinity of the</p>

RSPB	the works are unlikely to result in any significant disturbance to breeding birds?	scheme. We have not considered in detail whether the scheme is likely to result in any significant disturbance to breeding birds or not, but superficially this seems unlikely.
Applicant Natural England	<p>Impact on habitats</p> <p>The Government has recently signalled its intention to mandate net gains for biodiversity on new developments in England to deliver an overall increase in biodiversity to ensure that wildlife isn't compromised in delivering necessary infrastructure and housing: https://www.gov.uk/government/news/spring-statement-2019-what-you-need-to-know</p> <p>The Wessex Chalk Stream and Rivers Trust [RR-1032] has commented as follows: <i>"There is a legal and moral obligation to improve the conditions of the chalk stream and create resilient ecosystems for wildlife and people. Although the fourth objective of Highways England's A303 Stonehenge scheme is 'to improve biodiversity (...)' we feel that is not the outcome for the water environment as much of the investigations proves 'no significant measurable impacts', i.e. allegedly preventing deterioration, but not promoting improvement. A more ambitious programme of interventions with a focus on the rivers Avon and Till in and around the scheme is needed to achieve that objective. Therefore, the Trust can only support the proposed scheme if significant changes are made to the proposal and further investments in the water environment are included."</i></p> <p>Please provide a detailed response to [RR-1032] and explain how the scheme would contribute to the objective of improving the water environment and biodiversity as a whole.</p>	<p>We have not considered how the scheme will contribute to the objective of improving the water environment, merely considered it in the context of the Habitats Regulation Assessment.</p> <p>However in terms of terrestrial biodiversity at least, intuitively the scheme appears to be delivering significant biodiversity gain, at least by way of habitats. Whilst the scheme has not yet been subjected to any formal "net gain" metrics, the loss of priority habitats (which are limited, as we recall, to hedges and a small area of chalk grassland) are outweighed by the large area of priority habitat creation (predominantly chalk grassland), which will provide both area based gain and significant gains to habitat connectivity.</p>
Environment Agency	Great bustard	We do not normally assess development proposals for impacts on Great bustard.

<p>Natural England RSPB Great Bustard Group</p>	<p>i. What information is available on the current status of the great bustard in the UK and in the local area? ii. How significant is the scheme as a threat to the success of the project to re-establish a sustainable breeding population of great bustard?</p>	
<p>Environment Agency Natural England RSPB</p>	<p>Species conservation Are you satisfied that the ES has thoroughly assessed potential construction and operational impacts on the following groups/ species: Lichen; aquatic macro invertebrates; Desmoulin's whorl snail; terrestrial invertebrates; fish; amphibians; reptiles; birds (breeding and wintering); barn owl; stone curlew; great bustard; bats; water vole; otter; badger?</p>	<p>We have confined our considerations to those species which are features of potentially affected national or European sites. For these species we are satisfied with the assessment.</p>
<p>The Applicant Natural England</p>	<p>Need for Habitats Regulations Assessment/Appropriate Assessment The European Court of Justice ruling in <i>People over Wind</i> determined that 'mitigation' (ie measures intended to avoid or reduce the harmful effects of the project on European sites) should not be taken into account when forming a view on likely significant effects during screening under the Habitats Regulations. On this basis, the applicant appears to have placed reliance on a suite of 'measures' (through project design) that have that have the effect of reducing likely significant effects on European Sites during construction and operation. Indeed, in table 3.1 (page 21, item no. 66) [APP-265] under the heading "<i>Water quality impacts during construction without an Outline Environment Management Plan</i>" implying that</p>	<p>i) Matrix 3, foot note g states: Construction and operation of the Scheme 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. <u>However, there will be no effect on water quality as a</u></p>

	<p>impacts are likely without such a plan. This is also implied by items 8) and 9) of table 3.1 of [APP-265].</p> <ul style="list-style-type: none"> i. With respect to table 3.1 and matrix 3 of [APP-265], and having regard to the People over Wind judgement, could Natural England comment on the Applicant's approach in this regard? ii. Section 1.2 of the Environment Agency's RR [RR-2060] highlights some concerns in respect of the Drainage Strategy and the detail regarding likely effectiveness of the treatment systems to deal with contaminants prior to discharge to ground or surface waters. Can the Environment Agency their views on the basis that the Applicant has ruled out LSE on the River Avon SAC? iii. Can the Applicant confirm their position that conclusions of no LSE on the River Avon SAC during construction and operation have been reached without reliance on avoidance or reduction measures? 	<p><u>result of construction or operation of this Scheme due to measures already required</u> to ensure scheme compliance with the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and Environmental Permitting (England and Wales) Regulations 2010 (Table 3.1, paragraph 32, page 16).</p> <p>As such the measures are not intended to avoid or reduce the harmful effects of the project on European sites per se, and the applicant appears not to be considering them as "mitigation" in the context of the Habitats Regulations. We agree with this approach.</p>
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