

# **A66 Northern Trans-Pennine Project**

## **4.5 Statement of Common Ground Natural England (Rev 3)**

**APFP Regulations 5(2)(q)**

**Planning Act 2008**

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

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A66 Northern Trans-Pennine Project  
Development Consent Order 202X

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**4.5 STATEMENT OF COMMON GROUND WITH  
NATURAL ENGLAND**

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## **1 Introduction**

### **1.1 Purpose of this document**

- 1.1.1 This Statement of Common Ground ("SoCG") has been prepared in respect of the proposed A66 Northern Trans-Pennine project ("the Application") made by National Highways Limited ("National Highways") to the Secretary of State for Transport ("Secretary of State") for a Development Consent Order ("the Order") under section 37 of the Planning Act 2008 ("PA 2008").
- 1.1.2 This SoCG seeks to summarise and explain the respective parties' positions on issues but does not seek to replicate in full information which is available elsewhere within the Application documents. All Application documents are available on the Planning Inspectorate website.
- 1.1.3 The SoCG has been produced to confirm to the Examining Authority where the Applicant understands agreement has been reached between the parties to it, and where agreement has not (yet) been reached. SoCGs are an established means in the planning process of allowing all parties to identify and so focus on specific issues that may need to be addressed during the examination.
- 1.1.4 This SoCG has been prepared by the Applicant and in its view provides an accurate record of discussions to date and a summary of the issues that are either agreed, subject to further discussion or not agreed. Previous iterations of the SoCG have been the subject of discussion between the parties to this SoCG. The Applicant will work to agree and submit joint working drafts of the SoCG as the examination progresses. Prior to the end of the examination, the Applicant intends to submit jointly on behalf of both parties a final SoCG confirming what matters have been agreed and have not been agreed, and if any remain under discussion.

### **1.2 Parties to this Statement of Common Ground**

- 1.2.1 This SoCG has been prepared by National Highways as the Applicant. It has been shared with Natural England for comment prior to the submission of the DCO, at DCO submission and in advance of Deadline 3 and Deadline 5. Where feedback has been received from Natural England (either directly on the draft or pursuant to another submission by Natural England) it has been incorporated into the latest draft by the Applicant, which is this version of the SoCG.
- 1.2.2 The Applicant has set out the detail of the issues raised by Natural England to date and each of the SoCG parties' respective positions. This is intended to assist the Examining Authority in understanding where discussions have reached to date. The Applicant intends to narrow the issues and level of detail in this SoCG as the examination progresses and further matters are agreed.

- 1.2.3 National Highways (formerly Highways England) became the Government-owned Strategic Highways Company on 1 April 2015. It is the highway authority in England for the strategic road network and has the necessary powers and duties to operate, manage, maintain and enhance the network. Regulatory powers remain with the Secretary of State.
- 1.2.4 NE's role in relation to the DCO process derives from the Planning Act 2008 (the 2008 Act) and secondary legislation made under the 2008 Act. The roles and responsibilities of NE under the 2008 Act fall into the following categories:
- as one of the prescribed consultees under section 42 of the 2008 Act that applicants are required to consult before submitting a Nationally Significant Infrastructure Projects (NSIP) application.
  - as one of the consultation bodies that the Planning Inspectorate must consult before a scoping opinion is adopted in relation to any Environmental Impact Assessment (EIA) and as a prescribed consultee for the environmental information submitted pursuant to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.
  - as a statutory party in the examination of DCO applications
  - as a statutory nature conservation body under the Conservation of Habitats and Species Regulations 2010 (Habitats Regulations) in respect of the HRA.
  - as a consenting and licensing body/authority in respect of protected species and operations likely to damage the protected features of SSSIs pursuant to the Wildlife and Countryside Act 1981 (as amended) (WCA 1981) and in relation to European protected species under the Habitats Regulations.
- 1.2.5 National Highways has aimed to address any issues or concerns raised by NE through ongoing dialogue and engagement.

## **1.3 Terminology**

- 1.3.1 In the table in the Issues section of this SoCG:
- “Agreed” indicates area(s) of agreement from the Applicant’s perspective
  - “Under discussion” indicates area(s) of current disagreement from the Applicant’s perspective, where resolution remains possible, and where parties continue discussing the issue to determine whether they can reach agreement by the end of the examination
  - “Not agreed” indicates a final position for area(s) of disagreement from the Applicant’s perspective, where the resolution of divergent positions will not be possible, and parties agree on this point
- 1.3.2 It can be assumed that any matters not specifically referred to in the Issues section of this SoCG are not of material interest or relevance to

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NE, and therefore have not been the subject of any discussions between the parties. As such, those matters can be read as agreed, unless otherwise raised in due course by NE.

## 2 Record of Engagement

2.1.1 A summary of the key meetings and correspondence that has taken place between National Highways and NE in relation to the Application is outlined in Table 2-1.

Table 2-1 Record of Engagement

Date	Form of correspondence	Key topics discussed and key outcomes
08.02.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the Evidence Plan, scheme overview and the proposed baselines surveys, modelling and assessment to underpin the HRA.
11.02.2021	Online Meeting	Meeting of the Ecological Impact Assessment TWG with NE in Attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the Evidence Plan, scheme overview and the proposed baselines surveys, modelling and assessment to underpin the EclA.
25.02.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the Evidence Plan, environment surveys, approach to mitigation and environmental designated funds.
12.03.2021	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions the Evidence Plan, a scheme-by-scheme overview, viewpoint consultation, landscape character assessment, AONB Management Plan, area of high landscape value, integrated design and Rochdale envelope.
16.03.2021	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on ornithology strategy, bats and red squirrels.
18.03.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussion on site and proximity to schemes, Biodiversity Survey Strategy and HRA Baseline, Baseline Surveys Strategy and introduction to SAC fluvial geomorphology.
25.03.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on the Evidence Plan, project updates, Warcop AONB, Trout Beck and approach to Stat Con and PEIR.

Date	Form of correspondence	Key topics discussed and key outcomes
07.04.2021	Online Meeting	Meeting between NE and the IPT at the regular Geology Soils meeting – Natural England.
22.04.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on programme updates, design updates, the Evidence Plan and sifting matrix.
26.04.2021	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on Zone of Theoretical Visibility (ZTV), definition of North Pennine Area of Outstanding Natural Beauty (AONB) setting, special qualities of the Greta Bridge and Bowes Conservation Areas.
29.04.2021	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on badger bait marking, otter halt monitoring, MoRPH, and air quality and Affected Road Network (ARN).
21.05.2021	Online Meeting	Meeting between NE, the AONB Partnership and the A66 IPT to review the Appleby to Brough Scheme. Meeting included discussions on the Appleby to Brough alignment and alignment at MOD facility.
24.05.2021	Online Meeting	Meeting between NE and the IPT to at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the M6 Junction 40 Penrith, Kemplay Bank Roundabout, Penrith to Temple Sowerby (east and west), Temple Sowerby to Appleby, Appleby to Brough, Bowes Bypass, Cross Lanes to Rokeby, Stephen Bank to Carkin Moor and options appraisal.
27.05.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on the Evidence Plan and a scheme-by-scheme design walkthrough.
10.06.2021	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on bat surveys (overview of methods).
16.06.2021	Online Meeting	Meeting between NE, the AONB Partnership and the A66 IPT review the Appleby to Brough Scheme. Meeting included discussions on updates and the alternative Parish Council route.
24.06.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on design updates, the approach to mitigation, the environmental designated funds process, the Scoping Report and the evidence plans.
28.06.2021	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the M6 Junction 40 Penrith, Kemplay Bank Roundabout, Penrith to



Date	Form of correspondence	Key topics discussed and key outcomes
		Temple Sowerby (east and west), Temple Sowerby to Appleby, Appleby to Brough, Bowes Bypass, Cross Lanes to Rokeby and Stephen Bank to Carkin Moor.
08.07.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussion on proposed route alternatives for scheme 4/5 & 6, site Trout Beck geomorphology modelling, HRA programme and documentation and Sleastenhaw restoration.
22.07.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussion on environmental designated funds.
10.08.2021	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on ornithology, bats, mammals, terrestrial invertebrates, river corridor survey and macrophytes, aquatic invertebrates, fish surveys, white-clawed surveys and key PEIR findings.
12.08.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on updates on surveys, HRA documentation programme, HRA screening summary and scheme Details.
16.08.2021	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on the M6 Junction 40 Penrith, Kemplay Bank Roundabout, Penrith to Temple Sowerby (east and west), Temple Sowerby to Appleby, Appleby to Brough, Bowes Bypass, Cross Lanes to Rokeby, Stephen Bank to Carkin Moor and Scotch Corner.
26.08.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on EIA Scoping, PEIR status and assessment process, Statutory Consultation, design updates, Appleby to Brough and Rokeby.
10.09.2021	Online Meeting	Meeting between NE, NP AONB, Defra, NH and A66 IPT to discuss Position Statement. Meeting included discussions on the summary of the Warcop alignment.
03.11.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on survey/assessment updates, response to feedback and requests for specific design elements.
03.11.2021	Online Meeting	Meeting between NE and the IPT discuss issues around Warcop
11.11.2021	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical

Date	Form of correspondence	Key topics discussed and key outcomes
		Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on habitats, reptiles, ornithology, bats, mammals, freshwater ecology and feedback following Stat Con period.
11.11.2021	Online Meeting	Meeting with Natural England, AONB Partnership, National Highways and Project Team to discuss environmental impacts and considerations around Warcop.
25.11.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on programme updates, design change updates and Stat Con updates.
01.12.2021	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on key findings from Stat Con, LVIA update and the landscape design approach.
13.01.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on design change and targeted consultation, approach to environmental mitigation and response to Stat Con design change.
20.01.2022	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on LVIA update and a scheme 6 -9 update.
26.01.2022	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with NE in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on survey updates, assessment updates, construction mitigation and methods, design mitigation and introduction / spread of INNS.
26.01.2022	Online Meeting	Meeting between NE and the IPT at the regular Ecological Impact Assessment TWG. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on surveys, construction mitigation methods, species specific, design mitigation, scheme-by-scheme mitigation.
31.01.2022	Online Meeting	Meeting between NE and the IPT at the regular Landscape TWG (Matters discussed at the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting included discussions on LVIA update and a scheme 1 – 5 Update.
10.02.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on project/programme updates and environmental mitigation approach.
10.03.2022	Online Meeting	Meeting between NE, EA, NH and A66 IPT to discuss issues around Warcop. Meeting included discussions on Warcop design.

Date	Form of correspondence	Key topics discussed and key outcomes
24.03.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with NE in attendance. Meeting included discussions on Trout Beck, Warcop and Moor Beck.
04.04.2022	Online Meeting	Meeting between NE, EA, NH, CCC and A66 IPT to discuss issues around Warcop. Meeting included discussions on Warcop design and Trout Beck Crossing design.
04.05.2022	Online Meeting	Meeting between NE and National Highways Introductory meeting to discuss the content of the SoCG. Agreed to diarise update session after submission of the DCO.
25.07.2022	Online Meeting	Meeting to discuss and agree forward plan of meetings
08.08.2022	Online Meeting	Check in meeting to discuss progress on SoCGs and response to DCO documents.
05.09.2022	Online Meeting	Check in meeting to discuss progress on SoCGs.
13.09.2022	Online Meeting	Meeting between National Highways and the statutory environmental bodies to discuss the Environmental Management Plan (EMP)
03.10.2022	Online Meeting	Check in meeting to discuss progress on SoCGs.
17.10.2022	Online Meeting	Check in meeting to discuss progress on SoCGs and update on Examination following Rule 6 letter publication.
31.10.2022	Online Meeting	Check in meeting to discuss progress on SoCGs.
03.11.2022	Online Meeting	Meeting between Natural England and National Highways to discuss Natural England's comments on the Environmental Management Plan (EMP)
14.11.2022	Online Meeting	Check in meeting to discuss progress on SoCGs.
28.11.2022	Online Meeting	Check in meeting to discuss progress on SoCGs.
28.11.2022	Email	Natural England email on their position on nutrient neutrality in relation to the Project.
08.12.2022	Online meeting	Meeting between Natural England and National Highways to discuss Natural England's comments on air quality.
15.12.2022	Online meeting	Meeting between Natural England and National Highways to discuss an area of developing fen on the Stephen Bank to Carkin Moor scheme
09.01.2023	Online Meeting	Check in meeting to discuss progress on SoCGs.
06.02.2023	Online Meeting	Meeting with Natural England to discuss revised PADSS submitted at ExA Deadline 3, Written Questions from the ExA and Change consultation. Also the revised SOCG submitted at Deadline 3.
09.02.2023	Online Meeting	Meeting between National Highways and the SEBs to discuss ExA's Written Questions.

Date	Form of correspondence	Key topics discussed and key outcomes
20.02.2023	Online Meeting	Meeting between Natural England and National Highways to discuss and update the content of the SoCG.
06.03.2023	Online Meeting	Meeting between Natural England and National Highways to discuss and update the content of the SoCG.
10.03.2023	Email	Email from Natural England containing comments on their position on issues considered within the draft SoCG.

2.1.2 It is agreed that this is an accurate record of the key meetings and other forms of consultation and engagement undertaken between (1) National Highways and (2) NE in relation to the issues addressed in this SoCG.

### 3 Issues

3.1.1 Tables 3-1, 3-2 and 3-3 provide details of the issues raised between the parties and the status. Appendix A includes issues which were stated as under discussion at the time of DCO submission (related to statutory consultation and/or pre-application discussions) but are no longer considered to be relevant as the issues are either addressed in the DCO documents or outstanding issues are now recorded under relevant representations. Appendix B provides further detail in relation to historical positions set out by either party in discussing these issues where relevant to provide further context to the Examining Authority on the dialogue.

Table 3-1: Record of Issues – Agreed Issues

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-1.1 M6 Junction 40 to Kemplay Bank - Wet Woodland Consideration	Natural England Statutory Consultation Response - 22 October 2021 (page 2)	<p>The construction site is in the floodplain, as is the settlement pond. Consideration needs to be given to creating these above the floodplain. The site has been identified for species rich grassland and wetland; however, it would be worth considering wet woodland in this location, particularly the wetland area to help provide some protection to the road if the river moves.</p> <p>This position is agreed subject to no further design changes. Natural England would wish to be updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	The Environmental Mitigation Maps (Document Reference 2.8, APP-041) (Map number HE56527-AMY-EGN-S00-MP-LX-200002) identify areas for woodland creation as part of the approach to nature conservation and biodiversity for this Scheme.	Agreed
3-1.2 Temple Sowerby to Appleby - River Eden Enhancement	Natural England Statutory Consultation	The area between the new junction and River Eden could be included as mitigation / enhancement and planted with	Full details of the outline mitigation measures associated with the River Eden are included within the Environmental	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	Response - 22 October 2021 (page 3)	<p>trees. This would provide more long-term resilience to the road network in the event of river movement.</p> <p>This position is agreed subject to no further design changes. Natural England would wish to be updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	Management Plan (EMP) (Document Reference 2.7, APP-019).	
3-1.3 Design and function of balancing ponds	Verbal comments in Technical Working Groups	Need reassurance that all of the balancing ponds will be wildlife friendly and can accommodate surface water run-off and that there will be no pollutants entering the SAC watercourse.	<p>The drainage design for the Project ensures that there is no increase in existing flows. Ponds and other drainage features have been designed to store the additional run-off produced by the scheme and restrict the peak flow rate to no greater than the existing run off rates for each catchment. The calculations for this can be found in the Existing and Proposed drainage sections (separate section for each scheme) of Document Reference 3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy, APP-221.</p> <p>The drainage system design includes provision for treating the run-off from the road prior to discharging it to a watercourse. No deterioration of water quality is predicted as a result of the</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			<p>Project. During construction measures outlined within the EMP (Document Reference 2.7, APP-019) will be implemented and monitored. During operation the HEWRAT tool has been used to guide the design of the drainage system to be compliant with the Environmental Quality Standards (EQSs) for the receiving watercourses. The HEWRAT assessment undertaken on the drainage design demonstrated no adverse impact. Future revisions of the drainage design will be subject to updated HEWRAT assessments to maintain compliance.</p>	
3-1.4 The project: soil storage	Natural England Statutory Consultation Response - 22 October 2021 (page 3)	NE welcomes the early consideration of space required in the Site Boundary for soil storage, including the programming of material movements to reduce storage periods and subsequent movements after placement.	The Order Limits shown on the General Arrangement Drawings (Document Reference 2.5, APP-011 to APP-018) provide space for the storage of soils.	Agreed
3-1.5 Biodiversity Metric	Natural England Statutory Consultation Response - 22 October 2021 (page 5)	Note that the Environmental Masterplans to be submitted with the DCO application will indicate areas of ecology mitigation and enhancement, including watercourse replaced with two for each one lost. An interesting concept, and the A66 improvements should be designed to ensure that no watercourses	The project had already commenced on the basis of implementing Metric 2.0, and had completed all of the surveys, when Metric 3.1 was released. The project has therefore continued utilising Metric 2.0. Pending the introduction of secondary regulations (which have recently been consulted	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>are lost. The Defra Biodiversity Metric 2.0 has been updated this summer (July 2021) – it is now the Biodiversity Metric 3.0</p>	<p>upon by Government), a biodiversity net gain assessment is not currently a requirement for Nationally Significant Infrastructure Projects and is therefore not included as part of the Application documents.</p> <p>However, the Applicant is working on a Biodiversity Metric Calculation based on Metric 3.1, which we will share with Natural England once it is finalised.</p>	
<p>3-1.6 Crayfish and Water Environment</p>	<p>Natural England Statutory Consultation Response - 22 October 2021 (page 5)</p>	<p>Appropriate measures also need to be taken to prevent the introduction of signal crayfish and crayfish plague into the watercourses, particularly in the Eden catchment.</p> <p>This position is agreed subject to no further design changes. Natural England would wish to be updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	<p>Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) confirms that no part of the project can start until a Landscape and Ecological Mitigation Plan (LEMP) has been prepared, consulted on and approved by. The EMP confirms at D-BD-09 that no part of the Project can start until an Invasive Non-Native Species Management Plan (INNS MP), is developed in detail in substantial accordance with the essay plan included in the EMP (Annex B15, Document Reference 2.7, APP-035) and approved by the Secretary of State as part of a second iteration EMP.</p> <p>Further details on the Applicant's position are provided in Appendix B.</p>	<p>Agreed</p>



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-1.7 Bat Roosts	Natural England Statutory Consultation Response - 22 October 2021 (page 4 and 5)	<p>This (PEI Report) states that “limited bat activity survey data was available at the time of writing” and therefore the assessment of impacts on bats has been undertaken based on desk study information and phase 1 habitat surveys. However subsequent sections of the report provide information on the number of bat passes recorded on different parts of the project. In light of the fact that some surveys were undertaken in 2020, it is disappointing that there is no quantitative assessment of bat activity from those surveys to inform potential impacts.</p> <p>The results of the surveys make reference to roosts identified in the desk study, confirmed roosts identified during the Preliminary Bat Roost Assessments and structure and trees within moderate or high potential to support bats, however no information is provided on the proximity of these roosts to the Scheme and the locations of these roosts are not provided on any figures. It is therefore not possible to assess the potential impact on these roosts from the construction or operation of the Schemes.</p>	<p>Figure 6.8 of the Environmental Statement (Document Reference 3.3, APP-076) provides the results of the Preliminary Bat Roost Assessment, including locations. Full survey results for bats are detailed within Appendix 6.11 (Bats) within Volume 3 of the Environment Statement (Document Reference 3.4, APP-162).</p> <p>The surveys undertaken during the 2021 survey season identified 128 individual bat roosts (trees and structures) across 8 different species.</p> <p>National Highways acknowledges the need to obtain all relevant licences.</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		Position is agreed dependent on National Highways obtaining relevant licences.		
3-1.8 Bats - Habitat Fragmentation	Natural England Statutory Consultation Response - 22 October 2021 (page 6)	<p>The effects of habitat loss and fragmentation in relation to bats is not adequately described. The baseline conditions section of the report notes the identification of a number of potential crossing points along the alignment of the schemes. It is anticipated that habitat clearance works during construction have the potential to affect how bats use the landscape. The potential impacts on bats use of the landscape both on existing road corridors and on new alignments needs to be clearly identified within the Environmental Statement for the Schemes.</p> <p>This position is agreed subject to no further design changes. Natural England would wish to be updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	<p>Chapter 6 (Biodiversity) of the Environmental Statement (Document Reference 3.2, APP-049) provides an assessment of how the scheme would affect wildlife and habitats and sets out mitigation measures proposed to reduce adverse effects. Full survey results for bats are detailed within Appendix 6.11 (Bats) within Volume 3 of the Environment Statement (Document Reference 3.4, APP-164).</p> <p>Mitigation is embedded into the design of the Project to minimise habitat loss and fragmentation. These commitments are recorded in the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) which confirms that no part of the project can start until a Landscape and Ecological Mitigation Plan (LEMP) has been prepared, consulted on and approved by the Secretary of State as part of a second iteration EMP. The LEMP shall be in substantial accordance with the Outline LEMP essay plan set out in Appendix B1 to the EMP</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			<p>(Document Reference 2.7, APP-021) which confirms the embedded mitigation for bats.</p> <p>Further details on the Applicant's position are provided in Appendix B.</p>	
3-1.9 Agricultural Land	Natural England Statutory Consultation Response - 22 October 2021 (page 9)	<p>Based on the information provided with the application documents, it appears that the proposed development comprises soil supporting agricultural land of ALC Subgrade 3a (Best and Most Versatile (BMV)) and 3b (non-BMV); with some Grade 2 (BMV); Grade 4 (non BMV) agricultural land, non-agricultural land and urban land within the route wide study area. The ALC grades have been determined from a desk-based assessment using the MAFF 1988 Guidelines. However, the assumptions are not stated for the desktop assessment of ALC grade; nor has the climatic data used been presented.</p> <ul style="list-style-type: none"> <li>- The detailed ALC and soil survey must be undertaken by suitably qualified and experienced individuals.</li> <li>- Representative soil pits need to be dug to support the ALC grades (to determine subsoil structure (for wetness and droughtiness assessment) or subsoil stone</li> </ul>	<p>ALC field surveys and impacts on agricultural businesses have been undertaken as part of the assessment work to support the completion of the ES. This is reported as part of Appendix 9.5 (Agricultural Land Classification (ALC) Factual Soil Survey Report) within Volume 3 of the ES (Document Reference 3.4, APP-196).</p> <p>During the survey, soils were examined via a combination of auger borings and soil description pits to a maximum depth of 1.2m. Soils were described using hand texturing to determine the soil type. Laboratory assessment of soil particle size has been undertaken and reported in the survey. The results of the soil survey were used in conjunction with the agro-climatic data given in the sections for each scheme below to classify the land according to the revised guidelines for Agricultural Land Classification issued in 1988 by</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>content and rooting for which is also a component of soil droughtiness assessment).</p> <p>- Laboratory assessment of soil particle size should be undertaken as appropriate.</p>	<p>the Ministry of Agriculture, Fisheries and Food (now Defra).</p>	
3-1.10 Landscape and Visual	<p>Natural England Statutory Consultation Response - 22 October 2021 (page 12)</p>	<p>Our landscape advice in relation to actual effects is at a high level. As a statutory consultee we advise that the views of the North Pennines AONB Partnership are sought and given appropriate consideration and weight given their more detail knowledge of the proposed development sites and their wider landscape setting.</p>	<p>The landscape and visual impact assessment, which will be set out in Chapter 10 (Landscape and Visual) of the ES (Document Reference 3.2, APP-053), has used representative viewpoints throughout the scheme, as agreed through the Technical Working Groups (which also included attendance from representatives of the North Pennines AONB Partnership). Additional viewpoints, including elevated views from the AONB have been reviewed. The ES will also incorporate a description of the interim mitigation due to growth between year 1 and year 15.</p>	Agreed
3-1.11 District Level Licensing	<p>Verbal comment at meeting 08.08.2022</p>	<p>Natural England have agreed the location and payments required for the compensatory ponds through the District Level Licensing Team.</p>	<p>Offsite mitigation has been purchased through a district level licence provided by Natural England (para 6.8.9, Document Reference 3.2, APP-049). The Impact Assessment and Conservation Payment Certificate (IACPC) is provided as an annex to ES Appendix 6.6: Amphibian (Document 3.4, APP-159).</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-1.12 Asby Complex SAC and Ravensworth Fell SSSI	Natural England Relevant Representation (NE key issue ref 4.1, RR-180)	<p>Justification needs to be given to understand why the Asby Complex SAC and Ravensworth Fell SSSI has been scoped out of the air pollution assessments given that they are within 200m of the Affected Road Network.</p> <p>Further evidence needs to be provided to understand why this SAC and SSSI have been scoped out and needs to be referenced within section 6.10.469.</p> <p>Natural England will be able to comment on mitigation / compensation if it is needed once the evidence asked for is provided.</p> <p>If needed mitigation and compensation measures will need to be assessed in the HRA and secured within the DCO.</p> <p>Natural England note the assessment and the declining traffic flows,</p>	<p>Asby Complex SAC and Crosby Ravensworth Fell SSSI were scoped out of further assessment although the designated site falls within 200m of the ARN. Both locations were modelled to have a positive change as reported in Appendix 5.4 of the Environmental Statement (Document Reference 3.2, APP-153) as a result of changing traffic flows along the ARN. Therefore, they are not expected to exceed the 1% threshold for adverse impacts where a significant adverse effect may occur, and no further assessment is required.</p>	Agreed
3-1.13 Biodiversity	Natural England Relevant Representation (page 16, RR-180) and additional commentary in Natural England Written Representation (page 18, REP1-035)	<p><u>Environmental Statement Chapter 6: Biodiversity</u></p> <p><b>6.7.170:</b></p> <p>This section states: “that it might be expected that there would be an overall reduction in the extent of the heavily farmed agricultural land in the surrounding landscape, potentially alongside</p>	<p><b>6.7.170:</b></p> <p>Woodland habitats take at least 30 years to establish. Therefore, based on the assumption that any theoretical woodland planting that may occur before 2029 is a maximum age of 7 years, it would be yet to reach its maximum biodiversity value. The quantum</p>	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>increases in woodland cover. This is unlikely to increase the value of biodiversity features currently identified by 2029 due to the time taken for newly created habitats to mature”.</p> <p><b>Additional commentary:</b>                      6.7.170. Thank you for providing Natural England with this further information</p>	<p>and type of enhancement planned for Troutbeck is not yet known and therefore cannot be accurately assessed within the context of the A66</p> <p>However, it is not disputed that (1.) Habitat restoration works at Troutbeck will likely result in long term biodiversity enhancement; and (2.) any woodland planting within formally arable land will result in enhanced biodiversity once the woodland planting and understorey become established. Due to there being no known date of any theoretical woodland planting it was considered a suitable precaution that, if planted in the next 7 years, it would not be substantially established to provide a significant enhancement to biodiversity within the context of the A66. However, as the woodland matures towards 30 years and beyond, its biodiversity value would increase above that of arable habitats. For the potential enhancement opportunities which are outlined within the Environmental Statement Chapter 6 Biodiversity (Document Reference 3.2, APP-049), there is no legal requirement for them to be implemented into the final design of the project. They are disclosed within the</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			Environmental Statement so that they are possible within the remit of the project. However, the DCO is not legally required to ensure the implementation of the enhancement measures and the measures have been identified as opportunities to be investigated as the design develops throughout the DCO process.	
3-1.14 Hydrological impact	Natural England Relevant Representation (page 17, RR-180) and additional commentary in Natural England Written Representation (page 19, REP1-035)	<p><u>Environmental Statement Chapter 6: Biodiversity</u></p> <p><b>6.10.16:</b></p> <p>This section states that “The potential for hydrological impacts has been reviewed and is identified as not likely, due to the new alignment cuttings being lower than the site, and therefore it is not possible for a hydrological impact upon this site”. Evidence should be provided here that shows that the assessment has assessed whether there will be an impact on the local water table, and thus having a hydrological impact on the Temple Sowerby Moss SSSI.</p> <p><b>Additional commentary:</b></p> <p>6.10.16, Natural England acknowledge the Appendices where the Temple Sowerby impacts were assessed.</p>	<p><b>6.10.16</b></p> <p>The potential impact to Temple Sowerby Moss SSSI was considered in Appendix 14.6 Hydrogeological Impact Assessment of Chapter 14 Road Drainage (Document Reference 3.4, APP-225). The assessment concludes that the designated area is not within the zone of influence of any cuttings (area of predicted groundwater drawdown), and therefore no impact on baseflow is anticipated. No impacts to surface water in the area are predicted, due to no surface water features adjacent or downstream of the scheme linked to Temple Sowerby Moss SSSI and therefore no potential pollutant pathway, see Section 14.6.3 of ES Appendix 14.6.</p>	Agreed
3-1.15 EMP	Natural England Relevant Representation (RR-180)	Natural England have requested clarification or updates to the	National Highways have provided clarifications and where	Agreed

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-1.16 EMP 3-1.25 EMP 3-1.26 EMP 3-1.27 EMP 3-1.28 EMP 3-1.29 EMP 3-1.30 EMP 3-1.33 EMP 3-1.34 EMP 3-1.37 EMP		following paragraphs and REAC references in the EMP: <ul style="list-style-type: none"> <li>• MW-BD-02 – fish and crayfish rescues</li> <li>• MW-BD-18 – badger surveys</li> <li>• D-BD-04 – Trout Beck crossing</li> <li>• D-BD-08 – NE and EA licences</li> <li>• D-RDWE-05 – mitigation for the design of water crossings</li> <li>• D-RDWE-06 – Dyke Nook Fen</li> <li>• MW-RDWE-09 - proposed methods for the establishment and decommissioning of the temporary infrastructure in the vicinity of the River Eden</li> <li>• MW-RDWE-04 – design for the piers</li> <li>• D-RDWE-12 (and 13, 14) – consultation in relation to detailed hydrological, geomorphological, flood risk and drainage designs</li> <li>• MW-BD-15 – Working in and near an SAC Method Statement</li> </ul>	appropriate have updated the draft EMP (Document Reference 2.7, REP3-004) to address Natural England’s concerns.  Further detail on the Applicant’s position has been included at Appendix B.	



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<ul style="list-style-type: none"> <li>General – detailed method statements</li> </ul> <p>Further detail on the Natural England’s position has been included at Appendix B.</p>		
<p>3-1.17 EMP 3-1.18 EMP 3-1.19 EMP 3-1.20 EMP 3-1.21 EMP 3-1.22 EMP 3-1.35 EMP 3-1.36 EMP</p>	<p>Natural England Relevant Representation (RR-180)</p>	<p>Natural England have requested clarification or updates to the following paragraphs in Annex C1 Method Statement for Working in and Near the SAC of the EMP:</p> <ul style="list-style-type: none"> <li>C1.3.1 – Trout Beck crossing design</li> <li>C1.2.9 – introduction of crayfish plague</li> <li>C1.3.10 – foundations for piers</li> <li>C1.4.10 – sediment control</li> <li>C1.4.17 – biosecurity measures</li> <li>C1.4.18 – storage of materials in areas subject to flooding</li> <li>C1.3.7 – temporary bridge</li> <li>C1.4.19 – bank stability</li> </ul> <p>Further detail on the Natural England’s position has been included at Appendix B.</p>	<p>National Highways have provided clarifications and where appropriate have updated Annex C1 Method Statement for Working in and Near the SAC of the EMP (Application Document 2.7, REP3-019) to address Natural England’s concerns.</p> <p>Further detail on the Applicant’s position has been included at Appendix B.</p>	<p>Agreed</p>
<p>3-1.23 EMP 3-1.31 EMP</p>	<p>Natural England Relevant Representation (RR-180)</p>	<p>Natural England have requested clarification or updates to the following tables and paragraphs in</p>	<p>National Highways have provided clarifications and where appropriate have updated Annex</p>	<p>Agreed</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>Annex B1 Outline Landscape and Ecology Management Plan of the EMP:</p> <ul style="list-style-type: none"> <li>Table 5 and 6 – tree species for Eden catchment</li> <li>B1.21.51 – mitigation in watercourse</li> </ul> <p>Further detail on the Natural England's position has been included at Appendix B.</p>	<p>B1 Outline Landscape and Ecology Management Plan of the EMP (Document Reference 2.7, REP3-003) to address Natural England's concerns.</p> <p>Further detail on the Applicant's position has been included at Appendix B.</p>	
<p>3-1.24 PDP 3-1.32 PDP</p>	<p>Natural England Relevant Representation (RR-180)</p>	<p>Natural England have requested clarification or updates to the following tables in the Project Design Principles document:</p> <ul style="list-style-type: none"> <li>Table 4-6 reference 0405.11 – flood compensation at Trout Beck</li> <li>Table 4-2 reference 0102.06 – attenuation pond at Carleton Hall</li> </ul> <p>Further detail on the Natural England's position has been included at Appendix B.</p>	<p>National Highways have provided clarifications and where appropriate have updated the Project Design Principles document (Document Reference 5.11, REP3-040) to address Natural England's concerns.</p> <p>Further detail on the Applicant's position has been included at Appendix B.</p>	<p>Agreed</p>
<p>3-1.38 Nutrient Neutrality</p>	<p>Email from Natural England on 28.11.2022</p>	<p>Natural England can confirm that their nutrient neutrality advice applies to all types of development that would result in a net increase in population served by a wastewater system, including new homes and student accommodation. The River Eden</p>	<p>National Highways thanks Natural England for the confirmation of their position on nutrient neutrality in relation to the Project.</p>	<p>Agreed</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>SAC catchment is currently failing it's Phosphorous targets. We would not expect a highways scheme to fall under the nutrient neutrality criteria as we would expect that the workforce either do not reside on site or are likely to be drawn from the local catchment, we would expect any surface water drainage to be treated through the usual EMP and CEMP criteria.</p>		
<p>3-1.39 Stephen Bank to Carkin Moor: Emerging Fen Habitat:</p>	<p>Verbal comments at meeting 15.12.2023</p>	<p>Based on the information presented at the meeting on 15<sup>th</sup> December 2022 Natural England concluded that once the changes to the mitigation have been secured (the enhancement of the areas of retained fen instead of woodland planting) the additional area of fen identified within the Order Limit was not considered a material change to the ES and does not change the identified significant effects outlined in ES Chapter 6 Biodiversity (Document Reference 3.2 APP-049).</p>	<p>A meeting was held on 15<sup>th</sup> December 2022 between National Highways and Natural England to present National Highways' position on an area of emerging fen habitat identified on the Stephen Bank to Carkin Moor scheme. Full details of National Highways position are provided in Appendix B.</p>	<p>Agreed</p>
<p>3-2.1 Appleby to Brough</p>	<p>Natural England Statutory Consultation Response - 22 October 2021 (page 8)</p>	<p>Crossing of Tributaries of the Eden SAC need to be passable for freshwater species such as Salmon, Otter and Lamprey species to avoid species fragmentation. This position is agreed subject to no further design changes. Natural England would wish to be</p>	<p>Noted: As described in the Environmental Statement Chapter 6 Biodiversity (Document Reference 3.2, APP-049) watercourse crossings have been designed to facilitate the free movement of aquatic and riparian species, for example, through culverts. Watercourse crossings</p>	<p>Agreed</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	<p>have been designed to support natural river processes in line with CIRIA 2019. Mammal passage will also be maintained where culverts are used on minor watercourses. Design has been led by detailed freshwater ecology surveys including riverine eDNA.</p>	
<p>3-2.3 Alternatives – Table 3.6</p>	<p>Natural England Statutory Consultation Response - 22 October 2021 (page 3)</p>	<p>The climate section states that the crossings for all routes will be at risk of scour in the future. The design of the crossings, and piers within the floodplain need to be designed such that they can withstand such pressures.</p> <p>It is unclear in the road drainage and water section what the design of a crossing would be over Trout Beck for the Orange route. Would this also be open span across the floodplain with no structures on the floodplain?</p> <p>The Route Development Report Volume 1 discusses the route alternatives at Kirkby Thore in more detail. In terms of the impact on the River Eden SAC/SSSI (and on biodiversity/environment more generally) the Orange is slight better, though there would be a need for some floodplain compensation. It is not clear whether this is because there will need to be an embankment on the</p>	<p>A full Environmental Impact Assessment (EIA) has been undertaken, including a detailed assessment of the potential risks to surface water. Further information can be found within Chapter 14 (Road Drainage and the Water Environment) within Volume 1 of the Environmental Statement (Document Reference 3.2, APP-057). This chapter confirms the following approach has been developed in consultation with both Natural England and the Environment Agency (at Section 1.8.65):</p> <p>The following design principles have been incorporated for the relevant crossings so that the scheme designs will not prevent the SAC achieving its target of restoring natural hydrological processes:</p> <ul style="list-style-type: none"> <li>• Locations and orientation of piers within the floodplain to be placed in order to minimise disturbance to flood flows,</li> </ul>	<p>Agreed.</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>floodplain. However, we also note that the primary reason for the Blue route being the preferred route is the lesser impact on the Scheduled Ancient Monuments at Kirkby Thore.</p> <p>This position is agreed subject to no further design changes. Natural England would wish to be updated on any changes and provided the opportunity to comment and agree any subsequent changes.</p>	<p>sediment transport and biodiversity. This will require an iterative design process to be informed by flood risk and geomorphological modelling (secured in the Environmental Management Plan (EMP) (Document Reference 2.7)).</p> <ul style="list-style-type: none"> <li>• The EMP requires flood risk and geomorphological modelling to be undertaken as part of the detailed design process and the outcomes of that will inform the location and orientation of the piers to achieve the necessary outcomes.</li> <li>• Specialist geomorphologist input throughout the detailed design of the Project to inform the pier design including shape, alignment relative to the watercourse flow and foundation depth. This will minimise the risk of an interruption of the hydraulic processes should the piers become mid-channel structures following lateral migration of the watercourse.</li> </ul> <p>Permanent outfall structures from road drainage into Trout Beck will be set back from the watercourse banks and an open channel used to connect the outfalls to the</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			watercourse. This will allow lateral migration of the river channel and limit damage to outfalls.	
3-2.6 Table 6-4: Helbeck and Swindale Woods	Natural England Statutory Consultation Response - 22 October 2021 (page 8)	Aerial pollution has been identified as one of the threats with regard to this site. The Appleby–Brough routes are 500-700m away from the SAC, and therefore potential impacts have been screened out given the site is >200m away in line with LA 105 DMRB standards. The screening out of this site needs to ensure it has taken into consideration the direction of prevailing winds, the local topography, the greater speed and volume of traffic which could potentially results in impacts further afield.	<p>The Helbeck and Swindale Woods SAC has been scoped out of further assessment as the site is located 427m north of the of the Order Limits of Temple Sowerby to Appleby.</p> <p>For the purposes of this assessment we have used the existing guidance (DMRB LA105). We recognise that NE and National Highways are currently discussing the use of DMRB LA105 nationally which would confirm the scoping out of this SAC.</p> <p>Modelling has demonstrated that the zone of potential air quality impacts (i.e. the zone where a change of 1% of the lower critical load for nitrogen was predicted) extended to a maximum of 60m from the ARN.</p>	Agreed

Table 3-2: Record of Issues – Under Discussion Issues

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-2.2 Long Marton Land End Junction	Natural England Response – January 2022	Natural England note that the new road design will be much closer to Troutbeck (River Eden SAC) and that there will be a discharge to the beck. The revised PEIR section should acknowledge this. The Habitats Regulations Assessment will need to assess the new road design to ensure it avoids adverse impacts to the River Eden SAC.	Noted: The Habitat Regulations Assessment (HRA) Stage 2 Statement to Information Appropriate Assessment (Document Reference 3.6, APP-235) assesses the road design in light of proposed mitigation. This includes assessment and mitigation of discharges.	Under discussion
3-2.4 Biodiversity	Natural England Statutory Consultation Response – 22 October 2021 (page 5)	With regards to Troutbeck, within the River Eden SAC, the design of the crossing would need to have a clear span (with piers) across the whole floodplain i.e., not just set back 5m from the river's edge.	Clause 0405.04 from Document Reference 5.11 Project Design Principles, APP-302, secures provision that will ensure the structure crossing of Trout Beck allows for full functionality of normal supporting river processes including flood flows and associated erosion/sediment regime, and the migration of the channel across its floodplain. This is achieved using an open multi-span structure, across the entire floodplain of the watercourse, unless otherwise agreed with the Environment Agency and Natural England	Under Discussion
3-2.5 Table 6-3: Screening Matrix for River Eden SAC	Natural England Statutory Consultation Response – 22 October 2021 (page 7)	There will be land take of functionally linked land to the River Eden for additional schemes than has been identified – M6 Junction 40 to Kemplay Bank. There are minor water course crossing and likely discharges that may impact on the SAC. Temple Sowerby to Appleby: Extra care must be given if land inside the red line boundary is functionally linked land. Given that there will be a clear span bridge over the Troutbeck, there should not be any land take	Noted. The Habitat Regulations Assessment (HRA) Stage 2 Statement to Information Appropriate Assessment (Document Reference 3.6, APP-235) assesses the road design in light of proposed mitigation. The assessment includes functionally linked rivers/habitat.	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>within the boundary. The temporary land take e.g., for compound area etc, should not be located within the floodplain of Troutbeck or the Eden.</p> <p>HRA should consider Competition from non-native species/ introduction of disease, Change in flow or velocity regime, creation of barriers Habitat/community simplification. This in turn can impact upon the extent and distribution of habits and species; structure and function of the watercourses, habitat mosaics, riparian zone, floodplain, natural flow regimes, natural sediment regimes, thermal regimes; biological connectivity, invasive/introduced species, key distinctive species (in addition to those designated in their own right), vegetation structure of riparian zone and macrophytes, water chemistry and quality and air quality. Table 4.1 does discuss some of these issues, and we agree with the conclusions where a likely significant effect has been identified, however the structure of the table is not that straightforward to follow.</p>		
3-2.7 SPA and Air Quality	Natural England Statutory Consultation Response - 22 October 2021 (page 8)	<p>NE agree that LSE cannot be ruled out with regards to atmospheric pollution associated with the affected road network (ARN), and therefore this needs to be considered further in an Appropriate Assessment.</p> <p>The potential for SPA birds within the schemes and the red line boundary, to be disturbed at different times of year needs to be taken into consideration here. Agree that</p>	<p>Full details on the potential impacts to birds can be found within Appendix 6.13 (Breeding Birds) and Appendix 6.14 (Wintering Birds), within Volume 3 of the Environment Statement (Document Reference 3.4, APP-166 and APP-167).</p> <p>No North Pennine Moors SPA qualifying species have been recorded breeding within a 500m zone of the order limits.</p>	Under discussion



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>there is LSE from the proposals on some designated features of this site.</p>	<p>In relation to wintering birds, Golden plover (<i>Pluvialis apicaria</i>) and merlin (<i>Falco columbarius</i>), two North Pennine Moors SPA citation species, were found within a 500m zone of the order limits.</p> <p>Flocks of wintering golden plover have been recorded throughout the central schemes of the Project with notable numbers recorded within the Cross Lanes to Rokeby scheme.</p> <p>A Habitat Regulations Assessment Stage 2 Statement to inform Appropriate Assessment (SIAA) has been prepared (Document Reference 3.6, APP-235). In relation to birds, the North Pennine Moors SPA is designated for four species of bird: hen harrier (breeding), merlin (breeding), peregrine falcon (breeding) and European golden plover (breeding). The Appropriate Assessment for the site assessed the potential for adverse effects resulting from a reduction in suitable breeding and foraging habitat (as a result of changes in air quality during operation associated with the affected road network).</p> <p>The potential for any adverse effect on the integrity of the River Eden SAC, North Pennine Moor SAC and North Pennine Moor SPA has been ruled out. The SIAA has concluded that no reasonable scientific doubt remains and in 'the light of the best scientific knowledge in the field', the project will not adversely affect the integrity of any European Site, alone or in combination with other plans or projects.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-2.8 Use of LA105	Natural England Relevant Representation (page 3 and NE key issue ref 1.1, page 10, RR-180) and additional commentary in Natural England Written Representation (NE key issue ref 1.1, page 8, REP1-035)	<p>Natural England are disappointed that our advice surrounding the use of LA105 for assessing the air quality impacts has not been taken on board, we still have fundamental concerns with the air quality assessment section within the environmental statements and do not support the use of LA105.</p> <p>Natural England do not support the use of LA105, as it is not HRA compliant. We therefore cannot not concur with the conclusions drawn in the HRA.</p> <p>Natural England require further clarification to explain the use of LA105 despite our previous written advice stating that we do not support the use of it as an assessment method. We recommend the use of the published Natural England guidance: NEA001 Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations.</p> <p>Natural England need to be able to understand the impacts to the protected sites within 200m of the Affected Road Network (ARN), when assessed by the appropriate assessment method. For example, we do not agree with the conclusions of the HRA as we do not support the use of loss of one species as a metric to identify an adverse effect.</p> <p>The DCO needs to include clarity on the Air Quality impacts and provide clarification for</p>	<p>National Highways continues to engage with Natural England on the topic of Air Quality methodology and the adequacy of DMRB LA105.</p> <p>The Environmental Statement Appendix 4.2 Environmental Impact Assessment Scoping Opinion (Document Reference 3.4, APP-149) states that ‘The assessment should take account of the requirements of “Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations, 2018 (NEA001)”’.</p> <p>Natural England’s advice and consultation responses were fully considered in relation to the assessment of air quality impacts. It is our understanding that the principle area of disagreement is around the use of a metric based on the loss of a single species. We can confirm that neither the Habitats Regulations Assessment (Application Document Reference 3.5 and 3.6, APP-234 and APP-235) or the Environmental Statement (Document Reference 3.2, APP-049) rely on the loss of one species metric (as prescribed by DMRB LA105). The loss of one species metric is reported, in line with DMRB and for consistency with the approach used for other road schemes; however, this metric does not form the basis for assessment, rather the assessment was made using other sources of information including habitat mapping, data on current pressures and condition of the site,</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>where the mitigation / compensation will be if detrimental effects are found.</p> <p><b>Additional commentary:</b>                      In regard to the method followed, Natural England are happy to support the general approach taken throughout the assessment as stated in the recent response to our relevant representations (RR-180). The consultant states that the NEA001 steps have been followed and whilst LA105 is referred to (in line with DMRB requirements), the “loss of one species metric” has not been used in any decision making. Whilst Natural England are supporting National Highways in developing an approach to replace LA105, we agree that the approach taken is a reasonable and appropriate interim in the absence of endorsed guidance published under DMRB for assessing air quality impacts under the Habitats Regulations Assessment.</p>	<p>professional judgement and ecological principles. No designated sites were screened out of further assessment based on the loss of one species metric either at Stage 1 (Screening) or during Stage 2 (Appropriate Assessment). The loss of one species metric was reported in line with National Highways standards but does not form the basis for the assessment. The loss of one species metric was not used to inform the assessment conclusion (i.e. no significant impact for designated sites in the Environmental Statement or no adverse effect on site integrity in the Habitats Regulations Assessment).</p> <p>The assessment process utilised followed that prescribed in NEA001. European sites within 200m of the Affected Road Network (ARN) were screened in for assessment / further consideration where the predicted changes met the threshold of 1000 AADT, or 200 AADT for heavy duty vehicles (NEA001 Step 1). All sites located within 200m of the ARN were considered to be sensitive to air pollution according to APIS. 200m was shown to be an appropriate distance as subsequent modelling demonstrated that the zone of potential air quality impacts (i.e. the zone where a change of 1% of the lower critical load for nitrogen was predicted) extended to a maximum of 60m from the ARN (NEA001 Step 2). Sensitive qualifying features (e.g. bog habitat) that could be exposed to emissions were identified both from existing Natural England habitat</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			<p>mapping and project habitat surveys; non qualifying features were also identified and mapped within 200m of the ARN (NEA001 Step 3). The 1% change against the lower critical load for nitrogen deposition was then calculated to identify the zone within which a perceptible change may result; this included the consideration of the additional contribution of NH3 emissions from vehicles to deposited nitrogen (NEA001 Step 4). NEA001 Step 4a, 4b and 4c do not apply as the air quality assessment is inherently in combination as it considers other plans and projects when determining the future baseline (do minimum) scenario. The assessment of air quality impacts within the zone where a change of 1% of the lower critical load for nitrogen was predicted was then undertaken (note, the zone where perceptible change may result was up to a maximum of 60m from the ARN). In line with NEA001 'integrity' of a site was taken to mean the coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was, or will be, designated or classified.</p> <p>Section 5.10 of the Air Quality Chapter (Document Reference 3.2, APP-048) described the likely significant effects of the project upon air quality and takes account of the mitigation proposed in Section 5.9.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-2.9 HRA Appropriate Assessment in combination impact	Natural England Relevant Representation (NE key issue ref 1.2, page 11, RR-180) and additional commentary in Natural England Written Representation (NE key issue ref 1.2, page 11, REP1-035)	<p>The in combination impact in the HRA Appropriate Assessment scopes out any NOx changes that are less than 1% of 30µg/m<sup>3</sup> for vegetation.</p> <p>Natural England are in the process of collating advice regarding the approach above in light of the Wealden judgement and potential for multiple “imperceptible” emission concentrations to combine into a significant effect. We recognise and understand the argument made regarding the limits of modelling. This advice will also feed into National Highways new guidance</p> <p>Natural England will continue to discuss this topic with National Highways and feedback into this project with the updated evidence and guidance on this topic.</p> <p>The assessment should continue to use the best available evidence, ensuring the guidance and parameters set out within recent case law are followed.</p> <p><b>Additional commentary:</b></p> <p>Natural England understand that whilst the 0.3ug/m<sup>3</sup> NOx threshold has been applied to the assessment, this value is exceeded and therefore both ammonia and nitrogen deposition have been calculated and applied in the final assessment. Whilst the use of an imperceptibility threshold, in particular the dismissal of ammonia and nitrogen deposition where the threshold is not exceeded, is still under discussion – irrespective of this, the necessary calculations Natural England would expect to</p>	<p>The conversation regarding policy is currently ongoing between National Highways and Natural England.</p> <p>The DMRB LA105 assessment methodology has not currently been amended to account for the ongoing conversations. As such the approach taken and results detailed within the Section 5.1 of the Environmental Statement Chapter 5 Air Quality (Document Reference 3.2, APP-048) are still applicable. No amendments required.</p> <p>The assessment approach is undertaken in accordance with the published standard. It should however be noted that an assessment of the change in N deposition on the SACs within the affected road network has been undertaken. As the change triggered the screening thresholds in DMRB LA105 evidence is required to be presented to determine whether the impacts of the scheme will result in an impact on site integrity. Therefore, the way the Wealden Judgement is set out by Natural England in their submission i.e. multiple small changes triggering that when combined would trigger the need for an assessment. This argument is not engaged in this instance, as an assessment has already been undertaken as the traffic criteria in DMRB LA 105 were already triggered.</p> <p>A meeting was held with Natural England on Thursday 8<sup>th</sup> December 2022 to discuss their concerns on air quality including ammonia concentrations. A technical note which sets</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>see have been completed according to the response provided by the applicant. If this is indeed the case, then NE can support the outcome however would caution that NE is not setting a precedent of supporting this imperceptibility threshold or justification as this is still under discussion. Please could National Highways confirm whether the impact of ammonia has also been assessed separately, aside from as a component of nitrogen deposition. NE require gaseous ammonia to be compared against the 1% critical level threshold, depending on whether the ecological community has an important bryophyte/ lichen component or not. We note this was also suggested by the IAQM reviewers of the National Highways ammonia model.</p>	<p>out National Highways position is being produced and will be shared with Natural England during the week commencing 13<sup>th</sup> March 2023. National Highways will continue to engage with Natural England on this matter.</p>	
3-2.10 Air Quality	<p>Natural England Relevant Representation (NE key issue ref 1.3, page 11, RR-180) and additional commentary in Natural England Written Representation (NE key issue ref 1.3, page 9, REP1-035)</p>	<p><b>Operation Phase: Section 1.5.297 states that:</b> <i>“The air quality assessment is inherently in combination as it considers other plans and projects when determining the future baseline (do minimum) scenario.”</i></p> <p>Natural England require clarification that the in combination assessment includes a reasonable search for sources of emissions to air from other sectors; particularly, agricultural. This will not already be captured in the background or modelling approach.</p> <p>The in-combination approach needs to include details of all of the emissions sources identified and screened in/out to ensure the assessment has considered the impacts to the protected sites fully.</p>	<p>The Air Quality assessment has used the most recent information from Defra for future background. It contains data on emission sources from different sectors but not for specific point source emissions in line with DMRB methodology. As such the background maps utilised for modelling does incorporate in combination emissions from other sectors.</p> <p>The assessment findings set out in the Environmental Statement Chapter 5: Air Quality (Document Reference 3.2, APP-048) are therefore considered to be accurate and complete. No further assessment or amendments including updates to proposed mitigation are required.</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>If impacts are found, then the appropriate mitigation / compensation should be included in the HRA, and mitigation measures will need to be secured in the CEMP.</p> <p>The DCO needs to ensure that all proposed mitigation / compensation is detailed, deliverable and secured.</p> <p><b>Additional commentary:</b></p> <p>Regarding the in-combination assessment, NE recognise that the DMRB model does include other sources of emissions aside those from roads. However, the response also states that the DMRB methodology does not require point sources to be assessed. Please could this be explained further as NE require that when considering the potential for in combination effects, a competent authority should recognise that different proposal types ('sectors') and different pollutants (e.g., ammonia (NH3), nitrogen oxides (NOx and NO2)) can combine together to have the same or similar effect on a given area of habitat.</p> <ul style="list-style-type: none"> <li>○ It is generally well-established that the scope of an in-combination assessment is restricted to plans and projects which are 'live' at the same time as the assessment being undertaken. NE apply the following guidance to the scope of an in-combination assessment. The incomplete or non-implemented parts of plans or projects that have already commenced                     <ul style="list-style-type: none"> <li>▪ Plans or projects given consent but not yet started</li> </ul> </li> </ul>	<p>A meeting was held with Natural England on Thursday 8<sup>th</sup> December 2022 to discuss their concerns on air quality including this issue. It was demonstrated that suitable consideration of in-combination effects was included in the assessment.</p> <p>A technical note which sets out National Highways position is being produced and will be shared with Natural England during the week commencing 13<sup>th</sup> March 2023. National Highways will continue to engage with Natural England on this matter.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<ul style="list-style-type: none"> <li>▪ Plans or projects currently subject to an application for consent or proposed to be given effect</li> <li>▪ Projects that are the subject of an outstanding appeal</li> <li>▪ Ongoing plans or projects that are the subject of regular review and renewal</li> <li>▪ Any draft plans being prepared by any public body</li> <li>▪ Any proposed plans or projects that are reasonably foreseeable and/or published for consultation prior to application</li> <li>▪ Installations that were authorised after the most recent update of background pollution data on APIS</li> <li>▪ Is the site known to receive high levels of nutrient inputs from other non-atmospheric sources E.g., via water pathway?</li> </ul>		
3-2.11 Air Quality	Natural England Relevant Representation (page 18, RR-180)	<p>Natural England note that it was confusing to find the air quality conclusions spread throughout several different documents, it is also difficult to identify which stage of operation is being referred to in each of these conclusions as it is not clear which approach has been taken in which section.</p> <p>Natural England recommends that the air quality chapter includes references to all conclusions drawn in relation to air pollution – describing which stage of the HRA these assessments have been carried out for or whether they are assessing for particular pollution types against certain habitat types.</p>	A full assessment of the Air Quality effects is provided within the Environmental Statement (ES) Chapter 5 Air Quality (Document Reference 3.2, APP-048) and the supporting Chapter 5 Appendices (Document Reference 3.4, APP-150 to APP-153). The conclusions of significant effects are detailed within the Chapter 5 of the ES with supporting findings detailed within the Appendices. The conclusions set out in the Air Quality Chapter referenced above are those made to receptors identified in the Air Quality assessment methodology DMRB LA105. The effects upon ecological receptors to determine the significance of effect is	Under Discussion



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>The process contribution of ammonia, NOx and N deposition are not always presented and there seems to be no consideration of direct toxic effects of ammonia and NOx against the critical levels. Natural England recommends that both the process contribution and direct toxic effects are assessed for all three pollutants and included in the assessments within the air quality chapter.</p> <p>The HRA includes assurance that because there is already an existing exceedance that a further breach from additional emissions is okay – this is not the case and should be corrected. The Dutch Nitrogen Case explains that every breach of emissions thresholds should be assessed for detrimental impacts to the protected sites.</p> <p>The air quality assessment concludes there will be various impacts through its chapter, even though there is a conclusion of no adverse effect on integrity in the appropriate assessment. Where impacts are found and assessed mitigation needs to be provided, this mitigation needs to ensure it is modelled and effective at providing appropriate mitigation for the specific pollutant type.</p> <p>Consequently, it is not yet clear as to whether the assessment will capture, with scientific certainty/no reasonable scientific doubt, all the potential impacts of the project to sensitive ecological features/ prevent or significantly slow restoration to the conservation objectives. Further clarification</p>	<p>discussed in more detail within ES Chapter 6 Biodiversity (Document Reference 3.2, APP-049) and the Habitats Regulations Assessment Stage 2 Statement to Information Appropriate Assessment (Document Reference 3.6, APP-302) Engagement will continue with Natural England to ascertain where there is a lack of clarity on where certain conclusions are documented.</p> <p>Both NOx critical levels and N deposition critical load were considered within the assessment as outlined in Table 1 in Appendix 5.2 Air Quality Assessment Methodology for NOx (Document Reference 3.4, APP-151) Section 5.4.(Application Document Reference 3.3, APP-069) in Chapter 5 of the ES states that nitrogen deposition (N dep) at designated ecological sites within 200m of the ARN has been assessed.</p> <p>The consideration of ammonia was included through the National Highways ammonia tool, as a function of the NOx emissions only as set out in the Chapter 5 Air Quality referenced above Section.</p> <p>It should be noted that discussions are currently ongoing between Natural England and National Highways regarding the DMRB LA105 air quality assessment methodology.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		is needed within the air quality chapter and appropriate assessment to ensure the conclusions can be drawn and are of sound scientific evidence		
3-2.12 Mitigation measures	Natural England Relevant Representation (NE key issue ref 2.1, page 12, RR-180) and additional commentary in Natural England Written Representation (NE key issue ref 2.1, page 10, REP1-035)	<p>The assessments of significant impact, particularly for the SAC and SSSI habitats and species are generally based on draft mitigation measures within a draft CEMP design and mitigation principles, rather than specific design and mitigation.</p> <p>If these principles are not strictly adhered to, then this could change the outcome of the assessments. For example, if the bridge designs were to change over the Troutbeck, within the River Eden SAC, this could change the outcome of the assessments and HRA.</p> <p>The design principles and mitigation measures within the CEMP need to be secured and adhered to during the construction phase of the works.</p> <p>The mitigation measures need to progress past the draft stage and be updated to include all of the detailed design information required to understand the impacts of the designated features of the River Eden SAC &amp; SSSI.</p> <p>We have also provided comments on the mitigation proposed for the River Eden SAC below in Table 1 and Table 2 and are satisfied that if our comments are taken on board and the biodiversity priorities are secured, and the design and mitigation principles are adhered to (and not subsequently amended) then there should be</p>	<p>It is acknowledged that the mitigation measures are considered preliminary and are based on the preliminary design of the Project as submitted in the DCO Application. They are based on the identified Likely Significant Effects of the Project as identified in the Environmental Statement (Document Reference 3.2, APP-043 to APP059), which have been used to develop principles set out in the Environmental Management Plan (EMP) ( Document Reference 2.7, APP-019) and the Project Design Principles (Document Reference 5.11, APP-302), both of which will be examined as part of the DCO submission and will become certified documents. This includes activity around the River Eden SAC &amp; SSSI. These two documents and their annexes will secure the mitigation required. Any future design developments, over the course of the DCO that may occur through the Examination process, will be required to take account of the mitigation outlined in these documents and will not result in effects worse than that which was assessed within the ES.</p> <p>It should be noted that Article 53 of the draft DCO (Document Reference 5.1, APP-285) requires that the EMP is developed into a second iteration EMP (in consultation with various parties) (or EMPs – there may be multiple second iteration EMPs applicable to</p>	Under discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>no adverse effect on integrity of the River Eden SAC. Further information is needed to understand the impacts and design of the construction works and any temporary structures (in particular the temporary bridge over Troutbeck) in relation to the River Eden SAC and its designated features. It should be noted that our conclusion of no adverse effect on integrity may change if the guidance we have provided on the mitigation and design principals is not followed appropriately.</p> <p><b>Additional commentary:</b></p> <p>Natural England note that the EMP and Project Design Principles will become certified documents. We also note that any future design developments, over the course of the DCO that may occur through the Examination process, will be required to take account of the mitigation outlined in these documents and will not result in effects worse than that which was assessed within the ES. We are still concerned that there may be design and mitigation changes after the examination process. However, we recognise that there will be a second iteration of the EMP on which we will be consulted, and that will need SoS approval. This needs to contain more detail and specific mitigation. Any changes in the EMP that relate to the River Eden SAC will need to be addressed in an updated HRA.</p>	<p>different parts of the scheme) and then submitted to the Secretary of State for approval prior to the start of works. This second iteration EMP will contain detailed management plans (where relevant) that have been informed by the detailed design and construction methodologies that have not yet been developed, including in relation to biodiversity matters. Compliance with an approved second iteration EMP is secured by article 53 and as such is a legally enforceable obligation.</p> <p>National Highways acknowledge the comment made, and will continue to work closely with Natural England to ensure sufficient detail is provided in later iterations of the EMP.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-2.13 Biodiversity - construction impacts	Natural England Relevant Representation (NE key issue ref 2.2, page 12, RR-180) and additional commentary in Natural England Written Representation (page 14, REP1-035)	<p>The temporary works as part of the construction phase of the project need to be assessed and show detailed design information so that the potential impacts can be considered fully. The biodiversity chapter does not currently detail how and where the temporary bridges will be built, and they have therefore not been fully assessed for impacts in the HRA.</p> <p>The designs of the temporary bridge also need to be included and assessed further within the biodiversity chapter. There is a little more additional information in the HRA, however further specific information is required.</p> <p>Additional information is required in the Environmental Statement, as mentioned; detailed design information, location and methodology for the construction of the temporary works. Required mitigation must be secured in the final CEMP. The Mitigation measures and CEMP need to progress past the draft stage and be updated to include all of the detailed design information required to understand the impacts of the designated features of the River Eden SAC &amp; SSSI.</p> <p><b>Additional commentary:</b> Natural England note that the specific details of construction methodologies and practices were not finalised at the time of the DCO application and will not be until the detailed design is complete, which is currently ongoing. We assume that the detailed design will be complete by the time the second</p>	<p>At the time of writing the Environmental Statement (Document Reference 3.2, APP-043 to APP-059) the planning of the construction phase of the Project was ongoing, as outlined in Environmental Statement Chapter 2: The Project (Document Reference 3.2, APP-045). The specific details of construction methodologies and practices were not finalised and will not be until the detailed design is complete, which is currently ongoing. Where construction methodologies and practices were not yet fixed, the EIA considered the full range of approaches that could be taken or considered the worst case for environmental effects. The Environmental Statement therefore assumes a reasonable worst-case scenario where the appropriate level of detail was not available at the time of writing in order to allow for a full assessment of the potential impacts. Each technical chapter of the Environmental Statement outlines the assessment assumption and limitations for any such instances to ensure that a reasonable worst-case scenario has been assessed. In turn any variations to the construction approach should not result in likely significant adverse effects over and above those reported within the Environmental Statement. The Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) sets out mitigation and restrictions in construction activities around watercourses (Annex C2 Working in Watercourses Method Statement, Document</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		iteration of the EMP is consulted on and agreed by SoS.	<p>Reference 2.7, APP-037) and in particular working around the River Eden SAC and SSSI (Annex C1 Working in and Near SAC Method Statement Document Reference 2.7, APP-036). It should be noted that article 53 of the draft DCO (Document Reference 5.1, APP-285) requires that the EMP is developed into a second iteration EMP (in consultation with various parties) (or EMPs – there may be multiple second iteration EMPs applicable to different parts of the scheme) and then submitted to the Secretary of State for approval prior to the start of works. This second iteration EMP will contain detailed management plans (where relevant) that have been informed by the detailed design and construction methodologies that have not yet been developed, including in relation to biodiversity matters. Compliance with an approved second iteration EMP is secured by article 53 and as such is a legally enforceable obligation.</p> <p>National Highways confirm that Natural England's query within their additional commentary is correct. The detailed design will need to have been completed to inform the content of a second iteration EMP.</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
3-2.14 Aquatic macrophytes and aquatic invertebrates	Natural England Relevant Representation (NE key issue ref 2.3, page 13, RR-180) and additional commentary in Natural England Written Representation (page 16, REP1-035)	<p>Sections 6.7.151 and 6.7.158 conclude that the assemblages of aquatic macrophytes and aquatic invertebrates within the Zone of Influence are considered of Local importance / Low Sensitivity and therefore are scoped out of further assessment. However, given that the macrophyte assemblages present are within SAC habitats their importance should be higher. They are also sensitive to changes in the physical and chemical aspects of the river habitats. Section 6.7.156 states that sites with a macroinvertebrate assemblage indicative of a high conservation value were recorded. Aquatic invertebrates are a key ecological component of SAC/SSSI habitats, and therefore should be given higher importance in the assessment. Given the need to increase the importance of the macrophyte and invertebrate assemblages in relation to the River Eden SAC, they should be brought forward into further assessments to ensure that they are thoroughly assessed, so that the proper conclusions are drawn on their impacts. Once assessed properly, the appropriate mitigation should be secured if there are impacts to the aquatic assemblages. If needed mitigation measures and compensation measures should be recommend in the HRA and secured in the CEMP.</p> <p><b>Additional commentary:</b> NE understand that the impact on the aquatic macrophytes and invertebrates is considered within the SSSI/SAC sections of the ES, EMP and HRA. Our comments explain that given</p>	<p>The valuation of the aquatic macroinvertebrate and macrophyte assemblages has been undertaken in line with Table 3.9 in DRMB LA108 Biodiversity, as described in the Environmental Statement Appendix 4.1 Environment Impact Assessment Scoping Report Table 7-10 and Table 7-11 (Document Reference 3.4, APP-148). It was considered that the loss of these populations within the project Zone of Influence (Zol) (which is not expected) would not adversely affect the conservation status or distribution of the species at a county or unitary authority scale. Potential impacts (in consideration of secured mitigation) to the River Eden SAC and River Eden and Tributaries SSSI are assessed in 6.10.6 of Environmental Statement Chapter 6 Biodiversity (Document Reference 3.2, APP-049), and the Habitats Regulation Assessment (Habitat Regulations Assessment Stage 2 Statement to Information Appropriate Assessment (Document Reference 3.6, APP-235). It is considered that the construction phase mitigation and the design of the watercourse crossings, as described in the HRA and secured in the Environmental Management Plan (Document Reference 2.7, APP-019) REAC D-RDWE-01 and Annex B7 Ground and Surface Water Management Plan (Document Reference 2.7, APP-027) and within the Project Design Principles (Document Reference 5.11, APP-302) will safeguard the aquatic macroinvertebrates</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>that the macrophyte invertebrates can be within internationally / nationally important sites, they should be given due weighting in this section of the ES.</p>	<p>and macrophytes assemblage within the project Zone of Influence.                      No compensation measures are considered to be required for either species group.</p> <p>For rivers where the macrophyte assemblage conforms to the Annex I habitat “3260 - Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation” (i.e. rivers within the River Eden SAC and River Eden and Tributaries SSSI), a value of Nationally important will be assigned as an errata to be submitted into the examination at a later date following further discussion with Natural England) for the purposes of the Biodiversity Chapter. Potential effects on habitats supporting notable macrophytes are assessed in the ES Biodiversity Chapter (Document Reference 3.2, APP-049) (from paragraph 6.10.6), and in the Habitats Regulation Assessment (Habitat Regulations Assessment Stage 2 Statement to Information Appropriate Assessment (Document Reference 3.6, APP-235). With regards the aquatic invertebrate assemblage; they are not a qualifying feature of the River Eden SAC, or an interest feature of River Eden and Tributaries SSSI according to the citation. With the exception of whiteclawed crayfish, which are considered to be of National/International importance/High sensitivity and were subject to assessment in the ES Biodiversity Chapter (Document Reference 3.2, APP-049) (see</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			<p>Section 6.10) and the HRA ((Document Reference 3.6, APP-235), the invertebrate interest feature of the SSSI are terrestrial species associated with river shingles, sandbanks and riparian areas (i.e. the shore bug <i>Sadula fucicola</i>, the leaf beetle <i>Hydrothassa hannoverianna</i>, the ground beetles <i>Bembidian schuepelli</i>, <i>Bembidian fluviatile</i> and <i>Asaphidian pallipes</i> and the flies <i>Loncoptera meijeri</i>, <i>Camspicnemus marginatus</i> and <i>Rhaphium fractrum</i>. Based on the above National Highways do not consider the aquatic invertebrate assemblage to be of International / National importance. It should also be noted that the design features secured with the Project Design Principles (Document Reference 3.2, APP-302) and mitigation secured within the EMP (Document Reference 2.7, APP-019) will safeguard all aquatic receptors, including aquatic invertebrate communities.</p>	
3-2.15 Otter	<p>Natural England Relevant Representation (NE key issue ref 2.4, page 13, RR-180)</p> <p>Natural England Written Representation (NE key issue ref 2.4,</p>	<p>Construction and Operational: Within Table 6-11: Embedded mitigation otter crossings. The table states that the “<i>Bridge with no impact on banks - preferred option. Box culvert second option</i>”. Natural England requires the detailed design of all bridges and crossings to be presented and discussed in order to assess the potential impacts to the designated features and protected species.</p>	<p>National Highways will continue to engage with Natural England on the detailed design of crossings and bridges, the provision of otter holts and replacement otter habitat.</p>	Under Discussion



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	page 11, REP1-035)	<p>The detailed design of all crossings and bridges needs to be shown and be part of the application in order to be able to assess the potential impacts to the designated features. Natural England need to understand the design of the crossings to understand whether mitigation and compensation is necessary.</p> <p>For the crossing at NY 75040 16117, if the otter holt is destroyed then alternatives need to be provided. 6.10.275 states that two replacement holts will be constructed.</p> <p>The DCO needs to hold detailed design and evidence of each constructed structures – these all need to be assessed for potential impacts.</p> <p>The provision of replacement Otter habitat needs to be secured within the DCO to ensure no long term affects to the local otter population.</p>		
3-2.16 EMP and HRA	Natural England Relevant Representation (NE key issue ref 3.1, page 13, RR-180) and additional commentary in Natural England Written Representation (page 17, REP1-035)	<p>Construction Phase: At present the EMP is in draft form, and specific and detailed mitigation measures are not finalised. Reassurance is also needed that if the project design principles are not adhered to (e.g., the design for an open span bridge with piers across the Troutbeck Floodplain) then the outcomes of the HRA may change. Whilst we agree the outcome of the HRA – that there will be no adverse effect on the integrity of the River Eden SAC, this is dependent on the design principles and mitigation measures in the draft CEMP not changing. Natural England require the design principles and mitigation measures in the draft CEMP to</p>	It is acknowledged that the mitigation measures are based on the preliminary design of the Project as submitted in the DCO Application. They are based on the identified Likely Significant Effects of the Project as identified in the Environmental Statement (Document Reference 3.2, APP-044), which have been used to develop principles set out in the Environmental Management Plan (Document Reference 2.7, APP-019) and the Project Design Principles (Document Reference 5.11, APP-302), both of which will be examined as part of the DCO submission and will become certified documents.	Under discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>be secured and not change in order for us to agree to the outcomes in the HRA The mitigation measures have already been drafted but they need to be secured. Any measures used to inform the decision about the effects on the integrity need to be sufficiently secured and likely to work in practice. In the case of the DCO, measures used to inform the decision about the effects on the integrity will be secured through DCO itself, via (for example) the DCO Order Limits, Project Design Principles or Environmental Management Plan (EMP).</p> <p><b>Additional commentary:</b> Natural England note that the specific details of construction methodologies and practices were not finalised at the time of the DCO application and will not be until the detailed design is complete, which is currently ongoing. We assume that the detailed design will be complete by the time the second iteration of the EMP is consulted on and agreed by SoS.</p>	<p>These two documents and their annexes will secure the mitigation required. Any future design developments, over the course of the DCO that may occur through the Examination process, will be required to take account of the mitigation outlined in these documents and will not result in any worsening of effects identified within the ES. It should be noted that article 53 of the draft DCO (Document Reference 5.1, APP-285) requires that the EMP is developed into a second iteration EMP (in consultation with various parties) (or EMPs – there may be multiple second iteration EMPs applicable to different parts of the scheme) and then submitted to the Secretary of State for approval prior to the start of works. This second iteration EMP will contain detailed management plans (where relevant) that have been informed by the detailed design and construction methodologies that have not yet been developed, including in relation to biodiversity matters. Compliance with an approved second iteration EMP is secured by article 53 and as such is a legally enforceable obligation.</p> <p>National Highways confirm that Natural England’s query within their additional commentary is correct. The detailed design will need to have been completed to inform the content of a second iteration EMP.</p>	
3-2.17 Biodiversity benefits	Natural England Relevant Representation (page 16, RR-180)	<p><u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.9.25:</b></p>	<p><b>6.9.25</b> For the potential enhancement opportunities which are outlined within the Environmental Statement Chapter 6 Biodiversity (Document</p>	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	and additional commentary in Natural England Written Representation (page 18, REP1-035)	<p>This section details some enhancement opportunities that may be possible. Many of these will have biodiversity benefits and will provide indirect benefits to the River Eden SAC, including some of its designated species. However, the Environmental Statement does not say whether these measures will definitely be carried out. The environmental statement needs to state which mitigation and enhancement opportunities that will be carried out and secured in order for Natural England to be able to assess whether the mitigation and compensation is appropriate.</p> <p><b>Additional commentary:</b> 6.9.25. Natural England encourage National Highways to seek to achieve as many enhancement opportunities as possible.</p>	<p>Reference 3.2, APP-049), there is no legal requirement for them to be implemented into the final design of the project. They are disclosed within the Environmental Statement so that they are possible within the remit of the project. However, the DCO is not legally required to ensure the implementation of the enhancement measures and the measures have been identified as opportunities to be investigated as the design develops throughout the DCO process.</p> <p>All enhancement measures identified in 6.9.25 are easily achievable with the potential exception of “Removal of redundant culvert on Eastfield Dike associated with the MOD tank turning area. The current Flood Risk Assessment is based on modelling that assumes the presence of this culvert and the acceptability of this mitigation, in terms of flood risk, will need to be fully assessed during detailed design” and “A 300m length of Mains Gill is within a culvert. There is potential to daylight this section by removing the pipe culvert reconnecting habitats locally. The value of this mitigation, in terms of fish, should be assessed noting that the existing A66 culvert presents a barrier to the upper reaches of Mains Gill and that this section is ephemeral”.</p>	
3-2.18 Air quality impacts to River Eden	Natural England Relevant Representation (page 16, RR-180) and additional	<p><u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.10.11:</b> When discussing the air quality impacts to the River Eden, this sections states that:</p>	<p><b>6.10.11</b> It is noted that the “flushing” argument is currently based on the professional judgment of National Highways. Flushing of nitrogen from exposed macrophytes during moderate</p>	Under discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	<p>commentary in Natural England Written Representation (page 18, REP1-035)</p>	<p>“When considering the results of the air quality modelling it should be noted that whilst change in deposition rate is a useful metric to understand the net increase in pollutants in the air, this metric is less applicable to this aquatic habitat type. Aquatic plants that are a component of the vegetation community are submerged for the majority of the year due to their growth form, consequently they are regularly inundated and flushed during modest flood events.” Natural England understand the argument made, but find this comment to be quite vague, can scientific evidence that can support this comment and highlight why in this case N depositions will not lead to a nutrient impact on the river be provided. <b>Additional commentary:</b> 6.10.11, Natural England will continue to check further justifications in the ES and EMP as they become available.</p>	<p>high flow river events was discussed as part of the HRA Task Working Group, where it was agreed that this seemed reasonable, but Natural England suggested that further evidence should be sought. National Highways continues to engage with Natural England on this point and will seek to clarify and justify the methodology and assessment undertaken in the ES as part of this process.</p>	
<p>3-2.19 Woodland at Skirsgill</p>	<p>Natural England Relevant Representation (page 17, RR-180)  Natural England Written Representation (page 19, REP1-035)</p>	<p><u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.10.27:</b> This section refers to loss of woodland at Skirsgill, including trees on the banks of the River Eden. This ought to be reflected in the River Eden SAC/SSSI section, given that is a loss of riverbank habitat.</p>	<p>National Highways recognise that that riparian trees are an important component of the river habitat. If trees are felled within the site, replacement will be planted on the riverbank as close as possible to where felled. A tree loss and compensation planting report (Document 7.25, REP4-012) was prepared and submitted at Deadline 4. The report quantifies the total number of trees which could be lost to the Project and subsequently determines and set out the total number of trees which could be required to be replanted as part of the mitigation. The replacement planting requirements are</p>	<p>Under discussion</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			secured in the first iteration EMP ( Document Reference 2.7, APP-019) in various commitments. This includes the relevant replacement ratios. Commitment ref. D-LV-01 requires an Arboricultural Impact Assessment (AIA) to be undertaken prior to the start of the main works for the Project. National Highways expects further engagement with Natural England on this topic.	
3-2.20 Trees	<p>Natural England Relevant Representation (page 17, RR-180)</p> <p>Natural England Written Representation (page 19, REP1-035)</p>	<p><u>Environmental Statement Chapter 6: Biodiversity</u></p> <p><b>6.10.28</b> states that mitigation will be in place, including fencing to protect the remaining trees. In addition, any riverbank trees that are lost should be replaced to continue to provide dappled shade conditions along the river (though not necessarily at the new outfall location). The provision of replaced habitat / trees should be secured within the mitigation and compensation measures.</p>	<p>National Highways recognise that that riparian trees are an important component of the river habitat. If trees are felled within the site, replacement will be planted on the riverbank as close as possible to where felled. A tree loss and compensation planting report (Document Reference 7.25, REP4-012) was prepared and submitted at Deadline 4. The report quantifies the total number of trees which could be lost to the Project and subsequently determines and set out the total number of trees which could be required to be replanted as part of the mitigation. The replacement planting requirements are secured in the first iteration EMP ( Document Reference 2.7, APP-019) in various commitments. This includes the relevant replacement ratios. Commitment ref. D-LV-01 requires an Arboricultural Impact Assessment (AIA) to be undertaken prior to the start of the main works for the Project. National Highways expects further engagement with Natural England on this topic.</p>	Under discussion
3-2.21 Use of LA105	Natural England Relevant	<p><u>Environmental Statement Chapter 6: Biodiversity</u></p>	In regard to the use of DMRB LA105 it is acknowledged that there is ongoing	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	Representation (page 17, RR-180)	<b>6.10.315:</b> Natural England do not support the use of LA105 as it not HRA compliant. The approach to the air quality assessment for the project has been accepted.	engagement between National Highways and Natural England on the topic of Air Quality methodology and the adequacy of DMRB LA105. The wider use of LA 105 in National Highways projects is outside of the scope of project level discussions.	
3-2.22 Woodland	Natural England Relevant Representation (page 17, RR-180)	<u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.10.359-6.10.466:</b> These sections assess the impact of air pollution on many woodland designated sites and priority habitats. Whilst the comments about the woodland and individual trees are discussed, the trees/woodland need to assess for their lichen and lower plant communities, which are much more susceptible to nitrogen deposition. Other woodland sites in the vicinity (beyond 200m of the ARN or red line boundary) do have important lichen and lower plant communities. They comprise similar woodland communities and underlying geology to those sites assessed in the Environmental Statement, therefore there is the potential for these sites to also have important lichen and lower plant species present, which should be assessed.	The woodland designated sites noted in 6.10.359 - 6.10.466 were assessed utilising desk study information as part of the assessment of air pollution impacts within the Environmental Statement. Following ground truthing surveys undertaken in October 2022, the field survey data supports the desk study information and habitats assumed to be present as part of the assessment. Whilst it is acknowledged that the woodland sites may support lichen and lower plant communities more susceptible to nitrogen deposition, the rationale for the assessment outcomes remain the same and subsequently any potential impact from changes in AQ are not deemed to have a significant effect on the sites.	Under Discussion
3-2.23 Temporary bridges	Natural England Relevant Representation (page 17, RR-180) and additional commentary in Natural England Written	<u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.10.478:</b> Whilst the main permanent bridges have been designed to be open plan (across the whole floodplain in the case of Troutbeck and a couple of becks in the Appleby – Brough scheme), the impact of the temporary bridge	It is noted that a temporary bridge over Trout Beck and the temporary and construction phase works have the potential to have a detrimental effect of the River Eden SAC. The HRA (Document Reference 3.6, APP-235) assesses the construction phase impacts considering proposed mitigation. The detailed design of the temporary bridge was	Under Discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	Representation (page 19, REP1-035)	<p>across Troutbeck needs to be assessed. Natural England requires the detailed design and whether a temporary causeway across the floodplain will be necessary to assess the impacts to Troutbeck.</p> <p><b>Additional commentary:</b> 6.10.478 Natural England acknowledge the points made here, we did agree in the workshop on 22/04/2022 that the temporary bridge should be open span and that the haul road will need to be at flood plain level. We wait to see that this extra detail and information is included within the second iteration of the EMP and the detailed project design.</p>	<p>not available at the time of submission and will form part of the Project detailed design. However, the requirement for a temporary bridge over Trout Beck to facilitate the construction of the permanent viaduct was discussed with Natural England in the construction mitigation workshop (22 April 2022) and it was agreed that this would need to be open span (i.e., from bank top to bank top) and that the haul road would need to be at flood plain level to reduce potential for changes to fluvial geomorphological process during construction.</p> <p>These measures have been included in REAC reference MW-RDWE-09 within the updated Environmental Management Plan (Document Reference 2.7, REP3-004) submitted at deadline 3.</p>	
3-2.24 Monitoring	Natural England Relevant Representation (page 18, RR-180) and additional commentary in Natural England Written Representation (page 19, REP1-035)	<p><u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.11.5:</b> Natural England acknowledge that National Highways recommends monitoring visits during the construction phase be carried out every six months. Natural England suggest that these monitoring visits should be much more frequent through the construction areas with the highest impacts and impact pathways the designated sites. The water quality in terms of sediment and turbidity will need regular, frequent monitoring to ensure that the mitigation measures that are in place are preventing sediment run-off and pollution incidents.</p>	<p>Note paragraph 6.11.4 4 of Chapter 6 Biodiversity within the Environment Statement (Application Document Reference 3.2, APP-049) “A monitoring visit will be carried out prior to the commencement of construction works at each location to ensure appropriate protective fencing and other required mitigation measures are in place.” Subject to this measure being implemented and subsequent visits being carried out on a 6-month rotation, it is considered that suitable safeguards will be in place for the majority of habitats. National Highways will discuss monitoring frequency with Natural England through ongoing engagement.</p>	Under discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p><b>Additional commentary:</b> 6.11.5 Natural England would welcome further discussion on this point. Where there is an obvious pathway to the River Eden SAC, and construction, there ought to be frequent measuring of turbidity (sediment) to ensure that the mitigation that is in place is working as it should, and that if high levels of sediment are found within the watercourse, then work is stopped to address any issues.</p>		
3-2.25 Monitoring	<p>Natural England Relevant Representation (page 18, RR-180) and additional commentary in Natural England Written Representation (page 20, REP1-035)</p>	<p><u>Environmental Statement Chapter 6: Biodiversity</u> <b>6.11.7:</b> Natural England welcome the need to monitor habitat creation schemes and recommend that the effluent from the attenuation ponds needs to be monitored to ensure that the ponds continue to function as they should.</p> <p><b>Additional commentary:</b> 6.11.7 Natural England have not seen a National Highways response to this point. Natural England still recommends that the effluent from the attenuation ponds is monitored regularly to ensure that the ponds continue to function as they should.</p>	<p>National Highways has an established routine maintenance regime for all its drainage assets to ensure that they perform as they should do.</p>	Under Discussion
3-2.26 HRA	<p>Natural England Relevant Representation (page 19, RR-180) and additional commentary in Natural England</p>	<p><u>3.6 Habitats Regulations Assessment: Stage 2 Statement to Inform Appropriate Assessment</u> <b>1.4.5:</b> Further clarification is needed here to understand why all of the ecological receptor locations have been modelled at 0m.</p>	<p>Potential impacts (in consideration of secured mitigation) to the River Eden SAC and River Eden and Tributaries SSSI are assessed 6.10.6 of Chapter 6 Biodiversity (Document Reference 3.2, APP-049), and the Habitats Regulation Assessment (3.6 Habitat Regulations Assessment Stage 2 Statement</p>	Under discussion



Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
	<p>Written Representation (pages 22 and 23, REP1-035)</p>	<p><b>1.4.19:</b> Natural England would expect no deterioration in water quality, further information is required here to understand whether the Highways England Water Risk Assessment Tool (HEWRAT) takes into consideration water quality when implementing suitable drainage system and mitigation measures.</p> <p><b>1.5.17:</b> The temporary bridge over Troutbeck is mentioned here but there are no available details. Natural England required the detailed design of the bridge and information regarding whether it will affect the natural function of the river to be presented and referred to in the HRA. The temporary and construction phase works do have the ability to have a detrimental effect on the SAC and therefore should be discussed in the HRA.</p> <p><b>1.5.24-1.5.25:</b> This section concludes no land take is required inside the SAC boundary however section 6.10.27 in the Environmental Statement refers to the loss of woodland at Skirsgill, including riparian trees, this should be discussed here.</p> <p><b>1.5.92:</b> The statement is vague and whilst a reasonable argument, this requires some evidence/reference/detail to have the necessary level of confidence. However, if we use this argument for all the Diffuse and point source pollution in the river i.e., that it will all be flushed out of the system and</p>	<p>to Information Appropriate Assessment) (Document Reference 3.6, APP-235). It is considered that the construction phase mitigation and the design of the watercourse crossings, as described in the HRA and secured in the Project Design Principles (Document Reference 5.11, APP-302) will safeguard the aquatic macroinvertebrates and macrophytes assemblage within the project Zone of Influence. No compensation measures are considered to be required for either species group. A height of 0m has been used for modelling ecological receptors as ground level is closer to the road/source of the emissions and is therefore considered a reasonable worst case. No deterioration of water quality is predicted as a result of the Project. During construction measures outlined within the Environmental Management Plan (EMP) (Document Reference 2.7 APP-019) will be implemented and monitored. During operation the HEWRAT tool has been used to guide the design of the drainage system to be compliant with the Environmental Quality Standards (EQSs) for the receiving watercourses. The HEWRAT assessment undertaken on the drainage design demonstrated no adverse impact. Future revisions of the drainage design will be subject to updated HEWRAT assessments to maintain compliance. Regarding <b>1.5.92</b> it is noted that the temporary bridge over Trout Beck and the temporary and construction phase works</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>therefore not be a problem, why are our rivers unfavourable for nutrient pollution, which can cause changes in macrophyte composition, reduction in Biological Oxygen Demand (BOD), increase in algae which can then have adverse effects on dependent species etc. But Phosphorus tends to be the limiting factor in these freshwater river systems, and the nutrient input from the air pollution is mainly Nitrogen.</p> <p><b>1.5.98:</b> An existing exceedance of Nitrogen is not a justification to permit further additional emissions (see Dutch Nitrogen Judgement). However, further evidence and discussion needs to be supplied with regards to the impact on the ecology / biodiversity of Nitrogen in comparison to Phosphorus. Phosphorus is likely to be the limiting factor.</p> <p><b>1.5.514:</b> Please see our comments for section 1.4.19</p> <p><b>1.5.157:</b> The temporary bridge design principles have been included and discussed here, clarification is needed to understand whether these have been secured and firmly agreed</p> <p><b>1.5.519:</b> Importantly, the bridge design should not prevent the river (Troutbeck) achieving favourable condition, and there is a proposed river restoration scheme, that should not be compromised by the design. The design principles described should ensure that this is the case.</p> <p><b>1.5.182:</b></p>	<p>have the potential to have a detrimental effect on the River Eden SAC. The HRA (Document Reference 3.5, APP-234 and Document Reference 3.6, APP-235) assesses the construction phase impacts considering proposed mitigation. The detailed design of the temporary bridge was not available at the time of submission and will form part of the detailed design. However, the requirement for a temporary bridge over Trout Beck to facilitate the construction of the permanent viaduct was discussed with Natural England in the construction mitigation workshop (22 of April 2022) and it was agreed that this would need to be open span (i.e., from bank top to bank top) and that the haul road would need to be at flood plain level to reduce potential for changes to fluvial geomorphological process during construction. There will be localised alteration of the riparian zone because of the attenuation basin discharges to the River Eamont (M6 Junction 40 to Kemplay Bank) and Trout Beck (Temple Sowerby to Appleby). The discharges will enter these SAC watercourses via the riparian zone. Loss of trees associated with the construction of the drainage channel will be avoided/minimised as far as possible. However, the riparian habitat subject to alteration/ loss of trees was not identified to be qualifying SAC woodland habitat type (i.e., 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae). It is considered that</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>The shape of the flood compensation storage area is very rectangular / regular. Natural England recommend that this takes a much more natural shape, however, if it is changed, it should be taken into consideration that this may impact all of the geomorphological and hydrological modelling</p> <p><b>1.6.31:</b> Please see above 'red' issue in relation to Air quality, a pre-existing breach of 1% does not mean the site can be scoped out of further assessments</p> <p><b>Additional commentary:</b> Natural England acknowledge the comments made in regard to the HRA AA and the temporary crossing over Troutbeck. Please see comments regarding the temporary crossing over Troutbeck and the mitigation and detailed design needed.</p> <p><b>1.5.24-1.5.25</b> Natural England note the comments and agree that the riparian habitat subject to alteration/loss of trees is not the qualifying SAC woodland habitat type (i.e., 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>. However, riparian trees are an important component of the river habitat and provide shade and different habitat niches to many of the SAC species. If trees are felled within the site, replacement trees should be planted on the riverbank as close as possible.</p> <p>The SAC Supplementary Advice document states that "Watercourses with a high degree of naturalness are governed by dynamic</p>	<p>the minor alteration/loss of trees (if required) would not have a significant effect in the function of the woodland and is not considered to have any likely significant effect on any qualifying features of the SAC. The HRA will be updated to reflect the above and the minor loss of habitat inside the SAC boundary. Where outfalls discharge to natural banks these will be designed to be open ditches (i.e., no new hard outfalls will be created). They will be designed to facilitate erosion patterns, to allow the natural migration of watercourses to continue. Where outfalls discharge at a location with existing hard banks, they will be designed to tie into the existing hard structure. It is noted that the flushing argument is currently based on the professional judgment of the Project team. Flushing of nitrogen from exposed macrophytes during moderate high flow river events was discussed as part of the HRA Task Working Group, where it was agreed that this seemed reasonable, but Natural England suggested that further evidence should be sought. Engagement will continue with Natural England through the Statements of Common Grounds process to ascertain where there is a lack of clarity on where certain conclusions are documented. The assessment has been made considering the Dutch Nitrogen case. The assessment does not use the exceedance of nitrogen to justify additional inputs. Engagement will continue with Natural England through the Statements of Common Grounds process to ascertain</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
		<p>processes which result in a mosaic of characteristic physical habitats or biotopes, including a range of substrate types, variations in flow, channel width and depth, in-channel and side-channel sedimentation features (including transiently exposed sediments), bank profiles (including shallow and steep slopes), erosion features (such as cliffs) and both in-channel and bankside (woody and herbaceous) vegetation cover. All of these biotopes, and their characteristic patterns within the river corridor, are important to the full expression of the biological community” and “A mosaic of natural and semi-natural riparian vegetation types provides conditions for all characteristic in-channel and riparian biota to thrive, creating patches of tall and short riparian swards, a mixture of light and shade on the river channel, and tree root systems and a supply of large woody debris that add channel complexity. Patchy tree cover provides shade protection against rising water temperatures caused by climate change”.</p>	<p>where there is a lack of clarity on where certain conclusions are documented. The design principles for the viaduct and temporary bridge are secured in the Project Design Principles (Document Reference 5.11, APP-302). 1.5.82 – Flood compensation areas have been shown in draft at this stage to prove the concept is viable. These areas will be developed/refined at detailed design stage, so they blend into the natural landscape. This is secured in Table 4.1 of (Document Reference 5.11, APP-302) Project Design Principles. Flood modelling reports (including flood compensation areas) are in Annex E Environmental Statement Appendix 14.3 Water Quality Assessment, (Document Reference 3.4, APP-222). The site has not been scoped out of further assessment as a result of the 1% breach. Whilst the assessment acknowledges the 1% breach within the affected area of the site, further assessment considers that the actual area of impact in the context of the whole SAC is considered negligible (approximately 0.01% of total blanket bog area).</p> <p>In response to Natural England’s additional commentary on paragraphs 1.5.24-1.5.25 National Highway recognise that riparian trees are an important component of the river habitat and provide shade and different habitat niches to many of the SAC species. If trees are felled within the site, replacement will be planted on the riverbank as close as</p>	

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			<p>possible to where felled. A tree loss and compensation planting report has been prepared and was submitted at Deadline 4. The report quantifies the total number of trees which could be lost to the Project and subsequently determines and sets out the total number of trees which could be required to be replanted as part of the mitigation. The replacement planting requirements are secured in the first iteration EMP (Document Reference 2.7, APP-019) in various commitments. This includes the relevant replacement ratios. Commitment ref. D-LV-01 requires an Arboricultural Impact Assessment (AIA) to be undertaken prior to the start of the main works for the Project. National Highways expects further engagement with Natural England on this topic.</p>	
3-2.27 Flow control structures	<p>Natural England Relevant Representation (page 32, RR-180) and additional; commentary in Natural England Written Representation (page 28, REP1-035)</p>	<p><b>D-RDWE-11</b> This refers to the potential requirement of flow control structures and that they should not adversely affect upstream and downstream continuity (e.g., fish passage). They should also not impact on sediment movement or alter the geomorphology e.g., create scouring etc. What are the locations of these? Will there be any located in the River Eden SAC or its tributaries?</p> <p><b>Additional commentary:</b> Thank you for the clarification. The scheme should endeavour to design the flood compensation storage areas to function as naturally as possible without the need for flow control structures when possible</p>	<p>The flow control structures referred to in this commitment relate to controlling flow out of flood compensation storage and will be outside of existing river channels. See paragraph 14.8.85 of the Environmental Statement (Document Reference 3.2, APP-057) for further details.</p> <p>The updated EMP submitted to the examination at deadline 3 has been updated to provide clarification on the use of flow control structures and to add wording requiring that the structure does not adversely affect or sediment movement. National Highways will endeavour to design the flood compensation storage areas to function as naturally as possible without the</p>	Under discussion

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status
			need for flow control structures when possible.	

Table 3-3: Record of Issues – Not Agreed Issues

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status	Date
N/A	N/A	N/A	N/A	N/A	N/A

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## Appendix A: Matters from Rev1 SoCG superseded by DCO Submission and Relevant Representations

Table A-1 Appendix A: Matters from Rev1 SoCG superseded by DCO Submission and Relevant Representations

Issue	Document References (if relevant)	Natural England Position	National Highways Position	Status	Date
A-1.1 Air Quality	Natural England Statutory Consultation Response - 22 October 2021	NE and National Highways are currently in discussion at national level regarding DMRB LA105. NE do not support the use of LA105, specifically the loss of one species metric. We recommend the use of the published guidance NEA001.	National Highways and Natural England are currently discussing the use of DMRB LA105 nationally. For the purposes of this assessment, we have used the existing guidance (DMRB LA105). The Applicants will continue to engage with NE and seek agreement that the air quality assessment in respect of the project is robust.	This issue is now considered under the NE's Relevant Representation on the use of DMRB LA105 (page 3 and NE key issue ref 1.1, page 10, and page 17, RR-180)	24.01.2023



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## Appendix B: Natural England and National Highways historical positions

Table B-1: Appendix B Natural England and National Highways historical positions

Issue	Document References (if relevant)	Natural England Position	National Highways Position
3-1.6 Crayfish and Water Environment	Natural England Statutory Consultation Response - 22 October 2021 (page 5)	Appropriate measures also need to be taken to prevent the introduction of signal crayfish and crayfish plague into the watercourses, particularly in the Eden catchment.	<p>The INNS MP (Annex B15, Document Reference 2.7, APP-035) will include details on the measures to be implemented during the works to prevent the spread of INNS. The plan will include, as a minimum, the following measures:</p> <ul style="list-style-type: none"> <li>• Surveys to identify invasive and non-native species will be undertaken to confirm specific locations where INNS are present.</li> <li>• Measures shall be specified to avoid the spread of invasive and non-native plants, such as Himalayan balsam and of species, such as Signal crayfish.</li> </ul>
3-1.8 Bats - Habitat Fragmentation	Natural England Statutory Consultation Response - 22 October 2021 (page 6)	The effects of habitat loss and fragmentation in relation to bats is not adequately described. The baseline conditions section of the report notes the identification of a number of potential crossing points along the alignment of the schemes. It is anticipated that habitat clearance works during construction have the potential to affect how bats use the landscape. The potential impacts on bats use of the landscape both on existing road corridors and on new alignments needs to be clearly identified within the Environmental Statement for the Schemes.	<p>The LEMP shall be in substantial accordance with the Outline LEMP essay plan set out in Appendix B1 to the EMP (Document Reference 2.7, APP-021) which confirms the following embedded mitigation for bats.</p> <p>Greening of the proposed overbridges which occur near to bat crossing points will provide or maintain north-south connectivity for bats and other species and reduce the risk of collision mortality. The green bridges will incorporate a minimum 1 m wide strip of trees/wooded scrub along one road verge, with connective planting to the north and south aspects of the bridge, providing a continuous green corridor across the new live carriageway.</p> <p>Inclusion of both light and noise deflection screens incorporated into the overbridge design.</p> <p>Planting of woodland habitats, including linear woodland and hedgerows, on both the northern and southern approach aspects to underbridge/culvert structures, will provide flight</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>connectivity across the alignment and encourage bats to cross safely, reducing the risk of collision mortality.</p> <p>Planting of trees on the verges either side of the new live carriageway and as close as possible to the carriageway edge in a departure from standards, will be required to raise commuting bats over the live carriageway.</p> <p>The final planting plan for each bat crossing point will need to be devised through detailed design in consultation with the Project Ecologist.</p>
3-1.15 EMP	Natural England Relevant Representation (page 31, RR-180)	<p><b>MW-BD-02</b></p> <p>Fish and crayfish rescues will need to be carried out whenever there are in river works, not only when the entire watercourse is dewatered.</p>	<p>Having considered the comment made, and in consideration that this point is made in RR-160, National Highways considers it prudent to make the suggested change. This change has been made in the updated draft Environmental Management Plan (Document Reference 2.7, REP3-004) submitted to the examination at Deadline 3.</p>
3-1.16 EMP	Natural England Relevant Representation (page 31, RR-180)	<p><b>MW-BD-18</b></p> <p>The surveys that have been carried out should be able to ascertain whether the scheme is within 30m of a badger set, and therefore know at this stage whether suitable measures are included in a method statement, and determined now, rather than later.</p>	<p>National Highways notes the point made, however consider it to be more appropriate that, given the mobile nature of this species, pre-construction surveys (as secured by commitment D-BD-02) determine the specific requirements for mitigation as secured within the Environmental Management Plan (Document Reference 2.7, APP-019). This will ensure that the most accurate information is utilised, and that the method statement discussed with Natural England reflects the construction method chosen and the final detailed design.</p>
3-1.17 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>C1.3.1</b></p> <p>This section states that there is the requirement to construct a large overbridge over the Trout Beck, using a multi-span solution with multiple piers located in the Trout Beck to cover a distance of approximately 400m (in order to prevent disruption of flood flows and geomorphological processes).</p>	<p>National Highways notes the point made and acknowledges this typographical error. The text has been corrected at C1.3.1 of Environmental Management Plan (EMP) Annex C1 Method Statement for Working in and Near the SAC (Document Reference 2.7, REP3-019) submitted at deadline 3 to read:</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
		This should read that there will be no piers located within Troutbeck itself, and there will be multiple piers within the floodplain.	<p>“As part of the Temple Sowerby to Appleby scheme, there is the requirement to construct a large overbridge over the Trout Beck, using a multi-span solution with multiple piers located in the Trout Beck flood plain to cover a distance of approximately 400m...”</p> <p>The requirement for the bridge to be a clear-span crossing with no piers in the watercourse is secured through the Project Design Principles document (Application Document Reference 5.11, APP-302), design principle number 0405.04. Compliance with the Project Design Principles is secured in article 54 of the DCO (Document Reference 5.1, APP-285)</p>
3-1.18 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>C1.2.9</b></p> <p>The introduction of crayfish plague is also a key risk.</p>	<p>Having considered the comment made regarding crayfish plague, National Highways considers it prudent to make the suggested change. The following has been added to the list of key risks to the SAC in Section C1.2.9 of Environmental Management Plan (EMP) Annex C1 Method Statement for Working in and Near the SAC (Document Reference 2.7, REP3-019):</p> <p>Introduction of crayfish plague</p>
3-1.19 EMP	Natural England Relevant Representation (page 33, RR-180)	<p><b>C1.3.10</b></p> <p>The methods used to build the foundations for the piers should ensure that the piers will withstand movement and incision of the river in the future, are resistant to scouring and will not need remedial protection work in the future.</p>	<p>National Highways agree with the points made. These aspects of design are secured through the Project Design Principles document (Document Reference 5.11, APP-302), design principle number 0405.04 and 0405.11.</p>
3-1.20 EMP	Natural England Relevant Representation (page 33, RR-180)	<p><b>C1.4.10</b></p> <p>There is no mention of other forms of sediment control such as silt fences and bunds etc, which are also likely to be needed.</p>	<p>We believe this is referring to C1.4.11 of Environmental Management Plan Annex C1 Method Statement for Working in and Near the SAC (Document Reference 2.7, APP-036).</p> <p>Having considered the comment made, National Highways considers it prudent to make the suggested change The following text has been included in C1.4.11:</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			“...runoff, silt fences, bunds and as...” in the updated Annex C1 Method Statement for Working in and Near the SAC (Document Reference 2.7, REP3-019) submitted at deadline 3
3-1.21 EMP	Natural England Relevant Representation (page 33, RR-180)	<p><b>C1.4.17</b></p> <p>Whilst important to limit movement of vehicles from the eastern schemes to those in Cumbria, also need to ensure that full biosecurity measures are carried out for plant and personnel from other parts of the county/country.</p>	Having considered the comment made, National Highways considers it prudent to make the suggested change. The following text has been included in C1.4.17 of Environmental Management Plan Annex C1 Method Statement for Working in and Near the SAC (Application Document Reference 2.7, REP3-019): Full biosecurity measures will also be required to be carried out for all plant and personnel newly arriving to site from other parts of the county/country.
3-1.22 EMP	Natural England Relevant Representation (page 33, RR-180)	<p><b>C1.4.18</b></p> <p>Does there need to be any storage of materials in areas likely to flood?</p>	Having considered the comment made, National Highways considers it prudent to make the suggested change. The following text has been included in C1.4.17 of Environmental Management Plan Annex C1 Method Statement for Working in and Near the SAC (Document Reference 2.7, REP3-019): Full biosecurity measures will also be required to be carried out for all plant and personnel newly arriving to site from other parts of the county/country.
3-1.23 EMP	Natural England Relevant Representation (page 33, RR-180)	<p><b>Table 5 and 6 Annex B1</b></p> <p>Sorbus torminalis and Sorbus aria are not particularly appropriate for the Eden catchment part of the project. Whilst there are a couple of black poplar Populus nigra present in the Eden valley, it would be good to increase the population, particularly in the Kirby Thore area.</p>	National Highways acknowledge the points made. Table 5 and 6 of Annex B1 (Application Document Reference 2.7, APP-021) are broad principles applied Project wide. The Project Design Principles (Document Reference 5.11, APP-302) includes a number of commitments in relation to planting that require locally native species to be used. National Highways welcomes further engagement with Natural England on detailed planting plans once detailed design has progressed further, as secured through Section 1 of the Environmental Management Plan (Document Reference 2.7, APP-019).
3-1.24 PDP	Natural England Relevant	<p><b>Table 4-6. 0405.11</b></p>	Having considered the comment made regarding the design of flood compensation and having due regard to future river

Issue	Document References (if relevant)	Natural England Position	National Highways Position
	Representation (page 34, RR-180)	Further discussion is needed about the design of the flood compensation on the Trout Beck flood plain. It also needs to have regard to any future river restoration that is carried out in this location.	restoration on the Trout Beck flood plain, this is accepted. The Project Design Principles document (Document Reference 5.11, REP3-040) has been updated to require that the design shall have due regard to any river restoration scheme of Trout Beck.
3-1.25 EMP	Natural England Relevant Representation (page 31, RR-180)	<p><b>D-BD-04</b></p> <p>For the Troutbeck crossing this section is ambiguous. The crossing needs to span the whole flood plain (with piers), but the paragraph refers to bridge abutments 5 or 8m from the river bank. This may be acceptable for some of the smaller tributary crossings, but not the Troutbeck Crossing (within the River Eden SAC), where there should be a minimum number of piers, no abutments in / adjacent to the river, and no embankment across the floodplain. The design principles for the bridge in document 5.1.1 are much clearer.</p>	National Highways acknowledge the point raised. The Project Design Principles (Document Reference 5.11, APP-302) is proposed to be a certified document under the DCO, and the commitments within it carry the same weight as the Environmental Management Plan and must be implemented (under a legally enforceable obligation – see article 54 of the DCO (Document Reference 5.1, APP-285)). This document focusses on the key design requirements therefore is considered the most appropriate place for the detailed requirements for the design of the Trout Beck crossing and includes principles such as GB03 which requires open space structures over the Trout Beck among other watercourses, and 0405.04 which sets out the requirement for the Trout Beck crossing to allow for full functionality of the Trout Beck. It is therefore proposed that no amendment to the EMP is required.
3-1.26 EMP	Natural England Relevant Representation (page 31, RR-180)	<p><b>D-BD-08</b></p> <p>In addition, an NE licence will be required to carry out white-clawed crayfish rescue.</p> <p>EA licence also required for electrofishing/fish rescue.</p>	National Highways notes the point made. The Environmental Management Plan will not supersede any existing licence requirements, and all such licences will be obtained by the contractors as required during the construction process.
3-1.27 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>D-RDWE-05</b></p> <p>This paragraph states that the mitigation for the design of the water crossings is in Appendix 14.4: Hydromorphology assessment App document 3.4. This section states that the minimum requirement for the Troutbeck Crossing Bridge</p>	The following change has been made to Register of Environmental Actions and Commitments (REAC) MW-RDWE-05 in the Environmental Management Plan (Document Reference 2.7, REP3-004) submitted at deadline 3:

Issue	Document References (if relevant)	Natural England Position	National Highways Position
		<p>design will be determined by further hydraulic modelling and geomorphological input.</p> <p>Exploration of potential to re-naturalise watercourses is stated. However, the Troutbeck crossing design and method statements need to ensure that the proposed river restoration scheme at Sleastonhow is achievable. i.e., the potential for the River Eden SAC to be in favourable condition is not compromised.</p>	<p>The detailed design of the watercourse crossing shall continue to have regard to the proposed river restoration scheme at Sleastonhow and shall not prevent that scheme from progressing.</p>
3-1.28 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>D-RDWE-06</b></p> <p>Note that the impact on Dyke Nook Fen needs further detailed surveying and assessment, and mitigation design. This will require further consultation with NE re this priority habitat.</p>	<p>Comment duly noted and, as set out in commitment D-RDWE-06 in the Environmental Management Plan (Application Document Reference 2.7, APP-019), Natural England shall be consulted on the detailed mitigation requirements once further detailed design, survey and assessment has been undertaken. In addition, National Highways will continue to engage with Natural England on a more general basis in relation to the Scheme.</p>
3-1.29 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>MW-RDW-09</b></p> <p>In order to be assessed appropriately the detail of the method statements and the EMP need to be known – this section does not provide enough detail on the proposed methods for the establishment and decommissioning of the temporary infrastructure in the vicinity of the River Eden.</p>	<p>The Environmental Management Plan (Application Document Reference 2.7, APP-019) sets out within Section 1 the consultation process that shall be implemented for the further development of the EMP itself (in relation to the second iteration, which shall be consulted upon prior to submission to Secretary of State for approval as required by the DCO, article 53 (Document Reference 5.1, APP-285)) and the required Method Statements and other management plans. These will be developed in further detail as the detailed design is progressed and the construction methodology can therefore be confirmed.</p> <p>The Environmental Statement (Document Reference 3.2, APP-044-059) and a Statement to Inform Appropriate Assessment (Document Reference 3.6, APP-235) sets out clear assumptions regarding construction methodology, requirements for construction to avoid impacts on the River Eden and required mitigation to ensure significant effects do</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			not arise during construction including impacts that might arise from temporary infrastructure and its associated decommissioning. Sufficient information is provided in those documents to ensure a robust assessment has been undertaken, appropriate to this stage of the project. The detailed method statements will demonstrate how the detailed mitigation measures will be implemented to achieve the reported environment outcomes and will undergo further consultation as described above.
3-1.30 EMP	Natural England Relevant Representation (page 32, RR-180)	<p><b>M-RDWE-04</b></p> <p>The design for the piers needs to ensure that they will withstand movement of the river and possible incision of the river bed in the future, are resistant to scouring and will not need remedial protection work in the future.</p>	National Highways agree with the points made. These aspects of design are secured through the Project Design Principles document (Document Reference 5.11, APP-302), design principle number 0405.04 and 0405.11. Compliance with this document is secured in the DCO (Document Reference 5.1, APP-285), article 54. Notwithstanding this commitment, given the sensitivity of the location, National Highways believe it is prudent to incorporate the piers into the future regular operational monitoring regime to ensure that they are functioning correctly, and no remedial works are required. We therefore propose that the commitment is retained.
3-1.32 PDP	Natural England Relevant Representation (page 33, RR-180)	<p><b>Table 4-2. 0102.06 Project Design Principles</b></p> <p>Whilst we recognise that the siting and profiling of the attenuation pond at Carleton Hall Park needs to ensure that there is no adverse effect on the parkland setting, equally, the pond should not be located within the flood plain of the River Eamont, and not in a position where it is at risk from lateral movement of the river (and hence need protecting) in the future.</p>	<p>The pond is a soft Sustainable Drainage System (SuDS) feature and will be landscaped and vegetated to fit in with the surrounding landscape as well as providing water quality improvements to the surface water discharge.</p> <p>The location of the pond in Carlton Hall Park has been sited outside of the Q100 +94CC modelled floodplain (refer to Annex E of the Environmental Statement Appendix 14.3 Water Quality Assessment, (Document Reference 3.4, APP-222)) and away from the large existing foul sewer which runs to the north of the proposed pond. The pond has also been located away from the outside of the river bend to minimise the risk of river lateral movement impacting the pond, this has</p>



Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>been discussed with Environment Agency. This is secured in the Project Design Principles (Document Reference 5.11, APP-302) principle L117 Attenuation ponds are designed to Design Manual for Roads and Bridges which includes in its standards the requirement CD 532 to not build ponds within Flood Zone 3.</p>
<p>3-1.31 EMP</p>	<p>Natural England Relevant Representation (page 33, RR-180)</p>	<p><b>B1.21.51</b> We would like to see the identified mitigation in the section for watercourses implemented.</p>	<p>National Highways note the comment made; however, this section of text relates to enhancements, not essential mitigation as required following identification of a likely significant effect. Opportunities will be considered through the detailed design phase to implement these enhancements where appropriate and reasonably practicable.</p>
<p>3-1.33 EMP</p>	<p>Natural England Relevant Representation (page 32, RR-180)</p>	<p><b>D-RDWE-12 (and 13, 14)</b> This states that there will be consultation with the relevant authorities in relation to detailed hydrological, geomorphological, flood risk and drainage designs. To be able to assess the project (and particularly where these may impact the SAC), these detailed designs need to be developed.</p>	<p>An Environmental Statement (Document Reference 3.2, APP-044 to 059) and a Statement to Inform Appropriate Assessment (SIAA) (Document Reference 3.6, APP-235) have been produced for the project, which robustly assess the likely significant environmental effects that could arise from the proposed A66 NTP project, including in relation to drainage, hydrology, hydrogeology, geomorphology and flood risk. These assessments have identified any areas where likely significant effects could arise, and mitigation is specified (and secured through the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) and other documents) in order to avoid or minimise significant effects. The overarching purpose of the EMP is to ensure that the detailed design must comply with the mitigation measures (and environmental outcomes) reported in the Environmental Statement and SIAA, National Highways considers that the assessment carried out to support the DCO application is sufficiently robust to inform the Secretary of State's decision-making process.</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>It is recognised that the DCO would afford a reasonable amount of flexibility when it comes to detailed design, hence the need for detailed mitigation to be confirmed at a later stage. However, as set out in D-RDWE-12 National Highways are committed to continuing to work closely with the relevant statutory environmental bodies as the detailed design develops to ensure the mitigation identified is implemented appropriately and that the environmental impacts and outcomes reported in the Environmental Statement and SIAA are achieved.</p>
<p>3-1.34 EMP</p>	<p>Natural England Relevant Representation (page 31, RR-180) and additional commentary in Natural England Written Representation (page 29, REP1-035)</p>	<p><b>MW-BD-15</b></p> <p>The document states that project will not start in the vicinity of the River Eden SAC until a method statement is developed in detail, though at present Annex C1 of the EMP, does to contain that much more detail. Mechanisms need to be in place to reassess proposals if the principles in the EMP and Annex CA are materially changed.</p> <p><b>Additional commentary:</b></p> <p>Natural England acknowledges this point and also acknowledges that we will be consulted on the second iteration EMP and the detailed design, where our concerns should be addressed.</p>	<p>It should be noted that the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) requires that a method statement for working in and around SACs is required to be developed in detail, substantially in accordance with Annex C1 of the EMP, in consultation with Natural England, amongst others, prior to the start of any relevant works. This would take account of the detailed design and construction methodologies that have not yet been developed. That method statement is required to form part of a second iteration of the EMP (where relevant) (or EMPs – there may be multiple second iteration EMPs applicable to different parts of the scheme) that is subject to Secretary of State approval prior to the start of works under article 53 of the draft DCO (Document Reference 5.1, APP-285).</p> <p>A second iteration EMP (including the detailed method statement as relevant) as approved must be complied with, as secured by article 53 (which would be a legally enforceable commitment should the DCO be made).</p> <p>Whilst changes could be made to a second iteration EMP, this could only be within the parameters set by the Development Consent Order – primarily that any change would not give rise to any materially new or materially worse adverse environmental effects when compared to those in the</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>environmental statement. Indeed, any changes that are not in substantial accordance with a second iteration EMP would require approval from the Secretary of State.</p> <p>National Highways commits to engaging with Natural England on the second iteration EMP.</p>
3-1.35 EMP	<p>Natural England Relevant Representation (page 33, RR-180) and additional commentary in Natural England Written Representation (page 29, REP1-035)</p>	<p><b>C1.3.7</b></p> <p>Whilst the subsequent paragraphs state that the haulage road and working platforms will be constructed at ground level, will this be the same for the temporary bridge or will a causeway/ramp be needed to access the bridge?</p> <p><b>Additional commentary:</b></p> <p>Natural England acknowledges this point and also acknowledges that we will be consulted on the second iteration EMP and the detailed design, where our concerns should be addressed.</p>	<p>The temporary bridge will need to be a clear-span bridge in order to avoid any impact on the watercourse. It is likely therefore to be raised slightly above the bank level, requiring haul roads at ground level to rise to access the bridge. This will be developed further as part of the detailed design, and the construction methodology for all parts of the works associated with the crossing of the River Eden will be presented in Annex C1, Method Statement for working in and near the SAC (Document Reference 2.7, APP-036) (which needs to be developed in detail prior to works starting at this location).</p> <p>As set out in the Environmental Management Plan (Document Reference 2.7, APP-019) all method statements will be consulted upon, following the approach set out in Section 1 of the EMP.</p>
3-1.36 EMP	<p>Natural England Relevant Representation (page 33, RR-180) and additional commentary in Natural England Written Representation (page 29, REP1-035)</p>	<p><b>C1.4.19</b></p> <p>Bank stability – if this is required that there need to be some principles to govern it e.g. types of material to be used, temporary or permanent, when is it required, are green solutions a possibility?</p> <p><b>Additional commentary:</b></p> <p>Natural England acknowledges this point and also acknowledges that we will be consulted on the second iteration EMP and the detailed design, where our concerns should be addressed.</p>	<p>There are a number of potential options for bank stability that could be used should the need arise. Principally this is guided by Ciria’s design guide for Protection of River and Canal Banks 1989 which sets out common causes of instability and solutions, including natural bank protection options.</p> <p>The most appropriate form of bank stability will be determined through the detailed design. Environmental Management Plan Annex C1 Working in and Near SAC Method Statement (Document Reference 2.7, APP-036) will set this out in further detail as the EMP and its annexes continue to develop.</p> <p>National Highways commits to engaging with Natural England on the second iteration EMP.</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
3-1.37 EMP	Natural England Relevant Representation (page 31, RR-180) and additional commentary in Natural England Written Representation (page 26, REP1-035)	<p><b>General</b></p> <p>Many of the biodiversity (and other) sections refer to detailed method statements to be agreed in the future, and the detail is not included in the EMP at this stage – only principles that will be followed. This approach still leaves lot to be agreed at a later stage. It needs to be ensured that all of the methodologies are picked up in the HRA, and that all mitigation measures in the HRA are included in the EMP, Method Statements and other documents. There needs to be a process in place to reassess the impacts on the River Eden SAC if the plans materially change between approval and construction.</p> <p><b>Additional commentary:</b></p> <p>Natural England acknowledge these points and also acknowledge that we will be consulted on the second iteration EMP and the detailed design, where our concerns should be addressed.</p>	<p>National Highways acknowledge the points raised by Natural England. As set out in the Draft Development Consent Order (DCO) (Document Reference 5.1, APP- 285) and the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019), the EMP is expected to evolve as the detailed design progresses and more detail will be provided within the method statements and other management plans required to be worked up in more detail further to various commitments contained in the EMP. These will form part of the second iteration EMP, which Natural England will be consulted upon before it is submitted to the Secretary of State for approval prior to the start of works (as required by article 53 of the DCO (meaning this would be a legally enforceable obligation placed on National Highways, should the DCO be made). Section 1 of the EMP sets out in detail the consultation process that shall be implemented and highlights a number of plans that specifically require further detailed consultation with the regulatory authorities, including Natural England. The Statement to Inform Appropriate Assessment (Document Reference 3.6, APP-235) sets out clearly the mitigation that is required during construction and the assumptions made regarding construction processes. The outline Method Statement for working within the SAC (Annex C2 to the EMP, Document Reference 2.7, APP-037) sets out commitments that must be worked up in more detail and complied with prior to the start of works.</p> <p>The following bullet point has been added to the list within the Register of Environmental Actions and Commitments (REAC) MW-BD-15 within the EMP in terms of evidence that must be included in the above referenced method statement:</p> <ul style="list-style-type: none"> <li>• “Evidence to demonstrate that the Method Statement complies with the assumptions and requirements utilised to inform the Habitats Regulations Assessment Stage 2 Statement to Inform Appropriate</li> </ul>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>Assessment (SIAA) (Doc Reference 3.05 [APP-234] and 3.06 [APP-235]).</p> <p>Ultimately, the project must be constructed within the parameters set by the DCO and the supporting management documents (such as the EMP and Project Design Principles (Document Reference 5.11, APP-302). Any departure from this would not be permitted.</p>
<p>3-1.39 Stephen Bank to Carkin Moor: Emerging Fen Habitat:</p>	<p>Verbal comments at meeting 15.12.2023</p>	<p>Based on the information presented at the meeting on 15<sup>th</sup> December 2022 Natural England concluded that once the changes to the mitigation have been secured (the enhancement of the areas of retained fen instead of woodland planting) the additional area of fen identified within the Order Limit was not considered a material change to the ES and does not change the identified significant effects outlined in ES Chapter 6 Biodiversity (Document Reference 3.2 APP-049).</p>	<p>Detailed botanical surveys in the form of National Vegetation Classification (NVC) were undertaken in summer 2022, following baseline habitat surveys conducted during 2020, 2021 and 2022. The purpose was to provide further detail and a continuation of the botanical assessment presented in the Environmental Statement (ES) Chapter 6 Biodiversity (Document Reference 3.2 APP-049) and ES Appendix 6.5: Phase 2 National Vegetation Classification (Document Reference 3.4, APP-158). This was agreed with Natural England to ensure the optimal seasonal survey window for NVC surveys was captured (See Evidence Plan, Document Reference 3.4, APP-146).</p> <p>The NVC survey results identified an area of emerging fen habitat located at the north-western end of Stephen Bank to Carkin Moor (Scheme 9) located near Browson Bank (grid reference NZ 12159 10363). This area was a woodland plantation until it was felled in 2018/19. The Phase 1 Habitat Survey undertaken in 2020 identified the area as a mosaic of swamp and neutral grassland habitat (Figure 6.3 Phase 1 Habitat &amp; Terrestrial Invertebrate Survey, Scheme: 09: Stephen Bank to Carkin Moor Sheet 13 of 15, Document Reference 3.3, APP-071). The proposed mitigation for this area at the time of DCO application submission was woodland planting, as shown on the outline Environmental Mitigation Maps (Figure 2.8.7 Environmental Mitigation Scheme: 09 Stephen Bank to Carkin Moor Sheet 1 of 4, Document Reference 2.8, APP-041). NVC surveys undertaken in 2022</p>

Issue	Document References (if relevant)	Natural England Position	National Highways Position
			<p>identified the area as emerging fen habitat (Priority habitat) with a small pocket of neutral grassland (NVC Figure 13 NVC Survey, 2022). It was concluded that this area of habitat was in transition to a fen habitat since the area was felled in 2018/19. National Highways consulted Natural England in relation to the newly identified developing fen habitat in December 2022 (via a meeting on 15/12/22). Instead of the woodland planting currently proposed, it was agreed with Natural England to enhance the areas of retained habitat for fen as an alternative. National Highways also agreed with Natural England to update and secure the agreed changes to the proposed mitigation area at this location within the revised Environmental Management Plan (Document Reference 2.7, APP-019), Project Design Principles (Document Reference 5.11, APP-302) and the updated outline Environmental Mitigation Maps (Document Reference 2.8, APP-041).</p>