

# **A66 Northern Trans-Pennine Project**

## **4.5 Statement of Common Ground Environment Agency (Rev 2)**

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

**Planning Act 2008**

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

**Volume 4**

## Infrastructure Planning

Planning Act 2008

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

## A66 Northern Trans-Pennine Project Development Consent Order 202X

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### **4.5 STATEMENT OF COMMON GROUND WITH THE ENVIRONMENT AGENCY**

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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 ("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.

### **1.2 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 the Environment Agency (EA) for comment prior to the submission of the DCO, at DCO submission and in advance of Deadline 3. Where feedback has been received from the Environment Agency (either directly on the draft or pursuant to another submission by the Environment Agency) it has been incorporated into the latest draft by the Applicant.

The Applicant has set out the detail of the issues raised by the Environment Agency 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 progress and further matters are agreed.

- 1.2.2 National Highways 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.
- 1.2.3 The responsibilities of the EA are outlined on their website at <https://www.gov.uk/government/organisations/environment-agency/about> and are summarised below: -
- managing the risk of flooding from main rivers, reservoirs and the sea.
  - regulating major industry and waste.

- treatment of contaminated land.
- water quality and resources.
- fisheries.
- inland river, estuary and harbour navigation; and
- conservation and ecology of the aquatic environment.

## 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 the EA, 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 EA.

## 2 Record of Engagement

2.1.1 A summary of the key meetings and correspondence that has taken place between National Highways and the EA 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 the EA 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 the EA 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.
11.02.2021	Online Meeting	Meeting of the Water TWG with the EA 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 assessment methodology.
25.02.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA 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.
02.03.2021	Online Meeting	Meeting of the Water TWG with the EA 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 works to be completed, watercourse crossings and key SW receptors overview.
02.03.2021	Online Meeting	Meeting of the Water TWG with the EA 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 works to be completed and key GW receptors overview.
16.03.2021	Online Meeting	Meeting between the EA 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.

Date	Form of correspondence	Key topics discussed and key outcomes
18.03.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with the EA 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 the EA in attendance. Meeting included discussions on the Evidence Plan, project updates, Warcop AONB, Trout Beck and approach to statutory consultation and PEI Report.
22.04.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on programme updates, design updates, the Evidence Plan and sifting matrix.
29.04.2021	Online Meeting	Meeting between the EA 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).
06.05.2021	Online Meeting	Meeting of the Water TWG with the EA 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 progress, flood modelling overview, survey updates, DCO process and designated funds.
06.05.2021	Online Meeting	Meeting of the Water TWG with the EA 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 GW abstraction, assessment area and attenuation ponds.
27.05.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on the Evidence Plan and a scheme-by-scheme design walkthrough.
10.06.2021	Online Meeting	Meeting between the EA 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).
15.06.2021	Online Meeting	Meeting of the Water TWG with the EA 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 progress, works to be completed and design options.
15.06.2021	Online Meeting	Meeting of the Water TWG with the EA in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application

Date	Form of correspondence	Key topics discussed and key outcomes
		Document Number 3.4)). Meeting included discussions on progress, ongoing work and focus points.
24.06.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on design updates, the approach to mitigation, the environmental designated funds process, the Scoping Report and the Evidence Plan.
08.07.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with the EA 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, 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 the EA in attendance. Meeting included discussion on environmental designated funds.
10.08.2021	Online Meeting	Meeting between the EA 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 crabs and key PEI Report findings.
11.08.2021	Online Meeting	Meeting of the Water TWG with the EA 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 study area, key findings from the PEI Report, potential impacts, design mitigation and enhancement and potential significant effects.
12.08.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with the EA 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.
26.08.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on EIA Scoping, PEI Report status and assessment process, statutory consultation, design updates, Appleby to Brough and Rokeby.
02.11.2021	Online Meeting	Meeting of the Water TWG with the EA in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application Document Number 3.4)). Meeting includes discussions on PEI Report recap, feedback from statutory consultation and an update on ongoing works.
02.11.2021	Online Meeting	Meeting of the Water TWG with the EA in attendance. (Matters discussed in the Technical Working Groups are included within ES Appendix 1.1: Evidence Plan (Application



Date	Form of correspondence	Key topics discussed and key outcomes
		Document Number 3.4)). Meeting includes discussions on PEI Report recap, feedback from statutory consultation and update on ongoing works.
03.11.2021	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with the EA 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.
11.11.2021	Online Meeting	Meeting between the EA 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 habitats, reptiles, ornithology, bats, mammals, freshwater ecology and feedback following statutory consultation period.
25.11.2021	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on programme updates, design change updates and statutory consultation updates.
02.12.2021	Online Meeting	Meeting to discuss issues around Warcop with the EA. Meeting included discussions on flood modelling and project updates.
13.01.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on design change and supplementary consultation, approach to environmental mitigation and response to statutory consultation design change.
26.01.2022	Online Meeting	Meeting between the EA 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 updates, design mitigation and scheme-by-scheme mitigation.
26.01.2022	Online Meeting	Meeting of the Habitats Regulations Assessment TWG with the EA 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.
10.02.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on project/programme updates and environmental mitigation approach.
10.03.2022	Online Meeting	Meeting between NE, EA, National Highways and A66 IPT to discuss issues around Warcop. Meeting included discussions on Warcop design.
11.03.2022	Online Meeting	Meeting between CCC, EA, National Highways and the Project Team discussing Water Modelling and joint working.

Date	Form of correspondence	Key topics discussed and key outcomes
		Meeting included discussions on Warcop, culverts, drainage ponds, designated funds and community engagement.
24.03.2022	Online Meeting	Meeting of the Statutory Environmental Bodies Focus Group with the EA in attendance. Meeting included discussions on Trout Beck, Warcop and Moor Beck.
04.04.2022	Online Meeting	Meeting between NE, EA, National Highways, CCC and A66 IPT to discuss issues around Warcop. Meeting included discussions on Warcop design and Trout Beck Crossing design.
26.04.2022	Online Meeting	Meeting between EA and National Highways. Introductory meeting to discuss the content of the SoCG. Agreed to diarise update session after submission of the DCO.
26.04.2022	Email	Email from Environment Agency on UKCP18 – updated rainfall allowances.
20.07.2022	Online Meeting	SoCG discussion to discuss approach to revising the SoCG.
03.08.2022	Online Meeting	Meeting between EA and National Highways to discuss flood mitigation and potential natural flood management (NFM) opportunities at Warcop
17.08.2022	Online Meeting	SoCG update session to review progress, full comments to be issued by 4 September. Issue of standard EA protective provisions also discussed. Area of groundwater survey also highlighted as possible area for further information. EA query on approach to modelling and on timescales for modelling post DCO.
18.08.2022	Online Meeting	Meeting between EA and National Highways to discuss hydraulic modelling and rainfall climate change allowance for the A66 NTP project.
13.09.2022	Online Meeting	Meeting between National Highways and the statutory environmental bodies to discuss the Environmental Management Plan (EMP) process.
28.09.2022	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.
26.10.2022	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.
04.11.2022	Online Meeting	Meeting between EA and National Highways to discuss EA's comments on the Environmental Management Plan (EMP).
23.11.2022	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.
07.12.2022	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.
12.12.2022	Online Meeting	Meeting between EA, the Lead Local Flood Risk Authorities (LLFAs) and National Highways to review outstanding drainage issues along the A66.
04.01.2023	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.
18.01.2023	Online Meeting	Meeting between EA and National Highways to discuss the content of the SoCG.

Date	Form of correspondence	Key topics discussed and key outcomes
20.01.2023	Email	Email from the Environment Agency containing draft of SoCG with Environment Agency's comments on their position on issues considered within the 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) the EA in relation to the issues addressed in this SoCG.

### 3 Issues

Table 3-1: Record of Issues – Agreed Issues

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-1.1 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 7)	We welcome the requirement for a competent, qualified and experienced Ecological / Environmental Clerk of Works (ECoW / EcCoW / EnCoW) during construction that is either an Accredited ECoW by CIEEM or a member of The Association of Environmental Clerks of Works (AECoW).	The Environmental Management Plan (EMP) (Application Document Number 2.7, APP-019) confirms at Section 2 that an Ecological Clerk of Works will be required to be appointed by the Principal Contractor.	Agreed	13.06.2022
3-1.2 Road Drainage and Water Environment	EA Statutory Consultation Response (Appendix 1, page 12)	Warcop is at risk of flooding from both Lowgill Beck and Crooks Beck / Moor Beck (see previous comment regarding consistency of naming) and the EA modelling report and S19 report produced by CCC following Storm Desmond refer to a more extensive flood history than presented in the PIE Report (6 events are referred to since 1968). EA confirmed 17.08.2022 that content position has been taken into account in ES.	Comments are noted regarding flood risk related to Lowgill Beck and Crooks Beck / Moor Beck. The impacts of flood risk within these locations have been included within our Flood Model, the result of which are detailed within the Schemes FRA. Further information can be found within Chapter 14 (Road Drainage and Water Environment) of the ES (Application Document Reference 3.2, APP-057).	Agreed	17.08.2022
3-1.3 Environment and EMP	EA Relevant Representation (Annex 2, page 2, RR-160)	<u>2.7: Environmental Management Plan (APP-019): General</u> <b>Issue</b> The EMP is supported by a range of supporting documents that have been provided in draft	National Highways agree with the point raised and will continue to consult with relevant stakeholders on the development of further detail in the supporting plans as the detailed design progresses as	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	<p>EA Written Representation (Annex 1, Table 1, page 4, REP1-024)</p>	<p>form, but which will require further refinement and detail as more information becomes available and engagement with relevant stakeholders continues.</p> <p><b>Impact</b> There is limited information available to allow us to comment in detail on the proposed EMP supporting documents.</p> <p><b>Suggested solution</b> National Highways should continue to engage with us to allow them to refine the content of documents relevant to our remit as outlined in EMP Table 1-1 Consultation requirements for specified commitments.</p> <p>The Environment Agency have identified this issue as agreed in their Written Representation (Annex 1, Table 1, page 4, REP1-024).</p>	<p>prescribed in Table 1-1 of the EMP (Document Reference 2.7, APP-019) should the DCO be granted. This will include formal consultation on a second iteration of the EMP, prior to its submission to the Secretary of State for approval, as set out in Section 1.4 of the EMP (Application Document Reference 2.7, APP-019) and secured in article 53 of the DCO (Document Reference 5.1, APP-285).</p> <p>The EMP (Application Document Reference 2.7, APP-019) is currently in draft form with a view to it being in final form by the end of the examination. As such, its content will evolve as the examination progresses. National Highways will have regard to all comments made during this time, with amendments being implemented where considered appropriate. As part of this, National Highways will continue to engage with statutory environmental bodies such as the Environment Agency, with a view to addressing concerns such as those raised. Any agreed updates will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-1.4 EMP	EA Relevant Representation (Annex 2, page 4, RR-160)  EA Written Representation (Annex 1, Table 1, page 8, REP1-024)	<u>2.7: Environmental Management Plan (APP-019): D-GEN-08</u> <b>Issue</b> There is no requirement to incorporate necessary lighting control measures, e.g. avoiding lighting of rivers, aquatic habitats, etc. <b>Impact</b> Uncontrolled lighting could detrimentally impact upon the aquatic environment. <b>Suggested solution</b> Update D-GEN-08 to include a commitment to ensure any lighting required during construction includes necessary control measures to avoid impacts on aquatic species and habitats.  The Environment Agency have identified this issue as agreed in their Written Representation (Annex 1, Table 1, page 8, REP1-024).	In relation to Environmental Management Plan (Document Reference 2.7, APP-019) D-GEN-08, it is highlighted that commitment MW-BD-17 requires a full construction lighting strategy to be prepared and includes the commitment that lighting shall be directed away from watercourses and riparian habitats. It is therefore proposed that this control is already included in the EMP (Application Document Reference 2.7, APP-019).	Agreed	24.01.2023
3-1.5 Environment and EMP	EA Relevant Representation (Annex 2, page 8, RR-160)  EA Written Representation (Annex 1, Table 1, page 12, REP1-024)	<u>2.7: Environmental Management Plan (APP-019): D-GS-03</u> <b>Issue</b> The River Eden SAC is also designated for its geomorphological interest. <b>Impact</b> There is the potential for detrimental impacts on the River Eden SAC geomorphological interest features if they are not identified.	Whilst National Highways note the point made, the Register of Environmental Actions and Commitments D-GS-03 referenced is intended to control excavations within the AONB where there are geological features at risk. There are controls around working in and around the River Eden SAC that are incorporated elsewhere within the EMP (Document Reference 2.7,	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Suggested solution</b> Update D-GS-03 to include the River Eden SAC which is also designated for its geomorphological interest.</p> <p>The Environment Agency have identified this issue as agreed in their Written Representation (Annex 1, Table 1, page 12, REP1-024).</p>	<p>APP-019) and its Annexes (specifically Annex B7, APP-027; Annex C1, APP-035; and Annex C2, APP-037) which are required to be worked up in more detail, based on its overall designation for both ecological and geomorphological features. It is therefore proposed that a further update is not required.</p>		
3-1.6 General	EA Statutory Consultation Response (Appendix 1, page 4)	<p>The report states that “prior to the commencement of the construction works, the EMP will be refined by the contractor, in line with DMRB standard LA 120 (National Highways, 2020)” but it is not clear that the views or concerns of relevant stakeholders / regulators would have any influence over any proposed changes.</p>	<p>Environmental Management Plan (EMP) (Application Document Number 2.7, APP-019) will be the subject of further consultation between National Highway’s Delivery Partners and relevant stakeholders/regulators (including the EA) prior to commencement of construction works.</p>	Agreed	24.01.2023
3-1.7 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 5)	<p>While the PEI Report refers to the potential for environmental enhancements associated with the project, there is an apparent absence of any reference to, or approach to the delivery of, environmental net gain.</p> <p>While it is acknowledged that biodiversity net gain is not yet mandatory and will not become mandatory before the submission of the DCO application, it is clear that the provision of a 10%</p>	<p>Biodiversity net gain is not currently a requirement for Nationally Significant Infrastructure Projects, however, we are committed to maximising biodiversity delivery achieved by the Project.</p>	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		biodiversity net gain is intended to become a requirement for NSIPs as a provision of the Environment Bill when it is passed.			
3-1.8 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 7)	<p>Where records indicate that otters are in the wider area, the potential impacts of a larger barrier to movement and potential for greater road mortality during the operational phase should be fully assessed and mitigated.</p> <p>Where crossings are in use by mobile species such as otter, in addition to the use of mammal ledges, we also encourage that suitable mammal fencing is considered within the design to ensure species are directed towards crossing points, especially where mammal ledges are not able to be fitted.</p>	<p>Environmental Management Plan (EMP) (Application Document Number 2.7, APP-019) confirms that no part of the project can start until a Landscape and Ecological Mitigation Plan (LEMP) has been prepared and approved (in consultation with Local Authorities). The LEMP shall be in accordance with the Outline LEMP essay plan set out in the Appendix B to the EMP (Application Document Number 2.7, APP-019) which confirms the following mitigation for otters:</p> <p>Where bridges or culverts are being built on watercourses on which otter are present, ledges will be installed to allow dry passage for otter that is accessible during floods.</p> <p>Where it is not possible to install a bridge or culvert with enough room for a ledge of the correct dimensions, an underpass will be constructed alongside, parallel to the river. The underpass should be located within 50 metres of the riverbank and above possible flood levels. Underpasses will be constructed using a 600 mm</p>	Agreed	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>cylindrical pipe to a length of 20 m. In crossings over 20 m in length, the width of the pipe should increase to 900 mm, to ensure otters will not be deterred from entering.</p> <p>Fencing should be used to guide otter to safe crossing points and prevent them from gaining access to the road. The installation of badger fencing is most effective option using 50 mm mesh.</p>		
3-1.9 Materials Assets and Waste	EA Statutory Consultation Response (Appendix 1, page 8)	Recycled aggregates that are imported from off-site and have not met the end of waste criteria will still be considered to be waste and a suitable waste permit or waste exemption will be required to cover the waste activity. The impacts of the use of materials classed as waste on the environment that are imported from off-site sources will be unknown if they are not considered through the environmental permitting regime.	<p><u>The Environmental Management Plan (EMP) (Application Document Reference 2.7, APP-019) and Site Waste Management Plan (SWMP) acknowledge the need for a registered waste exemption or an environmental permit for reusing / recycling demolition waste.</u></p> <p><u>Condition MW-MAW-03 of the EMP (Application Document Number 2.7, APP-019) states that:</u></p> <p><i>“In cases where it is practicable for the PC to use re-used or recycled aggregates as part of the Project (for the avoidance of doubt, where they can be used in place of primary aggregates and there is no resulting adverse impacts from a technical or economic perspective), the PC must seek to achieve a target of</i></p>	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p><i>at least the use of 31% of re-used or recycled aggregates.</i></p> <p><i>If the PC cannot achieve this target the PC shall undertake a whole life sustainability assessment of alternative options to demonstrate a sustainable alternative approach. This assessment would consider the whole life environmental, economic, and social impacts of the alternative material options."</i></p>		
3-1.10 Materials Assets and Waste	EA Statutory Consultation Response (Appendix 1, page 8 – 9)	<p>Evidence of suitability and certainty e.g. testing carried out, contaminants present, remediation strategy, volumes required on site and whether there will be a requirement to re-use soils on site or directly transfer them to site will be required to demonstrate efficient use of waste arisings.</p> <p>Demolition waste may be reused and recycled for use in the development. Please be aware that any treatment of waste will require either a registered waste exemption or an environmental permit. The impacts of the use of demolition waste on the environment will be unknown if they are not considered through the environmental permitting regime.</p>	<p>The Environmental Management Plan (EMP) (Application Document Reference 2.7, APP-019) and Site Waste Management Plan (SWMP) (APP-022) acknowledges the need for the appropriate disposal of waste off-site.</p> <p>Waste generation during the construction phase of the project will be managed through a detailed Site Waste Management Plan (SWMP) meeting relevant legislative, policy and health and safety requirements. The SWMP will acknowledge the requirements of the CL: AIRE code of practice and the need for the appropriate disposal of waste off-site.</p>	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>The removal of excess material from the development would be considered waste and this would need to be transferred to a suitably licensed facility by authorised waste carriers, accompanied by waste transfer notes. Prior to this, any waste produced would also need to be assessed and classified in accordance with the WM3 guidelines.</p> <p>The use of demolition waste on the development could be done under the CL: AIRE code of practice so long as the material is produced from ground-based infrastructure. Any material produced from the demolition of above ground structures would not be included under the CL: AIRE code of practice.</p>			
3-1.11 Road Drainage and Water Environment	EA Statutory Consultation Response (Appendix 1, page 10)	The report summarises the content of the proposed FRA to be submitted with the application, but it should also provide the evidence for the Secretary of State to apply the Sequential Test and Exception Test, as appropriate.	<p>The application of the sequential test is included within Appendix 14.2 (Existing Flood Risk) of Volume 1 of the ES (Application Document Reference 3.3, APP-127).</p> <p>The principle of applying these tests is agreed.</p>	Agreed	24.01.2023
3-1.12 Drainage and Water Environment	EA Statutory Consultation Response (Appendix 1, page 11)	Light Water is a tributary of the River Eamont, not the River Eden and it is not in the River Eden & Tributaries SSSI or River Eden SAC, although it is relevant to the	The feedback on the scope and content of the PEIR is welcomed and noted. Extensive surveys of Light Water have been undertaken (River Corridor	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>SAC if it has features of SAC interest.</p> <p>The significance of any impact of the development on Light Water will depend on site specific surveys to determine presence or absence of features of SAC interest.</p>	<p>Survey, macrophyte/LEAFPACS surveys, fish habitat assessment, aquatic macroinvertebrate, electric fishing and riverine eDNA) and are detailed within Chapter 6 (Biodiversity) within Volume 1 of the ES (Application Document reference 3.2, APP-049).</p>		
3-1.13 Draft Construction Method Statement	EA Statutory Consultation Response (Appendix 1, page 14)	<p>Based on the proposed location of the SuDS pond to the east of Carleton Hall and to the north of the River Eamont, we would advise that further consideration be given to possible river erosion issues as the use of any revetment to protect the asset in the future would be undesirable in the SAC river. The CMS also indicates that the “proposed boundary treatment” will cross the floodplain down to the river.</p>	<p>This refers to the SuDS pond to the east of the Cumbria Police Headquarters on the M6 junction 40 to Kemplay Bank scheme. We will continue to work with the EA and other stakeholders in the detailed design to minimise impacts on the SAC river. The Environmental Management Plan (EMP) (Application Document Number 2.7, APP-1019) confirms at MW-BD-17 that no part of the Project can start until a Method Statement for working in and near Special Areas of Conservation, where applicable, is developed in detail in substantial accordance with the essay plan in Annex C1 of the EMP and has been approved in relation to that part. The Method Statement shall include:</p> <ul style="list-style-type: none"> <li>• Details of the site and key sensitivities associated with it.</li> <li>• Construction methodology for all works proposed in, over, adjacent to or in the floodplain</li> </ul>	Agreed	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>of the SAC (and functionally linked habitats).</p> <ul style="list-style-type: none"> <li>Control measures to be implemented to ensure protection of the SAC.</li> </ul>		
3-1.14 Draft Construction Method Statement	EA Statutory Consultation Response (Appendix 1, page 15)	<p>The new A66 crosses Crooks Beck (shown as Moor Beck) at an oblique angle, but there does not appear to be any culvert or bridge marked on the map (although there is reference to a “highway structure”). The nature of the crossing is therefore unclear. Trout, bullhead, salmon, and eels are known to use this watercourse and water voles may also be present. There is significant habitat upstream of the A66 and connectivity for fish passage, otters and potentially water voles is required to prevent any harm to the aquatic environment as a result of the proposed development.</p>	<p>The Environmental Management Plan (EMP) (Application Document Number 2.7, APP-1019) confirms at D-BD-04 that all crossings of Moor Beck are large open span structures, culverts will not be used here. In addition, all new watercourse crossing will be designed to facilitate the free passage of aquatic and riparian species.</p>	Agreed	24.01.2023

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

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.

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.1 General	EA Statutory Consultation Response (Appendix 1, page 3)	Full survey data may not be available at the time of writing the ES and survey data that become available after the DCO is submitted and early in the acceptance period will be submitted to verify the findings of the ES.	The mitigation measures proposed in the Environmental Statement (ES) (Application Document Reference 3,2) and the Draft Environmental Management Plan (EMP) (Application Document Reference 2.7, APP-019) will be based on up-to-date field survey data where available. We will seek agreement that the survey data that underpins the ES is robust once the EA has had full sight of the environmental information.	Under discussion	13.06.2022
3-2.2 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 7 – 8)	Based on the proposed location of the SuDS pond to the east of Carleton Hall and to the north of the River Eamont, we would advise that further consideration be given to possible river erosion issues as the use of any revetment to protect the asset in the future would be undesirable in the SAC river. The proposed SuDS Pond may be at risk from erosion, or the SAC may be at risk should mitigation be required to prevent erosion and protect the asset.	This specific SUDS pond has been located outside of the flood zone specifically to ensure that there are no interactions between it and the SAC River. The river in this location is currently heavily armoured and no further mitigation is proposed at this stage.	Under discussion	13.06.2022

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		Further geomorphological and / or geotechnical assessment is required to confirm that the location of the SUDS pond will not pose a risk to the designated SAC.			
3-2.3 Noise and Vibration	EA Statutory Consultation Response (Appendix 1, page 6, 9 – 10)	<p>Fish are not included in the list of species that could be disturbed by noise and vibration during construction. Significant noise and vibration from activities such as piling can be lethal / damaging to fish or fish eggs / fry.</p> <p>It is proposed that the ES will determine construction vibration as a significant effect when it is determined that a major magnitude (above or equal to 10 mm/s Peak Particle Velocity (PPV)) or moderate magnitude (above or equal to Significant Observed Adverse Effect Level (SOAEL) and below 10 mm/s PPV) of impact will occur for a duration exceeding:</p> <ul style="list-style-type: none"> <li>- Ten or more days or nights in any 15 consecutive days or nights; or</li> <li>- A total number of days exceeding 40 in any six consecutive months</li> </ul> <p>However, in relation to fish eggs / redds, construction vibration of around 13 mm/s PPV is significant, so any exceedance of</p>	<p>Chapter 6 (Biodiversity) of the ES (Application Document Reference 3.2, APP-049) includes the following embedded mitigation in the design to minimise impacts on fish and fish eggs/fry during construction:</p> <ul style="list-style-type: none"> <li>• Instream works, or works close to the river banks giving rise to excessive (&gt;13mm/s Particle Peak Velocity) vibration will be undertaken outside of the key fish spawning and incubation period of 1st October to 31st May.</li> <li>• No compaction, piling (or other activities resulting in Peak Particle Velocities (PPV) of greater than 13mm/s) will be permitted with 5m of watercourses with gravel substrate that support gravel spawning species (salmon, trout, lamprey sp., bullhead) without prior consultation with the Environment Agency and Natural England.</li> </ul>	Under discussion	13.06.2022

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>this level is significant for any piling works close to rivers with fish.</p> <p>The impact of the development on fish eggs / redds may not be assessed correctly based on the criteria identified at 12.2.14 which will result in the potential for death of fish eggs including protected SAC populations. This is likely to be relevant to salmon, trout, lamprey and potentially bullhead.</p>	<ul style="list-style-type: none"> <li>If works giving rise to significant vibration are required adjacent to potential spawning gravels, redd surveys (Lemon and Rummel, 2020) to determine whether spawning has occurred within the zone of impact would be undertaken, and the acceptability of in-channel works agreed with the Environment Agency and Natural England (depending on location).</li> </ul>		
3-2.4 Road Drainage and Water Environment	EA Statutory Consultation Response (Appendix 1, page 12)	<p>Flooding of Kirkby Thore associated with Trout Beck is referenced but based on recent events it is likely that Kirkby Thore can be at risk of flooding from the River Eden and Trout Beck either independently or in combination.</p> <p>We recommend that the hydraulic model being developed to support the FRA and detailed design of the Trout Beck crossing is used to refine the understanding of flood risk in this area.</p>	<p>The PEIR provided preliminary information required for the statutory consultation. Since then, the scheme has been further refined as reported in the ES.</p> <p>The flood model has however considered the impact of flooding assuming the River Eden was full resulting in water backing up within Trout Beck. This is demonstrated within Chapter 14 (Road Drainage and Water Environment) of the ES (Application Document Reference 3.2, APP-057).</p>	Under discussion	13.06.2022
3-2.5 Draft Construction Method Statement	EA Statutory Consultation Response (Appendix 1, page 15)	<p>Lowgill Beck is shown passing through the middle of a construction work area with no reference to how it will be protected. There is potential for pollution or other impacts of a</p>	<p>The current design involves extension/widening of the existing A66 culvert and minor realignment of Woodend Sike and Yosgill Sike to shift the confluence north of the widened culvert. Bullhead, brown</p>	Under discussion	13.06.2022



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>beck with brook lamprey, trout, bullhead &amp; eels with hydraulic continuity to the River Eden SAC.</p> <p>As Lowgill Beck bisects a construction work area, extra precautions are likely to be necessary to prevent pollution/siltation and to prevent harm to otters. Any temporary culverting/bridging for access around the site would need to be passable to fish and any in-river works for placing temporary structures should be outside the salmonid spawning season.</p>	<p>trout, eel, river/brook lamprey (ammocete) and river/brook lamprey (transformer) have all been recorded in Lowgill Beck, as have white-clawed crayfish.</p> <p>We will continue to engage with the EA on these issues and seek agreement that proposals represent the optimal solution and that any adverse effects of the scheme such as those raised have been appropriately mitigated.</p>		
3-2.6 Updated Rainfall Allowances	Email from Environment Agency - 26/04/2022	It is advised that the peak rainfall allowances, used as part of drainage design were released by the Environment Agency on 9 May 2022. The DCO application will need to comply with guidance applicable at the time of submission.	Sensitivity testing using the latest rainfall climate change allowances has been undertaken for the schemes in Cumbria and reported in the Flood Risk Assessment (Sections 14.2.4, 14.2.5 and 14.2.7, Appendix 14.2, Application Document 3.4, APP-221), it did not result in any changes to the outline drainage strategy or flood risk assessment. The Applicant intends to share the sensitivity testing results for the schemes in Durham and North Yorkshire with the EA as part of the on-going engagement between the parties.	Under discussion	24.01.2023
3-2.7 Hydraulic Modelling	Verbal comment at SoCG meeting 20.07.2022	Modelling to be shared and agreed in advance of Examination. Until the modelling is agreed, we cannot effectively	Baseline modelling has been shared with the EA.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		advise the Examining Authority on the flood risk impacts of the proposed development and suitability of mitigation.	<p>Comments on baseline modelling were provided by EA late March/early April 2022.</p> <p>In late October/early November 2022 we sent our response to the EA's comments on the baseline model and sensitivity testing reports.</p> <p>National Highways awaits to hear the result of the EA's review of the hydraulic modelling.</p> <p>Discussions are ongoing between National Highways and the Environment Agency on hydraulic modelling.</p>		
3-2.8 Legal	EA Relevant Representation (Annex 2, page 1, RR-160) and additional comments in EA Written Representation (REP1-024)	<p><u>2.1: Understanding the DCO document (APP-007): 2.5.1</u></p> <p><b>Issue</b> For National Highways to depart from the approved Design Principles Document (DPD) requires approval from the Secretary of State after they consult with the relevant local authority. No consultation with other relevant consultees is required.</p> <p><b>Impact</b> The significance of any environmental impacts of a detailed design that deviates from the approved DPD may be unknown.</p> <p><b>Suggested solution</b> Further engagement between National Highways and us to identify</p>	National Highways considers that the current drafting of article 54 of the draft DCO (Document Reference 5.1, APP-285) is suitable and no amendments are required. Indeed, it reflects that approved by the Secretary of State in other made DCOs in similar provisions (see paragraph 11(1) of Schedule 2 to the A417 Missing Link Development Consent Order 2022) As explained, National Highways' Relevant Representations (Part 4 of 4) (PDL-013), article 54(2) provides that the Secretary of State may approve a detailed design which departs from documents, e.g. the Project Design Principles, following	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>alternative wording to address this concern.</p> <p>We note the applicant's response in PDL-013 and accept that the wording within the DCO makes it clear that the Secretary of State (SoS) must be satisfied that the departure would not give rise to any materially new or materially worse adverse environmental effects when compared to those reported in the Environmental Statement. However, if the SoS is only consulting the relevant planning authorities, are they able to advise the SoS on whether there is a materially new or materially worse adverse environmental effect arising from a proposed change in relation to a matter that they may not have technical expertise on, for example fluvial flood risk? We continue to feel that alternative wording within the DCO to allow the SoS to consult the relevant planning authority and statutory environmental bodies would address our concern.</p>	<p>consultation with the relevant local planning authority. To the extent necessary when consulted, the relevant local planning authority may choose to engage with relevant statutory environmental bodies for input in respect of technical matters. This would be with a view to informing the relevant local planning authority's response to the Secretary of State's consultation. In addition, the Secretary of State has discretion to consult any other party as they see fit depending on the circumstances, albeit it may not be appropriate in all instances, depending on the scope of the amendment sought. The current drafting allows a degree of appropriate flexibility as to how the Secretary of State wishes to carry out the required consultation. The Secretary of State can only approve a revised detailed design where they are satisfied that there are no materially new or materially worse adverse environmental effects compared with those reported in the Environmental Statement. As such, it is inconceivable that, should there be any doubt, the Secretary of State would not consult the statutory environmental bodies as required,</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>prior to making a decision. National Highways will continue to engage with the Environment Agency on this point, amongst others.</p>		
3-2.9 Legal	EA Relevant Representation (Annex 2, page 1, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): General</u></p> <p><b>Issue</b> The Statutory Environmental Bodies (Natural England, Environment Agency and Historic England) share general concerns over the National Highways self-approval process as there are many elements of the project still to be worked up.</p> <p><b>Impact</b> The self-approval process may pose a risk of detrimental impacts to the environment without sufficient regulatory review.</p> <p><b>Suggested solution</b> We will all continue to engage with National Highways to work through and advise on the proposed self-approval process and seek further clarification as to what the National Highways self-approval process will entail to enable a fuller assessment of the proposals against our respective statutory remits.</p>	<p>It should be noted that both article 53 of the draft DCO (Application Document Reference 5.1, APP-285) and the Environmental Management Plan (Document Reference 2.7, APP-019) (EMP) require that a second iteration of the EMP (or EMPs – there may be multiple second iteration EMPs applicable to different parts of the scheme) must be developed in consultation with stakeholders (in accordance with the process contained in the EMP) and then approved by the Secretary of State prior to the start of the works. As such, that document, which will be the primary management document, would be subject to external approval.</p> <p>Where the EMP (or a second iteration EMP) requires National Highways to make a post consent determination, that must be undertaken in full accordance with the relevant provisions in the EMP (paragraphs 1.4.42 – 1.4.46) ultimately, this means a determination will be made by persons that are functionally separate from the project team,</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>with safeguards required to be put in place to maintain functional separation. This can be compared to a situation, for example, where a local authority applies to itself for planning permission. For full transparency, the specific handling arrangements for post consent determinations to be made by National Highways will be made public.</p> <p>Nevertheless, National Highways note the point made and will continue to engage with the Environment Agency (and other bodies) on both this and other issues.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 3, REP1-024)</p>	<p><b>EA additional commentary:</b>                      We were reassured by the Examining Authority (ExA) during Issue Specific Hearing 2 on 1 December 2022 that the self-approval proposals proposed by the applicant will be considered in depth during the examination process. We have made specific comments regarding timescales for the review of material submitted under the EMP self-approval process and while the comments from the applicant in PDL-013 about pre-application engagement are noted, we do not consider that they wholly address our concerns and we will continue to engage with the applicant and</p>	<p>A summary of National Highways' position on these points is set out in the Issue Specific Hearing 2 (ISH2) Post Hearing Submissions (including written submissions of oral case [Document Reference 7.3, REP1-009] – see from page 15. In particular:</p> <ul style="list-style-type: none"> <li>National Highways intends to add further provisions to the first iteration EMP, to allow some flexibility to the consultation processes on a case-by-case basis, by agreement. In addition, engagement forums outside of the 'formal' consultation period will need to be set up, to allow</li> </ul>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>other SEBs during the examination in relation to the self-approval process. We want to ensure that if this process is accepted by the ExA and it becomes a template for other DCO applications in the future, we have a clear role in the decision-making processes set out in the EMP and there is flexibility around our consultation arrangements where necessary. We also consider that the significance of any changes proposed to later versions of the EMP that the Secretary of State is asked to consider should be informed by the views of all relevant statutory parties and we would hope to see this reflected in the DCO.</p>	<p>for the sharing of information 'in advance' as appropriate; and</p> <ul style="list-style-type: none"> <li>National Highways has added drafting to article 53 of the draft DCO (a revised version of which has been submitted at this Deadline 2) to provide that the Secretary of State must be informed of any intention of National Highways to determine a change to an approved second iteration EMP to allow the Secretary of State to 'call in' any decision should it be considered appropriate.</li> </ul> <p>It should also be noted that any proposed changes to a previously approved second iteration EMP must be consulted upon – this is secured in article 53 of the draft DCO (Document Reference 5.1, APP-285). It is hoped these points will satisfy the Environment Agency's concerns, but engagement between the parties on this (and other points) will continue.</p>		
3-2.10 Environment and EMP	EA Relevant Representation (Annex 2, page 1, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): General</u> <b>Issue</b> The Environmental Management Plan (EMP) includes words or phrases which could be ambiguous in relation to the</p>	The wording contained in the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) has been developed to allow for a reasonable level of flexibility in detailed design and	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>expected mitigation requirements, for example “where appropriate”, “where reasonably practicable” etc.</p> <p><b>Impact</b> There is the potential for ambiguity in relation to securing mitigation measures that are necessary to protect the environment.</p> <p><b>Suggested solution</b> Review the wording of the EMP to avoid ambiguity and uncertainty in relation to identifying and securing mitigation measures necessary to protect the environment as part of the proposed development.</p>	<p>construction methodology, whilst having regard to required environmental outcomes by reference to the Environmental Statement (Document Reference 3.2, APP-044 to 059). Ultimately, the intention is that the commitments contained in the Register of Environmental Actions and Commitments (REACs) set out in the EMP secure necessary mitigation, with strict wording used in those instances where something must be done. Wording such as “where reasonably practicable” is deployed in relation to measures that may be desirable, but are not essential, in securing a particular environmental outcome. This is to avoid unnecessarily constraining the construction or operation of the project.</p> <p>The EMP is currently in draft form with a view to it being in final form by the end of the examination. As such, its content will evolve as the examination progresses. National Highways will have regard to all comments made during this time, with amendments being implemented where considered appropriate. As part of this, National Highways will continue to engage with statutory environmental bodies such as the</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>Environment Agency, with a view to addressing concerns such as those raised. Any agreed updates will be included in an updated draft EMP that will be submitted to the examination at Deadline 3).</p>		
3-2.11 Environment and EMP	EA Relevant Representation (Annex 2, page 2, RR-160)	<p><b>EA additional commentary:</b> We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p> <p><u>2.7: Environmental Management Plan (APP-019): General</u></p> <p><b>Issue</b> There is no specific requirement to secure detailed flood risk modelling and mitigation where temporary construction works within flood risk areas are unavoidable.</p> <p><b>Impact</b> The flood risk impacts of temporary construction works will not be understood or managed effectively.</p> <p><b>Suggested solution</b> A new site-wide requirement should be added, or an existing requirement should be modified to ensure sufficient assessment and investigations are undertaken to support temporary construction works that must take place within flood risk areas.</p>	<p>The EMP (Document Reference 2.7, APP-019) includes commitments to assess the risk of flooding during construction and set out specific actions to ensure appropriate management of the construction phase during flooding events. These include the preparation of a Working in/near Watercourses method statement (commitment MW-BD-03), Ground and Surface Water Management Plan (commitment D-RDWE-01), both of which must be consulted on with the Environment Agency, amongst others, prior to finalisation.</p> <p>Specific flood modelling for the construction phase is not considered necessary, as flood modelling for the operational phase of the development has been undertaken and will be</p>	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>updated as detailed design progresses. The modelling undertaken will be used to inform the detailed construction phase planning, including the production of the specific plans noted above. These plans will be further consulted on with the Environment Agency as required by the provisions of the EMP.</p> <p>Engagement is ongoing with the Environment Agency regarding the content of the EMP. Any changes agreed as necessary will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 5, REP1-024))</p>	<p><b>EA additional commentary:</b>                      We note the applicant’s response in PDL-013 however we do not agree with the statement that <i>“specific flood modelling for the construction phase is not considered necessary, as flood modelling for the operational phase of the development has been undertaken and will be updated as detailed design progresses”</i>. As modelling is being undertaken for detailed design, this should include modelling for the detailed design of the temporary works, where the potential magnitude for deleterious impacts is entirely foreseeable as evidenced in the</p>	<p>REAC commitment number D-RDWE-01 in the EMP (Document Number 2.7, APP-019) shall be amended to include the requirement for the contractor to provide sufficient evidence to demonstrate that construction activities will not lead to additional flood risk out with the construction site or impact on flood flow conveyance. This would include provision of modelling evidence and mitigation design as required. The wording of the amendment will be agreed with the Environment Agency and included in the amended EMP to be submitted at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>detailed design modelling exercise. This is particularly relevant where it can be identified the temporary works phase could impact on existing more vulnerable receptors, and where such circumstances are apparent (and not discounting ecological or designatory impacts) then these should be subject to enhanced detail design flood risk modelling. Where deleterious effects are identified they should be mitigated and receptors protected. These can be deemed to relatively isolated instances along the linear scheme, and as a result it is not considered that due diligence in relation to site specific detailed temporary works modelling would be either excessively difficult or prohibitively expensive. There is no reason to support the statement that specific flood modelling for the construction phase is not considered necessary and we maintain that sufficient assessment and investigations are undertaken to support temporary construction works that must take place within flood risk areas prior to the commencement of construction in those areas.</p>			

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.12 Legal	EA Relevant Representation (Annex 2, page 2, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): 1.4.20</u></p> <p><b>Issue</b> The proposed consultation procedure identified in the EMP does not include any provision for consultees to request and agree extensions to the consultation and we have concerns that the approach being taken may exert challenging demands upon us that would be difficult to service.</p> <p><b>Impact</b> An inflexible process may not allow sufficient time for consultees to determine whether submissions pose a risk of harm to the environment.</p> <p><b>Suggested solution</b> The procedure should be revised to include the ability for consultees to ask National Highways if they would agree to an extension where it is reasonable to do so, such as during incident response work or where resource constraints limit how much we can engage on the proposals.</p>	<p>National Highways notes the point made and will continue to engage with the Environment Agency (and other bodies) on both this and other issues as part of the Statement of Common Ground process, with the status of agreement on this point recorded.</p> <p>However, it should be noted that to ensure the scheme can be delivered in a timely manner, National Highways considers that there needs to be a level of certainty that applies to the timeframes related to formal consultation under the Environmental Management Plan (Document Reference 2.7, APP-019) (EMP) (paragraphs 1.4.17 to 1.4.37) to avoid unnecessary delays or issues becoming protracted. The process set out in the EMP does not preclude 'informal' engagement on the issues outside of the formal process.</p>	Under discussion	24.01.2023
	EA Written Representation (Annex 1, Table 1, page 5, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and we appreciate the need for certainty in relation to responses to submissions under the EMP and delivery of the project. We also note the suggestion that prior to submission for approval under the</p>	As set out above, National Highways committed at Issue Specific Hearing 2 to considering whether any amendments to the relevant consultation provisions are required in response to this point raised by the Environment Agency.		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>EMP, informal engagement between the applicant and statutory bodies could take place through pre-submission discussions or reviews. However, such discussions are not mandatory and so we maintain that a mechanism in the EMP to allow consultees to seek extensions to the 20 / 10-day consultation periods where there are reasonable grounds to do so is necessary.</p>	<p>Please see the Issue Specific Hearing 2 (ISH2) Post Hearing Submissions (including written submissions of oral case (Document Reference 7.3, REP1-009) – page 6. This includes a summary of the Applicant’s proposal to introduce certain aspects into the first iteration EMP in the next draft submitted to the Examination. In particular this relates to:</p> <p><i>“1. formal commitment that the Applicant (and its principal contractors) will set up and run regular engagement meetings (or ‘forums’) with the prescribed consultees, with the aim of providing as much visibility on materials coming to those consultees for consultation as practicable; and</i></p> <p><i>2. amendments to the consultation process, such that the Applicant would be able to agree a longer consultation period with a consultee where circumstances justify it. Such circumstances would need to be considered on a case-by-case basis.”</i></p>		
3-2.13 Legal	EA Relevant Representation (Annex 2, page 3, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): 1.4.26</u></p> <p><b>Issue</b> In accordance with the process proposed in the EMP, the proposed consultation procedure</p>	<p>The EMP (Application Document Number 2.7, APP-019) (paragraph 1.4.31) requires that following the second round of consultation with a consultee on a</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>allows for one period of re-consultation with consultees before National Highways can determine a submission.</p> <p>However, there is no mechanism to allow for further consultation or discussion before a decision is made should any consultee concerns remain unresolved.</p> <p><b>Impact</b> Consultees may identify concerns with submissions that are not resolved prior to determination leading to detrimental impacts for the environment.</p> <p><b>Suggested solution</b> Where consultee concerns remain unresolved after the second period of consultation, the consultees should make it clear whether their concerns can be resolved and if so, explain how to give National Highways an opportunity to a) update the submission or b) justify why they do not need comply with the consultee’s advice. All opportunities to resolve concerns should be exhausted before a decision is made.</p>	<p>matter, a Summary Report setting out how the consultee’s comments have been considered at that second round must be provided to the consultee.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 6, REP1-024)</p>	<p><b>EA additional commentary:</b>            We note the applicant’s response in PDL-013 and we appreciate the need for certainty in relation to</p>	<p>National Highways committed at Issue Specific Hearing 2 to considering whether any amendments to the relevant</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>responses to submissions under the EMP and delivery of the project. We also note the suggestion that prior to submission for approval under the EMP, informal engagement between the applicant and statutory bodies could take place through pre-submission discussions or reviews. However, such discussions are not mandatory and this solution does not specifically resolve the issue we have identified regarding a process for exhausting all avenues for resolution prior to a decision on EMP submissions.</p>	<p>consultation provisions are required in response to this point raised by the Environment Agency.                      Please see the Issue Specific Hearing 2 (ISH2) Post Hearing Submissions (including written submissions of oral case (Document Reference 7.3, REP1-009) – page 6. This includes a summary of the Applicant’s proposal to introduce certain aspects into the first iteration EMP in the next draft submitted to the Examination. In particular, this relates to:  <i>“1. formal commitment that the Applicant (and its principal contractors) will set up and run regular engagement meetings (or ‘forums’) with the prescribed consultees, with the aim of providing as much visibility on materials coming to those consultees for consultation as practicable; and                      2. amendments to the consultation process, such that the Applicant would be able to agree a longer consultation period with a consultee where circumstances justify it. Such circumstances would need to be considered on a case-by-case basis.”</i></p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.14 EMP	EA Relevant Representation (Annex 2, page 3, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): Table 2-2: (Page 2.7-19 of 89)</u></p> <p><b>Issue</b> The role of Environment Manager(s) includes the following duty, but there is no requirement to self-report any transgressions / incidents to relevant regulators</p> <ul style="list-style-type: none"> <li>Keep a record of all activities on site, environmental problems identified, transgressions noted, and a schedule of all remedial tasks undertaken.</li> </ul> <p><b>Impact</b> In the absence of a requirement to self-report any incidents, harm to the environment may arise where relevant authorities should be notified.</p> <p><b>Suggested solution</b> Amend the role to include the following:</p> <ul style="list-style-type: none"> <li>Keep a record of all activities on site, environmental problems identified, transgressions noted, and a schedule of all remedial tasks undertaken. <i>The Environment Agency, Natural England and / or other relevant regulatory authorities will be notified where appropriate, having</i></li> </ul>	<p>National Highways agrees that a process to self-report any transgressions/incidents to relevant regulators where considered appropriate, and to implement any measures required to rectify the incident and prevent future incidents from occurring, would be welcome.</p> <p>The current proposed monitoring and compliance regime is included in the EMP (Document Reference 2.7, APP-019) at Section 6, which describes the monitoring and reporting required (including specifying responsibilities) and the process for implementing corrective action. It also includes provisions around record-keeping for the purposes of inspections by statutory bodies.</p> <p>It is agreed that, in principle, the requirement to self-report any transgressions or incidents (above a certain threshold) to relevant regulators is not clearly articulated in the draft EMP. National Highways propose that this principle is included in the EMP, but the change is best made at Section 6, rather in the specific duties section, as it is Section 6 that specifies the overarching actions that are required to be</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<i>regard to the nature and scale of the incident.</i>	<p>taken (no matter who holds responsibility).</p> <p>The proposed wording of the change will be discussed with the Environment Agency and any proposed amendments will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3. This is particularly in regard to the nature and scale of self-reporting required and the mechanisms for this.</p>		
	EA Written Representation (Annex 1, Table 1, page 7, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	National Highways considers that these points are addressed in the response to Relevant Representations (PDL-013, Document Reference 6.5, pages 112 and 113). Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.		
3-2.15 EMP	EA Relevant Representation (Annex 2, page 3, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): Table 2-2: (Page 2.7-20 of 89)</u></p> <p><b>Issue</b> The role of Ecological Clerk(s) of Work(s) has no duty to self-report any transgressions / incidents to the relevant regulators.</p> <p><b>Impact</b> In the absence of a requirement to self-report any</p>	National Highways agrees that a process to self-report any transgressions/incidents to relevant regulators where considered appropriate, and to implement any measures required to rectify the incident and prevent future incidents from occurring, would be welcome.	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>incidents, harm to the environment may arise where relevant authorities should be notified.</p> <p><b>Suggested solution</b> Add the following requirement to the ECOW role:</p> <ul style="list-style-type: none"> <li><i>Ensure that any environmental problems identified, or transgressions noted, are reported to the Environmental Manager(s) so that where appropriate the Environment Agency, Natural England and / or other relevant regulatory authorities will be notified, having regard to the nature and scale of the incident.</i></li> </ul>	<p>The current proposed monitoring and compliance regime is included in the EMP (Document Reference 2.7, APP-019) at Section 6, which describes the monitoring and reporting required (including specifying responsibilities) and the process for implementing corrective action. It also includes provisions around record-keeping for the purposes of inspections by statutory bodies.</p> <p>It is agreed that, in principle, the requirement to self-report any transgressions or incidents (above a certain threshold) to relevant regulators is not clearly articulated in the draft EMP. National Highways propose that this principle is included in the EMP, but the change is best made at Section 6, rather in the specific duties section, as it is Section 6 that specifies the overarching actions that are required to be taken (no matter who holds responsibility).</p> <p>The proposed wording of the change will be discussed with the Environment Agency and any proposed amendments will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3. This is particularly in regard to the nature and scale of self-reporting</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 7, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>required and the mechanisms for this.</p> <p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 112 and 113. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
3-2.16 EMP	EA Relevant Representation (Annex 2, page 4, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-GEN-08</u></p> <p><b>Issue</b> There is no requirement to locate construction works outside areas at high risk of flooding where possible.</p> <p><b>Impact</b> Construction works may be unnecessarily located in areas at a high risk of flooding.</p> <p><b>Suggested solution</b> Update D-GEN-08 to ensure temporary compounds, haul routes and storage areas avoid areas at a high risk of flooding where possible:</p> <p>Compound locations, haul routes and storage areas will be selected to avoid designated sites, and be as far away from sensitive receptors as reasonably</p>	<p>Where possible construction works and compounds have been located outside areas of high flood risk as shown indicatively on the General Arrangement Drawings (Document Reference 2.5, APP-11 to APP18). Where they are shown within a high flood risk area it is to facilitate the construction of a watercourse crossing which will require temporary access roads and equipment to be located close to the works. EMP Annex B7 (Document Reference 2.7, APP-027), the outline Ground and Surface Water Management Plan (which must be developed in detailed in accordance with commitment D-RDWE-01 in the EMP) includes commitments</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>practicable (for example local residential properties, priority habitats and known locations of protected species, <i>areas at risk of flooding (those in Flood Zone 3)</i>)</p>	<p>regarding management of construction in areas of high flood risk and commitment D-GEN-08 specifies that these should be located away from sensitive receptors.</p> <p>Given the risks associated with flooding during construction, National Highways agree that the proposed amendment is a helpful addition to the EMP, and wording along these lines shall be added to highlight those sensitive receptors includes areas at high risk of flooding. This will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 8, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 113 and 114. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
<p>3-2.17 EMP</p>	<p>EA Relevant Representation (Annex 2, page 4, RR-160)</p>	<p><u>2.7: Environmental Management Plan (APP-019): D-GEN-08</u> <b>Issue</b> There is a requirement for hoarding and fencing in Flood Zone 3 to be permeable to flood</p>	<p>In relation to D-GEN-08 it has been agreed that the requirement to avoid areas of high flood risk shall be included in D-GEN-08. Engagement with the</p>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>flows but there is no reference to how other construction works that may be necessary in areas at a high risk of flooding will be managed, for example temporary buildings within compounds, access tracks, storage areas etc.</p> <p><b>Impact</b> Some construction features may be at risk of or increase the risk of flooding elsewhere without suitable management / mitigation</p> <p><b>Suggested solution</b> Update D-GEN-08 requirement to incorporate broader flood risk management controls:</p> <ul style="list-style-type: none"> <li>• <i>Temporary development associated with construction shall avoid areas at risk of flooding (those in Flood Zone 3) where possible. Where features (including but not limited to hoarding and fencing, access tracks, compounds and storage areas, temporary buildings) must be in areas at a high risk of flooding, National Highways will demonstrate that the fluvial floodplain and areas liable to other sources of flooding continue to function effectively for storage and conveyance of floodwater without increasing risk elsewhere.</i></li> </ul>	<p>Environment Agency is ongoing, and wording to ensure appropriate controls are in place during construction to prevent risk of flooding on the site or elsewhere will be discussed with it. Any updated text will be included an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 8, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p>	National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 114 to 116. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.		
3-2.18 EMP	EA Relevant Representation (Annex 2, page 5, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-BD-04</u></p> <p><b>Issue</b> The action is not specific enough in relation to Trout Beck, i.e. it is not just necessary that new watercourse crossings are open span across the river, it needs to ensure the minimum number of piers with no embankments across the whole floodplain. The foundation type/depth of piers on Trout Beck floodplain should be designed such that no modifications/new revetment will be required in the long term if the river migrates, and the pier(s) become(s) located within the river channel.</p> <p><b>Impact</b> The action does not specify all the measures necessary to avoid any impact on the aquatic environment.</p>	In relation to D-BD-0 National Highways agree with the points raised by the Environment Agency in relation to D-BD-04. The design of the watercourse crossing itself is specified by a number of controls within the Project Design Principles document (Document Reference 5.11, APP-302) (commitment GB03, 0405.04, 06.07), as well as within the EMP (Document Reference 2.7, APP-019). Both of these documents are certified documents and carry equal weight in ensuring the commitments within them are implemented – see articles 53 and 54 of the DCO (Document Reference 5.1, APP-285), which require compliance with these documents. This point will be discussed further with the Environment Agency as part of	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Suggested solution</b> Update D-BD-04 to refer to additional requirements:</p> <p>New watercourse crossings of the SAC (Trout Beck) shall be open span and the length of the crossing minimised to <i>avoid reduced</i> impacts on the aquatic environment and allow natural river processes to continue, unless otherwise agreed with Natural England and the Environment Agency. <i>The crossing will utilise the minimum number of piers with no embankment across whole floodplain. The foundation type/depth of piers on Trout Beck floodplain will be designed such that no modifications/new revetment would be required in the long term if the river migrates, and the pier(s) become(s) located within the river channel.</i> In addition to the Trout Beck viaduct, the majority (five out of six) of new watercourse crossings of functionally linked watercourses in the Appleby to Brough scheme shall also be open span, unless otherwise agreed with Natural England and the Environment Agency. These are specified in the ES Chapter 6:</p>	<p>ongoing consultation, to determine whether (once both the PDP and EMP commitments are considered alongside each other) the wording needs to be updated. Any agreed change will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 9, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 114 to 116. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.		
3-2.19 EMP	EA Relevant Representation (Annex 2, page 6, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-BD-04</u></p> <p><b>Issue</b> In relation to the reference to the use of culverts, there is a lack of detail regarding the necessary design detail.</p> <p><b>Impact</b> The absence of detail to support culvert design may lead to culverts that lead to detrimental impacts on the aquatic environment.</p> <p><b>Suggested solution</b> Update D-BD-04 to refer to additional requirements: Where culverts are used, they shall be bottomless (or sunk/inverted 30cm below natural bed level to allow natural substrate to be deposited) and aim to maintain natural bank features. <i>Culverts should also comply with the <a href="#">Institute of</a></i></p>	In relation to D-BD-04, it is highlighted that control measures regarding the design of culverts are included in a number of the EMP (Application Document Reference 2.7, APP-019) commitments (D-BD-04, D-BD-06, D-RDWE-02, D-RDWE-05, and in the Project Design Principles document (Document Reference 5.11, APP-302) (commitment LI17 and LI19, which carries equal weight to the EMP in relation to securing commitments under the DCO (as per the above). This point will be discussed further with the Environment Agency as part of ongoing engagement, to determine whether (once both the PDP and EMP commitments are considered alongside each other) the wording needs to be updated. Any proposed change that is	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><i>Fisheries Management - Fish Passage Manual taking account of other factors including but not limited to maximum gradient, minimum pipe diameter, maximum drop at intake and outfall etc having regard to relevant fish species and the length of the culvert.</i></p>	<p>considered appropriate will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 10, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 114 to 116. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
<p>3-2.20 EMP</p>	<p>EA Relevant Representation (Annex 2, page 6, RR-160)</p>	<p><u>2.7: Environmental Management Plan (APP-019): D-BD-05</u> <b>Issue</b> The action requires that some habitats, including waterbodies and watercourses, be replaced with two for each one lost. It is not clear how a watercourse could be replaced on a two for one basis. <b>Impact</b> If the mitigation requirements are undeliverable, there is the potential for harm to the aquatic environment because of the proposed development.</p>	<p>The importance of watercourse habitats is fully recognised, and a number of mitigation measures have been included in the EMP (Document Reference 2.7, APP-019) and Project Design Principles (Document Reference 5.11, APP-302) to prevent their loss and minimise impact of any works in or near a watercourse. Where the loss of part of a watercourse is unavoidable through detailed design, this commitment seeks to ensure that</p>	<p>Under discussion</p>	<p>24.01.2023</p>



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Suggested solution</b> Update D-BD-05 to ensure that requirements for mitigating for the loss of aquatic features on a two for one basis are clear and deliverable.</p>	<p>the habitat is re-provided on at least a two for one basis. This could include measures such as opening up of culverts or creation of new watercourses. National Highways agrees this needs to be clear and all measures must be deliverable. This point will be further discussed with the Environment Agency as part of ongoing. Any proposed change that is considered appropriate will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 10, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 117 and 118. This point has been further discussed with the Environment Agency at a meeting held on 4th November 2022. Watercourse mitigation is secured through the Environmental Management Plan (APP019), in several locations referenced in the response to relevant representations (PDL-013). The proposed inclusion of 2 for 1 replacement was a measure related to ponds, not watercourses, and the wording will be amended to make this clear. The proposed updates will</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			be included in the updated EMP to be submitted at Deadline 3.		
3-2.21 Environment and EMP	EA Relevant Representation (Annex 2, page 6, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): MW-BD-02</u></p> <p><b>Issue</b> It is stated that fish and crayfish translocations will be required where an entire channel is dewatered, however fish and crayfish translocations will be required if any part of the channel is dewatered.</p> <p>Translocations will also be needed if an in-river work area is to be contained/bunded but not dewatered – unless agreed with the Environment Agency given the risk of pollution/ disturbance/risk of direct harm in contained in-river work areas.</p> <p><b>Impact</b> Fish and crayfish will be detrimentally impacted by the development if they are not translocated when works within the channel require it.</p> <p><b>Suggested Solution</b> Update MW-BD-02 as follows:</p> <p>Dewatering of <i>any part of</i> the <del>entire</del> channel of any watercourse will be avoided <del>where reasonably practicable</del>.</p> <p>If <i>evidence demonstrates that</i> dewatering cannot be avoided:</p> <ul style="list-style-type: none"> <li>• All fish (including juvenile lamprey that live in marginal</li> </ul>	<p>National Highways agree with the helpful points raised and shall incorporate the proposed amendments into commitment MW-BD-02 in the EMP (Application Document Reference 2.7, APP-019) as suggested.</p> <p>This change will be reflected in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>sediments) will be translocated prior to dewatering works.</p> <ul style="list-style-type: none"> <li>• Prior to dewatering or intrusive in-channel works, all crayfish present shall be translocated by a suitably licenced white-clawed crayfish surveyor.</li> <li>• <i>Translocations will also be needed if an in-river work area is to be contained/bunded but not dewatered.</i></li> </ul> <p>Methods and translocation sites shall be confirmed following consultation with Natural England and the Environment Agency.</p>			
	EA Written Representation (Annex 1, Table 1, page 11, REP1-024))	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	Noted. National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 118. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in MW-BD-02 within the updated EMP to be submitted at Deadline 3.		
3-2.22 Environment and EMP	EA Relevant Representation (Annex 2, page 7, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): MW-BD-03</u></p> <p><b>Issue</b> The action includes a requirement to ensure any in channel works are sensitively timed, but there is no reference to when that is.</p>	National Highways agree with the importance of including as much detail in the commitments as possible. In relation to construction timing there are a number of species that could be affected by in channel works,	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Impact</b> In river works at inappropriate times could pose a risk of harm to aquatic species and habitats.</p> <p><b>Suggested solution</b> Update MW-BD-03 to ensure that sensitively timed in river works should avoid 1<sup>st</sup> October to 15<sup>th</sup> June, unless there is information confirming there are no fish in the watercourse or Environment Agency/Natural England agree to works during this period, dependent on the exact location and type of in-river work. Where there is a proposal for in-river working in the spawning season, it is recommended that two redd (fish nest) surveys are carried out in Nov and Dec or Jan. This would provide information to allow an informed decision as to whether works could be continued into the spawning season.</p>	<p>some of which have conflicting sensitive life cycle stages. In order to retain flexibility for the construction programme consideration will need to be made regarding the most sensitive timing on a case-by-case basis.</p> <p>This point will be further discussed with the Environment Agency as part of ongoing engagement. Any update proposed will be included in will be an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	EA Written Representation (Annex 1, Table 1, page 11, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	Following discussion with the Environment Agency an amendment will be made to the EMP requiring the timing of in-channel works to avoid the most sensitive seasons and the timing of these to be agreed with the Environment Agency (and, where relevant, Natural England). A set time period has not been specified because of the varying species composition at each watercourse,		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>meaning the most sensitive time periods may differ between locations. The proposed amendment will be included in the updated EMP to be submitted to the examination at Deadline 3.</p>		
3-2.23 Environment and EMP	EA Relevant Representation (Annex 2, page 7, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): MW-BD-15</u>  <b>Issue</b> This action makes no reference to the need for a HRA to assess the Method of Works (as well as the permanent works).  <b>Impact</b> The impacts of the works on the River Eden SAC and functionally linked habitats will not be adequately assessed in the absence of a HRA.  <b>Suggested solution</b> Update MW-BD-15 to ensure the need for a HRA is referenced.</p>	<p>A HRA has been undertaken for the project, as presented in Document Reference 3.5, APP-234 and Document Reference 3.6, APP-235. This assessment fully considers impacts that could arise during construction (and indeed operation) and sets out the assumptions made regarding construction methodology and the required mitigation during construction.  A detailed Method Statement for working within the SAC is required to be provided and consulted upon as set out in Section 1 of the EMP (Document Reference 2.7, APP-019). This method statement will set out in detail the methods to be used, and how it complies with the HRA undertaken already. Notwithstanding this point, it is agreed that it would be helpful to make explicit within the method statement the requirement to demonstrate compliance.  The following bullet point shall be added to the list within MW-BD-15:</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<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 Assessment (SIAA) (Document References 3.5 and 3.6, APP-234 and APP-235)</li> </ul> <p>This change will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 12, REP1-024)</p>	<p><b>EA additional commentary:</b>          We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>The HRA (Application Document 3.6 Habitats Regulations Assessment (HRA) Stage 2 Statement to Inform Appropriate Assessment, APP-235 considers the potential for both construction and operation phase effects. National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 120 and 121. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.24 Environment and EMP	EA Relevant Representation (Annex 2, page 8, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-GS-01</u></p> <p><b>Issue</b> There is no reference to the requirement to identify maximum stockpile heights in the Materials Management Plan as stated in document 2.9 Mitigation Schedule (Rev 1; dated 13/06/2022).</p> <p><b>Impact</b> Unrestricted stockpile heights may have an impact on local environmental quality.</p> <p><b>Suggested solution</b> Update D-GS-01 to include clear reference to the need to identify maximum stockpile heights.</p>	<p>Having considered the comment made, National Highways agrees a change to specify this point would be appropriate. The following text shall therefore be added to D-GS-01:</p> <p>Maximum stockpile heights to be adhered to, taking into consideration the nature of the material being stored and the risk of slippage or loss of material affecting local receptors</p> <p>This change will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>	Under discussion	24.01.2023
	EA Written Representation (Annex 1, Table 1, page 12, REP1-024))	<p><b>EA additional commentary:</b></p> <p>We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 121. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates to D-GS-01 will be included in the updated EMP to be submitted at Deadline 3.</p>		
3-2.25 Environment and EMP	EA Relevant Representation (Annex 2, page 8, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-RDWE-01</u></p> <p><b>Issue</b> In relation to the management of surface water during construction, detention basins / drainage ponds that are</p>	<p>National Highways note the point made, however there may be specific locations where the operational drainage system is intentionally installed first to</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>designed for the operational phase of the scheme should not be relied upon to deal with the large volumes of contaminated water that are associated with construction phase activities.</p> <p><b>Impact</b> Detention basins / drainage ponds not designed to accommodate flows during the construction phase may increase the risk of pollution incidents and impacts upon the water environment.</p> <p><b>Suggested solution</b> It is recommended that dedicated sediment traps and settlement ponds should be designed into the scheme for the construction phase and where these are unlikely to be effective, treatment systems such as lamella tanks and chemical dosing should be costed into the scheme.</p>	<p>facilitate pollution control during construction.</p> <p>This point will be discussed further with the Environment Agency as part of ongoing engagement, including in relation to any updates to the text to ensure appropriate controls are installed.</p> <p>Any proposed change that is considered appropriate will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
3-2.26 Environment and EMP	EA Relevant Representation (Annex 2, page 8, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-RDWE-01</u></p> <p><b>Issue</b> The action proposes that “water abstracted through dewatering shall be discharged to the same groundwater catchment and downgradient of the dewatered element”.</p> <p><b>Impact</b> Dewatering discharged to the same groundwater catchment downgradient of the dewatered</p>	<p>National Highways notes the point made and will discuss this point further with the Environment Agency as part of ongoing engagement, together with any required updates to the text to ensure that the discharge arrangements during dewatering are appropriate.</p> <p>Any proposed change that is considered appropriate will be included in an updated draft EMP</p>	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>element may lead to some local stretches of watercourses being impacted through flow depletion.</p> <p><b>Suggested solution</b> Water abstracted through dewatering may need to be discharged on a more refined local scale if it is to be used as potential mitigation against flow depletion in watercourses so update D-RDWE-01 to reflect this and make it clear that an abstraction licence or licences will be required from the Environment Agency for this.</p>	<p>that will be submitted to the examination at Deadline 3.</p> <p>It is noted in any case that the EMP does not remove the need for National Highways to comply with all legislative requirements, and any licences required during the construction phase will be sought through the standard processes.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 13, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 122 and 123. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
<p>3-2.27 Environment and EMP</p>	<p>EA Relevant Representation (Annex 2, page 9, RR-160)</p>	<p><u><a href="#">2.7: Environmental Management Plan (APP-019): D-RDWE-06</a></u></p> <p><b>Issue</b> Having regard to our comments on the hydrogeological impact assessment methodology paragraph 14.6.8.5, the list of Ground Water Dependent</p>	<p>This point will be discussed further with the Environment Agency as part of ongoing engagement, and any required updates to the text to ensure appropriate controls are installed at all stages will be proposed.</p>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>Terrestrial Ecosystem (GWDTE) might need to be widened.</p> <p><b>Impact</b> The proposed development may have potential adverse impacts on GWDTEs not currently identified.</p> <p><b>Suggested solution</b> Alternative methods of assessing the zone of influence of dewatering activities may be required to satisfy the requirements of D-RDWE-06.</p>	<p>Any proposed change that is considered appropriate will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	EA Written Representation (Annex 1, Table 1, page 14, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 109. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
3-2.28 Environment and EMP	EA Relevant Representation (Annex 2, page 9, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): D-RDWE-08</u></p> <p><b>Issue</b> There is no reference to any consultation with the Environment Agency in relation to agreeing the scope and extent of site-specific measures required to mitigate the impacts of the detailed design in relation to WFD impacts.</p> <p><b>Impact</b> The scope and extent of site-specific measures necessary</p>	<p>Having considered the comment made, National Highways consider it to be appropriate to make the suggested change.</p> <p>Environmental Management Plan (EMP) (Document Reference 3.2, APP-019) D-RDWE-08 shall also be added to table 1-1 to reflect the consultation requirement.</p> <p>This change will be included in an updated draft EMP that will be</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>to mitigate the WFD impacts of the development may not be adequate.</p> <p><b>Suggested solution</b> Update D-RDWE-08 to ensure the Environment Agency is consulted on the scope and extent of site-specific mitigation required in relation to WFD impacts based on survey and assessment of the detailed design.</p>	<p>submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 14, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 123. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
<p>3-2.29 Environment and EMP</p>	<p>EA Relevant Representation (Annex 2, page 9, RR-160)</p>	<p><u>2.7: Environmental Management Plan (APP-019): D-RDWE-09</u></p> <p><b>Issue</b> The additional surveying to be undertaken at the detailed design stage will need to include licensed abstractions as it has been established that some will be impacted (Hydrogeological Impact Assessment paragraph 14.6.8.53).</p>	<p>Having considered the comment made, National Highways consider it appropriate to make the suggested change, for cases where sufficient information is not already available. It is therefore proposed that within the EMP (Document Reference 2.7, APP-019) commitment reference D-RDWE-09 is amended to read: "...precautionary assessment of risk to unlicensed and, where sufficient information is not</p>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Impact</b> Potential for unacceptable impacts on licensed abstractions without mitigation being provided.</p> <p><b>Suggested solution</b> Update D-RDWE-09 to ensure both licenced and unlicenced surface and ground water abstractions will be included in the further surveys.</p>	<p>already available, licenced surface and groundwater...”</p> <p>This change will be included in an updated draft EMP that will be submitted to the examination at Deadline 3.</p>		
	EA Written Representation (Annex 1, Table 1, page 14, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 124. Consultation is ongoing with the Environment Agency regarding the exact wording amendments to be proposed, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
3-2.30 Environment and EMP	EA Relevant Representation (Annex 2, page 10, RR-160)	<p><u>2.7: Environmental Management Plan (APP-019): MW-RDWE-09</u></p> <p><b>Issue</b> The western end of the A66 project (as far as Brough) lies almost entirely on Penrith sandstone, i.e. non calcareous. Use of limestone may be an issue on Schemes as far as Brough for any temporary stone imports e.g. for tracks/piling platforms or in areas where there is likely to be significant run off through the stone. It will likely depend on volumes of stone, size of stone and proximity to sensitive</p>	<p>National Highways believes this comment is referring to the MW-RDWE-09, rather than MW-RDWE-08 as stated in the suggested solution. National Highways notes the point made and will discuss this point further with the Environment Agency as part of ongoing engagement, and any updates to the text to ensure that materials used at the western end of the project are appropriate to prevent pollution. Any agreed change will be included in an updated draft EMP that will be</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>receptors as to whether this is an issue.</p> <p><b>Impact</b> Potential detrimental impacts on watercourses associated with run-off through limestone imports.</p> <p><b>Suggested solution</b> Update MW-RDWE-08 to ensure that it states that limestone will not be imported to be used on Schemes 1, 2, 3, 4, 5 and 6 without Natural England and/or Environment Agency agreement.</p>	<p>submitted to the examination at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 15, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, page 124. Consultation is ongoing with the Environment Agency, and the proposed updates will be included in the updated EMP to be submitted at Deadline 3.</p>		
<p>3-2.31 Environment and EMP DCO – Policy Legislation and Guidance</p>	<p>EA Relevant Representation (Annex 2, page 10, RR-160)</p>	<p><u>2.7: Environmental Management Plan (APP-019): MW-RDWE-09</u></p> <p><b>Issue</b> The action does not make it clear that temporary watercourse crossings should generally be clear span bridges. Where temporary culverts are used, the crossing should comply with the Institute of Fisheries Management Fish Pass Manual for new culverts unless otherwise agreed with the Environment Agency. Temporary</p>	<p>The intention of the comment is understood, however the requirement for temporary watercourse crossings are set out in Annex C1 Working in and Near SAC Method Statement (Document Reference 2.7, APP-036) and Annex C2 Working in Watercourses (Document Reference 2.7, APP-037), which are secured through the EMP commitments MW-BD-03 and</p>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>in-river crossings will not be placed or removed during the fish spawning season (generally 1<sup>st</sup> Oct to 15<sup>th</sup> June).</p> <p><b>Impact</b> In the absence of guidance regarding temporary watercourse crossings, there is the potential for inappropriate solutions to be proposed that will detrimentally impact upon the water environment.</p> <p><b>Suggested solution</b> Update MW-RDWE-09 to ensure requirements for temporary watercourse crossings are clear.</p>	<p>MW-BD-15 (Document Reference 2.7, APP-019), which require that these outline/essay plans need to be developed in detail.</p> <p>Paragraph C1.3.7 requires that temporary bridges must avoid direct impacts on the watercourses and riparian habitats; paragraph C1.4.2 requires the programme to comply with constraints set out in the Statement to Inform Appropriate Assessment (Document Reference 3.6, APP-235) which includes fish spawning season and other sensitive life cycle stages.</p> <p>It is acknowledged that culverts are not specifically referenced in the draft Method Statement, therefore the following addition is proposed to the Environmental Management Plan (EMP) Annex C1 (Document Reference 2.7, APP-036)</p> <p>New paragraph C1.3.17:  <b>Culverts</b>                      If any temporary culverts are required in Trout Beck or other watercourses functionally linked to the River Eden SAC they shall comply with the Institute of Fisheries Management Fish Pass Manual for new culverts unless otherwise agreed with the Environment Agency.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			This addition will be included in an updated draft EMP and its Annexes that will be submitted to the examination at Deadline 3.		
	EA Written Representation (Annex 1, Table 1, page 15, REP1-024)	<b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.	National Highways considers that these points are addressed in the response to Relevant Representations, PDL-013, Document Reference 6.5, pages 125 and 126.		
3-2.32 EMP	EA Relevant Representation (Annex 2, page 10, RR-160)  EA Written Representation (Annex 1, Table 1, page 16, REP1-024)	<u>2.7: Environmental Management Plan Annex B7 Ground and Surface Water Management (APP-027): B7.2.2</u> <b>Issue</b> We are not aware of an Internal Drainage Board (IDB) regulating works on land relevant to the scheme. <b>Impact</b> Incorrect understanding of regulatory roles could lead to detrimental impacts on the environment because of the proposals. <b>Suggested solution</b> Update this section to refer to Lead Local Flood Authority (LLFA) who have a regulatory remit under S23 of the Land Drainage Act 1991, for work that would normally require Ordinary Watercourse Flood Defence Consent (OWFDC).	The amendment proposed will be made to the EMP Annex B7 Ground and Surface Water Management Plan (Document Reference 2.7, APP-027), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023
3-2.33 EMP	EA Relevant Representation (Annex 2, page 11, RR-160)	<u>2.7: Environmental Management Plan Annex B7 Ground and Surface Water Management (APP-027): B7.5.2</u>	The amendment proposed will be made to the EMP Annex B7 Ground and Surface Water Management Plan (Document Reference 2.7, APP-027), and an	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 16, REP1-024)	<p><b>Issue</b> The mandatory conditions for working within flood zones need to be expanded as they are not sufficiently precautionary and need to be developed further to reflect and address the individual and unique flood risks around the different construction areas on the scheme.</p> <p><b>Impact</b> Mitigation to minimise the risk of working in flood zones during the construction phase is inadequate.</p> <p><b>Suggested solution</b> Additional conditions for working within flood zones shall include (but not be limited to)</p> <ul style="list-style-type: none"> <li>• Provide inductions and toolbox talks for construction teams in areas identified as being at risk of flooding.</li> <li>• Ensure that construction teams are aware of the source, nature, onset and duration of potential flooding</li> </ul>	updated version submitted at Deadline 3.		
3-2.34 EMP	<p>EA Relevant Representation (Annex 2, page 11, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 16, REP1-024)Rev 1; dated 13/06/2022)</p>	<p><u>2.7: Environmental Management Plan Annex B7 Ground and Surface Water Management (APP-027): B7.5.4 - B7.5.7</u></p> <p><b>Issue</b> We support the use of Environment Agency Forecasts, Flood Alerts and Warnings, but any high risk works in flood risk areas should also be registered of our Flood Warning Duty Officers</p>	The amendment proposed will be made to the EMP Annex B7 Ground and Surface Water Management Plan (Document Reference 2.7, APP-027), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>List of Works and Defects system (or Schedule 8 register) for their duration. Our 24/7 duty team will directly call the relevant responsible person(s) listed on our Schedule 8 register to provide early warnings, which would include Heavy Rainfall Alerts (HRAs) in and out of normal working hours.</p> <p><b>Impact</b> The flood warning and alert arrangements currently proposed may not allow the issue to be managed in the most effective way.</p> <p><b>Suggested solution</b> Update the proposals to refer to adding high risk works to the Environment Agency Flood Warning Duty Officers List of Works and Defects system (or Schedule 8 register) liaising with the Environment Agency Flood Incident Management Team to add any high risk works to the Schedule 8 register.</p>			
3-2.35 EMP	<p>EA Relevant Representation (Annex 2, page 11, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 17, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex B7 Ground and Surface Water Management (APP-027): B7.6.1</u></p> <p><b>Issue</b> We do not recognise the 7 metre and 9 metre offset distances referred to with reference to main river and they do not align with the Environmental Permitting</p>	<p>The amendment proposed will be made to the EMP Annex B7 Ground and Surface Water Management Plan (Document Reference 2.7, APP-027), and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>(England and Wales) Regulations 2016 or standard Environment Agency protective provisions.</p> <p><b>Impact</b> Risk of detrimental impacts to the environment where regulatory requirements are not understood.</p> <p><b>Suggested solution</b> Update this section having regard to Schedule 25 of the <a href="#">Environmental Permitting (England and Wales) Regulations 2016</a> and the Environment Agency protective provisions to be agreed within the DCO.</p>			
3-2.36 EMP	<p>EA Relevant Representation (Annex 2, page Rev 1; dated 13/06/2022)</p> <p>EA Written Representation (Annex 1, Table 1, page 17, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex B15 Invasive Non-Native Species (APP-035): General</u></p> <p><b>Issue</b> There is a potential risk of importing aquatic plant species (for SUDS ponds, new ditches etc) from sources that could be contaminated by alien crayfish/crayfish plague. If possible and practicable, an additional section within the INNS management plan should be added to address this.</p> <p><b>Impact</b> The importation of plant species from sources that could be contaminated by alien crayfish/crayfish plague has the potential to detrimentally impact upon the aquatic environment.</p>	<p>The amendment proposed will be made to the EMP Annex B15 Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035), and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Suggested solution</b> Update the INNS management plan to identify and manage this potential risk.</p>			
3-2.37 EMP	<p>EA Relevant Representation (Annex 2, page 12, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 17, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.3.1</u></p> <p><b>Issue</b> The works associated with the crossing over Trout Beck in the Temple Sowerby to Appleby scheme are incorrectly described. Reference is made to the use of a multi-span bridge solution with “multiple piers located in the Trout Beck” but no piers should be constructed in Trout Beck.</p> <p><b>Impact</b> The construction of piers within Trout Beck would have a detrimental impact on the River Eden SAC.</p> <p><b>Suggested solution</b> The description of the works over Trout Beck should be corrected as follows:</p> <p><i>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 <b>within the floodplain of</b> <del>in the</del> Trout Beck to cover a distance of approximately 400m (in order to prevent disruption of flood flows and geomorphological processes).</i></p>	<p>The amendment proposed will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.38 EMP	<p>EA Relevant Representation (Annex 2, page 13, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 18, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.3.1</u></p> <p><b>Issue</b> The works associated with the Appleby to Brough scheme identify a requirement “to construct single span viaducts over the tributaries of the Trout Beck, which include the Moor Beck and Cringle Beck”, however Moor Beck and Cringle Beck are not tributaries of Trout Beck.</p> <p><b>Impact</b> The use of inaccurate information may lead to incorrect conclusions about potential environmental impacts.</p> <p><b>Suggested solution</b> The description of the works in the Appleby to Brough scheme should be corrected: <i>For the Appleby to Brough scheme there is a requirement to construct single span viaducts over <del>the tributaries of the Trout Beck, which include</del> the Moor Beck and Cringle Beck. Land has also been identified in the area of the Moor Beck and Cringle Beck for Flood Compensation areas to be provided based on final design details to be agreed with the Environment Agency and Cumbria County Council (as Lead Local Flood Authority) as required.</i></p>	<p>The wording of Paragraph C1.3.1 will be clarified to make it clear which watercourses it relates to, and require consultation with the Environment Agency and Cumbria County Council in accordance with the consultation process defined in the EMP. The amendment will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.39 EMP	EA Relevant Representation (Annex 2, page 13, RR160)  EA Written Representation (Annex 1, Table 1, page 18, REP1-024)	<u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.3.8</u> <b>Issue</b> It is stated that temporary haul roads across the floodplain will be constructed of clean stone or suitable alternative, but this conflicts with EMP Action MWRDWE-09 which states that <i>“Temporary infrastructure would avoid the introduction of foreign sediments into the floodplain or watercourses by using modular metal folding roads/grids rather than imported materials, so to not impact the geomorphology of the sensitive area”</i> . <b>Impact</b> There is the risk of detrimental impacts on the geomorphology of watercourses by using imported materials. <b>Suggested solution</b> C1.3.8 must be updated to ensure it is consistent with EMP Action MWRDWE-09 and imported materials will not be used to construct temporary infrastructure within the floodplain.	National Highways recognise the points made and are working with the Environment Agency to agree an appropriate update through ongoing discussions. Any proposed amendment will be submitted at Deadline 3.	Under discussion	24.01.2023
3-2.40 EMP	EA Relevant Representation (Annex 2, page 13, RR-160)  EA Written Representation (Annex 1,	<u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.3.8 – C1.3.9</u> <b>Issue</b> It is stated that works within the floodplain would avoid building up materials to ensure flood flows	The amendment proposed will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	Table 1, page 19, REP1-024)	<p>can operate as normal, however there is not mention of managing flood storage in the floodplain.</p> <p><b>Impact</b> No mitigation proposed for the potential loss of flood storage in the floodplain as part of any temporary works.</p> <p><b>Suggested solution</b> Include wording on floodplain storage and reference to how other work streams and documents being developed will assess and devise any necessary mitigation for loss of flood storage.</p>			
3-2.41 EMP	<p>EA Relevant Representation (Annex 2, page 14, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 19, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.3.10 and C1.3.11</u></p> <p><b>Issue</b> There is no reference to the fact that the pier foundations will be located on the floodplain, but they will be designed to be structurally sound if the river moves. If the piers become located within a watercourse, there is an expectation that there would be no need for revetting the river to prevent lateral movement.</p> <p><b>Impact</b> It is not clear that the construction activities within the floodplain seek to avoid long-term detrimental impacts to the water environment.</p> <p><b>Suggested solution</b> Update these sections to confirm that the design of the pier foundations will</p>	The amendment proposed will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		be such that they are structurally sound in the event of movement of river channels.			
3-2.42 EMP	<p>EA Relevant Representation (Annex 2, page 14, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 19, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.4.15</u></p> <p><b>Issue</b> We support the use of Environment Agency Forecasts, Flood Alerts and Warnings, but any high risk works in flood risk areas should also be registered of our Flood Warning Duty Officers List of Works and Defects system (or Schedule 8 register) for their duration. Our 24/7 duty team will directly call the relevant responsible person(s) listed on our Schedule 8 register to provide early warnings, which would include Heavy Rainfall Alerts (HRAs) in and out of normal working hours.</p> <p><b>Impact</b> The flood warning and alert arrangements currently proposed may not allow the issue to be managed in the most effective way.</p> <p><b>Suggested solution</b> Update the proposals to refer to adding high risk works to the Environment Agency Flood Warning Duty Officers List of Works and Defects system (or Schedule 8 register) liaising with the Environment Agency Flood Incident</p>	The amendment proposed will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		Management Team to add any high risk works to the Schedule 8 register.			
3-2.43 EMP	EA Relevant Representation (Annex 2, page 14, RR-160)  EA Written Representation (Annex 1, Table 1, page 20, REP1-024)	<u>2.7: Environmental Management Plan Annex C1 Working in and near SAC Method Statement (APP-036): C1.4.27</u> <b>Issue</b> It is stated that <i>“the construction footprint of the Trout Beck crossing, and crossings of its functionally linked tributaries will be reinstated as soon as practicable following completion of the crossing works”</i> . If this refers to the Moor Beck and Cringle Beck, they are not tributaries of Trout Beck. <b>Impact</b> The use of inaccurate information may lead to incorrect conclusions about potential environmental impacts. <b>Suggested solution</b> The description of the works in the Appleby to Brough scheme should be corrected: <i>The construction footprint of the Trout Beck crossing, and crossings of <del>its</del> other watercourses functionally linked to the River Eden SAC tributaries will be reinstated as soon as practicable following completion of the crossing works.</i>	The amendment proposed will be made to the EMP Annex C1 Working in and near SAC Method Statement (Document Reference 2.7, APP-036), and an updated version submitted at Deadline 3.	Under discussion	24.01.2023
3-2.44 EMP	EA Relevant Representation (Annex 2, page 15, RR-160)	<u>2.7: Environmental Management Plan Annex C2 Working in</u>	The amendment proposed will be made to the EMP Annex C2 Working in Watercourses Method	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 20, REP1-024)	<p><u>Watercourses Method Statement (APP-037): C2.2.15</u></p> <p><b>Issue</b> The works associated with the crossing over Trout Beck in the Temple Sowerby to Appleby scheme are incorrectly described. Reference is made to the use of a multi-span bridge solution with “multiple piers located in the Trout Beck” but no piers should be in Trout Beck.</p> <p><b>Impact</b> The construction of piers within Trout Beck would have a detrimental impact on the River Eden SAC.</p> <p><b>Suggested solution</b> The description of the works over Trout Beck should be corrected as follows: <i>As part of the Temple Sowerby to Appleby scheme, there is the requirement to construct a large overbridge over the Trout Beck and its associated floodplain, using a multi-span solution with multiple piers located within the floodplain of in the Trout Beck to cover a distance of approximately 400m in order to prevent disruption of flood flows and geomorphological processes.</i></p>	Statement (Document Reference 2.7, APP-037), and an updated version submitted at Deadline 3.		
3-2.45 EMP	EA Relevant Representation (Annex 2, page 15, RR-160)	<p><u>2.7: Environmental Management Plan Annex C2 Working in Watercourses Method Statement (APP-037): C2.4.7</u></p>	The amendment proposes links to flood modelling for construction works. This is under discussion with the Environment Agency and any proposed update will be	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 20, REP1-024)	<p><b>Issue</b> Temporary works are identified as being at risk during potential flood events. Temporary works design needs to be assessed for suitability for given location and temporary works should be subject to hydraulic modelling to understand likely depth and velocity changes compared to baseline flood risk.</p> <p><b>Impact</b> Flood risk to temporary works will present a danger of damage and environmental impacts and potentially increased flood risk elsewhere.</p> <p><b>Suggested solution</b> Update C2.4.7 to make it clear that the risk of flooding to temporary works activities is fully assessed and mitigated having regard to hydraulic modelling to understand likely depth and velocity changes compared to baseline flood risk.</p>	submitted with the updated EMP at deadline 3.		
3-2.46 EMP	<p>EA Relevant Representation (Annex 2, page 16, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 21, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex C2 Working in Watercourses Method Statement (APP-037): C2.4.11</u></p> <p><b>Issue</b> Where drainage is designed to tie into existing outfalls, the location and suitability of these existing structures for the lifetime of the development needs to be considered.</p> <p><b>Impact</b> Existing outfalls that are not of an appropriate size or outfalls in poor condition may</p>	National Highways acknowledge the point made. An additional bullet point shall be added to REAC commitment D-RDWE-02 in the Environment Management Plan (Document Reference 2.7, APP-019) to capture this commitment. Any proposed amendment will be included with the updated EMP at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>create increased flood risks associated with the proposed development.</p> <p><b>Suggested solution</b> Update C2.4.11 to require the condition and size of existing outfalls to be assessed where they are proposed to be utilised as part of the proposed drainage network to ensure they are suitable and do not need to be replaced. Existing structures should be replaced or upgraded where investigations determine it is necessary based on the condition and / or size of the structure.</p>			
3-2.47 EMP	<p>EA Relevant Representation (Annex 2, page 16, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 21, REP1-024)</p>	<p><u>2.7: Environmental Management Plan Annex D Emergency Procedures (APP-040): General</u></p> <p><b>Issue</b> We note that in Appendix A – Environmental Incident Action Sheets, the triggers determine a de minimis and selective approach to notifying us of environmental incidents using qualitative rather than quantitative criteria.</p> <p><b>Impact</b> There is a danger that environmental incidents may be reported by third parties, but not by National Highways or their contractors which may lead to erosion of trust and enforcement action.</p> <p><b>Suggested solution</b> Consider the points made around the wording</p>	The point made will be considered. Any proposed amendment will be included with the updated EMP at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		and setting the levels for reporting at a more open and precautionary level and allow satisfactory and open self-reporting to relevant regulatory authorities. Avoid the use of triggers that require a judgment over the scale of the event, e.g. deciding the “likelihood” of a spillage entering controlled waters or deciding what a “large volume” of silty runoff should be.			
3-2.48 Climate	EA Relevant Representation (Annex 2, page 17, RR-160)	<p><u>2.9 Mitigation Schedule (APP-042) Chapter 7: Climate Section 7.9.11 - 7.9.17; 7.10.31 - 7.10.33; 7.10.38 - 7.10.43</u></p> <p><b>Issue</b> The mitigation measure is incorrectly linked to EMP REAC Ref D-CL-03, which does not exist.</p> <p><b>Impact</b> Lack of clarity over the appropriate mitigation measures may result in detrimental impacts on the environment.</p> <p><b>Suggested solution</b> Update the measure to ensure it is linked to EMP REAC Ref D-CL-01.</p>	On review of the documentation, the comment is correct in that the Mitigation Schedule (Document Reference 2.9, APP-042) incorrectly references D-CL-03. This does not exist within the REAC table of the Environmental Management Plan (Document Reference 2.7, APP-019).	Under discussion	24.01.2023
	EA Written Representation (Annex 1, Table 1, page 21, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p>	This amendment was made within the corrected Mitigation Schedule, submitted to the examination with the Issue Specific Hearing 2 meeting response (Document Reference 2.9, REP1-004).		
3-2.49 Material Assets and Waste	EA Relevant Representation (Annex 2, page 16, RR-160)	<p><u>2.9 Mitigation Schedule (APP-042) Chapter 11: Material Assets</u></p>	Correction has been made in the Mitigation schedule (Document Reference 2.9, APP-42) Chapter	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><u>and Waste Section 11.8.41-11.8.44</u>  <b>Issue</b> The mitigation measure is incorrectly linked to EMP REAC Ref D-GS-02 (Soils Waste Management Plan).  <b>Impact</b> Lack of clarity over the appropriate mitigation measures may result in detrimental impacts on the environment.  <b>Suggested solution</b> Update the measure to ensure it is linked to EMP REAC Ref D-GS-01 (Materials Waste Management Plan).</p>	<p>9: Geology and Soils Section 9.9.9 –9.9.15, 9.9.19 Chapter 10: Materials and Waste 11.8.7, 11.8.45 and 11.8.60 - 11.8.64 D-GS-01 added, D-GS-02 is retained as it is still relevant.</p>		
	EA Written Representation (Annex 1, Table 1, page 22, REP1-024)	<p><b>EA additional commentary:</b>  We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p>	<p>This amendment was made within the corrected Mitigation Schedule, submitted to the examination with the Issue Specific Hearing 2 meeting response. Document Reference 2.9, REP1-004. Note D-GS-02 was retained as a reference as well as D-GS-01 being added, as mitigation from this section of the ES is contained in both documents.</p>		
3-2.50 RDWE	EA Relevant Representation (Annex 2, page 17, RR-160)	<p><u>2.9 Mitigation Schedule (APP-042) Chapter 14: RDWE Section 14.8.4</u>  <b>Issue</b> The mitigation measure is incorrectly linked to Project Design Principle (PDP) Reference L18.  <b>Impact</b> Lack of clarity over the appropriate mitigation measures</p>	<p>Correction has been made to Mitigation schedule (Document Reference 2.9, APP-042) Chapter 14: Road Drainage and the Water Environment (Document Reference 3.2, APP-057) Section 14.8.4, amended L18 to L117.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>may result in detrimental impacts on the environment.</p> <p><b>Suggested solution</b> Update the measure to ensure it is linked to PDP Ref LI17.</p>			
	EA Written Representation (Annex 1, Table 1, page 22, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	This amendment was made within the corrected Mitigation Schedule, submitted to the examination with the Issue Specific Hearing 2 meeting response. Document Reference 2.9, REP1-004.		
3-2.51 <u>RDWE</u>	<p>EA Relevant Representation (Annex 2, page 17, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 23, REP1-024)</p>	<p><u>2.9 Mitigation Schedule (APP-042) Chapter 14: RDWE Section 14.8.6</u></p> <p><b>Issue</b> The mitigation measure is incorrectly linked to Project Design Principle (PDP) References 0405.12 and 06.08.</p> <p><b>Impact</b> Lack of clarity over the appropriate mitigation measures may result in detrimental impacts on the environment.</p> <p><b>Suggested solution</b> Update the measure to ensure it is linked to PDP Ref 0405.11 and 06.07.</p>	This amendment will be made to the Mitigation Schedule and a further revised version will be submitted alongside the updated EMP at Deadline 3.	Under discussion	24.01.2023
3-2.52 <u>RDWE</u>	<p>EA Relevant Representation (Annex 2, page 18, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 23, REP1-024)</p>	<p><u>2.9 Mitigation Schedule (APP-042) Chapter 14: RDWE Section 14.8.17</u></p> <p><b>Issue</b> The mitigation measure is incorrectly linked to Environmental Management Plan (EMP) REAC Ref MW-RDWE-12.</p> <p><b>Impact</b> Lack of clarity over the appropriate mitigation measures may result in detrimental impacts on the environment.</p>	This amendment will be made to the Mitigation Schedule and a further revised version will be submitted alongside the updated EMP at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<b>Suggested solution</b> Update the measure to ensure it is linked to EMP REAC Ref MW-RDWE-09.			
3-2.53 <u>RDWE</u>	EA Relevant Representation (Annex 2, page 18, RR-160)  EA Written Representation (Annex 1, Table 1, page 23, REP1-024)	<u>2.9 Mitigation Schedule (APP-042) Chapter 14: RDWE Section 14.8.83, 14.8.84 and 14.8.85 Chapter 9: Geology and Soils Section 9.10.50 and Table 9-35 ES Appendix 14.2: Flood Risk Assessment and Outline Drainage Strategy (Application Document 3.4, APP-221)</u> <b>Issue</b> The mitigation measure is incorrectly linked to Project Design Principle (PDP) Reference 0405.12. <b>Impact</b> Lack of clarity over the appropriate mitigation measures may result in detrimental impacts on the environment. <b>Suggested solution</b> Update the measure to ensure it is linked to PDP Ref 0405.11.	This amendment will be made to the Mitigation Schedule (Document Reference 2.9, APP-042) and a further revised version will be submitted alongside the updated EMP at Deadline 3.	Under discussion	24.01.2023
3-2.54 Climate change peak rainfall allowances	EA Relevant Representation (Annex 2, page 19, RR-160)  EA Written Representation (Annex 1, Table 1, page 24, REP1-024)	<u>3.2 Environmental Statement Chapter 2 The Project (APP-045) 3.2: 2.5.30</u> <b>Issue</b> We understood that the latest EA guidance in relation to the climate change peak rainfall allowances had not been used, although the latest values have been used in a sensitivity analysis within the Flood Risk Assessment (FRA). <b>Impact</b> The impacts on flood risk associated with the latest climate	The Project's drainage design, presented in Appendix 14.2 of the Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-221) was developed based on rainfall climate changes that have since been superseded. Sensitivity testing has been undertaken using the latest climate change allowances to ensure the proposed attenuation systems can accommodate the	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>change allowances for peak rainfall levels are uncertain. <b>Suggested solution</b> Ensure that detailed design is based on updated modelling that takes account of the <a href="#">latest EA climate change guidance for peak rainfall allowances</a>.</p>	<p>increased attenuation requirements within the Project Order Limits. This is included in the Climate change section (one section per scheme) of the Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-221). Item D-RDWE-02 of the Environmental Management Plan (Document Reference 2.7, APP-019) includes the following requirement for the development of the detailed design “Where ponds are designed for highway run-off attenuation (as retention ponds), they must have sufficient capacity to retain run-off from all events with an annual exceedance probability of greater than 1%, plus allowance for climate change in line with DMRB CG 501 and Environment Agency guidance.”</p>		
3-2.55 Road Drainage and the Water Environment	<p>EA Relevant Representation (Annex 2, page 19, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 24, REP1-024)</p>	<p><u>3.2 Environmental Statement Chapter 14 Road Drainage and the Water Environment (APP-057): 14.8.4</u> <b>Issue</b> There is no reference to the need for structures within watercourses to also comply with the <a href="#">Institute of Fisheries Management Fish pass manual</a>. <b>Impact</b> Structures within watercourses may not allow for fish passage in accordance with the necessary guidance.</p>	<p>This commitment is located in the EMP rather than the PDP as the drainage (including design) is largely within the EMP. REAC table commitments number D-BD-04 and MW-RD-09 have been amended to refer specifically to this manual. The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) LI17 referencing the guidance manual. This will be</p>	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<b>Suggested solution</b> Ensure that design principle LI17 in document 5.11 Project Design Principles is amended to include compliance with the <a href="#">Institute of Fisheries Management fish pass manual</a> when designating structures within watercourses.	included in the revised draft of the PDP for Deadline 3.		
3-2.56 Road Drainage and the Water Environment	EA Relevant Representation (Annex 2, page 20, RR-160)  EA Written Representation (Annex 1, Table 1, page 24, REP1-024)	<u>3.2 Environmental Statement Chapter 14 Road Drainage and the Water Environment (APP-057): 14.8.4</u> <b>Issue</b> We understood that the latest EA guidance in relation to the climate change peak rainfall allowances had not been used, although the latest values have been used in a sensitivity analysis within the Flood Risk Assessment (FRA). <b>Impact</b> The impacts on flood risk associated with the latest climate change allowances for peak rainfall levels are uncertain. <b>Suggested solution</b> Ensure that detailed design is based on updated modelling that takes account of the latest EA climate change guidance for peak rainfall allowances.	Item D-RDWE-02 of the Environmental Management Plan (Document Reference 2.7, APP-019) includes the following requirement “Where ponds are designed for highway run-off attenuation (as retention ponds), they must have sufficient capacity to retain run-off from all events with an annual exceedance probability of greater than 1%, plus allowance for climate change in line with DMRB CG 501 and Environment Agency guidance.” This commitment will be amended to reflect the fact that all forms of attenuation must comply with this requirement. The proposed amendment will be included with the updated EMP at Deadline 3.	Under discussion	24.01.2023
3-2.57 WFD assessment	EA Relevant Representation (Annex 2, page 20, RR-160)  EA Written Representation (Annex 1,	<u>3.4 Environmental Statement Appendix 14.1 WFD Compliance Assessment (APP-220): 14.1.10.4</u> <b>Issue</b> No specific mitigation is identified for the Greta from Sleightholme Beck to Eilder Beck	To ensure compliance with WFD objectives and to cause no detriment to the current WFD condition of potentially impacted water bodies, an assessment of the compliances of the detailed	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	Table 1, page 25, REP1-024)	(GB103025072140) or Greta from Gill Beck to River Tees (GB103025072130) water bodies which have been identified in the WFD assessment as being impacted by the scheme. <b>Impact</b> The proposed scheme may have a detrimental impact on WFD water bodies without specific mitigation. <b>Suggested solution</b> Ensure that specific mitigation proposals for the Greta from Sleightholme Beck to Eilder Beck (GB103025072140) and Greta from Gill Beck to River Tees (GB103025072130) water bodies are identified and agreed in accordance with EMP D-RDWE-08.	design to the WFD will be undertaken prior to the start of that part of the project. Mitigation will be further developed using detailed design and further survey and agreed in accordance with commitment D-RDWE-08 within the Environmental Management Plan (Document Reference 2.7, APP-019).		
3-2.58 Flood Risk Assessment and Outline Drainage Strategy	EA Relevant Representation (Annex 2, page 20, RR-160)  EA Written Representation (Annex 1, Table 1, page 25, REP1-024)	<u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): General</u> <b>Issue</b> We have reviewed the baseline hydraulic models used to assess flood risk and inform the conclusions of the FRA for each of the schemes but we have not yet accepted them as fit for purpose so we cannot advise on the accuracy of the flood risk conclusions and any associated mitigation proposals that are relevant to our remit. <b>Impact</b> The predicted impacts of the proposed development flood	National Highways considers that this matter was addressed in Issue Specific Hearing 2 and section 3.3 of the Post Hearing Submission document (Document Reference 7.3, REP1-009). National Highways is looking forward to receiving acceptance or further comments from the Environment Agency and will work with them to ensure the models are fit for purpose.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>risk and suitability of any mitigation proposals (in so far as they relate to our remit) cannot be verified at this time.</p> <p><b>Suggested solution</b> National Highways should provide a response to our reviews of their baseline hydraulic models and allow us to determine whether they are fit for purpose as soon as possible.</p>			
3-2.59 Flood Risk Assessment and Outline Drainage Strategy	<p>EA Relevant Representation (Annex 2, page 21, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 25, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): 14.2.2.74</u></p> <p><b>Issue</b> It is stated “<i>baseline fluvial modelling undertaken for the scheme has highlighted an increased flood risk extent at Eamont Bridge for the 1 in 100-year fluvial event with a 94% climate change allowance and a slightly reduced extent associated with Dog Beck when compared to the Environment Agency Flood Map for Planning. This area is south of the proposed dual carriageway and does require further modelling or mitigation</i>”. However, it is not clear which area required further modelling / mitigation or what is proposed.</p> <p><b>Impact</b> The risk of flooding and the need for any mitigation is not fully understood.</p>	<p>This question relates to Paragraph 14.2.2.74 of document 3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-.221). National Highways agree that this text is unclear and can confirm that the baseline hydraulic modelling using the new 94% climate change allowance shows and increased baseline flood extent south of the scheme when compared to the EA Flood Maps for planning. This area of increased risk is not impacted by the proposed scheme and therefore does not require further modelling.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<b>Suggested solution</b> Confirm what further modelling and / or mitigation is proposed for the M6 to Kemplay Bank scheme.			
3-2.60 Flood Risk Assessment and Outline Drainage Strategy	EA Relevant Representation (Annex 2, page 21, RR-160)  EA Written Representation (Annex 1, Table 1, page 26, REP1-024)	<u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): 14.2.2.81</u> <b>Issue</b> A total of 43 properties also flooded in Eamont Bridge in 2009. <b>Impact</b> Lack of clarity in relation to flood history in vicinity of proposed development. <b>Suggested solution</b> Update evidence base to ensure historic flood risk is fully understood.	This question relates to Paragraph 14.2.2.81 of document 3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-.221). The design team are aware of the property flooding at Eamont bridge, and this information has been used to validate the hydraulic models, but was erroneously missed out of the FRA text. The correct paragraph is below: Environment Agency data show historic flooding events associated with Thacka Beck within Penrith in 2002 and 2005. Historic flooding associated with the River Eamont has also occurred south of the existing A66 around the area of Skirsgill in 1995, 1997, 2005 and 2015. Further flooding was reported in 2005 associated with the River Eamont and River Lowther in the east of the study area, around Brougham and from the River Eamont in 2009 where 43 properties were impacted.	Under discussion	24.01.2023
3-2.61 Flood Risk Assessment and	EA Relevant Representation (Annex 2, page 21, RR-160)	<u>3.4 Environmental Statement Appendix 14.2 Flood Risk</u>	It is unclear which document contains reference 6.4.6 relevant to compensatory storage. For the	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
Outline Drainage Strategy	EA Written Representation (Annex 1, Table 1, page 26, REP1-024)	<p><u>Assessment and Outline Drainage Strategy (APP-221): 14.2.5.77</u>  <b>Issue</b> Reference is made to 6.4.6 in relation to compensatory storage within Flood Zone 3b, but there is no section 6.4.6 within the FRA.  <b>Impact</b> The suitability of the compensatory flood storage proposals in FZ3b for the Appleby to Brough scheme are unknown.  <b>Suggested solution</b> Update the FRA to refer to the necessary details for the scheme for compensatory flood storage in Flood Zone 3b to allow it to be reviewed.</p>	Appleby to Brough scheme, refer to paragraphs 14.2.5.131 to 14.2.5.133 of Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-221). See also the Appleby to Brough Hydraulic Modelling Report in Annex E of the above document.		
3-2.62 Flood Risk Assessment and Outline Drainage Strategy	EA Relevant Representation (Annex 2, page 21, RR-160)  EA Written Representation (Annex 1, Table 1, page 26, REP1-024)	<p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): Table 25 (Page A14.2- 85 of 153)</u>  <b>Issue</b> Table 25 gives the total volume of storage provided in each location. There is no information provided on how much storage is lost due to the scheme and the flood magnitude at which both the lost storage and the compensatory storage comes online.  <b>Impact</b> The suitability of the compensatory flood storage proposals to mitigate the increased risk of flooding for the</p>	The reduction in flood storage areas due to the scheme and the compensatory storage areas are contained within the hydraulic models and 3D alignment design models, so have been taken into account in the assessment and mitigation design, but have not been tabulated in the reports. National Highways will work with the EA to assist with the EA's review of the compensatory storage proposals.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>Appleby to Brough scheme are unknown.</p> <p><b>Suggested solution</b> Provide additional information to confirm how much storage is lost due to the scheme and the flood magnitude at which both the lost storage and the compensatory storage comes online.</p>			
3-2.63 Flood Risk Assessment and Outline Drainage Strategy	<p>EA Relevant Representation (Annex 2, page 22, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 27, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): 14.2.5.132 and Plate 4</u></p> <p><b>Issue</b> It is hard to see from the details provided (including those in the modelling report) how the compensatory storage areas work and how they are designed. Are they excavated into existing floodplain? How and at what return period / flow magnitude do they fill? How do they drain?</p> <p><b>Impact</b> The suitability of the compensatory flood storage proposals to mitigate the increased risk of flooding for the Appleby to Brough scheme are unknown.</p> <p><b>Suggested solution</b> Provide additional information to confirm how the scheme is designed, whether it is excavated into existing floodplain, how and at what return period / flow</p>	<p>The proposed compensatory storage areas are contained within the hydraulic models and 3D alignment design models, and have been taken into account in the assessment and mitigation design, but have not been described in detail in the reports at this stage. National Highways will work with the EA to assist with the EA's review of the compensatory storage proposals.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.64 Flood Risk Assessment and Outline Drainage Strategy	<p>EA Relevant Representation (Annex 2, page 22, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 27, REP1-024)</p>	<p>magnitude it fills and how it subsequently drains.</p> <p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): Annex E: Hydraulic modelling reports – Appleby to Brough</u></p> <p><b>Issue</b> In relation to the figures showing changes in flood depths because of the scheme, it is not always easy to interpret what is causing the changes in depth (changes in peak water level, changes in ground level, changes in flow, cut off flow routes) without also showing the depth grids that have been used to generate these. For example, it is surprising that that the new road embankments at Warcop Junction are not more pronounced within these maps and it is not clear why there are a broad section of increased flood depths passing through the embanked slip road at Warcop Junction (Figure 8-8).</p> <p><b>Impact</b> The suitability of the compensatory flood storage proposals to mitigate the increased risk of flooding for the Appleby to Brough scheme are unknown.</p> <p><b>Suggested solution</b> Provide additional information to address this issue.</p>	<p>The change in flood depth due to the scheme and the compensatory storage areas is contained within the hydraulic models and 3D alignment design models, so has been taken into account in the assessment and mitigation design, but have not been described in detail in the reports at this stage. National Highways will work with the EA to assist with the EA's review of any changes in flood depth. In response to the example, the increased flood depths at Warcop junction the proposed scheme increases ground levels at the junction and therefore prevents an existing flow path which occurs over the A66 in the baseline 1 in 100 event. Without this flow path water backs up immediately upstream of it, increasing water levels approximately 0.3m over a small area approximately 500m<sup>2</sup>.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.65 Flood Risk Assessment and Outline Drainage Strategy	<p>EA Relevant Representation (Annex 2, page 22, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 27, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): Annex E: Hydraulic modelling reports – Appleby to Brough</u></p> <p><b>Issue</b> There is no schematic provided showing locations where before and after level and flow results have been extracted from the model (also confirming that, where applicable, combined 1D 2D flows have been extracted).</p> <p><b>Impact</b> The suitability of the compensatory flood storage proposals to mitigate the increased risk of flooding for the Appleby to Brough scheme are unknown.</p> <p><b>Suggested solution</b> Provide a schematic showing locations where before and after level and flow results have been extracted from the model and confirm that, where applicable, combined 1D 2D flows have been extracted.</p>	National Highways will engage with the EA on this point with a view to assisting its review of the proposals.	Under discussion	24.01.2023
3-2.66 Flood Risk Assessment and Outline Drainage Strategy	<p>EA Relevant Representation (Annex 2, page 23, RR-160)</p> <p>EA Written Representation - (Annex 1, Table 1, page 28, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221): Annex E: Hydraulic modelling reports – Appleby to Brough</u></p> <p><b>Issue</b> No detailed information is provided on the effects of the scheme on Low Gill Beck between the Lowgill Beck</p>	There are three key areas on Low Gill Beck between the Lowgill Beck crossing and Warcop where moderate increases in flood risk can be seen in the Appleby to Brough Hydraulic Modelling report in Annex E of document 3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>crossing and Warcop. Figure 8-13 in the modelling report shows increased water levels in a few places along this reach and the summary at the end of this section of the report highlights this and concludes that it is <i>“likely these increases are associated with areas of ground level change in the proposed scheme”</i>. For the most part this looks to be the case in Figure 8-13 in which case there needs to be an assessment of lost floodplain storage because of this and compensatory storage provided as required. The fact that the most downstream area of increased depth on Lowgill Beck shown in figure 8-13 appears to be downstream of any proposed earthworks suggests the possibility of increased pass on flows which needs to be investigated.</p> <p><b>Impact</b> The suitability of the compensatory flood storage proposals to mitigate the increased risk of flooding for the Appleby to Brough scheme are unknown.</p> <p><b>Suggested solution</b> Provide additional information to address this issue.</p>	<p>Strategy (Document Reference 3.1, APP-221).</p> <p><u>Location 1 – Eden Valley Railway</u>                      There are no changes to ground levels occurring at this location as a result of the proposed scheme. Increases in flood risk here are solely from the impact of upstream Locations 2 and 3 discussed below.</p> <p><u>Location 2 – Flithome</u>                      The scheme designs show a tie in point here to an existing bridge. No changes are proposed to this structure and the differences in flood depths at this location are a combination of the impacts upstream at Location 3 and quality of the LiDAR and design model interface at this location. Alteration to this tie-in location within the model will remove any influence of this effect along with the application of more detailed existing and proposed ground models to be used in the next design stage. Any design changes/refinement that affects the hydraulic models will be subjected additional hydraulic modelling as secured in item D-RDWE-02 the Environmental Management Plan (Document Reference 2.7, APP-019)</p> <p><u>Location 3 - Landrigg</u></p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>A small reduction in the floodplain can be seen at location 3, this is due to the footprint of the proposed balancing pond encroaching on the floodplain. This causes increases in flood depths between 0.01 – 0.1m. The location of this balancing Pond is due to be moved from this location as part of the proposed design changes therefore this impact and its effects downstream may be removed and prevent the need for further mitigation. National Highways will shortly be holding a consultation on the proposed changes to the preliminary design of the Project, as presented in the DCO application. Following careful consideration of the responses to consultation, National Highways will decide: (i) whether to submit a request to the Examining Authority to accept all, some or none of the proposed design changes for inclusion in the DCO application being examined, and (ii) what form the proposed changes will take.</p>		
3-2.67 Hydromorphology Assessment	<p>EA Relevant Representation (Annex 2, page 23, RR-160)</p> <p>EA Written Representation (Annex 1,</p>	<p><u>3.4 Environmental Statement Appendix 14.4 Hydromorphology Assessment (APP-223): Section 14.4.7</u></p> <p><b>Issue</b> Evidence indicates that the Tutta Beck and the Punder Gill</p>	<p>This is noted by National Highways. National Highways will seek to restore the watercourses to optimal natural conditions where this is practicable and appropriate. The design of the</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	Table 1, page 28, REP1-024)	<p>have been modified in the past so using these channels as reference conditions to inform the design of a mitigation scheme may not be appropriate.</p> <p><b>Impact</b> The proposed development may have detrimental impacts on the water environment in the absence of a suitable mitigation scheme.</p> <p><b>Suggested solution</b> To comply with D-RDWE-08, National Highways should take the opportunity to restore the watercourses to optimal natural conditions rather than copying existing channel dimensions and conditions. The design of the new channel must include an accessible, and active floodplain. Ground condition and local topography may mean that this needs to be a cut inset floodplain.</p>	<p>new channel will be developed following the survey and assessment of the detailed design and agreed in accordance with D-RDWE-08 of the Environmental Management Plan (Document Reference 2.7, APP-019).</p>		
3-2.68 Hydrogeological Impact Assessment	<p>EA Relevant Representation (Annex 2, page 24, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 29, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.6 Hydrogeological Impact Assessment (APP-225): 14.6.3.101</u></p> <p><b>Issue</b> It is incorrectly stated that where the existing A66 crosses it at Brougham Castle, the River Eamont flows in a westerly direction towards the River Eden.</p> <p><b>Impact</b> Lack of clarity over the hydrology of the River Eamont could impact on the validity of the</p>	<p>It is unclear which document includes this apparent error; however, the watercourse direction is described correctly within Table 1, Table 7 and Annex E of the Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (Document Reference 3.4, APP-221). This description error does not change the results of the hydraulic modelling or</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>assessment of impacts on the aquatic environment.</p> <p><b>Suggested solution</b> Update the assessment to confirm that the River Eamont flows easterly towards the River Eden from where the existing A66 crosses it.</p>	<p>Flood Risk Assessment conclusion.</p>		
<p>3-2.69 Hydrogeological Impact Assessment</p>	<p>EA Relevant Representation (Annex 2, page 24, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 29, REP1-024)</p>	<p><u>3.4 Environmental Statement Appendix 14.6 Hydrogeological Impact Assessment (APP-225): Section 14.6.8</u></p> <p><b>Issue</b> In relation to the potential impacts to groundwater related features, much of the work in the HIA and other documents relies on the extent of the zones of influence, but the approach taken to estimate the zone of influence relies on an empirical equation and the inflow on a theoretical equation. The actual zone of influence may be more complex as confirmed in paragraph 14.6.8.5.</p> <p><b>Impact</b> There is a risk that water features outside the zone of influence could be impacted, such as through loss of groundwater inflow.</p> <p><b>Suggested solution</b> Identify alternative methods of assessing the zone of influence when considering what might be impacted by dewatering activities and do not just a focus on the estimated zones of influence</p>	<p>The Sichardt equation provides an empirical estimation of the zone of influence which, as noted by EA document SC040020/SR1, is not consistent with the principle of the impact of an abstraction (or in this case cutting drainage) spreading until it has 'captured' sufficient water. As per the EA's comment, it is appreciated that the actual zone of influence will be more complex for each cutting. To compensate for the limitations of the empirical and theoretical equations used, conservative parameters were utilised to provide inflow and zone of influence outputs. A conservative approach was taken in the drawdown assessment, using the following assumptions and criteria, as are presented in ES Appendix 14.6 Hydrogeological Impact Assessment (Document Reference 3.4, APP-225), Page 92, Section 14.6.8.8:</p> <ul style="list-style-type: none"> <li>• Cutting depth taken as the maximum cutting height along the design element</li> </ul>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>through submissions to satisfy EMP requirement DRDWE- 09.</p>	<ul style="list-style-type: none"> <li>• Groundwater table assumed at ground surface (unless otherwise noted), due to limited monitoring data available from the winter period</li> <li>• Target water level taken as 1.0m below the road level</li> <li>• Cuttings are assumed to be open excavations (i.e. no retaining structures considered)</li> <li>• Hydraulic conductivity values selected to provide a conservative estimate of the zone of influence</li> <li>• Aquifer base taken as 1.5 times the maximum cutting depth.</li> </ul> <p>These outputs are considered to be sufficiently conservative to capture the likely zone of influence of the cuttings based on our conceptual understanding of the hydrogeology in the area and ascertain receptors that may be impacted by any cuttings. When assessing the impact to receptors within the study area, our conceptualisation of each area was also considered when determining if groundwater level/flow impacts were likely. Further conservative assumptions included the assumption that each property has the potential to</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			include a small private groundwater supply (as presented in ES Appendix 14.6 Hydrogeological Impact Assessment (Document Reference 3.4, APP-225), Page 18, Section 14.6.3.76.		
3-2.70 Draft Development Consent Order	EA Relevant Representation (Annex 2, page 25, RR-160)	<p><u>5.1 Draft Development Consent Order: Part 5 Miscellaneous and general (APP-285): detailed design 54 (2)</u></p> <p><b>Issue</b> The draft DCO accompanying the application allows for the Secretary of State to approve a detailed design that departs from the approved design principles, works plans and engineering drawings subject to consultation with the relevant planning authority. No consultation with other relevant consultees (i.e. the Environment Agency) is required.</p> <p><b>Impact</b> The significance of any environmental impacts of a detailed design that deviates from the approved DCO may be unknown.</p> <p><b>Suggested solution</b> Further engagement between National Highways and us to identify alternative wording to address this concern.</p>	Article 54 of the draft DCO (Document Deference 5.1, APP-285) requires that the scheme must be designed in detail and carried out so that it is compatible with, amongst other things, the Project Design Principles (PDP) (Document Reference 5.11, APP-302). As the Environment Agency state, article 54(2) provides that the detailed design can depart from this requirement where the Secretary of State approves this, following consultation with the local planning authority. However, the Secretary of State must be satisfied that the departure would not give rise to any materially new or materially worse adverse environmental effects when compared to those reported in the Environmental Statement. As such, it will be for National Highways (or its contractors) to demonstrate this requirement is met, through the submission of robust evidence. Ultimately, a departure where the environmental effects are not	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>known could not properly be approved by the Secretary of State.</p> <p>Nevertheless, National Highways recognises the points made and will continue to engage with the Environment Agency on both this and other issues.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 29, REP1-024)</p>	<p><b>EA additional commentary:</b>                      We note the applicant’s response in PDL-013 and accept that the wording within the DCO makes it clear that the Secretary of State (SoS) must be satisfied that the departure would not give rise to any materially new or materially worse adverse environmental effects when compared to those reported in the Environmental Statement. However, if the SoS is only consulting the relevant planning authorities, are they able to advise the SoS on whether there is a materially new or materially worse adverse environmental effect arising from a proposed change in relation to a matter that they may not have technical expertise on, for example fluvial flood risk? We continue to feel that alternative wording within the DCO to allow the SoS to consult the relevant planning authority and statutory environmental bodies would address our concern.</p>	<p>Consultation is ongoing with the Environment Agency, and the proposed updates will be included in the updated EMP (Document Reference 2.7, APP-019) to be submitted at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
3-2.71 Draft Development Consent Order	EA Relevant Representation (Annex 2, page 25, RR-160)	<p><u>5.1 Draft Development Consent Order (APP-285): Schedule 9 Protective Provisions Part 4 – Environment Agency</u></p> <p><b>Issue</b> The Draft DCO has not included protective provisions which are acceptable to the Environment Agency.</p> <p><b>Impact</b> We are unable to agree to disapply Flood Risk Activity Permit (FRAP) requirements if we are not satisfied that the necessary protective provisions are secured through the DCO.</p> <p><b>Suggested solution</b> Further engagement between National Highways and us is required to secure a suite of protective provisions that we would consider acceptable and allow us to disapply FRAPs.</p>	The comment on the protective provisions is noted. National Highways will continue to liaise with the Environment Agency to agree an amended wording.	Under discussion	24.01.2023
	EA Written Representation (Annex 1, Table 1, page 30, REP1-024)	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	National Highways will continue to engage with the Environment Agency with a view to agreeing a form of protective provisions for inclusion within the DCO.		
3-2.72 Consents and Agreements Position Statement	EA Relevant Representation (Annex 2, page 25, RR-160)	<p><u>5.4 Consents and Agreements Position Statement (APP-287): 3.1.3</u></p> <p><b>Issue</b> Consent to erect structures in, over or under a main river will be subject to National Highways obtaining either a permit under the EPR or, if disapplication and suitable protective provisions are agreed, to consent under the</p>	National Highways is seeking the standard suite of disapplication of consent requirements from the Environment Agency as is reflected in article 3 of the draft DCO (Document Reference 5.1, APP-285). National Highways approach is as set out in the Consents and Agreements Position Statement (Document	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>protective provisions but this is not stated. <b>Impact</b> Lack of clarity. <b>Suggested solution</b> Amend the wording as follows:</p> <ul style="list-style-type: none"> <li>• <i>Consent to erect structures in, over or under a main river (subject to National Highways obtaining either a permit under the EPR or, if disapplication and suitable protective provisions are agreed, to consent under the protective provisions)</i></li> </ul>	<p>Reference 5.4, APP-287) in that it will seek to agree protective provisions with the Environment Agency to enable the Environment Agency to grant its consent to those disapplication's.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 30, REP1-024)</p>	<p><b>EA additional commentary:</b> We note the applicant's response in PDL-013 and will continue to work with them to address this issue.</p>	<p>National Highways will continue to liaise with the Environment Agency with a view to agreeing a form of protective provisions for inclusion within the DCO to facilitate the Environment Agency granting its consent to the proposed legislative disapplication's (see article 3 of the draft DCO (Document Reference 5.1, APP-285) and the Consents and Agreements Position Statement (Document Reference 5.4, APP-287)).</p>		
<p>3-2.73 Book of Reference</p>	<p>EA Relevant Representation (Annex 2, page 26, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 31, REP1-024)</p>	<p><u>5.7 Book of Reference (APP-290-298): General</u> <b>Issue</b> The book of reference identifies the Environment Agency as having an interest in several pieces of land that National Highways intends to acquire to construct the proposed scheme.</p>	<p>The Environment Agency's position is noted. As is stated in the Schedule of Negotiations (Document Reference 5.10, APP-301), the Applicant issued an offer of negotiations letter on the 28<sup>th</sup> March 2022, inviting Environment Agency to complete and return a form expressing their willingness</p>	<p>Under discussion</p>	<p>24.01.2023</p>

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><b>Impact</b> The proposed development may have an impact on land we have an interest in.</p> <p><b>Suggested solution</b> We will continue to review the Book of Reference and DCO documentation to determine how the proposal impact upon our interests and whether we need to provide further comments through the Written Representations stage. At this stage our Relevant Representation should be regarded as an objection to the acquisition of any land in which we have an interest by way of the DCO.</p>	<p>to discuss the acquisition by National Highways of the interests it requires for the Project by agreement. National Highways will continue to engage with the Environment Agency with a view to securing the necessary land / land interests by voluntary agreement.</p>		
3-2.74 Project Design Principles	EA Relevant Representation (Annex 2, page 26, RR-160)	<p><u>5.11 Project Design Principles (APP-302): General</u></p> <p><b>Issue</b> The Project Design Principles document includes words or phrases which could be ambiguous in relation to the expected mitigation requirements, for example “<i>where appropriate</i>”, “<i>where reasonably practicable</i>” etc.</p> <p><b>Impact</b> There is the potential for ambiguity in relation to securing mitigation measures that are necessary to protect the environment.</p> <p><b>Suggested solution</b> Review the wording of the Project Design Principles document to avoid ambiguity and uncertainty in</p>	<p>The wording contained in the Environmental Management Plan (EMP) (Document Reference 2.7, APP-019) has been developed to allow for a reasonable level of flexibility in detailed design and construction methodology, whilst having regard to required environmental outcomes by reference to the Environmental Statement (Document Reference 3.2, APP-044 to 059). Ultimately, the intention is that the commitments contained in the Register of Environmental Actions and Commitments (REACs) set out in the EMP secure necessary mitigation, with strict wording used in those instances where</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>relation to identifying and securing mitigation measures necessary to protect the environment as part of the proposed development.</p>	<p>something must be done. Wording such as “where reasonably practicable” is deployed in relation to measures that may be desirable, but are not essential, in securing a particular environmental outcome. This is to avoid unnecessarily constraining the construction or operation of the project.</p> <p>The EMP is currently in draft form with a view to it being in final form by the end of the examination. As such, its content will evolve as the examination progresses.</p> <p>National Highways will have regard to all comments made during this time, with amendments being implemented where considered appropriate. As part of this, National Highways will continue to engage with statutory environmental bodies such as the Environment Agency, with a view to addressing concerns such as those raised. Any agreed updates will be included in an updated draft EMP that will be submitted to the examination along with the updated DCO at Deadline 3.</p>		
	<p>EA Written Representation (Annex 1, Table 1, page 31, REP1-024)</p>	<p><b>EA additional commentary:</b>                      We note the applicant’s response in PDL-013 and will continue to work with them to address this issue.</p>	<p>The response is noted and National Highways will continue to engage with the Environment Agency on this point as noted in PDL-013 with regards to mitigation as secured in the</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			Environmental Management Plan (Document Reference 2.7, APP-019).		
3-2.75 Project Design Principles	EA Relevant Representation (Annex 2, page 26, RR-160)  EA Written Representation (Annex 1, Table 1, page 31, REP1-024)	<u>5.11 Project Design Principles (APP-302): LI04</u> <b>Issue</b> The principle identifies the need to design new overbridges and structures to have regard to the need to conserve and maintain the integrity of riverbanks to prevent erosion, but it fails to identify that consideration will also need to be taken in relation to the risks to the structures themselves due to increased erosion over the lifetime of the development because of natural geomorphological process and climate change. <b>Impact</b> The impacts of climate change and natural geomorphological processes on erosion may not be considered. <b>Suggested solution</b> Update LI04 to make it clear the design of overbridges and structures must be designed to prevent erosion of riverbanks because of the development but also be able to adapt to the increased risks of riverbank erosion because of climate change and natural geomorphological processes.	The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) with an updated version submitted at Deadline 3.	Under discussion	24.01.2023
3-2.76 Project Design Principles	EA Relevant Representation (Annex 2, page 27, RR-160)	<u>5.11 Project Design Principles (APP-302): LI14</u>	National Highways will continue to work with the drainage authorities and the Environment Agency to	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 32, REP1-024)	<p><b>Issue</b> The principle states that “where vegetated drainage features are to be provided adjacent to an existing watercourse, an appropriate margin is to be provided to allow for access and maintenance by riparian owners and land drainage authorities” but it is unclear how an “appropriate margin” will be defined.</p> <p><b>Impact</b> There is a risk that access to watercourses for maintenance and / or repair purposes will not be sufficient, leading to a potential increase in flood risk.</p> <p><b>Suggested solution</b> Update LI14 to confirm that National Highways will work with relevant land drainage authorities (Environment Agency, Lead Local Flood Authorities, Local Authorities) to ensure that access to watercourses for maintenance and repair purposes, now and in the future, is agreed and will be retained in perpetuity unless otherwise agreed with the drainage authorities.</p>	ensure appropriate commitments are provided to ensure continuing access for maintenance purposes. Whilst it is noted that the comment made is in the context of the Project Design Principles, it may be more appropriate to include commitments elsewhere (e.g. in the protective provisions for the benefit of certain parties).		
3-2.77 Project Design Principles	EA Relevant Representation (Annex 2, page 27, RR-160)  EA Written Representation (Annex 1,	<p><u>5.11 Project Design Principles (APP-302): LI14 and LI15</u></p> <p><b>Issue</b> Most species used in drainage features (or restorations of watercourses) are likely to spread downstream over time.</p>	The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) and EMP Annex B15 Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035) and an	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	Table 1, page 32, REP1-024)	<b>Impact</b> Potential risk of species that are not native to the water catchment spreading downstream to the detriment of downstream features and designations <b>Suggested solution</b> Update LI14 and LI15 to make it clear that for aquatic/emergent/marginal plants used to vegetate drainage features, only species native to that water catchment may be used.	updated version submitted at Deadline 3.		
3-2.78 Project Design Principles	EA Relevant Representation (Annex 2, page 27, RR-160)  EA Written Representation (Annex 1, Table 1, page 32, REP1-024)	<u>5.11 Project Design Principles (APP-302): LI14, LI15 and LI16</u> <b>Issue</b> Biosecurity risks associated with sourcing aquatic plants are not referenced. <b>Impact</b> There is the potential for aquatic plants to be sourced from catchments with alien crayfish or crayfish plague if the plant nurseries use any natural river water. <b>Suggested solution</b> Update LI14, LI15 and LI16 to make it clear that for aquatic/ emergent/marginal plants used to vegetate drainage features, species will be obtained from sources that do not pose biosecurity risks to the catchment.	The amendments proposed to will be included in the Project Design Principles (Document Reference 3.2, APP-302) and EMP Annex B15 Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035) and an updated version submitted at Deadline 3.	Under discussion	24.01.2023
3-2.79 Project Design Principles	EA Relevant Representation (Annex 2, page 28, RR-160)  EA Written Representation (Annex 1,	<u>5.11 Project Design Principles (APP-302): LI16</u> <b>Issue</b> The principle states that <i>“the size of an attenuation pond is governed by the catchment area draining into it. The design and</i>	The amendments proposed will be considered by National Highways and appropriate amendments included in the Project Design Principles (Document Reference 3.2, APP-	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	<p>Table 1, page 33, REP1-024)</p>	<p><i>form of new attenuation ponds must use the layout and form of their context (i.e. respond to local topography) to reduce use of materials and minimise visual impact where reasonably practicable (having regard to the functions of the pond), supported by strategic planting, drawn from an appropriate native species palette (local to the appropriate catchment where reasonably practicable)”.</i></p> <p>It is true that plants may not always be available to source locally, but there is no reason why the “native species palette” cannot be local to the appropriate catchment.</p> <p><b>Impact</b> There is the potential for the use of a native species palette that is not local to appropriate catchment, increasing the risk of species that are not native to the water catchment spreading downstream to the detriment of downstream features and designations.</p> <p><b>Suggested solution</b> Update LI16 the principle as follows:  <i>The size of an attenuation pond is governed by the catchment area draining into it. The design and form of new attenuation ponds must use the layout and form of their context (i.e. respond to local</i></p>	<p>302) and EMP Annex B15 Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035) and an updated version submitted at Deadline 3.</p>		

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><i>topography) to reduce use of materials and minimise visual impact where reasonably practicable (having regard to the functions of the pond), supported by strategic planting, drawn from a native species palette (local to the appropriate catchment where reasonably practicable).</i></p>			
3-2.80 Project Design Principles	<p>EA Relevant Representation (Annex 2, page 28, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 33, REP1-024)</p>	<p><u>5.11 Project Design Principles (APP-302): LI16</u>  <b>Issue</b> The principle states that the size of an attenuation pond is governed by the catchment area draining into it, but this potentially misses an opportunity for betterment in catchments where providing a greater volume in attenuation ponds could provide additional flood protection downstream.  <b>Impact</b> The wording limits opportunities for betterment which would provide environmental benefits downstream.  <b>Suggested solution</b> Revise the wording of the principle as follows:  <i>The <b>minimum</b> size of an attenuation pond is governed by the catchment area draining into it.</i></p>	<p>The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023
3-2.81 Project Design Principles	<p>EA Relevant Representation (Annex 2, page 29, RR-160)</p>	<p><u>5.11 Project Design Principles (APP-302): LI17</u>  <b>Issue</b> The principle states that “where ponds are constructed near to existing watercourses,</p>	<p>The amendments proposed will be considered by National Highways and where appropriate amendments will be included in the Project Design Principles</p>	Under discussion	24.01.2023



Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
	EA Written Representation (Annex 1, Table 1, page 34, REP1-024)	<p><i>engineering structures must be avoided in proximity to such watercourses to reduce bank erosion</i>” but it is unclear what proximity means and what aspect of the design of the pond is actively reducing the bank erosion.</p> <p><b>Impact</b> New attenuation ponds may detrimentally impact on existing watercourses by constructing them in inappropriate locations.</p> <p><b>Suggested solution</b> Update L117 to provide greater clarity and allow for consideration to be given to erosion from rivers encroaching onto drainage assets. Out of bank flows from watercourse or surface water flows have potential to damage and subsume ponds.</p>	(Document Reference 3.2, APP-302) and EMP Annex B15 Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035) and an updated version submitted at Deadline 3.		
3-2.82 Project Design Principles	EA Relevant Representation (Annex 2, page 29, RR-160)  EA Written Representation (Annex 1, Table 1, page 34, REP1-024)	<p><u>5.11 Project Design Principles (APP-302): L117</u></p> <p><b>Issue</b> The principle makes no reference to the need for structures within watercourses to also comply with the <a href="#">Institute of Fisheries Management Fish pass manual</a>.</p> <p><b>Impact</b> Structure within watercourses may not allow for fish passage in accordance with the necessary guidance.</p> <p><b>Suggested solution</b> Revise the wording of the principle as follows:</p>	The proposed amendment, with regards to the design of instream structures complying with the Institute of Fisheries Management Fish Pass Manual will be included in the Project Design Principles (Document Reference 3.2, APP-302) under L117 and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><i>Structures within watercourses are to be designed in accordance with CD 529 (Design of outfall and culvert details), and CIRIA C786 and the Institute of Fisheries Management fish pass manual.</i></p>			
3-2.83 Project Design Principles	<p>EA Relevant Representation (Annex 2, page 29, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 34, REP1-024)</p>	<p><b>5.11 Project Design Principles (APP-302): LI19</b></p> <p><b>Issue</b> The principle does not seek to specifically avoid the use of hard engineering and permanent (non-biodegradable) geotextiles.</p> <p><b>Impact</b> Schemes for new/realigned/improved channels may include engineering options that would not improve the quality of the aquatic habitat and may not be acceptable to regulatory authorities.</p> <p><b>Suggested solution</b> Reword the principle as follows:  <i>Any realigned watercourses must provide a 10m buffer strip on both sides of the new channel, <del>where</del> <del>reasonably practicable</del>, to allow for implementation of marginal and riparian habitat improvements.</i></p> <p><i>Schemes should avoid the use of hard engineering and permanent (non-biodegradable) geotextiles. Where a 10m buffer strip on both sides of the watercourse cannot be provided, evidence will be submitted to the relevant drainage authority (Environment Agency,</i></p>	<p>The amendments proposed will be considered by National Highways and appropriate amendments will be included in the Project Design Principles (Document Reference 3.2, APP-302) and an updated version submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<i>Lead Local Flood Authority and / or Local Authority) for approval to justify any reduction of buffer width.</i>			
3-2.84 Project Design Principles	EA Relevant Representation (Annex 2, page 30, RR-160)  EA Written Representation (Annex 1, Table 1, page 35, REP1-024)	5.11 Project Design Principles (APP-302): GB02 <b>Issue</b> The principle encourages the extension of blue infrastructure, but it does not limit connection between catchments where there may be a biosecurity risk, i.e. improved connectivity/reduced proximity between headwaters of the Tees catchment with signal crayfish and the Eden catchment. <b>Impact</b> There could be risk that the extension of blue infrastructure may inadvertently lead to detrimental impacts where separate catchments pose a biosecurity risk. <b>Suggested solution</b> Reword the principle to specifically exclude opportunities for extension of blue infrastructure where this will pose a biosecurity risk: <i>Where blue infrastructure is to be extended it should where reasonably practicable create resilient, connected wetland networks. Opportunities to extend blue infrastructure should be reviewed if there is evidence to demonstrate that it would cause</i>	The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<i>harm to species or habitats in adjacent catchments.</i>			
3-2.85 Project Design Principles	EA Relevant Representation (Annex 2, page 30, RR-160)  EA Written Representation (Annex 1, Table 1, page 35, REP1-024)	<u>5.11 Project Design Principles (APP-302): Table 3-4: Theme D Project-wide Design Principles</u> <b>Issue</b> As a project-wide design principle, climate resilience focuses on planting and landscaping but there is no reference to ensuring the design takes account of the increased flood risk which will be exacerbated by more frequent and extreme events. <b>Impact</b> The project wide design principles do not account for all aspects of climate change relevant to the project. <b>Suggested solution</b> Ensure all relevant aspects of climate resilience are considered in the project wide design principles, particularly those related to flood risk.	Appropriate amendments will be considered and any included in the Project Design Principles (Document Reference 3.2, APP-302) an updated version will be submitted at Deadline 3.	Under discussion	24.01.2023
3-2.86 Project Design Principles	EA Relevant Representation (Annex 2, page 30, RR-160)  EA Written Representation (Annex 1, Table 1, page 35, REP1-024)	<u>5.11 Project Design Principles (APP-302): 0102.05</u> <b>Issue</b> The principle requires planting of appropriate native ecological planting at the attenuation pond. <b>Impact</b> Potential for species that are not native to the Eden catchment to detrimentally impact on the designated feature. <b>Suggested solution</b> Amend the principle as follows:	The amendments proposed will be included in the Project Design Principles (Document Reference 3.2, APP-302) and an updated version submitted at Deadline 3.	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<i>...appropriate <b>native</b> ecological planting <b>native to the Eden catchment</b> at the attenuation pond.</i>			
3-2.87 Project Design Principles	EA Relevant Representation (Annex 2, page 31, RR-160)  EA Written Representation (Annex 1, Table 1, page 36, REP1-024)	<u>5.11 Project Design Principles (APP-302): 0102.06</u> <b>Issue</b> The principle seeks to locate the proposed attenuation pond as close as reasonably practicable to the River Eamont. <b>Impact</b> Locating the pond too close to the river may have a detrimental impact on the geomorphology of the River Eamont, restrict access for maintenance and / or repair and have flood risk implications. <b>Suggested solution</b> Amend the principle as follows: <i>...The pond is to be located away from existing parkland trees and close to <b>as far away from the River Eamont as possible far as reasonably practicable having regard to the relevant environmental constraints.</b></i>	The amendments proposed will be considered by National Highways and appropriate amendments included in the Project Design Principles (Document Reference 3.2, APP-302) and an updated version submitted at Deadline 3.	Under discussion	24.01.2023
3-2.88 Project Design Principles	EA Relevant Representation (Annex 2, page 31, RR-160)  EA Written Representation (Annex 1, Table 1, page 36, REP1-024)	<u>5.11 Project Design Principles (APP-302): 0405.04</u> <b>Issue</b> In relation to the design of the Trout Beck crossing, the principle includes the provision that <i>“the span arrangements for the Trout Beck viaduct are to be designed such that the vertical clearance from the watercourse (in normal conditions) is a</i>	The item 0405.04 of document 5.11 Project Design Principles (APP-302) will be clarified in an update of the document which will be submitted at Deadline 3. National Highways can confirm that the soffit of the Trout Beck structure level is set by the requirement for a footpath and an accommodation track to pass	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p><i>minimum of 2.5m</i>” but it is not clear as to whether the 2.5m vertical clearance is at least 600mm above the 1 in 100&amp;94% CC allowance flood level nor is it clear what “normal” river conditions are.</p> <p><b>Impact</b> The soffit of the bridge over Trout Beck may not be sufficiently above the climate change design flood level.</p> <p><b>Suggested solution</b> Clarify these comments and how this relates to hydrological flood assessment. If the soffit level is already determined by other factors, confirm what the detailed hydraulic modelling will seek to define.</p>	<p>below the structure and is significantly above the 1% AEP + CC river water level and the required 600mm freeboard. The depth of the 1 in 100 year (including climate change allowance) is shown in the hydraulic modelling report in Annex E of document 3.4 Environmental Statement Appendix 14.2 Flood Risk Assessment and Outline Drainage Strategy (APP-221).</p>		
3-2.89 Project Design Principles	<p>EA Relevant Representation (Annex 2, page 31, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 36, REP1-024)</p>	<p><u>5.11 Project Design Principles (APP-302): 0405.11</u></p> <p><b>Issue</b> The principle relates to the provision of compensatory storage at the Trout Beck crossing but it is not clear why compensation needs to be located as close to the Trout Beck crossing as possible nor how this would reduce the footprint of the compensatory storage.</p> <p><b>Impact</b> The location of the compensatory storage proposals may not be appropriate.</p> <p><b>Suggested solution</b> Consider revising written detail to provide more clarity around the location</p>	<p>National Highways will consider appropriate amendments to Item 0405.11 of document 5.11 Project Design Principles (APP-302) taking into account the EA’s suggested solution. An update of the document which will be submitted at Deadline 3.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>and type of compensation to be provided. The compensatory requirements will be quantitatively defined and need to hydraulically connect to the 1% AEP floodplain but not currently occupied by the 1% AEP flood plain (Flood Zone 3). The visual impact of small amount of compensatory storage in greenfield future floodplain should be imperceptible and look natural once established.</p>			
3-2.90 Project Design Principles	<p>EA Relevant Representation (Annex 2, page 32, RR-160)</p> <p>EA Written Representation (Annex 1, Table 1, page 37, REP1-024)</p>	<p><u>5.11 Project Design Principles (APP-302): 06.06</u></p> <p><b>Issue</b> The principle relating to new watercourse crossings provided little commitment in relation to flood risk management, the provision of compensatory flood storage and access for maintenance and repair.</p> <p><b>Impact</b> Design principles to secure appropriate flood risk management measures for this hydraulically problematic area are not included.</p> <p><b>Suggested solution</b> Update 06.06 to provide more clarity in relation to the management of flood risk associated with the new watercourse crossings, specify that the provision of compensatory flood storage will be required where development results in a loss of floodplain capacity and confirm that access</p>	<p>For consistency and clarity, mitigation in relation to flood risk and drainage design are, on the whole, contained in the EMP (Document Reference 2.7, APP-019) rather than the PDP. Table 3.2 Register of Environmental Actions and Commitments contains at commitment references D-RDWE-02, DRDWE-05, D-RDWE-12, D-RDWE-13, and D-RDWE-14 contain measures regarding further hydraulic modelling to support detailed design, consultation with relevant lead flood authorities. Project Design Principle LI14 relates to access for maintenance and repair purposes – see comments on that above.</p>	Under discussion	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		for maintenance and repair purposes will be retained.			



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

Issue	Document References (if relevant)	Environment Agency 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)	Environment Agency Position	National Highways Position	Status	Date
A-1.1 General	EA Statutory Consultation Response (Appendix 1, page 3 – 4)	The Cross Lanes to Rokeby Red Option involve the culverting of Tutta Beck under a proposed embankment opposite Cross Lanes Farm Shop, however it appears the watercourse could be diverted around the toe of the embankment. There may also be other examples along the entire route of small watercourses or ditches being culverted where they could be diverted instead.	All new watercourse crossings have been designed to facilitate the free passage of aquatic and riparian species. Where existing culverts are to be replaced, they too will be designed to facilitate the free passage of these species.  We will continue to engage with the EA on these issues and seek agreement that proposals represent the optimal solution and that any adverse effects of the scheme such as those raised have been appropriately mitigated.	This issue is considered to be superseded and matters regarding Tutta Beck are now considered under the EA's Relevant Representations (Annex 2, page 23, RR-160).  The Environment Agency agreed on 19.01.2023 that this issue is superseded by their Relevant Representations and is no longer relevant.	24.01.2023
A-1.2 General: Design	EA Statutory Consultation Response (Appendix 1, page 4)	It is noted that a footbridge across Trout Beck to access Kirkby Thore Hall and a footbridge to access The Bungalow appear to be within the red line boundary of the DCO application. Any changes to these bridges / accesses would be relevant to the River Eden SAC. Any changes to the footpath across the floodplain may also be relevant, particularly if there are any changes to ground levels.	The feedback on the scope and content of the PEI Report is welcomed and noted. The impact of the Scheme on the River Eden SAC has been assessed within the Habitats Regulations Assessment (HRA) Stage 2 (Application Document Reference 3.6, APP-235). This has concluded that, subsequent to the full and proportionate Appropriate Assessment that in view of the relevant site conservation objectives, the potential for any adverse effect on the integrity of	This issue is considered to be superseded and matters regarding crossings of the River Eden SAC are now considered under the EA's Relevant Representations on D-BD-04 and the action not being specific enough in relation to Trout Beck (Annex 2, page 5, RR-160).	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>the River Eden SAC has been ruled out.</p> <p>This issue is considered to be no longer relevant and matters regarding Tutta Beck are now considered under the EAs Relevant Representations (see Table 3-2 issue 3-2.65).</p>	<p>The Environment Agency agreed on 19.01.2023 that this issue is superseded by their Relevant Representations and is no longer relevant.</p>	
A-1.3 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 6)	The commitment to consider the geomorphological interest of a watercourse needs to be applied to all crossing points and not limited to new or existing bridges.	CIRIA guidance for culvert design has been followed and hydraulic modelling undertaken.	<p>This issue is considered to be superseded and matters regarding culvert design are now considered under the EA's Relevant Representations on D-BD-04 and the lack of detail regarding the necessary design detail of culverts (Annex 2, page 6, RR-160).</p> <p>The Environment Agency agreed on 19.01.2023 that this issue is superseded by their Relevant Representations and is no longer relevant.</p>	24.01.2023
A-1.4 PEIR: Ecology and Biodiversity	EA Statutory Consultation Response (Appendix 1, page 7)	A biosecurity and Invasive Non-Native Species (INNS) management plan should identify any known INNS and have specific mitigation assigned. Measures should be included within the site plans to	Measures for dealing with invasive species and implementing biosecurity measures are detailed within the Environmental Management Plan	This issue is considered to be superseded and matters regarding invasive species are now considered under	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>minimise the opportunity for INNS to be spread to the site through as a minimum following the check-clean-dry procedure.</p>	<p>(EMP) (Application Document Reference 2.7, APP-019).                      D-BD-07 states 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 at Annex B15 of this EMP and has been approved in relation to that part.                      The INNS MP 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> <li>• Strict biosecurity protocols shall be followed during construction and maintenance of assets to mitigate the risks of introducing signal crayfish</li> </ul>	<p>the EA’s Relevant Representations on the Environmental Management Plan Annex B15 Invasive Non-Native Species and the potential risk of importing aquatic plant species from sources that could be contaminated by alien crayfish/crayfish plague (Annex 2, page 12, RR-160).</p> <p>The Environment Agency agreed on 19.01.2023 that this issue is superseded by their Relevant Representations and is no longer relevant.</p>	

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
			<p>and other aquatic Invasive Non-native Species and pathogens to watercourses.</p> <p>For each part of the Project, the Project must be carried out in accordance with the approved Plan for that part.”</p>		
A-1.5 Road Drainage and Water Environment	EA Statutory Consultation Response (Appendix 1, page 13 – 14)	<p>Operational mitigation includes the provision of wet detention basins / drainage ponds as part of the drainage strategy. These ponds should not also be relied upon to deal with the large volumes of contaminated water that are associated with construction activities, as they are highly unlikely to be able to cope. Failure to ensure sufficient storage capacity during the construction phase could cause pollution incidents and impacts upon the environment throughout the scheme.</p> <p>It is recommended that dedicated sediment traps and settlement ponds should be designed into the scheme, and where these are unlikely to be effective, treatment systems such as lamella tanks and chemical dosing should be costed into the scheme.</p> <p>The report confirms that surface run off and water discharge will be controlled and where applicable, approvals or licences agreed to ensure there is no detriment to local</p>	<p>The Environmental Management Plan (EMP) (Application Document Reference 2.7, APP-019) outlines mitigation proposed to reduce potential impacts to the receiving water environment, including measures such as sediment traps and settlement ponds not used for the operational phase of a road. Additional treatment systems may be required and will be detailed in the EMP. The EMP confirms no part of the Project can start until a Ground and Surface Water Management Plan (GSWMP), is developed. The GSWMP will include, a surface water management system using measures such as temporary silt fencing, cut off ditches, settlement ponds and bunds shall be set up prior to relevant works commencing to capture all runoff and prevent ingress of sediments and contaminants into existing drainage ditches where necessary.</p>	<p>This issue is considered to be superseded and matters regarding drainage ponds and contaminated water are now considered under the EA’s Relevant Representations on D-RDWE-01 and the use of detention basins / drainage ponds during construction (Annex 2, page 8, RR-160).</p> <p>The Environment Agency agreed on 19.01.2023 that this issue is superseded by their Relevant Representations and is no longer relevant.</p>	24.01.2023

Issue	Document References (if relevant)	Environment Agency Position	National Highways Position	Status	Date
		<p>watercourses, but this is likely to be complex given the constraints along the route and should be acknowledged.</p> <p>Any contaminated wastewater and run off entering surface waters will pose a significant risk to the environment, including the designated River Eden SAC/SSSI.</p> <p>Silt and sediment run off can be a significant issue and cause significant impact from construction sites. Site water management plans must be prepared and cover all scheme areas including construction compound areas and materials storage areas.</p>	<p>This shall be managed in accordance with CIRIA Guidelines and the Environment Agency's approach to groundwater protection and groundwater protection guidelines.</p>		