



# MetroWest+

## Portishead Branch Line (MetroWest Phase 1)

**Planning Inspectorate Reference: TR040011**

**Applicant: North Somerset District Council**

### 9.3.6 ExA.SoCG-NE.D1.V1 – Statement of Common Ground

Between

- (1) North Somerset District Council; and
- (2) Natural England

**Version: 1**

**Date: November 2020**



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## Abbreviations

AGVMP	Avon Gorge Vegetation Management Plan
CEMP	Construction Environmental Management Plan
DCO	Development Consent Order
EcCoW	Ecological Clerk of Works
ES	Environmental Statement
GCN	Great Crested Newt
HRA	Habitats Regulations Assessment
LONI	Letter of no Impediment
LSE	Likely Significant Effect
IROPI	Imperative Reasons of Overriding Public Interest
PINS	Planning Inspectorate
SAC	Special Area of Conservation
SoCG	Statement of Common Ground
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

In the text, "Document reference" refers to the DCO document reference number as shown on the documents on the Portishead Branch Line (MetroWest Phase 1) [project page on the PINS website](#).

In cases where a document appears twice and there are two Document reference numbers, (for example, the AGVMP which appears twice as standalone document reference number 8.12 and as ES Appendix 9.11, document 6.25), we have used the Document reference number for the standalone document.

## 1. Introduction

- 1.1 This Statement of Common Ground ("SoCG") has been prepared by North Somerset District Council ("the Applicant") and Natural England to set out the areas of agreement and disagreement between the two parties in relation to the Development Consent Order ("DCO") application for the Portishead Branch Line (MetroWest Phase 1) ("the DCO Scheme") based on consultation to date.
- 1.2 This SoCG comprises an agreement log which has been structured to reflect topics of interest to Natural England in relation to the application for the DCO Scheme. Topic specific matters agreed and not agreed between Natural England and the Applicant are included.

## 2. Scheme overview

- 2.1 The Applicant has applied to the Planning Inspectorate ("PINS") for a DCO to construct the Portishead Branch Line under the Planning Act 2008 ("Application"). The Application was made on 15 November 2019 under reference TR040011 and was accepted for examination on 12 December 2019.
- 2.2 The DCO Scheme will provide an hourly (or hourly plus) railway service between Portishead and Bristol Temple Meads Railway Station, with stops at Portishead, Pill, Parson Street and Bedminster.
- 2.3 The DCO Scheme comprises the Nationally Significant Infrastructure Project ("NSIP") as defined by the Planning Act 2008 ("the 2008 Act") to construct a new railway 5.4km long between Portishead and the village of Pill, and associated works including a new station and car park at Portishead, a refurbished station and new car park at Pill and various works along the existing operational railway line between Pill and Ashton Junction where the DCO Scheme will join the existing railway. Ashton Junction is located close to the railway junction with the Bristol to Exeter Mainline at Parson Street.<sup>1</sup>
- 2.4 The application has been accompanied by an Environmental Statement ("ES") because the DCO Scheme is classified as EIA development in the EIA Regulations 2017<sup>2</sup>.
- 2.5 The application has also been accompanied by a Habitats Regulation Assessment ("HRA") Report on the potential for effects on European sites of nature conservation importance under the Habitats

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<sup>1</sup> Please refer to Schedule 1 of the DCO (Document 3.1) for more detail.

<sup>2</sup> The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Regulations 2017<sup>3</sup> (document entitled "Report to Inform Habitats Regulations Assessment", Document reference 5.5, Version 02). The Applicant's HRA Report is called a shadow HRA ("sHRA") in the relevant representation from Natural England. To avoid confusion with other DCO application documents in which the term HRA Report is used, this SoCG uses the term HRA Report.

### 3. Natural England's role in the DCO Scheme

- 3.1 Natural England is a non-departmental public body established under the Natural Environment and Rural Communities Act 2006. It is the statutory adviser to central government on nature conservation in England and promotes the conservation of England's wildlife and natural features. Natural England's objectives include the promotion of nature conservation, protecting biodiversity, and conserving and enhancing the natural landscape. It also has a social responsibility to improve understanding of the natural environment, promote access to the countryside and open spaces, and help balance society's wider needs for social and economic well-being with the needs of the natural environment.
- 3.2 Natural England's role in the DCO process derives from the 2008 Act and secondary legislation made under it. In addition to its overarching role as government adviser on landscape and nature, it is a prescribed consultee under section 42 of the 2008 Act and a consenting body in respect of protected landscapes.
- 3.3 The ES Chapter 9 Ecology and Biodiversity (Document reference 6.12, Version 02) identifies the statutory and non-statutory sites of nature conservation importance that may be affected by the construction and operation of the DCO scheme. These sites include:
- i. Severn Estuary Special Area of Conservation ("SAC")
  - ii. Severn Estuary Special Protection Area ("SPA") and Ramsar site;
  - iii. Avon Gorge Woodlands SAC and Avon Gorge Site of Special Scientific Interest ("SSSI");
  - iv. North Somerset and Mendip Bats SAC;
  - v. Bath and Bradford-on-Avon Bats SAC;
  - vi. Leigh Woods National Nature Reserve; and
  - vii. Portbury Wharf Nature Reserve.

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<sup>3</sup> The Conservation of Habitats and Species Regulations 2017



## **4. Overview of Engagement**

### **4.1 Introduction**

4.1.1 This section briefly summarises the consultation that the Applicant has had with Natural England. For further information on the consultation process please see the Consultation Report (document reference number 5.1).

### **4.2 Pre-application engagement**

4.2.1 The Applicant has engaged with Natural England on the DCO Scheme during the pre-application process, both in terms of informal non-statutory engagement and formal consultation carried out pursuant to Section 42 of the 2008 Act.

4.2.2 The Applicant has had regular and constructive engagement with Natural England throughout the pre-application process on both a formal and an informal basis. The Applicant adopted a multi-stage approach to formal consultation which has allowed the DCO Scheme's proposals to evolve iteratively through the Applicant's consideration and regard for Natural England's input, in keeping with the (former) Department of Communities and Local Government (DCLG) Pre-Application Guidance (2015). This has meant that Natural England's responses meaningfully contributed to the development of the proposals in the DCO Scheme.

The formal consultation was carried out in three main stages:

- i. "Stage 1 Consultation", from 22 June 2015 to 3 August 2015 (pursuant to Section 47 only);
- ii. "Stage 2 Consultation", from 23 October 2017 to 4 December 2017; and
- iii. "Additional Stage 2 Consultation" at several different points following Stage 2 Consultation.

A full account of the Applicant's pre-application engagement with Natural England is contained in the Consultation Report (Document reference 5.1).

### **4.3 Post-application engagement**

4.3.1 Following the submission of the application on 15 November 2019, the Applicant has continued to engage with Natural England and progressed the substantive matters that are recorded in this document.

### **4.4 Overview of key issues raised at s42 stage**

4.4.1 When formally consulted Natural England raised the following key issues:

- i. It recognised that the DCO Scheme contains opportunities for a positive impact on biodiversity but that the scheme also has the potential to affect features of interest in the Avon Gorge SSSI and Avon Gorge Woodlands SAC
- ii. It agreed that the European sites likely to be affected by the DCO Scheme are the Avon Gorge Woodlands SAC and North Somerset and Mendip Bats SAC.
- iii. Consideration should be given to the following issues in the Avon Gorge Woodlands SAC:
  - Qualifying woodland and grassland features of the SAC
  - The plans should address potential impacts from ash die back and impacts on Schedule 8 plants such as Bristol rock-cress;
  - The draft Avon Gorge Vegetation Management Plan ("AGVMP") was generally supported but further clarification was needed in relation to the extent of vegetation clearance.
- iv. The disused railway line is an important landscape feature for the movement of bats from the North Somerset and Mendip Bats SAC, and further bat survey information is required to determine the DCO Scheme's impact on these bats;

4.4.2 The following sections provide detail on the matters raised by Natural England during the course of the DCO Scheme consultation, the actions taken by the Applicant in response, and whether the matter is agreed or remains to be agreed. The discussion relating to the Habitats Regulations are contained in Sections 5 and 6.



## 5. Habitats Regulations Assessment

This section sets out the topics that have arisen through consultation with Natural England as part of the HRA process. This section first looks at the HRA screening process that was undertaken to determine which sites were likely to be affected by the DCO Scheme. Sections 5.2 and 5.3 then go on to consider the impact of the DCO Scheme on each of the two European sites on which the DCO Scheme has the potential for a likely significant effect (LSE): the Avon Gorge Woodlands (AGW) SAC and the North Somerset and Mendip Bats SAC.

### 5.1 HRA screening process

The HRA (Stage 1) screening information considered all European sites within a 10km radius of the scheme, extended to 30km for sites with bats as a qualifying feature. The screening process identified two sites with LSEs as set out in Table 5.1 below.

**Table 5.1 HRA Screening**

HRA Screening	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.1.1 European sites with potential for LSE	Natural England agrees that the two sites listed are the only European sites that have the potential to be adversely affected by the DCO Scheme	The Applicant's HRA Stage 1 screening information is presented in the HRA Report which has been appended to the ES at Appendix 9.12 (Document reference 5.5, Version 02). LSEs could not be ruled out for the following European sites: <ul style="list-style-type: none"> <li>• Avon Gorge Woodlands SAC</li> <li>• North Somerset and Mendip Bats SAC</li> </ul>	Agreed
5.1.2 European sites that will not be	Natural England agreed that the sites listed can be	The European sites listed below were considered as part of the HRA screening	Agreed

HRA Screening	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
adversely affected by the DCO Scheme	ruled out of the HRA screening process as sites that will not be adversely affected by the DCO Scheme.	process but it was concluded that there was no potential for LSEs on these sites: <ul style="list-style-type: none"> <li>• Severn Estuary SAC</li> <li>• Severn Estuary SPA</li> <li>• Severn Estuary Ramsar site<sup>4</sup></li> <li>• Chew Valley Lake SPA</li> <li>• Wye Valley Woodlands SAC</li> <li>• Wye Valley and Forest of Dean Bat Sites SAC</li> <li>• Mendip Limestone Grasslands SAC</li> <li>• Bath and Bradford-on-Avon Bats SAC</li> <li>• Mells Valley SAC</li> </ul>	

<sup>4</sup> In-combination effects were considered for the Severn Estuary SPA and Ramsar site but no LSE was identified either alone or in-combination

## 5.2 Avon Gorge Woodlands SAC

Table 5.2 below gives details of the discussions between the Applicant and Natural England on the Avon Gorge Woodlands SAC and the mitigation measures proposed to avoid and reduce impacts. The table identifies where issues have been resolved or agreed and which issues remain outstanding. A list of the mitigation measures proposed to reduce impacts of the DCO Scheme on the Avon Gorge Woodlands SAC is set out in the Appendix in Table A1.

**Table 5.2 Avon Gorge Woodlands SAC**

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.2.1 HRA methodology in respect of the Avon Gorge Woodlands SAC	The assessment of potential environmental effects in relation to designated sites has been thorough and robust	In preparing the HRA Report on the Avon Gorge Woodlands SAC (Document reference 5.5, Version 02) the Applicant has closely followed PINS Advice Note 10 (Habitats Regulations Assessment relevant to Nationally Significant Infrastructure Projects, November 2017)	Agreed
5.2.2 Survey methodology and results in the ES	Natural England is satisfied that the assessment of effects on the Avon Gorge Woodlands SAC undertaken by the Applicant have been thorough and robust.	The methodology adopted by the Applicant in relation to Ecology and Biodiversity is referenced in Chapter 9 of the ES (Document reference 6.12, Version 02).	Agreed

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.2.3 Assessment of effects of DCO Scheme on the Avon Gorge Woodlands SAC	Full details of works in the Avon Gorge Woodlands SAC are required.	A full description of the proposed works within the Avon Gorge Woodlands SAC is presented in the ES Chapter 4 (Document reference 6.7) and the HRA Report (Document reference 5.5, Version 02)	Agreed
	NE considers that temporary and permanent works within the Avon Gorge Woodlands SAC have the potential to affect features of SAC interest	Full details of the likely effects of the DCO Scheme on the Avon Gorge Woodlands SAC are given in ES Chapter 9 (Document reference 6.12, Version 02), the HRA Report (Document reference 5.5, Version 02) and the Avon Gorge Vegetation Management Plan ("AGVMP") (Document reference 8.12, Version 02).	Agreed
5.2.4 Vegetation management - general	There is a need to define the extent of vegetation removal.	The likely extent of vegetation clearance under the DCO Scheme is described in ES Chapter 9 (Document reference 6.12, Version 02) and the AGVMP (Document reference 8.12, Version 02).	Agreed
5.2.5 Vegetation management – potential for ash die-back	Natural England is concerned about ash die-back in the Avon Gorge Woodlands SAC. Natural England has strongly indicated that ash clearance	The widespread incidence of ash die back disease in the Avon Gorge since 2016 could result in the death of mature ash trees along the railway over the next few years, irrespective of the DCO Scheme. In general, it is not proposed to clear ash unless the purpose is to mitigate	Agreed

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	<p>should only be considered for H&amp;S reasons. If further ash clearance is needed under Package 1 this further emphasises NE's view that Package 2 is preferable.</p>	<p>safety risks to the railway. Where practical, natural regeneration of ash should be encouraged. Biosecurity measures are proposed as part of the DCO Scheme's vegetation management to avoid the potential spread of ash die-back disease by construction activities. All of these measures are detailed in the AGVMP (Document reference 8.12, Version 02).</p> <p>If the Whitebeam Planting Package 1 is taken forward (see para 6.1.5 below), it may be necessary to clear some ash on planting sites to benefit the establishment of whitebeams. In this case, the total area of woodland on Network Rail land that would need to be cleared to benefit the establishment of whitebeams would be a maximum of 0.26ha. The total area of the Avon Gorge Woodlands SAC is 151 ha.</p>	
5.2.6 Impact of fencing on Avon Gorge Woodlands SAC	Natural England considers that proposed fencing in the Avon Gorge could have potential landscape and visual impacts and this should be given weight when determining the	Full consideration will be given to the potential landscape and visual impacts of fencing in the Avon Gorge Woodlands SAC at the detailed design stage. Requirement 14 of the DCO requires details of the location, siting and design of all the fencing in the Avon Gorge Woodlands	Agreed

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	<p>detailed design and operation of the project.</p> <p>Natural England also considers that safety fencing should have an incidental positive effect in limiting illegal and sometimes damaging public access to the Avon Gorge Woodlands SAC.</p>	<p>SAC to be approved by the local authority in consultation with Natural England.</p> <p>To address visual amenity concerns about the visual impact of the proposed fencing, paladin (mesh) fencing has been proposed to minimise its visual impact.</p> <p>Fencing is required for safety and security reasons, including to prevent trespass, both of which become a greater concern with the introduction of faster, more frequent passenger services. Some of the fencing requirements were de-scoped at outline design to reduce the amount of vegetation clearance required and there is the potential for more fencing to be de-scoped during the detailed design stage of the DCO Scheme (GRIP 5). The installation of fencing will also bring benefits to the grassland and woodland habitats within the Avon Gorge Woodlands SAC in limiting public access and disturbance to the Avon Gorge Woodlands SAC, which is highlighted as a pressure/threat in Natural England's Site Improvement Plan for the Avon Gorge Woodlands SAC (January 2015).</p>	



Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
<p>5.2.7 Impact on rare whitebeam (<i>Sorbus</i>) species</p>	<p>Natural England considers that in relation to <i>Sorbus</i> there could be the potential for long term major adverse impact and there is therefore a need to see that losses are minimised.</p>	<p>Removal or coppice of rare whitebeam trees in the DCO Scheme have been kept to a minimum. As set out in the HRA Report (Document reference 5.5, Version 02), there will be losses of up to 27 individual rare whitebeam trees. The reasons for the loss of each individual whitebeam is explained more fully in the ES Chapter 9 (Document reference 6.12, Version 02).</p> <p>The AGVMP (see para 5.2.9 below) also includes measures to protect rare whitebeam trees during construction:</p> <ul style="list-style-type: none"> <li>• Measures to treat individual specimens of rare whitebeam to avoid removal, coppicing or pruning.</li> <li>• Ecological watching brief and protective fencing of retained trees.</li> </ul> <p>The proposed compensation measures for the unavoidable losses of rare whitebeam trees are described below in section 6.</p>	<p>Agreed</p>

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
<p>5.2.8 Mitigation during construction</p>	<p>Natural England requested supporting information to show that any locations of sensitivity will be given protection during construction.</p>	<p>A range of mitigation measures has been proposed to minimise the impact of the DCO Scheme on the Avon Gorge Woodlands SAC during construction.</p> <p>These measures include:</p> <ul style="list-style-type: none"> <li>• the presence on site of an EcCoW ("Ecological Clerk of Works")</li> <li>• site briefings and supervised vegetation clearance</li> <li>• site-specific measures such as signage and fencing to avoid damage to sensitive features</li> <li>• a consistent method of demarcation to minimise damage to important and notable ecological features. The method of demarcation will need to be appropriate for both construction and operational input and will need to be developed by an appropriately qualified ecological specialist.</li> <li>• management of arisings to prevent enriched soil and weed growth</li> </ul> <p>These measures are contained in the Master CEMP, which is to be approved under</p>	<p>Agreed (that the proposed measures will satisfactorily mitigate the potential impacts identified)</p>

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		Requirement 5 of the DCO, and the AGVMP (Document reference 8.12, Version 02)	
5.2.9 Mitigation: Avon Gorge Vegetation Management Plan (AGVMP)	Natural England supports the range of mitigation measures relating to the Avon Gorge Woodlands SAC in the AGVMP. Natural England will continue to advise the applicant on the AGVMP and will need to agree the final version.	<p>The AGVMP (Document reference 8.12, Version 02) is a comprehensive management plan for vegetation in the Avon Gorge Woodlands SAC and has been prepared having regard to the DCO Scheme. The AGVMP is listed in the Schedule of Mitigation (Document reference 6.31, Version 02).</p> <p>The aims of the AGVMP include:</p> <ul style="list-style-type: none"> <li>• To set out the mitigation, compensation and management measures during the construction of the DCO Scheme through the Avon Gorge Woodlands SAC/SSSI. The aim of the Plan is to describe the mechanisms by which the measures proposed for the DCO Scheme within the Avon Gorge are to be implemented.</li> <li>• To form the basis of an agreement between Natural England, North Somerset Council and</li> </ul>	Agreed (that the proposed measures will satisfactorily mitigate the potential impacts identified)

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>Network Rail to maintain and enhance (where possible) the management of woodland and grassland habitats in the Avon Gorge Woodlands SAC.</p> <ul style="list-style-type: none"> <li>To complement the existing Site Management Statement (“SMS”) and Vegetation Management Plan (“VMP”) (Appendix 9.15, DCO Document Reference 6.25) for the operating railway line.</li> </ul> <p>The AGVMP includes a 5-year monitoring programme to monitor the effectiveness of the proposed positive management compensation, a 10-year programme for the proposed whitebeam compensation and a 9-year programme for the proposed Bristol rock-cress compensation.</p> <p>The AGVMP has been developed with reference to Network Rail's Site Management Statement (SMS) 2018-2023 and Vegetation Management Plan (VMP), for the operation of the line.</p>	

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.2.10 Mitigation: invasive species	Natural England recommended treatment and management of invasive species that the DCO Scheme's construction and operation could introduce.	<p>The spread of non-native and invasive plants will be avoided during construction through identification of these species by the EcCoW, tool box talks to make contractors aware of their presence and threat. Careful planning of access and use of biosecurity measures when using equipment and machinery to avoid spread of invasive species. These measures will be secured in the Master CEMP, which is to be approved under Requirement 5 of the DCO, and the AGVMP (Document reference 8.12, Version 02).</p> <p>Once the DCO Scheme is operational, maintenance and vegetation will be managed by Network Rail.</p>	Agreed (that the proposed measures will satisfactorily mitigate the potential impacts identified)
5.2.11 Mitigation: Strategy for management of Quarry Bridge 2 construction site compound	Natural England considers that the use of the quarry floor for storage and a works compound has the potential to affect features of interest in the Avon Gorge Woodlands SAC.	The draft construction methodology and design for the ramp and site compound area by Quarry Bridge 2 are included in Annex C of the AGVMP (Document reference 8.12, Version 02). Proposed mitigation includes the use of limestone hardcore on the ramp and avoiding and protecting rare whitebeam trees by fencing around the construction compound. The	Agreed (that the proposed measures will satisfactorily mitigate the potential impacts identified)

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>underlying grassland vegetation will be protected by use of a geotextile membrane or other measures to protect the ground underneath. The boulders at the entrance to the Quarry and log piles will be temporarily relocated during construction outside the indicative compound area.</p>	
<p>5.2.12 Mitigation: Bristol rock-cress conservation strategy and mitigation for other rare grassland species</p>	<p>Natural England pointed out the need to ensure protection and management of Bristol rock-cress and other rare species on cliff faces affected by the DCO Scheme, alongside protection and management of the wider SAC habitat.</p>	<p>The measures to protect and manage impacts on Bristol rock-cress and other rare species on cliff faces are considered in the Bristol rock-cress conservation strategy within Annex K of the AGVMP (Document reference 8.12, Version 02) and listed in the Schedule of Mitigation (Document reference 8.31, Version 02).</p> <p>The impact of geotechnical stabilisation works on the rock faces on Bristol rock-cress will be reduced by avoiding and protecting individual plants from damage during the works by micro siting of works, such as location of rock bolts, away from areas where plants have been recorded if possible. Detailed pre-construction flora surveys of the rock faces will be undertaken to inform the detailed design of rock face geotechnical works. Bristol rock-cress plants</p>	<p>Agreed (that the proposed measures will satisfactorily mitigate the potential impacts identified)</p>



Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>adjacent to areas affected by rock works will be clearly labelled and fenced with barrier tape and signage to ensure that they are not affected by the works.</p> <p>All vegetation clearance will be completed under an ecological watching brief by a specialist botanist and will seek to mitigate, and avoid where possible, any impact on rare/notable plants, including Bristol rock-cress. Any Bristol rock-cress plants that cannot be avoided by the works will be marked carefully for transplant. Seed will also be collected. Plants and seed will be reintroduced onto two replanting sites on Network Rail land following completion of the construction works.</p> <p>The ES Chapter 9 (Document reference 6.12, Version 02) sets out the measures proposed at the detailed design stage to mitigate the effects on other rare species and the CG grassland habitat during construction works.</p> <p>Further mitigation measures to avoid impacts on SAC grassland, Bristol rock-cress and other rare or notable plant species on rock faces will be</p>	

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>considered during the detailed design stage. Detailed surveys of the rock faces will be undertaken during the detailed design of the geotechnical works and impacts on important habitats and species will be avoided, where possible. (AGVMP Version 02, para 8.1.4, Document reference 8.12)</p> <p>Rare plants present on areas where construction works are not taking place such as the rock faces and the River Avon Tow Path will be fenced off to prevent inadvertent damage.</p> <p>Rare plants such as spring cinquefoil and SAC grassland will be protected from inadvertent damage from vehicular access along the Tow Path by limiting access and installing fencing to prevent accidental damage, as specified in the Master CEMP (Appendix 4.2, Document Reference 8.14, Version 02).</p>	
5.2.13 Conclusion regarding the proposed range of mitigation	Natural England supports the range of mitigation measures that have been introduced to reduce and limit the effects of	A range of mitigation measures has been proposed to avoid and reduce the adverse effects of the DCO Scheme on the Avon Gorge Woodlands SAC as far as possible.	Agreed

Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
measures for the Avon Gorge Woodlands SAC	the DCO Scheme on the Avon Gorge Woodlands SAC.	<p>In summary, the Applicant's HRA Stage 2: Appropriate Assessment in the HRA Report (Document reference 5.5, Version 02) concludes that while the impact of the DCO Scheme on the Avon Gorge Woodlands SAC can be minimised, there will be loss of qualifying woodland (0.73ha) and SAC grassland habitats (0.06ha) that cannot be fully mitigated and therefore it cannot be ascertained that the DCO Scheme will not adversely affect the integrity of the Avon Gorge Woodlands SAC.</p> <p>The measures proposed to compensate these losses are described in Section 6 below</p>	

### 5.3 North Somerset and Mendip Bats SAC

Table 5.3 below gives details of the discussions between the Applicant and Natural England on the North Somerset and Mendip Bats SAC and the mitigation measures proposed to avoid and reduce impacts. The table identifies where issues have been resolved or agreed and which issues remain outstanding. A list of the mitigation measures proposed to reduce impacts of the DCO Scheme on the North Somerset and Mendip Bats SAC is set out in the Appendix Table A2 to this document.

**Table 5.3 North Somerset and Mendip Bats SAC**

North Somerset and Mendip Bats SAC	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
5.3.1 Impact on horseshoe bats in the North Somerset and Mendips Bats SAC	The HRA needs to include the assessment of the impact of works on horseshoe bats in relation to the two bat SACs - the North Somerset and Mendip Bats SAC, and the Bath and Bradford on Avon Bats SAC.	<p>The Applicant's HRA Stage 1 screening information, which is contained within the HRA Report (Document reference 5.5, Version 02), concluded that the DCO Scheme is likely to have indirect effects on bat populations in the North Somerset and Mendip Bats SAC. The LSE has been identified from the DCO Scheme alone and in combination with the Royal Portbury Docks development at Court House Farm.</p> <p>The HRA Stage 1 screening information concluded that the DCO Scheme would have no impact on the bat populations in the Bath and Bradford on Avon Bats SAC.</p>	Agreed

North Somerset and Mendip Bats SAC	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
5.3.2 Impact on different species of bat	<p>Natural England considers that the following points should be taken into account in relation to the impact of the Scheme on bats:</p> <ul style="list-style-type: none"> <li>• separate consideration of impacts on greater horseshoe and lesser horseshoe bats because of their different needs and ecology;</li> <li>• bat surveys are incomplete and are required to determine hibernation sites, the importance of local tunnels, and the likely impacts of development on them.</li> </ul>	<p>Bat surveys have been completed and appended to the ES Chapter 4 at Appendix 9.2 (Document reference 6.25, "Bat Technical Appendix")</p> <p>These surveys have been used to determine the importance of the site to bats and the likely impacts of the DCO Scheme on all species of bats.</p> <p>The bat surveys confirmed the presence of 13 species of bat including the greater horseshoe and lesser horseshoe bats. The impacts on greater and lesser horseshoe bats are considered separately in ES Chapter 9 (Document reference 6.12, Version 02). The HRA Report (Document reference 5.5, Version 02) identified indirect effects on greater and lesser horseshoe bats. However, only the greater horseshoe bats had linkages with the North Somerset and Mendip Bats SAC.</p>	Agreed
5.3.3 Impact of Scheme on the North Somerset and Mendip Bats SAC	<p>The main risks identified arise from vegetation clearance and increased lighting along the disused line and along the freight line at Pill Station.</p>	<p>The potential for impacts on the North Somerset and Mendip Bats SAC arises from the use of habitats within the DCO Scheme boundary for foraging and commuting by bats forming part of the SAC population. Activities associated with the DCO Scheme could affect this usage through</p>	Agreed

North Somerset and Mendip Bats SAC	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		severance of commuting routes (via direct habitat loss or lighting).	
5.3.4 Mitigation proposed to avoid impacts on the North Somerset and Mendip Bats SAC	Natural England considers that the proposed mitigation has focused on the key risks. Provided the dark vegetated corridor along the disused line can be maintained and enhanced, the proposed mitigation will be effective and deliverable.	<p>A range of measures have been proposed to minimise impact on the bat populations from the North Somerset and Mendip Bats SAC.</p> <p>These measures include:</p> <ul style="list-style-type: none"> <li>• Vegetation to be retained along the disused line as identified in the Railway Landscape Plans (Disused Line) (DCO Document Reference 2.10). Replanting vegetation as detailed in the Railway Landscape Plans (Disused Line), (DCO Document Reference 2.10).</li> <li>• Installation of fencing from adjacent farmland to minimise vegetation loss</li> <li>• Infill planting within land alongside the A369 Portbury Hundred, as detailed in ES Appendix 9.16 (DCO Document Reference 6.25).</li> </ul> <p>Further measures are detailed within ES Chapter 9 (Document reference 6.12, Version 02)</p>	Agreed



North Somerset and Mendip Bats SAC	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
5.3.5 Conclusion regarding effectiveness of proposed mitigation measures	Subject to the identified mitigation being secured, an adverse effect on the integrity of the North Somerset and Mendip Bats SAC can be avoided.	In summary, the Applicant's HRA Stage 2: Appropriate Assessment in the HRA Report (Document reference 5.5, Version 02) concludes that taking into account the small numbers of SAC bats likely to be affected by the DCO Scheme and the proposed mitigation measures outlined above, there will be no adverse effects on the integrity of the North Somerset and Mendip Bats SAC either alone or in combination with other plans.	Agreed

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#### 5.4 Summary of HRA Report Stages 1 and 2 conclusions

Table 5.4 below contains a summary of the conclusions of the HRA Report Stages 1 and 2 on the European sites identified in the screening process and the measures proposed to avoid or reduce adverse effects identified in the assessment.

**Table 5.4 Summary of HRA Report Stages 1 and 2 conclusions**

Summary of HRA conclusions	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.4.1 HRA Screening	Natural England agrees with the two sites European sites identified as having potential for LSE.	There are two European sites with potential for LSE: the Avon Gorge Woodlands SAC and the North Somerset and Mendip Bats SAC.	Agreed
5.4.2 Avon Gorge Woodlands SAC	Natural England agrees with the Applicant's assessment of the impact of the DCO Scheme on the Avon Gorge Woodlands SAC.	While the effects of the DCO Scheme on the Avon Gorge Woodlands SAC have been minimised as far as possible, there will be some loss of SAC woodland and grassland habitats which cannot be fully mitigated. It therefore cannot be ascertained that the DCO Scheme will not adversely affect the integrity of the Avon Gorge Woodlands SAC.	Agreed

Summary of HRA conclusions	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
5.4.3 North Somerset and Mendip Bats SAC	Natural England agrees with the Applicant's assessment of the impact of the DCO Scheme on the North Somerset and Mendip Bats SAC.	An adverse effect on the integrity of the North Somerset and Mendip Bats SAC can be avoided through the proposed mitigation measures.	Agreed

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**6. Habitats Regulations: Compensatory Measures for the Avon Gorge Woodlands SAC**

- 6.1 The design of the DCO Scheme has been developed to minimise habitat loss and other adverse impacts on European sites. However, despite the protective measures proposed to avoid adverse effects on the Avon Gorge Woodlands SAC, there will be loss of SAC qualifying woodland and grassland features that cannot be fully mitigated. These losses include 0.73ha of *Tilio-Acerion* woodland, 0.06ha of *Festuco-Brometalia* grassland and the removal or coppicing of up to 27 rare whitebeam trees which are a key species of the SAC qualifying woodland habitat. As a result of these unavoidable losses, it cannot be ascertained that the DCO Scheme will not adversely affect the integrity of the Avon Gorge Woodlands SAC.
- 6.2 Under the Habitats Regulations, where an appropriate assessment concludes that adverse effects on the integrity of a European site cannot be avoided, and the competent authority is satisfied that there are no alternative solutions, the scheme can only be approved where there are imperative reasons of over-riding public interest (IROPI) and necessary compensation measures have been secured.
- 6.3 The table below outlines the compensation measures proposed for the Avon Gorge Woodlands SAC that are to be considered if the Secretary of State concludes that there are no alternative solutions and the IROPI test has been satisfied. A list of the compensatory measures proposed to compensate for unavoidable impacts of the DCO Scheme on the Avon Gorge Woodlands SAC is set out in the Appendix Table A3 to this document.

**Table 6.1 Compensatory measures for the Avon Gorge Woodlands SAC**

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
<p>6.1.1 Compensation strategy (general approach to compensation)</p>	<p>Natural England considers that the Applicant is taking a thorough approach to considering a suitable package of compensation measures.</p> <p>While all options considered can provide ecological benefit Natural England has also advised that the compensation strategy should be guided by the need to clearly distinguish compensation measures from improvements to ongoing management of the SAC that Network Rail is obliged to carry out. Improvements within the SAC should also avoid harm to existing features of the SAC/SSSI. As such Natural England considers that the strategy should prioritise improvements off-site on FC land, supplemented by</p>	<p>The focus of the compensation proposals will be a combination of the following:</p> <ul style="list-style-type: none"> <li>• improvement of areas of existing qualifying habitat through positive management on Network Rail land within the Avon Gorge Woodlands SAC;</li> <li>• improvement of areas of existing qualifying woodland habitat through positive management on Forestry Commission land within the Avon Gorge Woodlands SAC; and</li> <li>• improvement of woodland habitat through positive management on Forestry Commission land adjacent to the Avon Gorge Woodlands SAC.</li> </ul> <p>The compensation proposals on land within Network Rail's ownership will be additional to the contribution to the Natura 2000 network that Network Rail should already be making under the EU Habitats Directive.</p>	<p>Agreed</p>

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	<p>improvements with the SAC where that can be shown to be appropriate in terms of application of the Habitats Directive and the conservation objectives of the SAC.</p>		
<p>6.1.2 Approach to adaptive compensation</p>	<p>Natural England accepts that the adaptive approach being proposed by the Applicant to the provision of compensation measures. Some details of the package of measures are yet to be finalised but the inclusion of the off-site measures provides confidence that the legal and ecological requirements can be met.</p>	<p>The AGVMP (Document reference 8.12, Version 02) proposes the provision of a larger number of sites and areas of land than are required as compensation through positive management, from which will be selected sufficient sites and areas to meet the requirements of compensation arising in respect of the DCO Scheme.</p> <p>The Applicant's approach to compensation is intended to allow an 'adaptive approach', enabling the Applicant to evaluate the agreed compensation site options in combination with compensation measures to be provided by Network Rail through the SMS and VMP, and to deliver a package of compensation measures that it considers will best compensate for the predicted harm to the Avon</p>	<p>Agreed</p>



Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		Gorge Woodlands SAC, in the light of prevailing circumstances.	
6.1.3 Proposed compensation package (summary)	While Natural England is broadly content that the proposed compensation measures are proportionate and effective in ecological terms, it has highlighted legal and ecological risks associated with some of the measures proposed on Network Rail land and so welcomes the Applicant's development of Package 2 whitebeam planting and off-site compensation measures on Forestry Commission land as an alternative to some of the compensation measures proposed on Network Rail land.	<p>The proposed package of compensatory measures includes 1.6 ha of positive management on Network Rail land (for woodland and grassland), whitebeam planting sites on Network Rail and Forestry Commission land (see paras 6.1.5-6.1.7 below) as well as positive management of woodland habitat on Forestry Commission land outside of the Avon Gorge Woodlands SAC, as an alternative to the areas identified for positive management of woodland habitat on Network Rail land.</p> <p>Summary of proposed compensation measures:</p> <ul style="list-style-type: none"> <li>• Grassland compensation (0.15ha): on Network Rail land</li> <li>• Woodland compensation (1.45ha): on Network Rail land or Forestry Commission land</li> <li>• Whitebeam compensation: Whitebeam Planting Package 1 (on Network Rail land)</li> </ul>	The proposed compensation measures are all agreed apart from Whitebeam Planting Package 1 and the alternative positive management of woodland habitat on Network Rail land.

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		or Whitebeam Planting Package 2 (on Network Rail land and Forestry Commission land) - see paras 6.1.5 – 6.1.7 below.	
6.1.4 Proposed compensatory measures in respect of whitebeam: 2:1 ratio	Natural England agrees that the planting of replacement whitebeam saplings is a compensatory measure and that replacing lost whitebeam trees on a 2 for 1 ratio basis is appropriate.	<p>In order to compensate for the loss of rare whitebeam trees, it is proposed to plant new saplings at a replacement ratio of 2:1 in suitable, agreed locations. Saplings will be planted in an approximate ratio of 2:1 to allow for some that fail after planting. In total, it is proposed to plant up to 54 whitebeam saplings to compensate for those removed.</p> <p>The programme of whitebeam conservation is explained in Annex H of the AGVMP (Document reference 8.12, Version 02)</p>	Agreed
6.1.5 Proposed compensatory measures in respect of whitebeam: selection of sites for re-planting whitebeam	Natural England is satisfied with the whitebeam planting proposed in Whitebeam Planting Package 2 but has concerns over the suitability of	The original proposals for whitebeam planting were submitted as part of the DCO application (Appendix 9.11 AGVMP, Document Reference 8.12 Version 01). Following consultation with Natural England and a further site visit, the whitebeam	Whitebeam Planting Package 2 has been agreed but Whitebeam

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	two of the sites in Whitebeam Planting Package 1: Miles Dock Embankment and Nightingale Valley 1a.	planting proposals are now presented as two alternative packages – Whitebeam Planting Package 1 and Whitebeam Planting Package 2 only one of which will be progressed by the Applicant. Both packages are described in detail in a new version of Annex H of the AGVMP (Document Reference 8.12, Version 02) Whitebeam Planting Packages 1 and 2 are summarised separately in sections 6.1.6 and 6.1.7 below.	Planting Package 1 is not yet agreed
6.1.6 Proposed compensatory measures in respect of whitebeam sites: Whitebeam Planting Package 1	Natural England has confirmed that the sites at Nightingale Valley 1b and above Clifton Bridge No. 2 Tunnel are acceptable planting sites for whitebeam (subject to further removal of scrub at the Clifton Bridge No. 2 Tunnel site) but has concerns over the suitability of Miles Dock Embankment and	Whitebeam Planting Package 1 comprises the planting sites on Network Rail land within the SAC proposed when the DCO was first submitted, with subsequent minor modifications to the Clifton Bridge No. 2 Tunnel site, all detailed in Annex H of the AGVMP (Document reference 8.12, Version 02). The Package will involve planting new whitebeams at the following sites: <ul style="list-style-type: none"> <li>• Nightingale Valley (sites 1a and 1b)</li> </ul>	Not yet agreed

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	<p>Nightingale Valley 1a as planting sites Natural England is satisfied that the SAC qualifying features at the Miles Dock Embankment and Nightingale Valley 1a sites will not be adversely affected but has concerns regarding the potential impact of whitebeam planting on SSSI features within these two planting sites.</p>	<ul style="list-style-type: none"> <li>• Miles Dock Embankment</li> <li>• Clifton Bridge No.2 Tunnel</li> </ul> <p>The Applicant considers that Package 1 can deliver compensation that will meet the legal requirements.</p>	
<p>6.1.7 Proposed compensatory measures in respect of whitebeam: Whitebeam Planting Package 2</p>	<p>Natural England is satisfied that Whitebeam Planting Package 2 can deliver compensation that will meet the relevant legal requirements and considers that Whitebeam Planting Package 2 is capable of delivering greater ecological benefits than Whitebeam Planting Package 1.</p>	<p>Whitebeam Planting Package 2 involves the planting whitebeam on a new planting site on Forestry Commission land within the SAC and excludes two of the Network Rail sites in Whitebeam Planting Package 1: Nightingale Valley Site 1a and the Miles Dock Embankment (AGVMP, DCO Document Reference 8.12 Version 02). In Whitebeam Planting Package 2, new whitebeam would be planted at the following sites:</p> <ul style="list-style-type: none"> <li>• Nightingale Valley (site 1b only)</li> </ul>	<p>Agreed</p>

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<ul style="list-style-type: none"> <li>• Clifton Bridge No. 2 Tunnel</li> <li>• Red oak plantation site on Forestry Commission land.</li> </ul> <p>The Applicant will seek to deliver Whitebeam Planting Package 2, if possible.</p>	
6.1.8 Proposed compensation for loss of <i>Tilio-Acerion</i> Woodland	<p>Natural England has advised that the Applicant should carefully consider whether proposed positive habitat management measures within the SAC are over and above that which Network Rail is already legally obliged to carry out under 'normal practice'. Article 6(1) conservation measures are considered to be those detailed in Natural England's SAC Site Improvement Plan for the Avon Gorge Woodlands SAC (January 2015) together with the supplementary advice and, as it develops, Network Rail's SMS</p>	<p>The proposed compensation measures involve either positive management and improvement of the condition of the existing <i>Tilio-Acerion</i> woodland on Network Rail land within the Avon Gorge Woodlands SAC or positive management and improvement of woodland habitat on adjacent Forestry Commission land outside the SAC.</p> <p>These proposals are contained in the AGVMP (Document reference 8.12, Version 02). The total area of positive management of woodland habitat is estimated at 1.45ha which is more than double the area of lost <i>Tilio-Acerion</i> Woodland (0.73ha). The proposals focus on selective vegetation clearance to benefit rare whitebeam trees and woodland ground flora by reducing competition</p>	<p>Not yet agreed. Natural England has concerns about how it will be demonstrated that the positive management of woodland habitat on Network Rail land will be over and above the conservation measures that Network Rail is legally obliged to carry out under 'normal practice' (if it is decided to proceed with the Network Rail land option).</p>

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
	<p>and Vegetation Management Plan. The Applicant's Article 6(4) measures should go over and beyond the Article 6(1) measures. The positive management on Forestry Commission land would demonstrate this more clearly as it is outside the SAC.</p>	<p>and shade from other plants particularly non-native species. The measures include:</p> <ul style="list-style-type: none"> <li>• Coppicing of non-whitebeam species and crown-lifting in semi-natural ancient woodland</li> <li>• Clearance of ivy and bramble from secondary woodland habitat</li> <li>• Felling of non-native species including sycamore in secondary woodland</li> <li>• Vegetation clearance around whitebeam trees, particularly invasive non-native species</li> </ul> <p>The Applicant agrees that the proposed positive habitat management measures should be in addition to the conservation measures that are existing obligations of Network Rail under the Habitats Directive.</p> <p>An adaptive approach has been proposed by the Applicant to include the possibility of undertaking positive management on Forestry Commission land outside of the Avon Gorge Woodlands SAC, as an</p>	

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>alternative to areas identified on Network Rail land. This approach would allow the Applicant to put forward for Natural England's approval whichever of the identified positive habitat management areas it would be most favourable to progress as part of the DCO Scheme, in light of prevailing circumstances. The Applicant is progressing discussions with the Forestry Commission about possible positive habitat management in currently undesignated woodland adjacent to the SAC.</p>	
<p>6.1.9 Proposed compensation for loss of <i>Festuco-Brometalia</i> Grassland</p>	<p>Need to ensure protection and management of rare species on cliff faces affected by the DCO Scheme.</p>	<p>There will be an overall loss of 0.06ha of SAC qualifying grassland primarily at Quarry Bridge No. 2 as a result of construction activities in this area and also as a result of geo-technical work on rock faces Other grassland losses are as a result of fencing, telecommunications masts and local re-build of retaining walls. The compensation proposed to offset these losses consists of measures to improve the condition of existing areas of SAC qualifying grassland on Network Rail land. The proposals for positive management of the existing <i>Festuco-Brometalia</i> grassland are</p>	<p>Agreed</p>

Compensatory measures for the Avon Gorge Woodlands SAC	Natural England's position	Applicant's position	Status (Agreed/ Not Agreed)
		<p>contained in Annex G of the AGVMP (Document reference 8.12, Version 02).</p> <p>The total area of positive management within the SAC grassland habitat will be 0.15ha, which is more than double the area of SAC grassland that is to be lost. The proposed positive management measures focus on scrub control and the removal of non-native species including cotoneaster and holm oak.</p>	
6.1.10 Bristol rock-cress strategy and management of other rare species	Need to ensure protection and management of rare species on cliff faces affected by the DCO Scheme.	<p>The proposed Bristol rock-cress conservation strategy is contained in Annex K of the AGVMP (Document reference 8.12, Version 02). Compensatory measures in the strategy include the propagation of new plants from collected seed for subsequent planting in suitable habitat. Following completion of the geotechnical works, Bristol rock-cress will be planted out with a replacement ratio of 2:1</p>	Agreed



## 7. Other matters relevant to Natural England

### 7.1 Non- HRA matters raised by Natural England

The following Table 7.1 sets out the different topics and areas of agreement between Natural England and the Applicant in relation to a number of ecology and biodiversity issues other than HRA matters, such as the Avon Gorge SSSI and protected species.

**Table 7.1 Non- HRA matters raised by Natural England**

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
7.1.1 Avon Gorge SSSI	<p>Relevant consents/assents will be needed for any operation likely to affect the Avon Gorge SSSI. Full details of the works, including any access arrangements, will be required. Careful consideration needed to ensure no damage to the designated site.</p> <p>Natural England considers that the works to the Quarry Underbridge could result in permanent damage to the features of the SSSI.</p>	<p>The necessary consents/assents for working on SSSI land will be sought from Natural England under section 28 of the Wildlife and Countryside Act 1981. The Applicant has worked closely with Natural England to establish the effects of the DCO Scheme on the SSSI and agree the proposed mitigation measures. Full details of the works proposed to the SSSI are included in the ES Chapter 4 (Document reference 6.25) and in the Construction Strategy. (Document reference 5.4). The notable plant species in the SSSI</p>	<p>Proposed mitigation measures agreed.</p>

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>are detailed in the Flora Survey, ES Appendix 9.10 (Document reference 6.25) and consideration of the potential impacts on plants and woodland is provided in the ES Chapter 9 (Document reference 6.12, Version 02). Consideration of the potential impacts on the geological interest of the Avon Gorge SSSI is provided in the ES Chapter 10 (Document reference 6.13). Proposed mitigation and compensation measures in respect of the SSSI are contained within the AGVMP (Document reference 8.12, Version 02) and the Schedule of Mitigation (Document reference 6.31, Version 02)</p>	
<p>7.1.2 Protected species licensing: bats and badgers</p>	<p>Natural England has issued Letters of No Impediment ("LONI") for bats and badgers.</p>	<p>The Applicant has sought LONIs to provide reassurance on the likely need for protected species licences for bats and badgers.</p>	<p>Agreed</p>

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>The Applicant is preparing updated licence applications to inform the examination.</p> <p>The Applicant intends to carry out the following works in relation to bat roosts:</p> <ol style="list-style-type: none"> <li>1. Retain bat roost features at summer and hibernation roost sites where possible. If it is not possible to retain roost features, the Applicant intends to install artificial bat roosts in trees close to Sheepway Bridge, Portbury Dock Road Bridge, Clifton Bridge No. 1 Tunnel, Clifton Bridge No. 2 Tunnel and Sandstone Tunnel.</li> <li>2. Install five artificial bat hibernation roosts on mature trees near the three tunnels through the Avon Gorge to compensate for potential</li> </ol>	

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>disturbance of crevice-dwelling bats from the tunnels.</p> <p>3. Install a grille at the entrance to The Adit (Cave 7) near Rownham Hill to reduce human disturbance to bats occupying this feature.</p> <p>4. Retain the small structure (derelict store) to the west of Station Road, Sheepway, currently used by horseshoe bats.</p> <p>5. Undertake pre-construction bat surveys of tunnels and exclude bats from the tunnels prior to the start of works through capture and release, one-way crevice exclusion devices and deter roosting by lighting; protect bats that cannot be excluded from tunnel roosts.</p>	

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
<p>7.1.3 Protected species licensing: Great Crested Newts ("GCN")</p>	<p>Further information is needed to support a LONI (and a licence application) for GCN. Natural England does not believe there is a significant barrier to reaching a favourable outcome for GCN.</p> <p>Natural England is considering further information provided by the Applicant prior to issuing a LONI for GCN.</p> <p>Simultaneously, Natural England has been considering an application by the Applicant for a district level licence (DLL) and has recently requested some further information from the Applicant.</p>	<p>Requirement 34 of the DCO makes provision for consultation with Natural England on how GCNs are to be protected. In essence, GCN compensation habitat must be constructed in accordance with designs and sitings approved by Natural England unless Natural England confirms that this is not required.</p> <p>Following the introduction of district level licensing for GCNs, the Applicant proposes to make an application for a DLL to mitigate the impact of the DCO Scheme on GCN and has submitted an enquiry form to Natural England for this. The Applicant is progressing discussions with Natural England following submission of the enquiry form and Natural England's request for additional information. As district level licensing will operate so as to better protect</p>	<p>Agreed subject to the issue of the DLL. Engagement is ongoing and both parties anticipate a favourable outcome.</p>

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>GCN populations through developer contributions to create strategic favourable compensatory habitats offsite of development, its use for the DCO Scheme will mean that the site specific GCN compensatory habitat identified in Chapter 9 of the ES (Document reference 6.12, Version 02) will no longer be required. Instead, following the grant of the DCO and the approval by Natural England of the Applicant's district licence application, the Applicant will be required to make a conservation payment under a scheme agreement and await issue of its district level licence before starting work.</p> <p>Pending introduction of the district level licensing for GCN and in advance of the determination of the DCO application, to ensure that GCN habitat is available prior to</p>	

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>construction commencing the Applicant has constructed one of the ponds to be used as GCN compensation habitat. This pond is proposed to form part of the compensation habitat to be taken into account in calculating the amount of the conservation payment for the Applicant's district licence.</p>	
<p>7.1.4 Protected species licensing: Schedule 8 wild plants</p>	<p>A draft licence application has not yet been submitted in respect of the removal of protected wild plants listed in Schedule 8 of the Wildlife and Countryside Act (WCA) 1981. However, Natural England is not aware of any reason why a LONI for Schedule 8 wild plants could not be provided if sufficient information is provided by the Applicant as part of a draft licence application.</p>	<p>The Applicant intends to apply for a licence where the removal of Bristol rock-cress (a protected wild plant listed in Schedule 8 of the WCA) is necessary. Further details of the potential removal of Bristol rock-cress are contained in the AGVMP (Document reference 8.12, Version 02).</p>	<p>Agreed</p>

Non-HRA matters	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
7.1.5 Other biodiversity interests	Natural England is satisfied that wider biodiversity interests have been assessed thoroughly and suitable measures included to avoid or reduce impacts that have been identified in the environmental statement.	Consideration of the potential impacts of the DCO Scheme on ecology and biodiversity is provided in the ES Chapter 9 (Document reference 6.12, Version 02). Proposed mitigation measures to address impacts on biodiversity are contained within the AGVMP (Document reference 8.12, Version 02), the Master CEMP (Document reference 8.14, Version 02) and the Schedule of Mitigation (document reference 6.31, Version 02).	Agreed



## 7.2 Air Quality

The following Table 7.2 sets out the position of the Applicant and Natural England in relation to the impacts of the DCO Scheme on air quality within the Avon Gorge Woodlands SAC.

**Table 7.2 Air Quality**

Air quality	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
To be completed			

### 7.3 Water Quality

The following Table 7.3 sets out the position of the Applicant and Natural England in relation to the impacts of the DCO Scheme on water quality within the Avon Gorge Woodlands SAC.

**Table 7.3 Water Quality**

Water quality	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
To be completed			

## 7.4 Landscape

The following Table 7.4 sets out the position of the Applicant and Natural England in relation to the impacts of the DCO Scheme on landscape within the Avon Gorge Woodlands SAC.

**Table 7.4 Landscape**

Landscape	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
To be completed			

## 8. Draft DCO Requirements relating to Ecology and Biodiversity

8.1 Table 8.1 below sets out a summary of the relevant requirements in the draft DCO relating to ecology and biodiversity where the subsequent approval of the local planning authority will be required. The following requirements provide that approvals shall be obtained from the relevant planning authority in consultation with Natural England:

- i. Requirement 14 (Avon Gorge Woodlands SAC)
- ii. Requirement 28 (Operational lighting – Pill Station)
- iii. Requirement 34 (Ponds)

The requirements summarised in Table 8.1 are set out in full in Appendix 2.

8.2 In the case of Requirement 34, it has been agreed with the local planning authorities that there is additional benefit in building flexibility into this requirement. Requirement 34 contains 'tail piece' wording which allows for an agreement to be reached between the Applicant, the local planning authority and Natural England whereby the ponds in Work Nos. 10C, 12B and 16B do not have to be constructed if they are no longer required.

**Table 8.1 : List of Ecology and Biodiversity Requirements in the draft DCO**

Draft DCO Requirements	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
<p>Requirement 5</p> <p>Construction Environmental Management Plan ("CEMP")</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>Stage-specific CEMPs to be approved by the relevant planning authority, prior to commencement of each stage of the authorised development.</p>	<p>Agreed in principle</p>
<p>Requirement 6</p> <p>Landscaping scheme – disused railway</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>Written landscaping scheme for Work Nos. 1 and 1A to be submitted for approval by the relevant planning authority prior to commencement of those works. Scheme to include details of measures to limit the impact of the authorised development on the important hedgerow between Work Nos. 1A and 17.</p>	<p>Agreed in principle</p>
<p>Requirement 14</p> <p>Avon Gorge Woodlands SAC</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>The authorised development must be carried out in accordance with the AGVMP.</p> <p>Details of works including foot accesses and steps; GSMR masts,</p>	<p>Agreed in principle</p>

Draft DCO Requirements	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>antennae and signal equipment; catch fences; works to retaining walls; rock stabilisation works; fencing works and temporary construction compounds to be approved by the relevant planning authority in consultation with Natural England before these works are commenced.</p> <p>Mitigation and compensation works required by the AGVMP within the Order limits to be maintained as approved by the relevant planning authority in consultation with Natural England following first commercial use for the periods specified in the AGVMP.</p> <p>Monitoring reports to be provided to the relevant planning authority and Natural England within 12 months following first commercial</p>	

Draft DCO Requirements	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		use and in accordance with the AGVMP thereafter.	
<p>Requirement 24</p> <p>For the protection of bats</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>The proposed tree planting on the A369 Portbury Hundred to be approved by the relevant planning authority in consultation with the relevant highway authority before the commencement of Works Nos. 1, 1A, 1B, and 1C. the required planting to be maintained for 5 years following completion.</p> <p>Five artificial bat roosts and a grille at the entrance to Adit Cave 7 to be installed to the satisfaction of the relevant planning authority prior to the commencement of the authorised development in the Avon Gorge Woodlands SAC.</p>	<p>Agreed in principle</p>
<p>Requirement 28</p> <p>Operational lighting – Pill Station</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>Written details of the permanent lighting to be installed in connection with Work No. 22 (Pill Station), the measures to minimise</p>	<p>Agreed in principle</p>

Draft DCO Requirements	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		<p>light spillage in connect with Work No. 22 and the works to minimise light spill into the arches of the former stepped access to the northern platform to be approved by the relevant planning authority in consultation with Natural England, prior to the commencement of Work No. 22</p> <p>Submitted details to demonstrate that the lighting levels on the northern platform of Pill Station will not exceed 0.5 lux as a result of the permanent lighting proposed and the provision of lighting screens to restrict light spill. Approved works to be maintained for 10 years.</p>	
<p>Requirement 32</p> <p>New bridleway east of M5 Avonmouth Bridge</p>	<p>Natural England is satisfied with this requirement in principle</p>	<p>The siting, design, landscaping and method of construction of the proposed bridleway east of M5 Avonmouth Bridge to be approved by the relevant planning authority,</p>	<p>Agreed in principle</p>



Draft DCO Requirements	Natural England position	Applicant position	Status (Agreed/ Not Agreed)
		prior to the commencement of Work No. 18.	
Requirement 34  Ponds	Natural England is satisfied with this requirement in principle	<p>The siting, design, and method of construction of the ponds in Work Nos. 10C, 12B and 16B to be approved by the relevant planning authority in consultation with Natural England, prior to the commencement of Work Nos. 10C, 12B and 16B.</p> <p>The relevant Work must thereafter be carried out in accordance with the approved details to the reasonable satisfaction of the relevant planning authority unless the relevant planning authority in consultation with Natural England confirms in writing that the proposed Work is no longer required.</p>	Agreed in principle

## 9. Conclusion and Summary of Outstanding Matters

This Statement of Common Ground records that the following matters have been agreed between the Applicant and Natural England:

- i. The only European sites that may be affected by the DCO Scheme are the Avon Gorge Woodlands SAC and the North Somerset and Mendip Bats SAC.
- ii. The LSEs of the DCO Scheme on the Avon Gorge Woodlands SAC and the North Somerset and Mendip Bats SAC are agreed.
- iii. The mitigation measures proposed in respect of North Somerset and Mendip Bats SAC will avoid an adverse impact on the integrity of this SAC.
- iv. While the mitigation measures proposed in respect of the Avon Gorge Woodlands SAC will reduce the effects of the DCO Scheme on the SAC, it cannot be ascertained that the DCO Scheme will not adversely affect the integrity of the Avon Gorge Woodlands SAC owing to losses of qualifying grassland and woodland.
- v. The general compensation strategy and 'adaptive' approach to compensation in respect of qualifying woodland in the Avon Gorge Woodlands SAC are agreed.
- vi. LONIs have been issued by Natural England in respect of licences for bats and badgers on the DCO site.
- vii. There not believed to be any significant barriers to prevent Natural England supporting a LONI (and a licence application) or District Level Licensing for GCN.
- viii. The general impact on wider biodiversity and landscape are agreed and the mitigation measures proposed to address these impacts are agreed to be suitable.

Table 9.1 below contains a summary of the matters that remain outstanding.

### Table 9.1 Summary of outstanding matters

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
<p>9.1.1 Proposed compensation package for Avon Gorge Woodlands SAC (summary) (repeat of para 6.1.3 above)</p>	<p>While Natural England is broadly content that the proposed compensation measures are proportionate and effective in ecological terms, it has highlighted legal and ecological risks associated with some of the measures proposed on Network Rail land and so welcomes the Applicant’s development of Package 2 whitebeam planting and off-site compensation measures on Forestry Commission land as an alternative to some of the compensation measures proposed on Network Rail land.</p>	<p>The proposed package of compensatory measures includes 1.6 ha of positive management on Network Rail land (for woodland and grassland), whitebeam planting sites on Network Rail and Forestry Commission land (see paras 6.1.5-6.1.7 above) as well as positive management of woodland habitat on Forestry Commission land outside of the Avon Gorge Woodlands SAC, as an alternative to the areas identified for positive management of woodland habitat on Network Rail land.</p> <p>Summary of proposed compensation measures:</p> <ul style="list-style-type: none"> <li>• Grassland compensation (0.15ha): on Network Rail land</li> <li>• Woodland compensation (1.45ha): on Network Rail land or Forestry Commission land</li> </ul>	<p>The proposed compensation measures are all agreed apart from Whitebeam Planting Package 1 and the alternative positive management of woodland habitat on Network Rail land.</p>

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
		<ul style="list-style-type: none"> <li>Whitebeam compensation: Whitebeam Planting Package 1 (on Network Rail land) or Whitebeam Planting Package 2 (on Network Rail land and Forestry Commission land) - see paras 6.1.5 – 6.1.7 above.</li> </ul>	
<p>9.1.2 Proposed compensatory measures in respect of whitebeam: selection of sites for re-planting whitebeam (repeat of para 6.1.5 above).</p>	<p>Natural England is satisfied with the whitebeam planting proposed in Whitebeam Planting Package 2 but has concerns over the suitability of two of the sites in Whitebeam Planting Package 1: Miles Dock Embankment and Nightingale Valley 1a.</p>	<p>The original proposals for whitebeam planting were submitted as part of the DCO application (Appendix 9.11 AGVMP, Document Reference 8.12 Version 01). Following consultation with Natural England and a further site visit, the whitebeam planting proposals are now presented as two alternative packages – Whitebeam Planting Package 1 and Whitebeam Planting Package 2; only one of which will be progressed by the Applicant. Both packages are described in detail in a new version of Annex H of the AGVMP (Document Reference</p>	<p>Whitebeam Planting Package 2 has been agreed but Whitebeam Planting Package 1 is not yet agreed.</p>

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
		8.12, Version 02). Whitebeam Planting Packages 1 and 2 are summarised separately in sections 6.1.6 and 6.1.7 above.	
9.1.3 Proposed compensatory measures in respect of whitebeam: Whitebeam Planting Package 1 (repeat of para 6.1.6 above)	Natural England has confirmed that the sites at Nightingale Valley 1b and above Clifton Bridge No. 2 Tunnel are acceptable planting sites for whitebeam (subject to further removal of scrub at the Clifton Bridge No. 2 Tunnel site) but has concerns over the suitability of Miles Dock Embankment and Nightingale Valley 1a as planting sites. Natural England is satisfied that the SAC qualifying features at the Miles Dock Embankment and Nightingale Valley 1a sites will not be adversely affected but has concerns regarding the potential impact of whitebeam planting on SSSI features within these two planting sites.	Whitebeam Planting Package 1 comprises the planting sites on Network Rail land within the SAC proposed when the DCO was first submitted, with subsequent minor modifications to the Clifton Bridge No. 2 Tunnel site, all detailed in Annex H of the AGVMP (Document reference 8.12, Version 02) . The Package will involve planting new whitebeams at the following sites: <ul style="list-style-type: none"> <li>• Nightingale Valley (sites 1a and 1b)</li> <li>• Miles Dock Embankment</li> <li>• Clifton Bridge No.2 Tunnel</li> </ul> The Applicant considers that Package 1 can deliver compensation that will meet the legal requirements.	Not yet agreed
9.1.4 Proposed compensation for loss of	Natural England has advised that the Applicant should	The proposed compensation measures involve either positive	Not yet agreed. Natural England has concerns about how it will be

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
<p><i>Tilio-Acerion</i> Woodland (repeat of para 6.1.8 above)</p>	<p>carefully consider whether proposed positive habitat management measures within the SAC are over and above that which Network Rail is already legally obliged to carry out under 'normal practice'. Article 6(1) conservation measures are considered to be those detailed in Natural England's SAC Site Improvement Plan for the Avon Gorge Woodlands SAC (January 2015) together with the supplementary advice and, as it develops, Network Rail's SMS and Vegetation Management Plan. The Applicant's Article 6(4) measures should go over and beyond the Article 6(1) measures. The positive management on Forestry Commission land would demonstrate this more clearly as it is outside the SAC.</p>	<p>management and improvement of the condition of the existing <i>Tilio-Acerion</i> woodland on Network Rail land within the Avon Gorge Woodlands SAC or positive management and improvement of woodland habitat on adjacent Forestry Commission land outside the SAC.</p> <p>These proposals are contained in the AGVMP (Document reference 8.12, Version 02). The total area of positive management of woodland habitat is estimated at 1.45ha which is more than double the area of lost <i>Tilio-Acerion</i> Woodland (0.73ha).</p> <p>The proposals focus on selective vegetation clearance to benefit rare whitebeam trees and woodland ground flora by reducing competition and shade from other plants particularly non-native species. The measures include:</p> <ul style="list-style-type: none"> <li>• Coppicing of non-whitebeam species and</li> </ul>	<p>demonstrated that the positive management of woodland habitat on Network Rail land will be over and above the conservation measures that Network Rail is legally obliged to carry out under 'normal practice' (if it is decided to proceed with the Network Rail land option).</p>

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
		<p>crown-lifting in semi-natural ancient woodland</p> <ul style="list-style-type: none"> <li>• Clearance of ivy and bramble from secondary woodland habitat</li> <li>• Felling of non-native species including sycamore in secondary woodland</li> <li>• Vegetation clearance around whitebeam trees, particularly invasive non-native species</li> </ul> <p>The Applicant agrees that the proposed positive habitat management measures should be in addition to the conservation measures that are existing obligations of Network Rail under the Habitats Directive.</p> <p>An adaptive approach has been proposed by the Applicant to include the possibility of undertaking positive management on Forestry Commission land outside of the Avon Gorge Woodlands SAC, as an alternative</p>	

Topic	Natural England Position	Applicant Position	Status (Agreed/ Not Agreed)
		<p>to areas identified on Network Rail land. This approach would allow the Applicant to put forward for Natural England's approval whichever of the identified positive habitat management areas it would be most favourable to progress as part of the DCO Scheme, in light of prevailing circumstances. The Applicant is progressing discussions with the Forestry Commission about possible positive habitat management in currently undesignated woodland adjacent to the SAC.</p>	



**10 Agreement on this Statement of Common Ground**

This Statement of Common Ground has been jointly prepared and agreed by:

<b>Natural England</b>
<i>Name:</i>
<i>Signature:</i>
<i>Position:</i>
<i>On behalf of:</i>
<i>Date:</i>

<b>The Applicant</b>
<i>Name:</i>
<i>Signature:</i>
<i>Position:</i>
<i>On behalf of:</i>
<i>Date:</i>

## Appendix 1 - Summary of HRA mitigation and compensation measures

**Table A1: Mitigation measures in respect of the Avon Gorge Woodlands SAC**

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p><u>A1.1 Avon Gorge Vegetation Management Plan</u></p> <p>Implement the Avon Gorge Vegetation Management Plan, which includes a range of measures to reduce and avoid impacts on vegetation as set out at A1.1.1 – A1.1.8 below.</p>	<p>Potential impact on the Avon Gorge Woodlands SAC, including rare woodland and grassland habitats protected under the SAC designation and rare flora, including species of endemic whitebeam.</p> <p>The specific impacts that the DCO Scheme is predicted to have on the Avon Gorge Woodlands SAC are identified and detailed in Annex D of the HRA Report (Document reference 5.5, Version 02).</p>	<p>DCO Requirement 5 (CEMP)</p> <p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p> <p>The Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-4, paragraph 6.2.19) (Document reference 8.14, Version 02).</p> <p>Avon Gorge Vegetation Management Plan (Document reference 8.12, Version 02).</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
A1.1.1 Measures to treat individual specimens of rare whitebeam to avoid removal, coppicing or pruning;	Potential habitat loss and habitat degradation.	
A1.1.2 Ecological watching brief during construction and protective fencing of retained vegetation;	Potential habitat loss and habitat degradation.	
A1.1.3 The presence on site of an EcCoW	Potential habitat loss and habitat degradation.	
A1.1.4 Site briefings and supervised vegetation clearance	Potential habitat loss and habitat degradation.	
A1.1.5 Site-specific measures such as signage and fencing to avoid damage to sensitive features	Potential habitat loss and habitat degradation.	
A1.1.6 A consistent method of demarcation to minimise damage to important and notable ecological features	Potential habitat loss and habitat degradation.	
A1.1.7 Management of arisings to prevent enriched soil and weed growth	Potential habitat degradation.	

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p>A1.1.8 Biosecurity measures to reduce the spread of non-native and invasive plants.</p>	<p>Potential habitat degradation.</p>	
<p><u>A1.2. Vegetation retention (reduction in fencing)</u></p> <p>There is scope to reduce impacts on vegetation further, for example by reducing the amount of fencing required, which will be considered during detailed design.</p>	<p>Potential habitat loss in the Avon Gorge Woodlands SAC, including impact on rare woodland and grassland habitats protected under the SAC designation and rare flora, including species of endemic whitebeam.</p>	<p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p>
<p><u>A1.3. Conservation of rare plants</u></p> <p><i>Bristol rock-cress</i>. Reduce the impact of geotechnical stabilisation works on the cliff faces by avoiding individual plants where possible during the works. collecting seed and growing on plants and translocating individual plants and seed.</p> <p>Implement management recommendations for rare plants detailed in the Avon Gorge Vegetation Management Plan including a conservation strategy for <i>Bristol rock-cress</i> and an ecological watching brief by a specialist botanist during construction works.</p>	<p>Potential habitat loss of rare plant species within the Avon Gorge Woodlands SAC.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p> <p>The Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-4, paragraph 6.2.19, page 6-20, para 6.4.4) (Document reference 8.14, Version 02).</p> <p>The <i>Bristol rock-cress</i> conservation strategy within the Avon Gorge Vegetation Management Plan (Document reference 8.12, Version 02).</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p><u>A1.4 Control of Invasive Species</u></p> <p>The spread of non-native and invasive plants will be avoided during construction through identification of these species by the EcCoW, tool box talks to make contractors aware of their presence and threat. Careful planning of access and use of biosecurity measures when using equipment and machinery to avoid spread of invasive species.</p>	<p>Potential habitat degradation through the spread of non-native and invasive species in the Avon Gorge Woodlands SAC during construction.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-20, paragraph 6.2.59 and 6.2.63) (Document reference 8.14, Version 02).</p> <p>Avon Gorge Vegetation Management Plan (section 4.1) (Document reference 8.12, Version 02).</p>
<p><u>A1.5 Measures in the CEMP to reduce indirect impacts from dust and air quality, noise and vibration and water pollution.</u></p> <p>The contractor will have regard to the best practice pollution prevention and control requirements in the Master CEMP (DCO Document Reference 8.14, Version 02) relating to dust and air quality, noise and vibration, and protection of the water environment, to protect ecologically important habitats and species adjacent to the construction site. These measures include:</p>	<p>Potential habitat degradation from dust and air quality, noise and vibration caused by construction works in the Avon Gorge Woodlands SAC, including impacts on rare woodland and grassland habitats protected under the SAC designation and rare flora, including species of endemic whitebeam.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-20, paragraph 6.2.59 and 6.2.63) (Document reference 8.14, Version 02).</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<ul style="list-style-type: none"> <li>• Limit, manage or prevent access to areas adjacent to watercourses and water bodies to prevent physical and water quality impacts on them;</li> <li>• Reduce discharges of stormwater and sediment from construction sites and compounds into watercourses and other water features, implemented through a surface water management plan;</li> <li>• Comply with the necessary consents where works are required in or adjacent to watercourses;</li> <li>• Provide appropriate reporting of water pollution incidents; and</li> </ul> <p>Reduce soil exposure areas and see that surfacing or revegetation of bare areas is undertaken as quickly as possible to reduce potential sediment runoff.</p>		
<p><u>A1.6 Mitigation measures at the Quarry Bridge 2 compound</u></p> <p>The proposed mitigation includes the use of limestone hardcore on the ramp and avoiding and protecting rare whitebeam trees by fencing around the construction compound. The underlying grassland vegetation will be protected by use of a geotextile</p>	<p>Potential habitat loss of <i>Festuco-Brometalia</i> grassland in the Avon Gorge Woodlands SAC.</p>	<p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p> <p>Annex C of the Avon Gorge Vegetation Management Plan (Quarry Bridge No.2 Draft Construction methodology) (Document reference 8.12).</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p>membrane or other measures to protect the ground underneath. The boulders at the entrance to the Quarry and log piles will be temporarily relocated during construction outside the indicative compound area.</p>		

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**Table A2: Mitigation measures in respect of the North Somerset and Mendip Bats SAC**

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p><u>A2.1. Railway Landscape Plans</u></p> <p>Implement the Railway Landscape Plans (Disused Line), showing vegetation to be retained, vegetation to be removed, and areas to be replanted. Where possible retain planting at least on one side of the disused line to provide a landscape feature and dark corridor for commuting bats.</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss, following vegetation removal along the disused railway.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>DCO Requirement 6 (Landscaping scheme - disused railway)</p> <p>DCO Requirement 24 (For the protection of bats)</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (paragraphs 6.2.44) (Document reference 8.14, Version 02).</p> <p>Railway Landscape Plans (disused line) (Document reference 2.10).</p> <p>Environmental Masterplan (Document reference 2.53).</p>
<p><u>A2.2. Planting along Portbury Hundred</u></p> <p>Strengthen planting along the A369 Portbury Hundred (and maintain until established) to</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	<p>DCO Requirement 24 (For the protection of bats)</p>



HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p>provide an alternative corridor parallel to and connected with the railway via hedgerows.</p>		<p>Master CEMP, Chapter 6 Ecology and Biodiversity (paragraph 6.2.45) (Document reference 8.14, Version 02).</p> <p>Portbury Hundred Location of Additional Tree Planting (Document reference 2.57)</p>
<p><u>A2.3 Good practice CEMP measures</u></p> <p>Good practice measures in the CEMP to retain and protect existing vegetation along the disused corridor where feasible. If night-time works are required, lighting will be designed, positioned and directed so as not to intrude unnecessarily on bats.</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance, habitat loss, disturbance and killing and/or injury.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (sections 3.2 and 6.2) (Document reference 8.14, Version 02).</p>
<p><u>A2.4 Planting monitoring</u></p> <p>Monitor the planting along the A369 Portbury Hundred annually for the first five years after planting. Replace any plants that die within the monitoring period.</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	<p>DCO Requirement 5 (CEMP)</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (paragraphs 6.4.4) (Document reference 8.14, Version 02).</p>
<p><u>A2.5 M5 Bridleway extension</u></p> <p>Design of the M5 bridleway extension will provide an alternative navigational feature for bats under the M5 motorway. The cycle path will</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	<p>DCO Requirement 32 (New bridleway east of M5 Avonmouth Bridge).</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
<p>go under the M5 at a location similar to the existing route, but re-aligned more to the east, towards the River Avon.</p>		<p>Master CEMP, Chapter 6 Ecology and Biodiversity (paragraph 6.2.43) (Document reference 8.14, Version 02).</p>
<p><u>A2.6 In-combination effects of Royal Portbury Docks</u></p> <p>In addition to the measures to be undertaken by the Royal Portbury Dock in connection with the planning permission 16/P/1987/F, vegetation will be retained as far as possible and additional woodland planting is proposed to the west of Portbury Dock Road to maintain a dark corridor at this location.</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	<p>Requirement 5 (CEMP), DCO Requirement 6 (Landscaping scheme - disused railway)</p> <p>Requirement 24 (For the protection of bats).</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (pages 6-2 to 6-3, paragraph 6.2.5, 6.2.8 to 6.2.11) (DCO Document Reference 8.14, Version 02)</p>
<p><u>A2.7 Vegetation retention (use of additional land)</u></p> <p>Incorporate additional land into the Order Limits for an off-site haul road between The Portbury Hundred Construction Compound along the southern boundary of the disused railway corridor to Portishead to provide sufficient working space and allow for the retention of</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	<p>Railway Landscape Plans (Disused Line) (DCO Document Reference 2.10)</p>

HRA mitigation measure	Impact to be mitigated	Securing mechanism
valuable vegetation within the disused railway corridor.		
<p><u>A2.8 Fences along disused railway line</u></p> <p>Install/replace fences from adjacent farmland along the disused railway line to reduce loss of vegetation within the disused railway corridor.</p>	<p>Potential impact on bats as a qualifying feature of the North Somerset and Mendip Bats SAC, in the form of severance and habitat loss.</p>	

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**Table A3: HRA Compensation measures in respect of the Avon Gorge Woodlands SAC**

HRA Compensation measure	Loss to be compensated	Securing mechanism
<p><u>A3.1. Woodland management</u></p> <p>Positive management of the Avon Gorge Woodlands SAC woodland habitat on land owned by Network Rail, including removal of invasive non-native species over 1.45 ha, approximately twice the area of woodland lost to the DCO Scheme.</p> <p>Alternative sites have been identified on Forestry Commission land outside the SAC. It is intended that an 'adaptive' approach is taken to proposed woodland compensation measures, enabling Natural England to evaluate the compensation site options in combination with conservation measures to be provided by Network Rail and advise the Applicant on the most favourable options. This will enable the implementation of those DCO Scheme compensation areas that will best contribute to achieving, maintaining or improving the favourable conservation status of the Avon Gorge Woodlands SAC in the light of prevailing circumstances.</p>	<p>Loss of qualifying woodland in the Avon Gorge Woodlands SAC</p>	<p>DCO Requirement 5 (CEMP)</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-20, paragraph 6.2.19, 6.4.4) (Document reference 8.14, Version 02).</p> <p>Avon Gorge Vegetation Management Plan (ES Appendix 9.11, Document reference 8.12, Version 02).</p>

HRA Compensation measure	Loss to be compensated	Securing mechanism
<p>Monitoring of areas where positive management undertaken will be carried out for five years post construction during the implementation of the Avon Gorge Vegetation Management Plan ("AGVMP").</p>		
<p><u>A3.2. Grassland management</u></p> <p>Positive management of SAC grassland habitat within Network Rail land, including removal of scrub over 0.15 ha, approximately twice the area of grassland lost to the DCO Scheme.</p> <p>It is intended that an 'adaptive' approach is taken to proposed grassland compensation measures, enabling Natural England to evaluate the compensation site options in combination with conservation measures to be provided by Network Rail and advise the Applicant on the most favourable options. This will enable the implementation of those DCO Scheme compensation areas that will best contribute to achieving, maintaining or improving the favourable conservation status of the Avon Gorge Woodlands SAC in the light of prevailing circumstances.</p>	<p>Loss of qualifying grassland in Avon Gorge Woodlands SAC</p> <p>Loss of rare species of plant in the Avon Gorge Woodlands SAC</p>	<p>DCO Requirement 5 (CEMP)</p> <p>DCO Requirement 14 (Avon Gorge Woodlands SAC).</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-20, paragraph 6.2.19, 6.4.4 (Document reference 8.14, Version 02).</p> <p>Avon Gorge Vegetation Management Plan (ES Appendix 9.11, Document reference 8.12, Version 02).</p>

HRA Compensation measure	Loss to be compensated	Securing mechanism
<p>Monitoring of areas where positive management undertaken will be carried out for five years post construction during the implementation of the Avon Gorge Vegetation Management Plan ("AGVMP").</p> <p>A conservation strategy for Bristol rock-cress is contained in Annex K of the AGVMP. Proposed compensatory measures include the propagation of new plants from collected seed for subsequent planting in suitable habitat. Following completion of the geotechnical works, Bristol rock-cress will be planted out with a replacement ratio of 2:1.</p> <p>The Bristol rock-cress receptor areas will be checked and monitored for nine years post construction.</p>		
<p><u>A3.3. Whitebeam planting.</u></p> <p>Replace whitebeams lost to the DCO Scheme at a 2:1 ratio with saplings grown from seed of whitebeams collected in the Avon Gorge.</p>	<p>Loss of individual whitebeam trees within the Avon Gorge Woodlands SAC</p>	<p>DCO Requirement 5: CEMP</p> <p>DCO Requirement 14: Avon Gorge Woodlands SAC</p> <p>Master CEMP, Chapter 6 Ecology and Biodiversity (page 6-20, paragraph 6.2.19,</p>

HRA Compensation measure	Loss to be compensated	Securing mechanism
Monitoring and management of the planted rare whitebeam trees will be undertaken for ten years post construction.		6.4.4) (Document reference 8.14, Version 02)  Avon Gorge Vegetation Management Plan (ES Appendix 9.11, DCO Document reference 8.12, Version 02).

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## Appendix 2 – Schedule of Requirements relating to Ecology and Biodiversity in the Draft DCO

Requirement	Title
Requirement 5	<b>Construction Environmental Management Plan etc.</b>
	<p>5.—(1) A stage of authorised development must not commence until the written Construction Environmental Management Plan (CEMP) for that stage has been approved by the relevant planning authority.</p> <p>(2) The CEMP for a stage must be in accordance with the principles set out in the environmental statement, the Master CEMP, the COCP and the CTMP - Construction Traffic Management Plan.</p> <p>(3) The CEMP for a stage must, where relevant to that stage, in particular include the following—</p> <ul style="list-style-type: none"> <li>(a) an external communications plan;</li> <li>(b) a pollution incident prevention and control plan;</li> <li>(c) a site waste management plan;</li> <li>(d) a construction traffic management plan;</li> <li>(e) materials management plan;</li> <li>(f) a plan for storage for reuse of stripped soils within land forming part of haul roads or temporary compounds;</li> <li>(g) a construction flood plan and flood emergency preparedness plan for any construction site and compound located within undefended flood zone 2 or flood zone 3;</li> <li>(h) a surface water management plan;</li> <li>(i) measures for the protection of wildlife;</li> <li>(j) a reptile mitigation strategy; and</li> </ul>



Requirement	Title
	<p>(k) nuisance management plans regarding noise and vibration, dust, air pollution and lighting;</p> <p>(4) The construction traffic management plan when required for a stage under sub-paragraph (3) must in particular and where relevant address—</p> <ul style="list-style-type: none"> <li>(a) construction traffic routes and operational hours;</li> <li>(b) site accesses;</li> <li>(c) the management of junctions to and crossings of the public highway and other public rights of way;</li> <li>(d) the scheduling and timing of abnormal load movements;</li> <li>(e) temporary warning signs;</li> <li>(f) restrictions on vehicle turning movements in to and out of compounds on the A369 Portbury Hundred classified road; and</li> <li>(g) measures to minimise dust and mud.</li> </ul> <p>(5) The relevant stage must be carried out in accordance with the COCP and the approved CEMP and construction traffic management plan for that stage;</p> <p>(6) Where a part of the authorised development—</p> <ul style="list-style-type: none"> <li>(a) is not within a relevant stage or associated development connected with a relevant stage; or</li> <li>(b) does not consist of preparatory activities</li> </ul> <p>then that part of the authorised development must be carried out in accordance with the COCP and the Master CEMP.</p>
<b>Requirement 6</b>	<b>Landscaping scheme – disused railway</b>
	<p><b>6.—(1)</b> Work Nos. 1 and 1A must not commence until a written landscaping scheme for those works, prepared in accordance with the principles of the railway landscape plans (disused line), has been submitted to and approved by the relevant planning authority. Works Nos. 1 and 1A must be carried out in accordance with the approved scheme or any variation to the scheme that has been approved by the relevant planning authority.</p>

Requirement	Title
	<p>(2) The submitted landscaping scheme must include details of—</p> <ul style="list-style-type: none"> <li>(a) location, number, species, size and planting density of any proposed planting;</li> <li>(b) cultivation, importing of materials and other operations to ensure plant establishment;</li> <li>(c) vegetation to be retained;</li> <li>(d) implementation timetables for all landscaping; and</li> <li>(e) proposals to take account of the presence of trees with trunks of a diameter of 100 millimetres or more and to minimize the loss of such trees.</li> </ul> <p>(3) The written landscaping scheme for Work No. 1A must also contain measures to limit the impacts of the authorised development on the important hedgerow located between Work Nos. 1A and 17 and for the restoration of the important hedgerow following the cessation of use of Work No. 17.</p> <p>Any tree or shrub planted as part of the approved railway landscaping scheme that, within a period of five years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless the relevant planning authority gives written consent to any variation.</p>
<b>Requirement 14</b>	<b>Avon Gorge Woodlands SAC</b>
	<p><b>7.—</b>(1) Any part of the authorised development within the Avon Gorge Woodlands SAC must be carried out in accordance with the Avon Gorge Vegetation Management Plan.</p> <p>(2) Any part of the authorised development within the Avon Gorge Woodlands SAC consisting of—</p> <ul style="list-style-type: none"> <li>(i) foot accesses and steps;</li> <li>(ii) GSMR masts, antennae and associated equipment boxes;</li> <li>(iii) signal and associated equipment box;</li> <li>(iv) catch fences;</li> </ul>

Requirement	Title
	<p>(v) works to retaining walls and structures; or                      (vi) rock stabilization works</p> <p>must not commence before details of the location, siting and design of the relevant work, together with any required site clearance, working space and lay down areas, have been submitted to and approved by the relevant planning authority in consultation with Natural England. The details submitted for approval must be located within the areas shown for the relevant works on the general arrangement plans. The works must be carried out in accordance with the approved details.</p> <p>(3) Work to remove, install or replace fencing in the Avon Gorge Woodlands SAC must not commence before details of the location, siting and design of the fencing, together with any required site clearance and working space, have been submitted to and approved by the relevant planning authority in consultation with Natural England. The details submitted for approval must be located within the areas shown for fencing in the habitat impacted by construction works within the Avon Gorge Vegetation Management Plan. The works must be carried out in accordance with the approved details.</p> <p>(4) Any temporary works within the Avon Gorge Woodlands SAC consisting of compounds or construction welfare facilities (including the temporary works that are part of Work No. 25) must not commence before the location, siting duration of use and details for the removal of the relevant facility has been approved by the relevant planning authority in consultation with Natural England.</p> <p>(5) The facilities described in paragraph (4) must be carried out as approved and the relevant facility must at the conclusion of the temporary works be removed to the satisfaction of the relevant planning authority in consultation with Natural England and in accordance with the approved details.</p> <p>(6) The mitigation and compensation works required by the Avon Gorge Vegetation Management Plan within Order limits must be maintained as approved by the relevant planning authority in consultation with Natural England following first commercial use for the periods specified in the Avon Gorge Vegetation Management Plan.</p> <p>(7) The undertaker must provide monitoring reports to the relevant planning authority and Natural England no later than 12 months following first commercial use in accordance with the provisions of the Avon Gorge Vegetation Management Plan. Thereafter monitoring reports must be provided as provided for in the Avon Gorge Vegetation Management Plan</p>

Requirement	Title
<b>Requirement 24</b>	<b>For the protection of bats</b>
	<p><b>24.</b>—(1) Work Nos. 1, 1A, 1B and 1C must not commence until written details of the proposed tree planting on the A369 Portbury Hundred classified road have been approved in writing by the relevant planning authority in consultation with the relevant highway authority. The details submitted for approval must accord with the Portbury Hundred location of additional tree planting plans.</p> <p>(2) The proposed tree planting on the A369 Portbury Hundred classified road must be carried out in accordance with the approved details to the reasonable satisfaction of the relevant planning authority in the first planting season after the details have been approved by the relevant planning authority unless the planting has already been carried out to the reasonable satisfaction of the relevant planning authority.</p> <p>(3) The required planting must be maintained to the reasonable satisfaction of the relevant planning authority for five years following completion.</p> <p>(4) No part of the authorised development must commence in the Avon Gorge Woodlands SAC until—</p> <ul style="list-style-type: none"> <li>(a) five artificial bat roosts have been installed in the locations shown on sheets 14, 17, 18 and 19 of the environmental master plan; and</li> <li>(b) a grille has been installed at the entrance to the cave known as Adit Cave 7 in the location shown on sheet 19 of the environmental master plan</li> </ul> <p>to the satisfaction of the relevant planning authority.</p>
<b>Requirement 28</b>	<b>Operational lighting – Pill Station</b>
	<p><b>28.</b>—(1) Work No. 22 (Pill Station) must not commence until written details of any permanent lighting to be installed in connection with that Work, including measures to minimise light spillage, have been submitted to and approved by the relevant</p>

Requirement	Title
	<p>planning authority in consultation with Natural England, both acknowledging the necessity for the lighting to comply with Railway Industry Standards.</p> <p>(2) The submitted details must demonstrate to the reasonable satisfaction of the relevant planning authority that the lighting levels on the northern platform of the former Pill Station will not be above 0.5 lux as a result of the permanent lighting proposed or the provision of lighting screens to restrict light spill on to the northern platform.</p> <p>(3) Work No. 22 must not commence until written details of works to minimise light spill into the arches of the former stepped access to the northern platform of the former Pill Station have been submitted to and approved by the relevant planning authority in consultation with Natural England.</p> <p>The approved works must be installed in accordance with the approved details prior to first commercial use and thereafter maintained to the reasonable satisfaction of the relevant planning authority for ten years.</p>
<b>Requirement 32</b>	<b>New bridleway east of M5 Avonmouth Bridge</b>
	<p><b>32.</b>—(1) Work No. 18 must not commence until the siting, design, landscaping and method of construction of the proposed bridleway have been submitted to and approved in writing by the relevant planning authority. The submitted details must adhere to the principles shown on the relevant design drawing.</p> <p>Work No. 18 must thereafter be carried out in accordance with the approved details to the reasonable satisfaction of the relevant planning authority.</p>
<b>Requirement 34</b>	<b>Ponds</b>
	<p><b>34.</b>—(1) Work Nos. 10C, 12B and 16B must not commence until the siting, design, and method of construction of the relevant work have been submitted to and approved in writing by the relevant planning authority in consultation with Natural England.</p>

Requirement	Title
	<p>The submitted details for that Work must adhere to the principles shown on the Great crested newt indicative pond design drawing.</p> <p>The relevant Work must thereafter be carried out in accordance with the approved details to the reasonable satisfaction of the relevant planning authority unless the relevant planning authority in consultation with Natural England confirms in writing that the proposed Work is no longer required.</p>

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