



MetroWest+

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council

6.25, Environmental Statement, Volume 4, Appendix Series 5 Approach to the Environmental Statement

The Infrastructure Planning (Applications: Prescribed Forms and Procedure)

Regulations 2009, regulation 5(2)(a)

Planning Act 2008

Author: CH2M

Date: November 2019



Notice

© Copyright 2019 CH2M HILL United Kingdom. The concepts and information contained in this document are the property of CH2M HILL United Kingdom, a wholly owned subsidiary of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This document has been prepared on behalf of, and for the exclusive use of Jacobs' client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by Jacobs for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. This work has been undertaken in accordance with the quality management system of Jacobs.

Document history

Project	Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme
Planning Inspectorate Scheme Reference	TR040011
Volume and Application Document Reference	6, 6.25
Document title	Environmental Statement, Volume 4, Appendix 5.1 Scoping Opinion (Additional Matters) Appendix 5.2 Changes in Scheme Design since the Scoping Opinion
Regulation Number	Regulation 5(2)(a)
Applicant	North Somerset District Council
Lead Author	CFF at CH2M

Version	Date	Status of Version
Rev: 01	08/11/19	Application Issue



MetroWest+

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council

**6.25, Environmental Statement, Volume 4, Appendix 5.1 Scoping Opinion
(Additional Matters)**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009, regulation 5(2)(a)**

Planning Act 2008

Author: CH2M

Date: November 2019



Table of Contents

Section	Page
Abbreviations and Acronyms	ii
Scoping Opinion (Additional Matters).....	1

Tables

Table 1: Scoping Opinion (Additional Matters)

Abbreviations and Acronyms

CEMP	Construction Environmental Management Plan
CoCP	Code of Construction Practice
DCO	Development Consent Order
DfT	Department for Transport
EIA	Environmental impact assessment
EPS	European Protected Species
ES	Environmental Statement
EU	European Union
GBATS4	Greater Bristol Area Transport Model (version 4)
GSM-R	Global System for Mobile Communications – Railway
GWR	Great Western Railway
HGV	Heavy Goods Vehicle
HRA	Habitat Regulations Assessment
NE	Natural England
NGET	National Grid Electricity Transmission plc
NGG	National Grid Gas plc
NPS	National Policy Statement
NPSNN	National Policy Statement for National Networks
NSDC	North Somerset District Council
NSIP	Nationally significant infrastructure project
SSSI	Site of Special Scientific Interest
TOC	Train Operating Company

SECTION 1

Scoping Opinion (Additional Matters)

- 1.1.1 The Scoping Opinion for the Environmental Statement ("ES") required to be submitted with the application for the Development Consent Order for the Portishead Branch Line (MetroWest Phase 1) Scheme ("DCO Scheme") was issued on behalf of the Secretary of State in August 2015 following a request by North Somerset District Council ("NSDC").
- 1.1.2 As advised in section 1.5 of the ES Chapter 1: Introduction (DCO Document Reference 6.4) and section 5.3 of Chapter 5: Approach to the Environmental Statement (DCO Document Reference 6.8), NSDC has decided to submit the ES and progress the application for the DCO Scheme under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) ("EIA Regulations 2017"). Under regulation 14(3)(a), where a scoping opinion has been adopted the ES must "*be based on the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was the subject of that opinion)*".
- 1.1.3 NSDC concluded that the Scoping Opinion issued on behalf of the Secretary of State in August 2015 continues to provide an appropriate basis for the ES. Appendix 1.2: Compliance with the EIA Regulations 2017 Schedule 4 (DCO Document Reference 6.25) lists the information required to be provided in the ES and states where within the ES that information is found. Appendix 5.2: Changes in Scheme Design since the Scoping Opinion (DCO Document Reference 6.25) explains the changes made to scheme design at particular stages in the evolution of the DCO Scheme and explains the implications for the Scoping Opinion. This Appendix 5.1: Scoping Opinion (Additional Matters) identifies the provisions of the Scoping Opinion that concern generic matters as opposed to assessment topic specific matters, which are summarised in the technical topic chapters of the ES. Table 1 below summarises these generic – or additional – matters and then records where within the ES they have been considered.

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
Paragraphs 3.2 to 3.4. EU Directive 2014/51/EC. The applicant is advised to consider the effect of the EU Directive in the structure and content of the ES.	The applicant has decided to submit the ES for the DCO Scheme under the provisions of the EIA Regulations 2017.
Paragraph 2.37 The study area of the ES should extend to consideration of likely transport routes and waste disposal sites.	The ES Chapter 16: Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) identifies two study areas: 1) The wider study area to assess the strategic multi-modal impacts across the Bristol and wider area

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
	<p>using GBATS4, a strategic transport demand model which covers the city of Bristol, the urban and southern parts of South Gloucestershire, and the immediate surrounding areas in Bath and North East Somerset, and North Somerset; and</p> <p>2) Local multi-modal impact along the scheme alignment.</p> <p>The assessment covers construction haulage routes via heavy goods vehicles (“HGV”) to ballast / material stockpiling areas within the DCO Scheme, at the Royal Portbury Dock or at Avonmouth, ready for onward transport to train to a Network Rail recycling centre. The assessment does not consider the transport of waste by train as this is a standard Network Rail activity which would be undertaken under Network Rail protocols.</p> <p>The ES Chapter 12: Materials and Waste (DCO Document Reference 6.15) considers waste disposal capacity in south west England.</p>
<p>Paragraph 2.41</p> <p>The ES should clearly describe which components of the development are to be delivered through the DCO and which are ‘permitted development’.</p>	<p>The distinction between the DCO Scheme and other works to be undertaken under Network Rail's permitted development rights is presented in the ES Chapter 1: Introduction (DCO Document Reference 6.4).</p>
<p>Paragraph 2.42</p> <p>If a draft DCO is to be submitted, the applicant should clearly define what elements of the proposed development are integral to the NSIP and which is ‘associated development’ under the Planning Act 2008 (PA 2008) or is an ancillary matter.</p>	<p>Both the draft DCO (DCO Document Reference 3.1) and the ES clearly distinguish between the nationally significant infrastructure project (“NSIP”) and associated development, as shown in Appendix 1.3 A summary of Works Required (DCO Document Reference 6.25) and Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7).</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>Paragraph 2.43</p> <p>Any proposed works and/or infrastructure required as associated development or being delivered through permitted development rights, (whether on or off-site) should be assessed as part of an integrated approach to environmental assessment.</p>	<p>The Planning Act 2009 does not apply to works delivered through permitted development.</p> <p>The DCO Scheme comprises the NSIP and the associated development. The environmental impact of the associated development is assessed in the ES.</p> <p>The works proposed to be undertaken by Network Rail in exercise of permitted development rights are identified and assessed within the ES as "other projects" in Chapter 18: In-combination and Cumulative Effects Assessment (DCO Document Reference 6.21) and Appendix 18.2 Matrix 2 (DCO Document Reference 6.25).</p>
<p>Paragraph 2.44</p> <p>ES should include a clear description of all aspects of the proposed development, at the construction, operation and decommissioning stages.</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) presents a clear description of all aspects of the construction and operation of the DCO Scheme. Decommissioning has been scoped out of the assessment for the reasons presented in the chapter.</p>
<p>Paragraph 2.45</p> <p>The ES should contain further details of the proposed alterations to bridges and other structures (e.g. in terms of type, size, scale, permanence) and should reference relevant technical drawings where appropriate.</p>	<p>The ES Chapter 4: Description of the Preferred Works (DCO Document Reference 6.7) provides a description of the alterations to bridges and other structures and references relevant plans in the DCO Application Part 2.</p>
<p>Paragraph 2.46</p> <p>The potential impacts of these works (overhead line electrification) should be described and assessed in the ES.</p>	<p>There are no plans to electrify the railway, so no description or assessment has been provided in the ES.</p> <p>Provision for electrification has been provided for new structures (Trinity Primary School Bridge) in compliance with current Network Rail policy.</p> <p>There has been no assessment of the need for modifications to existing structures (such as the four tunnels and bridges) to accommodate overhead line electrification.</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>Paragraph 2.47</p> <p>The ES should describe the amount and classification of agricultural land which would be lost as a result of the proposed development. The relationship between this land and its associated agricultural unit should also be described (to determine the potential for severance impacts).</p>	<p>The amount of temporary and permanent land-take from agricultural land has been estimated in the ES Chapter 15: Soils, Agriculture, Land Use and Assets (DCO Document Reference 6.18).</p> <p>Three permissive crossings on agricultural land will be closed. The DCO Scheme has incorporated design features to address severance, by improving the agricultural access off Sheepway to the fields to the south of the railway for Shipway Gate Farm and providing an improved access off the A369 Portbury Hundred for another land holding. This is described in Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) and the assessment on farms is provided in Chapter 15: Soils, Agriculture, Land Use and Assets (DCO Document Reference 6.18).</p>
<p>Paragraph 2.48</p> <p>The ES should clearly describe how the potential for the re-use of this material would be determined (e.g. through on site testing) and how the re-use of the material would be undertaken. The suitability of the material for re-use should be considered having regard to potential contamination in particular.</p>	<p>Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) explains that it is assumed all the old ballast will be taken off site and recycled at one of Network Rail's recycling centres. It is not proposed to recycle ballast on site, although cleaned material could be used on another scheme.</p>
<p>Paragraph 2.49</p> <p>The ES should clearly describe these works (earthworks during construction phase). This should include the extent of land, the type of plant/machinery and the type and volume of material involved.</p> <p>The ES should explain how the expected volume of material has been predicted based on the changes that are proposed.</p>	<p>The proposed earthworks and the proposals for construction and likely are described in Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) and the Construction Strategy (DCO Document Reference 5.4).</p> <p>Estimates have been provided for the volume of old ballast (track formation) to be removed from the disused railway line.</p> <p>The volumes of material to be removed for the earthworks and the balance of cut and fill have not been estimated.</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>This should include a table which clearly describes the cut and fill balance of material that is predicted.</p> <p>It should also be clear how requirements in the DCO will ensure that the characteristics of the works and the volume of excavated material will be within the parameters described and assessed in the ES.</p>	<p>Estimates of the cut and fill balance would be done by the prospective contractors during tendering. Waste ballast will be removed from site for treatment and recycling and will not be reused on site. Some earthworks are required for embankments and cuttings through Pill. However, there will be limited scope for reusing material won from site within the DCO Scheme.</p> <p>The Code of Construction Practice (“CoCP”) (DCO Document Reference 8.15) and the Master Construction Environmental Management Plan (“CEMP”) (DCO Document Reference 8.14) demonstrate how engineering works will be managed. These measures have been taken into consideration in assessing the potential environmental impacts.</p>
<p>Paragraph 2.51</p> <p>Should a telecommunications system be proposed for this project then it is expected that its likely characteristics be described in the ES.</p>	<p>A telecommunications system is required for the DCO Scheme. The location of the Global System for Mobile Communications - Railway (“GSM-R”) masts, their height and the number of antennae are described in the ES Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7). The design of the telecommunications system may be developed further during detailed design, but this is not expected to affect the environmental impact assessment of these features.</p>
<p>Paragraph 2.52</p> <p>The ES should describe how the project relates to the wider programme of projects aimed at delivering improvements through an enhanced local rail offer for the sub-region.</p>	<p>The ES Chapter 1: Introduction (DCO Document Reference 6.4) sets out the context of the wider programme of works for MetroWest Phase 1.</p>
<p>Paragraph 2.54</p> <p>If the proposed development has substantially changed during the EIA process, then the applicant should request a new scoping opinion.</p>	<p>The ES Appendix 5.2 Changes in Scheme Design since the Scoping Opinion (DCO Document Reference 6.25) summarises design changes that have occurred since the Scoping Opinion was issued. It is considered</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
	that a revised Scoping Opinion is not necessary.
<p>Paragraph 2.57</p> <p>The applicant should provide an analysis of alternatives in the ES.</p>	<p>The ES Chapter 3: Scheme Development and Alternatives Considered (DCO Document Reference 6.6) provides an overview of alternatives considered for the DCO Scheme.</p>
<p>Paragraph 2.58</p> <p>The number of full time equivalent construction jobs expected to be generated by the proposal should be included in the ES and how it was calculated.</p>	<p>The ES Chapter 14: Socio-economics and Economic Regeneration (DCO Document Reference 6.17) presents estimates of full time equivalent construction jobs based on benchmarking against the capital cost of the construction project.</p>
<p>Paragraph 2.59</p> <p>The size and location of construction compounds should be included in the ES.</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) includes information on the location of construction compounds.</p>
<p>Paragraph 2.60</p> <p>The information on construction, including: phasing of programme, construction methods, and activities associated with each phase, siting of construction compounds (on and off site), lighting equipment/requirements; and number of movements and parking of construction (both HGVs and staff) should be in the ES.</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) includes information on the construction phase, supplemented by the Construction Strategy (DCO Document Reference 5.4).</p> <p>At this stage, the phasing of the construction works has not been developed.</p> <p>Details on construction aspects will depend on the construction methodologies developed by the successful contractor(s).</p>
<p>Paragraph 2.61</p> <p>Information on the operation and maintenance of the proposed development should be included in the ES and should include: the number of full/part-time jobs, the operational hours and shift patterns, the number and types of vehicle movements generated during the operational stage. Also whether use of the line for operational rail freight will increase.</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) describes the operation and maintenance activities. The potential number of full time equivalent ("FTE") jobs is presented in Chapter 14: Socio-Economics and Economic Regeneration (DCO Document Reference 6.17), Chapter 16: Transport, Access and Non-motorised Users (DCO Document Reference 6.19) includes</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
	<p>projections for traffic using Portishead and Pill Stations.</p> <p>Network Rail will be responsible for the management of the assets.</p> <p>The train operating company (“TOC”) will be responsible for the management of the stations and the trains. The current Great Western Railway (“GWR”) franchise is due to expire in March 2022 and the Department for Transport (“DfT”) have an option to extend the franchise by two years. The franchise will be re-let with a new franchise starting between April 2022 and April 2024. Details of activities of the TOC will depend on the outcome of the franchise tender.</p> <p>Royal Portbury Dock has a licence for 20 movements of freight trains per day in each direction. This is not affected by the DCO Scheme, which is only concerned with the passenger service.</p>
<p>Paragraph 3.6</p> <p>The applicant must have regard to the National Policy Statement (“NPS”) and identify how these principles have been accounted for in the ES.</p>	<p>The ES technical topic chapters include a summary table of the relevant National Policy Statement for National Networks (“NPSNN”) policies and where they are addressed within the chapter.</p> <p>The Planning Statement (DCO Document Reference 8.11) assesses compliance of the DCO Scheme against relevant policies.</p>
<p>Paragraph 3.10</p> <p>The applicant should ensure appropriate consultation with relevant consultees.</p>	<p>The Applicant has undertaken extensive informal and formal consultation. This is explained in Chapter 5: EIA Process and Approach to the Environmental Statement (DCO Document Reference 6.8) and in each of the technical topic chapters.</p> <p>The Consultation Report in DCO Document Reference 5.1 presents a complete summary of consultations.</p>
<p>Paragraph 3.13</p>	<p>The use of professional guidance and, where appropriate, quantitative and</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>The scope of the ES should be based on recognised professional guidance and where such guidance is available. The ES should describe and justify any departures from existing guidance or where guidance is not available.</p>	<p>qualitative professional judgement is explained in each of the relevant technical topic chapters of the ES.</p>
<p>Paragraph 3.15 The ES should include draft copies of management plans to deliver the proposed measures.</p>	<p>The ES Appendix 9.11: Avon Gorge Vegetation Management Plan (DCO Document Reference 8.12) presents proposals to protect and conserve the Avon Gorge Special Area of Conservation.</p>
<p>Paragraph 3.16 The ES should identify and assess the impacts that could result depending on the amount of material that can be re-used.</p>	<p>The ES Chapter 12: Materials and Waste (DCO Document Reference 6.15) considers the waste hierarchy. However, a detailed assessment of re-use and recycling would be undertaken by the successful contractor(s) based on their proposed construction methods.</p>
<p>Paragraph 3.19 The NPS requires the ES to describe the aspects of the development which may give rise to emissions during decommissioning.</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) explains why the decommissioning phase has been scoped out of the assessment.</p>
<p>Paragraph 3.24 If a telecommunications system be proposed its potential impacts should be described and assessed in the ES.</p>	<p>A telecommunications system is required for the DCO Scheme. The impact of the system is assessed in Chapter 8: Cultural Heritage (DCO Document Reference 6.11) in relation to the setting of the Clifton Suspension Bridge Grade I listed building, Chapter 9: Ecology and Biodiversity (DCO Document Reference 6.12) in relation to loss of vegetation, and Chapter 11 Landscape and Visual Impact (DCO Document Reference 6.14) in relation to landscape / visual impacts.</p>
<p>Paragraph 3.29 – Geology The potential cumulative effects of the project with regards to geology, hydrogeology, ground conditions and contaminated land should be described in the ES.</p>	<p>The cumulative effects of the DCO Scheme on geology are considered in Chapter 10: Geology, Hydrogeology, Ground Conditions and Contaminated Land (DCO Document Reference 6.13)</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>Paragraph 3.29 – Cumulative impacts with the construction of the Bedminster Down Relief Line, Severn Beach / Avonmouth Signalling, and Bathampton Turnback and the operation of additional services to be provided under Metro West Phase 1. This applies to the following assessment chapters:</p> <ul style="list-style-type: none"> • Geology, hydrogeology, ground conditions and contaminated land, • Materials and waste, • Water resources, drainage and flood risk. <p>Their cumulative effects should be scoped in the ES.</p>	<p>and in Appendix 18.2 Matrix 2 (DCO Document Reference 6.25).</p> <p>The cumulative effects of other works to be undertaken for the DCO Scheme are described in the ES technical topic chapters (DCO Document References 6.10 to 6.20) and in Appendix 18.2 Matrix 2 (DCO Document Reference 6.25).</p>
<p>Paragraph 3.31</p> <p>The ES should still explain the reasoning and justify the approach taken, if topics have been scoped out, to demonstrate that they have not been overlooked.</p>	<p>The ES presents the justification for scoping out matters where appropriate.</p>
<p>Paragraph 3.70</p> <p>The proposed approach to assessing waste impacts should be discussed with the Environment Agency and the Council.</p>	<p>The management of wastes will be in accordance with established Network Rail protocols.</p>
<p>Paragraph 3.71</p> <p>The interrelationship between the chapter on waste and other chapters should be clearly explained in the ES and cross-referenced as appropriate.</p>	<p>The technical chapters cross refer to other chapters in the ES as appropriate.</p>
<p>Paragraph 3.112</p> <p>If telecommunications infrastructure is proposed these should be discussed and agreed with relevant consultees.</p>	<p>Stakeholders have had opportunities to discuss the telecommunications infrastructure during the s42 statutory consultations.</p>
<p>Paragraph 4.8 – Habitat Regulations Assessment (“HRA”)</p> <p>When considering aspects of the environment likely to be affected by the proposed development, including flora,</p>	<p>The Report to Inform HRA (DCO Document Reference 5.5) considers the potential effects of the DCO Scheme on all European sites where there is potential for an effect.</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>fauna, soil, water, air and the inter-relationship between these, consideration should be given to the designated sites in the vicinity of the proposed development.</p>	
<p>Paragraph 4.16 – Sites of Special Scientific Interest (“SSSI”) If it is likely that notification may be required under s28(l) applicants are advised to resolve any issues with the NCB before the DCO application is submitted. If the scheme does not damage SSSI special interest features, this should be made clear in the ES. Applicants should seek to agree with the NCB the DCO requirements which will provide protection for the SSSI before the DCO application is submitted.</p>	<p>The assessment of effects on SSSIs is presented in the ES in Chapter 9: Ecology and Biodiversity (DCO Document Reference 6.12). The applicant has undertaken consultation about the effects of the DCO Scheme and mitigation proposals with Natural England. Measures to protect SSSIs affected by the DCO Scheme are presented in Appendix 9.11: Avon Gorge Vegetation Management Plan (DCO Document Reference 8.12) and in Appendix 4.2: the Master CEMP (DCO Document Reference 8.14) and Appendix 4.3: Schedule of Mitigation (DCO Document Reference 6.31).</p>
<p>Paragraph 4.20 – European Protected Species (“EPS”) Licence Applicants are encouraged to consult with Natural England (“NE”) and, to agree appropriate requirements to secure necessary mitigation. It would help the examination if the applicant could provide information from NE on issues identified that would prevent issue of an EPS Licence.</p>	<p>The applicant has undertaken consultation about the effects of the DCO Scheme and mitigation proposals with Natural England. A summary of consultations is presented in the ES Chapter 9: Ecology and Biodiversity (DCO Document Reference 6.12). Shadow EPS licences have been discussed with NE and will be provided post submission of the application for the DCO Scheme.</p>
<p>Paragraph 4.22 – EPS Licence The applicant is responsible to ensure draft licence applications are satisfactory for the purposes of informing formal pre-application assessment by NE.</p>	<p>Shadow EPS licences have been discussed with NE and will be provided post submission of the application for the DCO Scheme.</p>
<p>Paragraph 4.27 - Other Regulatory Regimes Applicant should state clearly what regulatory areas are addressed in the ES and that all relevant authorisations,</p>	<p>The ES Chapter 4: Description of the Proposed Works (DCO Document Reference 6.7) includes a list of generic licences and permits required for the DCO Scheme. A list of other consents</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>licences, permits and consents that are necessary to enable operations to proceed are described in the ES. The application should also make it clear that any likely significant effects of the proposed development which may be regulated by other instruments are considered in the ES.</p>	<p>and licences is also provided in DCO Document Reference 5.3.</p>
<p>Paragraph 4.38 Ensure that any specific requirements arising from the permit or licence are capable of being carried out under the works permitted by the DCO. Otherwise it may be impossible to implement the DCO.</p>	<p>To date, no conflicts of other consents or permits with the DCO have been identified.</p>
<p>Paragraph 4.43 - Transboundary Impacts The ES should identify whether the proposed development has the potential for significant transboundary impacts and if so, what these are and which European Economic Area States would be affected.</p>	<p>The ES states that there are no transboundary effects in Chapter 5: Approach to the Environmental Statement (DCO Document Reference 6.8).</p>
<p>Statutory Body Response – Cardiff Council Cardiff Council replied to the Scoping Opinion to say that they had no comments on the scheme.</p>	<p>Noted.</p>
<p>Statutory Body Response – GTC Pipelines Ltd The GTC replied to the Scoping Opinion to say that they had no comments on the scheme.</p>	<p>Noted.</p>
<p>Statutory Body Response – National Grid Electricity Transmission plc (“NGET”) and National Grid Gas plc (“NGG”). Existing National Grid Infrastructure does not exist within the proposed Order limits. Thus, no comments with regards to the protection of existing apparatus. Future National Grid Infrastructure is likely to be present within or in close</p>	<p>The applicant has liaised with statutory undertakers along the DCO Scheme. The applicant has liaised with National Grid regarding the Hinkley Point C Connection works which cross the Portishead Branch Line in the vicinity of Sheepway. As both schemes are likely to be constructed at the same time, the applicant and National Grid have shared plans for complementary</p>

Table 1: Scoping Opinion (Additional Matters)

Summary of Response	Consideration with the ES
Section 3 EIA Approach and Topic Areas	
<p>proximity to the proposed Order limits, in particular, to the proposed Portishead Branch Line DCO. NGET requested that works associated with the Hinkley Point C Connection DCO including any cumulative impacts are considered within the ES of MetroWest Phase 1.</p>	<p>construction sites and haul routes. There will also be a Statement of Common Ground between National Grid and the Applicant North Somerset District Council.</p> <p>The cumulative impact is presented in Appendix 18.2 Matrix 2 (DCO Document Reference 6.25).</p>
<p>Statutory Body Response – Portishead Town Council</p> <p>The Town Council raised the following concerns and questions:</p> <ul style="list-style-type: none"> • Substantial on street parking will be lost in the vicinity of the Healthy Centre on Harbour Road when the scheme goes ahead. Can parking provisions be made for visitors to the health centre? • To include provisions for cyclists using the trains. • Concern for the structure of the sloped footbridge (by Trinity school) for wheelchair users. • Arranging parking provisions for construction traffic to eliminate already congested on-street parking, particularly in The Vale. • Introduce a minibus around the Town linked to the train times. <p>Displaced parking. Drivers wishing to avoid parking charges park in local residential roads for free causing a nuisance.</p>	<p>The ES Chapter 16: Transport, Access and Non-Motorised (DCO Document Reference 6.19) users covers matters relating to street parking</p> <p>The provisions for cyclists using the trains is a matter for the train operating company and outside the scope of the DCO Scheme.</p> <p>The accessibility of Trinity Primary School Bridge is considered in Appendix 14.1 Equality Impact Assessment (DCO Document Reference 6.25).</p> <p>Minibus services lie outside the scope of the DCO Scheme.</p>
<p>Statutory Body Response – Utility Assets Limited</p> <p>Utility Assets committed to informing the application within 5-7 working days if they have any plant in the area affected.</p>	<p>The applicant has collected information from statutory undertakers likely to be affected by the DCO Scheme.</p>



MetroWest+

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council

6.25, Environmental Statement, Volume 4, Appendix 5.2 Changes in Scheme Design since the Scoping Opinion

The Infrastructure Planning (Applications: Prescribed Forms and Procedure)

Regulations 2009, regulation 5(2)(a)

Planning Act 2008

Author: CH2M

Date: November 2019



Table of Contents

Section	Page
Abbreviations and Acronyms	ii
1 Changes in Scheme Design since the Scoping Opinion	1

Tables

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

Abbreviations and Acronyms

AVTM	Ashton Vale to Temple Meads
EIA	Environmental impact assessment
ES	Environmental Statement
GRIP	Governance for Railway Investment
GSM-R	Global System for Mobile Communications - Railway
HRA	Habitat Regulations Assessment
NCN	National cycle network
NR	Network Rail
NSIP	Nationally significant infrastructure project
NSDC	North Somerset District Council
OHLE	Overhead line electrification
PEI	Preliminary environmental information
PSP	Principal supply point (for signalling equipment)
RRAP	Road Rail Access Point
SAC	Special Area of Conservation
SoS	Secretary of State
SSSI	Site of Special Scientific Interest
tph	train per hour

SECTION 1

Changes in Scheme Design since the Scoping Opinion

- 1.1.1 The Secretary of State (“SoS”) published the Scoping Opinion for the environmental impact assessment (“EIA”) to be undertaken for the Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme (“the DCO Scheme”) in August 2015. The Scoping Opinion was based on the description of the DCO Scheme presented in the Scoping Report issued by the applicant and submitted to the Planning Inspectorate in June 2015.
- 1.1.2 During the iterative design process a number of changes have been made to the description of the DCO Scheme. To assist understanding of when these changes were made relative to public consultation processes they are identified in Table 1 as having been made either between the issue of the Scoping Opinion and the presentation of preliminary environmental information (“PEI”) for the formal Stage 2 consultation in October-December 2017, or between the PEI and the publication of this Environmental Statement (“ES”).
- 1.1.3 Table 1 summarises the main changes made to the description of the DCO Scheme during the iterative design process, explains when the change was made and evaluates whether the Scoping Opinion continues to provide an appropriate basis for the ES. The conclusion reached is that the Scoping Opinion continues to provide an appropriate basis for the ES, and that the proposed development remains materially the same which was subject to that opinion, for the following reasons:
- The overall effect of the changes to the description of the DCO Scheme has been to reduce the scale of the DCO Scheme and consequential changes to the nature and extent of environmental effects have remained within the scope of the topics identified in the Scoping Opinion;
 - The changes made by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations 2017”) to the information to be included in the ES could be incorporated within existing chapters with the addition of dedicated appendices to provide information on Major Accidents or Disasters (Appendix 4.5, see DCO Document Reference 6.25) and the impact of the project on climate as well as the vulnerability of the project to climate change (Appendix 7.5: Climate, DCO Document Reference 6.25).
- 1.1.4 The Scoping Opinion was requested and issued under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (“the EIA Regulations 2009”). As the EIA Regulations 2017 are now in force the applicant has been able to choose whether the project should benefit from transitional provisions to continue under the provisions of the EIA Regulations 2009 or whether additional work should be undertaken to meet the requirements of the EIA Regulations 2017. As explained in Chapter 1: Introduction (DCO Document Reference 6.4) and Chapter 5: Approach to

the Environmental Statement (DCO Document Reference 6.8), it was decided not to rely on the transitional provisions. Accordingly, the applicant decided to submit the DCO Application and ES in compliance with the EIA Regulations 2017. Following the evaluation summarised in Table 1 it was concluded a revision to the Scoping Opinion was not required. ES Appendix 1.2: Compliance with the EIA Regulations 2017 Schedule 4 (DCO Document Reference 6.25) sets out the information that is required to be provided in an ES by Schedule 4 of the EIA Regulations 2017 and explains where the information is set out in the ES.

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<i>Railway Design</i>			
<p>The Scoping Report and Scoping Opinion were based on the GRIP 2 feasibility railway design.</p>	<p>The PEI was based on GRIP 3 Option selection, with elements of GRIP 4 Single Option Development and GRIP 5 Detailed Design brought forward.</p> <p>The GRIP 3 studies identified the need for more extensive measures along the operational railway than envisaged during GRIP 2 to meet the half hourly timetable (see Passenger Service below).</p> <p>Following a rise in the capital cost the DCO Scheme was descoped from 2 trains per hour to an hourly/ hourly plus service. The GRIP 3 design for the disused line (the nationally significant infrastructure project - "NSIP") remains unchanged for the hourly scheme, but</p>	<p>The ES is based on the work done for the PEI with additional design work on:</p> <ul style="list-style-type: none"> • Geotechnical slope stability measures in the Avon Gorge. • Development of the Construction Strategy and changes to the red line boundary. • Minor changes to the layout of certain features, such as the construction and permanent compounds at Pill Tunnel Eastern Portal and Clanage Road compound. 	<p>The management and control processes used by Network Rail for delivering project is called Governance for Railway Investment ("GRIP").</p> <p>The ongoing design process has led to increased information about aspects of the DCO Scheme and how it will be built.</p> <p>Material changes in design have led to changes in the scope of the ES to alter the study areas and ensure that the impacts on affected receptors have been captured. This is discussed below in more detail. It is concluded that the proposed development remains materially the same as the proposed development which was subject to the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
the GRIP 3 design for the operational railway was revised.			
<i>Passenger Service</i>			
Operational hours 0600 to 2400 Monday to Saturday and 0900 to 1800 on Sundays.	An hourly service or an hourly plus service (with services every 45 minutes in the peak periods).	No further change.	The half hourly and the hourly service patterns require the same level of engineering along the disused section of the line. However, the hourly scheme requires much less engineering work along the existing operational railway between Pill Junction and Parson Street Junction.
A half hourly service with two trains (four passes) per hour between 0600 and 1800 and then hourly until 2400.	An hourly scheme results in two passes per hour, one in each direction.		
	The hourly service results in 18 passenger trains in each direction Monday to Saturday and 10 on Sundays.		
	The hourly plus service results in 20 passenger trains in each direction Monday to Saturday, and approximately 10 passenger trains on Sundays.		
<i>Line speed design</i>			
75 mph maximum between Portishead and Pill.	75 mph maximum between Portishead and Pill.	No further change.	The hourly and hourly plus timetable allows lower speeds, and consequently a

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<p>Line speed design of 50 mph through Pill.</p> <p>50 to 60 mph between Pill and Ashton Junction.</p> <p>25 mph Ashton Junction to Parson Street Junction.</p>	<p>30 mph from Pill to Parson Street Junction.</p>		<p>lower level of engineering improvements along the operational railway line.</p> <p>The actual speed of the train services affects the operational noise and vibration impact assessment.</p>
<i>Design Life</i>			
<p>Long term</p>	<p>120 years including maintenance and replacements of assets.</p>	<p>60 years including maintenance and replacements of assets.</p>	<p>The 120 year design life was essentially a mis-understanding between North Somerset District Council (“NSDC”) and Network Rail (“NR”). The 60 year design life is the standard civil engineering design life used by NSDC and NR. A 60 year design life was accepted by the Environment Agency for South Bristol Link and for the Ashton Vale to Temple Meads (“AVTM”) MetroBus (now the m2 route) in respect of river permits.</p> <p>The change in the design life affects the modelling scenarios presented in the ES Appendix 17.1 Flood Risk Assessment (DCO Document Reference 5.6).</p> <p>The FRA presents the results for a 60 year design life, which is the period assumed in the Business Case for</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
			<p>Department of Transport funding and is comparable with the design life used for other schemes in the area such as the South Bristol Link highway scheme.</p> <p>The modelling results for the 100 and 120 year design life are also provided as a sensitivity test. The main long term risk for the project arises from the assumptions adopted for sea level rise and the risk of tidal flooding in the Bower Ashton area.</p> <p>The approach to the FRA has been discussed with the Environment Agency.</p>
<i>The Red Line Boundary (Order limits) and the DCO Scheme</i>			
<p>The indicative red line boundary presented in the Scoping Report extended between the proposed new station, car parks and highway modifications in Portishead, along the disused section of the railway to be constructed, and through the village of Pill. The red line boundary also included the Ashton Vale</p>	<p>The red line boundary presented in the PEI report September 2017 extended between the proposed new station, car parks and highway modifications in Portishead, along the disused section of the railway to be constructed, and along the operational railway (which serves Royal Portbury Dock) from the new Pill</p>	<p>There have been minor changes to the red line boundary following additional Stage 2 Consultation in 2018 and 2019 and the development of mitigation measures.</p> <p>The DCO Scheme comprises the NSIP and the associated works between Portishead and Ashton Junction.</p>	<p>The extension of the red line boundary to include much of the operational railway between the Scoping and PEI stages, has brought the environmentally sensitive Avon Gorge Woodlands Special Area of Conservation (“SAC”) and Site of Special Scientific Interest (“SSSI”) into the DCO Scheme and triggered the Habitats Assessment Regulations.</p> <p>The extent of engineering works required in the Avon Gorge SAC/SSSI (to ensure compliance with safety standards for</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<p>Level Crossing and the Barons Gate Level Crossing. The red line boundary excluded much of the operational railway between Pill and Ashton Junction. The indicative red line boundary was based on existing land ownership held by North Somerset Council and Network Rail. It specifically did not include temporary land-take required for construction or permanent land-take for environmental mitigation.</p> <p>The DCO Scheme comprised the nationally significant infrastructure project (“NSIP”) to construct the railway between Portishead and Pill and associated development such as the stations and car parks in Portishead and Pill and the works to Ashton Vale</p>	<p>Junction to Ashton Junction and included a temporary construction compound at Liberty Lane.</p> <p>The red line boundary for the DCO Scheme was expanded to include temporary land-take required to build the DCO Scheme.</p> <p>The permitted development works along the operational railway between Royal Portbury Dock and Parson Street Junction with the Bristol to Exeter main line were limited to the section between the new Ashton Junction and Parson Street Junction.</p> <p>The DCO Scheme comprised the NSIP and the associated works between Portishead and Ashton Junction.</p>		<p>passenger railway lines) presented in the ES is more extensive than that indicated in the Scoping Opinion and the PEI report though in absolute terms the works are modest.</p> <p>The Scoping Opinion (including the response from Natural England) advised that a Habitats Regulations Assessment (“HRA”) should be provided, which it is at ES Appendix 9.12 (DCO Document Reference 5.5). The change in categorisation of the works in the Avon Gorge from permitted development to associated development does not alter the conclusion that the proposed development remains materially the same as the proposed development which was subject to the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
Level Crossing and Barons Gate Pedestrian Crossing.			
<i>Other Works Required along the Portishead Branch Line to Deliver the DCO Scheme under Permitted Development Rights</i>			
<p>Other improvement works along the Portishead Branch Line to deliver the DCO Scheme to be implemented under Network Rail's permitted development rights which did not form part of the DCO Scheme.</p> <ul style="list-style-type: none"> • Extension of the existing double tracking between Parson Street Junction and Ashton Junction by about 1.6 km to a new Clifton Junction just south of the Clifton Suspension Bridge. • Upgrade Parson Street Junction which connects the Portishead Line with the Bristol to Exeter Main Line. • Installation of an intermediate signal in the 	<p>Other improvement works along the Portishead Branch Line to deliver the DCO Scheme to be implemented under Network Rail's permitted development rights which did not form part of the DCO Scheme.</p> <ul style="list-style-type: none"> • Minor signalling and other works between Ashton Junction and Parson Street Junction. 	<p>No further change</p>	<p>The extension of double tracking between Ashton Junction and a new Clifton Junction is no longer required for the hourly / hourly plus scheme.</p> <p>New signalling works through the Avon Gorge are captured as part of the associated development of the DCO Scheme.</p> <p>The upgrade of Parson Street Junction remains as a permitted develop work (see next section) but the scope of the engineering works is much simpler than the complicated junction enhancement required for the half hourly scheme.</p> <p>The Scoping Opinion requested a careful description of the DCO Scheme and permitted development works required to deliver the project. This is captured in the ES.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
Avon Gorge, minor track and access improvements for maintenance purposes.			
<i>Other works on the Bristol to Exeter main line required to deliver the DCO Scheme under Permitted Development Rights</i>			
<p>Other works required to deliver the DCO Scheme, but which will be undertaken by Network Rail permitted development rights are:</p> <ul style="list-style-type: none"> • Bedminster Down Relief Line. 	<p>Other works required to deliver the DCO Scheme, but which will be undertaken by Network Rail under their permitted development rights are:</p> <ul style="list-style-type: none"> • Parson Street Junction improvements including Liberty Lane Sidings • Parson Street Station Improvements, and • Bedminster Down Relief Line. 	<p>Other works required to deliver the DCO Scheme, but which will be undertaken by Network Rail under their permitted development rights are:</p> <ul style="list-style-type: none"> • Parson Street Junction improvements including Liberty Lane Sidings • Parson Street Station Improvements, and • Bedminster Down Relief Line. <p>The DCO Scheme includes the temporary occupation of land at Liberty Lane Sidings as a construction compound.</p>	<p>The Scoping Opinion requested that other projects required to deliver the DCO Scheme under permitted development rights are assessed in the ES. The assessment is provided in Chapter 18 In-combination and Cumulative Effects Assessment (DCO Document Reference 6.21).</p>
<i>The NSIP</i>			
Construction of a new railway between Portishead and Pill	Construction of 5,500 metres of new railway between	The NSIP comprises construction of a new railway	At present, there are no plans for electrification of the railway. It is Network

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<p>along the existing disused corridor.</p> <p>Horizontal alignment to be shifted c.3 m to improve the curvature of the alignment and allow greater separation between the railway and Old Portbury Station House and the National Cycle Network route 26 (“NCN26”) under the Royal Portbury Dock Road, Marsh Lane and M5 bridges.</p> <p>Potential need for acoustic screening.</p> <p>Minor localised lowering of the ground by c.300 mm under existing bridges to provide sufficient headroom for overhead line electrification (“OHLE”).</p> <p>Farm accommodation bridge to replace closure of two informal crossings.</p> <p>Restore or replace culverts along the disused section of the railway.</p>	<p>Portishead and Pill along the existing disused corridor comprising 4,750 metres between Portishead and Portbury Dock Junction and 750 metres between Portbury Dock Junction and Pill Junction.</p> <p>Horizontal alignment to be shifted c.3 m to improve the curvature of the alignment and allow greater separation between the railway and Old Portbury Station House and the NCN26 under the Royal Portbury Dock Road, Marsh Lane and the M5 bridges.</p> <p>Acoustic screening on the south side of Portishead station and by Old Portbury Station House.</p> <p>Minor repair works to bridges and culverts.</p> <p>Clearance and reforming of the drainage ditches along the railway and culverts.</p>	<p>between Portishead and Pill, consisting of 5,558 metres of new track between Portishead and Pill Junction, and 1,002 metres of the existing operational railway servicing Royal Portbury Dock to be slewed across to accommodate the new line between a location 262 metres north west of Avon Road Bridge and Pill Junction. Works Nos. 1, 1A, 1B and 1C.</p> <p>Construction of a new single railway between Portishead and Pill along the existing disused corridor.</p> <p>Re-instatement of drainage ditches and culverts.</p> <p>Minor works to bridges.</p> <p>New lineside equipment including telecommunications, signalling, and cabling.</p>	<p>Rail policy to future proof new structures to incorporate OHLE, but no changes are proposed for existing structures.</p> <p>Proposed lowering of the track to accommodate sufficient head clearance under structures was not considered to be feasible on further design. The Scoping Opinion advises that information be provided on electrification. However, this is not relevant to the DCO Scheme.</p> <p>Pill Junction was re-located to allow for a longer section of double tracking through Pill to reduce the risk of a collision between a passenger train and a freight train. The location of Pill Junction on operational noise is considered in the ES at Chapter 13: Noise and Vibration (DCO Document Reference 6.16).</p> <p>The works for Cattle Creep Bridge and Easton-in-Gordano stream have been assessed in the ES Appendix 17.1 Flood Risk Assessment (DCO Document Reference 5.6).</p> <p>The description of the DCO Scheme with the design changes for the NSIP remains materially the same as the proposed</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<p>Minor maintenance of existing road bridges over the railway for Station Road, Royal Portbury Dock Road and Marsh Lane such as replacement of joint mortar.</p> <p>Continuation of the new railway parallel with the operational freight line through Pill to a new Pill Junction to be located between Pill Station and Pill Viaduct.</p>	<p>Earthworks on cutting and embankment slopes through Pill at Avon Road embankment, Hardwick Cutting at Pill Station and Mount Pleasant embankment east of Pill Viaduct.</p> <p><u>Material design changes:</u></p> <p>No minor localised lowering of the ground under existing bridges.</p> <p>Farm accommodation bridge was removed from the scheme and alternative access arrangements provided.</p> <p>Proposal to infill Cattle Creep Underbridge and provide an enlarged culvert on the Easton-in-Gordano stream.</p> <p>The location of Pill Junction was moved westwards between Pill Viaduct and Pill Tunnel.</p>	<p>Replacement of Avon Road Bridge.</p> <p>Earthworks for Avon Road Embankments, Hardwick Cutting and Mount Pleasant Embankment.</p> <p>Removal of Portbury Dock Junction.</p> <p>Works to strengthen Pill Viaduct.</p> <p>Installation of new Pill Junction.</p> <p>Acoustic screening at Portishead and Old Portbury Station House.</p> <p><u>Material Design changes:</u></p> <p>Cattle creep underbridge will be strengthened (not infilled) and the culvert on the Easton-in-Gordano will be repaired or replaced on a like-for-like basis and not enlarged.</p>	<p>development that is the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<i>Portishead Station, Car Parks and Highway Modifications</i>			
<p>The railway station to comprise a canopy structure sheltering the station building and part of the single platform.</p> <p>Platform to be 100 metres long for passive provision of a four-car train.</p> <p>Highway modifications to relocate Quays Avenue to the west of the new station.</p> <p>Two new car parks for 200 spaces.</p> <p>A combined pedestrian and cycle path linked to the town centre along the rest of the disused railway.</p>	<p>The station to comprise a canopy structure sheltering the station building and part of the platform. The station to include ticketing, waiting area, and public toilets.</p> <p>No material change to the highway modifications. Development of design details such as bus waiting facilities, taxis, and disabled parking.</p> <p>Platform to be 130 metres long for provision of a five car train. CCTV, public announcement system, a communications mast and lighting on the platform.</p> <p>Two new car parks, one north of the station and one to the west with provision for 250 parking spaces.</p> <p>A combined pedestrian and cycle link to the town centre</p>	<p>Work No. 2 and 2A Diversion of Quays Avenue and highway drainage to The Cut.</p> <p>Work No. 3 a pedestrian and cycle path from Harbour Road to Portbury Ditch (“the boulevard” feature).</p> <p>Work No. 4 new car park B south of Harbour Road and east of Portbury Ditch with 200 spaces plus 6 disabled spaces.</p> <p>Work No. 5 a new railway station at Portishead.</p> <p>Work No. 6 a new permanent car park A between Portishead Station and Phoenix Way with 54 spaces plus 13 disabled spaces.</p>	<p>The design for Portishead Station and surrounds is largely as described.</p> <p>Provision has been made for a five-car train in the future, which would be more efficient at delivering increased services compared with re-designing the scheme for a half hourly service.</p> <p>The operational noise assessment assumes five carriage trains in the future year assessment scenario.</p> <p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>along the disused railway (“the boulevard” feature).</p> <p>New footpaths linking the station along both the north and south side of the railway to a new bridge near Trinity School.</p> <p>Highway and car park drainage to The Cut and Portbury Ditch.</p>		
<i>Trinity Primary School Bridge and associated footpaths</i>			
<p>A new bridge over the railway to replace the current permissive crossing over the disused railway line.</p> <p>Zig-zap ramp on both sides of the bridge.</p> <p>Steel painted in a neutral colour.</p> <p>Structure height about 6.2 metres.</p>	<p>A new combined pedestrian and cycle bridge and links to the existing path network.</p> <p>Zig zag ramp (gradient 1:15) to be accessible for disabled users.</p> <p>Solid parapets 1.8 metres high over the railway and open parapets and handrails on the staircases and ramps.</p> <p>Steel painted in a neutral colour.</p> <p>Structure height about 8.5 metres over the railway to</p>	<p>Works Nos. 7, 7A-7E a new foot and cycle bridge over the railway, new paths to connect with the existing network, a temporary construction compound off Tansy Lane and a temporary path over the railway during construction of the new bridge.</p> <p><u>Material design changes</u></p> <p>To reduce land-take from open space the land contouring and landscaping</p>	<p>The Trinity Primary School Bridge is a large structure in a residential area. The modifications to the design do not affect the need for a landscape and visual impact assessment as required by the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	allow for future overhead line electricity gauge clearance.	works have been scaled back.	
Closure of Historic Crossings			
Formal closure of Moor Lane.	Ten historic crossings to be closed (including Moor Lane).	Eleven historic crossings to be closed (including Moor Lane).	The short-listed projects selected for the cumulative impacts assessment have been agreed with North Somerset District Council and Bristol City Council and include:
Sheepway Compound and surrounds			
The need for temporary / permanent compounds not identified.	<p>A new permanent maintenance compound and RRAP on the north side of the railway at Sheepway. To be large enough to provide a turning circle and parking for up to four 4.6 t light vans of the type used by Network Rail for maintenance.</p> <p>Entrance to be remodelled, provision for a similar number of parking spaces as are found at present, and the existing bus stop to be relocated c.20 metres further</p>	<p>Work No. 8 temporary haul road on the south side of the railway corridor between Fennel Road, Portishead and Sheepway, Portbury.</p> <p>Work No. 9 a new permanent vehicular compound and RRAP north of the railway and north west of Sheepway.</p> <p>Work Nos. 10, 10A, 10B, and 10C a temporary diversion of the existing permissive cycle path on the north west side of Sheepway, a temporary construction compound at Sheepway, a temporary haul</p>	<p>The design for Sheepway has developed and has been influenced by the Hinkley Point C Connection NSIP.</p> <p>The Hinkley Point C Connection NSIP is considered in the cumulative effects assessment.</p> <p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>east to reduce conflict with highway traffic.</p> <p>A large temporary compound at this location.</p>	<p>road (to provide access for the Hinkley Point C Connection NSIP), and a new pond in the Portbury Wharf Nature Reserve.</p>	
<i>New access and temporary haul roads, Sheepway</i>			
<p>Farm accommodation bridge proposed to mitigate extinguishment of information railway crossings.</p>	<p>Improve agricultural access to field off Sheepway to the east to replace extinguishment of existing accommodation crossings.</p> <p><u>Material design change</u></p> <p>The farm accommodation bridge was not taken forward at the request of the farmer.</p>	<p>Works Nos. 11, 11A and 11B improved agricultural access off Sheepway to the south of the railway and temporary construction haul roads.</p> <p>The access is to be shared with temporary accesses for a haul road (running east from Sheepway along the south side of the railway) and an access for National Grid to mitigate for the closure of the nearby level crossing.</p>	<p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>
<i>The Portbury Hundred Temporary Compounds and Surrounds</i>			
<p>Temporary construction compound and access not identified.</p>	<p>A new access off the A369 Portbury Hundred to replace extinguishment of existing accommodation crossing</p>	<p>Works Nos. 12, 12A, 12B and 12C a permanent new access to the A369 Portbury Hundred, a temporary</p>	<p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>from the north side of the railway. Large temporary construction compound.</p>	<p>construction compound between the A369 and the railway, a new pond for ecological mitigation, and temporary construction haul road.</p>	<p>that was the subject of the Scoping Opinion.</p>
<i>Haul Roads</i>			
<p>Haul roads not identified.</p>	<p>Haul roads along the southern side of the disused railway between Portishead, Sheepway and the Portbury Hundred construction site.</p>	<p>Works Nos 13 and 13A improvement of the existing access to the A369 Portbury Hundred, additional permanent car parking spaces at Wessex Water's pumping station at The Drove, Portbury, and temporary construction haul road.</p>	<p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>
<i>Bridleway and Cyclepath Changes</i>			
	<p>Alterations to bridleway LA15/66/10 to improve the crossing at Royal Portbury Dock Road. Realign cycle path under Royal Portbury Dock Road, Marsh Lane and the M5 to</p>	<p>Works Nos. 14, 14A, 14B improvements to bridleway LA15/21/20 and LA8/66/10 over the Royal Portbury Dock Road and realignment of the existing permissive cycling</p>	<p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	allow both the cycle path and the railway to pass underneath.	<p>route under Royal Portbury Dock Road.</p> <p>Works No. 15 temporary alteration of bridleway LA8/66/10 west of Marsh Lane and north of the railway, Easton-in-Gordano.</p> <p>Works Nos. 16, 16A-16D permanent improvements to bridleway LA8/66/10, realignment of the existing permissive cycling route under Marsh Lane, temporary construction compound under the M5 Avonmouth Viaduct, a permanent RRAP on the Port of Bristol Company's Railway, and a new pond for ecological mitigation.</p>	
<i>Lodway Construction Compound and Surrounds</i>			
Temporary construction compound and access not identified.	Temporary construction compound at Lodway.	Work No. 17 a temporary construction haul road and construction compound at Lodway.	The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
<i>New Bridleway</i>			
	Extend bridleway LA8/67/10 from west of the M5 to connect with Pill village.	Work No. 18 new bridleway between the M5 Avonmouth Viaduct and NCN41.	The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Railway signalling Improvements on the Port of Bristol Company's Railway</i>			
	New signalling equipment along the Portbury Freight Line Spur.	Work No. 19 installation of railway signalling equipment, troughs and cables between Portbury Dock Junction and a new railway signal at the Port of Bristol Company's Royal Portbury Dock.	The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Avon Road Bridge, Pill and Surrounds</i>			
The pedestrian/cycle underbridge to be widened to accommodate the new railway track for the Portishead Branch Line as well as the existing operational railway into Royal Portbury Dock. The works would require retaining walls adjacent to gardens off	The pedestrian/cycle underbridge to be demolished and rebuilt with a wider structure. Avon Road embankments to be widened, steepened, and strengthened. Temporary access required via Lodway Close gardens.	Replacement of Avon Road Bridge and strengthening of the Avon Road embankments form part of Work No. 1 for the NSIP. Work No. 20 temporary diversion of NCN Route 41. Work No. 20A a temporary construction compound at	The assessment is based on a reasonable worse case which would involve bringing in a crane, demolishing garages and setting up a construction compound close to the bridge, rather than constructing the bridge from the railway. It may be necessary to close the bridge to pedestrians for up to six months.

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
Lodway Close. The works would be within the operational railway boundary.	Also require temporary diversion of NCN41 and a small construction compound on the north side of the railway. Also need to demolish 12 garages to create space for the construction compound.	Avon Road, Pill (including demolition of 12 garages).	The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Pill Station and Car Park</i>			
<p>New pedestrian bridge off Monmouth Road to access the refurbished southern platform.</p> <p>New car park off Severn Road to provide spaces for c.50 spaces.</p> <p>Upgrade and signpost pedestrian route between the car park and the station.</p>	<p>Demolition of No. 7 Station Road to create a new forecourt, drop off, disabled parking, cycle storage, ticketing and entrance to the station on the south side.</p> <p>The ramp to the platform at a 1:22 gradient suitable for people with mobility restrictions.</p> <p>Rebuild the southern platform and provide an emergency refuge area at the northern end of the platform. CCTV, lighting, and PA system on the platform.</p>	<p>Works Nos. 21 and 21A new car park off Severn Road and Monmouth Road for 58 spaces and permanent maintenance compound with a Road Rail Access Point (“RRAP”) and PSP.</p> <p>Works Nos. 22, 22A and 22B a new railway station at Pill, modifications to the bus stop on Lodway Road and temporary construction compound in the Pill Memorial Club car park.</p> <p><u>Material Design Changes</u></p> <p>Bus stop modifications.</p>	<p>Micro-consultation with the local community in February-March 2016 on four options led to a re-think of the station design.</p> <p>North Somerset Council has purchased No. 7 Station Road (the original Station House) which will provide the new entrance to the station.</p> <p>The proposals for Pill Station have been assessed for most of the technical topics.</p> <p>The design development does not materially affect the requirements of the Scoping Opinion and the description of the DCO Scheme with the design iterations remains materially the same as</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>Cut back, steepen and strengthen Hardwick Cutting with soil nails.</p> <p>No change to the northern platform.</p> <p>New car park off Severn Road with parking for c.62 spaces plus 3 disabled spaces in the station forecourt.</p> <p>Option to locate the principal supply point (“PSP”) for signalling equipment in the car park.</p> <p>Sign post path between the station and the car park.</p> <p>Parking restrictions to encourage travellers to use the car park.</p> <p><u>Material Design Changes</u></p> <p>Reconfiguration of the entrance to Pill Station from Monmouth Road to Station road.</p>	<p>Reduce area of Pill car park to create sufficient room from the RRAP and principal supply point (“PSP”) for signalling equipment.</p>	<p>the proposed development that was the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	Removal of a pedestrian bridge over the railway.		
<i>Temporary construction compound under Pill Viaduct</i>			
Construction compounds not identified.		Work No. 23 a temporary construction compound under Pill Viaduct.	The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Pill Tunnel Eastern Portal</i>			
Enhanced access for maintenance and emergency vehicles to Pill Tunnel Eastern Portal including a compound to the south side of the railway. Other new access points may be required.	Enhanced access for maintenance and emergency vehicles to Pill Tunnel Eastern Portal, all on the north side of the railway. Option to locate a PSP building. New electricity cables along Chapel Pill Lane to the PSP Land contouring to accommodate the building and turning circle. Minor highway modification in Ham Green to access the site.	Work Nos. 24 and 24A a new permanent vehicular compound at Ham Green with a RRAP, access off Chapel Pill Lane and alternative access to Ham Green Lakes. Temporary construction compound. <u>Material Design Changes</u> Removal of the PSP and need for new electricity cables along Chapel Pill Lane. Provide additional private access to Ham Green Lakes.	The works required at Ham Green have been scaled back, with the location of the PSP at Pill Station. The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p><u>Material Design Change</u> Keep the development to the north side of the railway.</p>		
<i>Improvements along the Existing Operational Railway</i>			
<p>Extant single railway from Pill Junction to Clifton Junction through the Avon Gorge. No material works to the four tunnels (from west to east, Pill Tunnel, Sandstone Tunnel, Clifton Bridge Tunnel No. 2 and Clifton Bridge Tunnel No. 1). Some minor works such as repointing are required which would be done as part of the on-going maintenance regime for the operational railway and do not form part of the DCO.</p>	<p>Minor works required along railway:</p> <ul style="list-style-type: none"> • Works to improve the exiting track geometry • Minor works to tunnels • Minor repairs to bridges, including Pill Viaduct, Miles Dock Bridge, and Quarry Bridge No. 2. • Minor works to three sections of retaining walls. • Geotechnical works in the Avon Gorge including removal of trees causing root jacking, hand picking loose stones, and rock bolting. • Signalling and electrical systems and intermediate signals. 	<p>Works Nos. 25, 25A and 25C permanent catch fences in the Avon Gorge to avoid unstable rocks falling onto the railway. Work No. 25B strengthening of Quarry Bridge No. 2. The proposed construction method was changed to accommodate the National Trust's request to maintain the height clearance under the bridge. Plus minor works required along the railway such as:</p> <ul style="list-style-type: none"> • Improvements in track geometry. • Minor works to tunnels, bridges, and retaining walls. 	<p>The design development has been accompanied by extensive ecological studies as many of these works are located in the Avon Gorge Woodlands SAC. The Scoping Opinion required an HRA for works within the SAC. The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<ul style="list-style-type: none"> • GSM-R masts. • 6 micro-compounds with basic welfare facilities. • Several permanent accesses off the River Avon Tow Path, included stepped access to the railway. <p><u>Material Design Changes</u></p> <ul style="list-style-type: none"> • No Clifton Junction and double tracking southwards to Ashton Junction. 	<ul style="list-style-type: none"> • Geotechnical works – vegetation removal, stone picking and rock bolting. • Signalling, electrical systems, and GSM-R masts. • Micro-compounds for welfare. • Permanent pedestrian access points. <p><u>Material Design Changes</u></p> <ul style="list-style-type: none"> • Three catch fences. • Partial reconstruction of Quarry Bridge No. 2. 	
<i>Clanage Road Temporary Construction Compound and Permanent Maintenance Site</i>			
<p>Temporary construction compound and access not identified.</p>	<p>A new permanent maintenance compound and track access point with hard standing.</p> <p>Site of a temporary construction compound.</p>	<p>Work No. 26 and 26A a new permanent vehicular access from Clanage Road and new RRAP and permanent railway maintenance compound. A temporary construction compound.</p> <p><u>Material Design Changes</u></p> <p>Consideration of and consultation on land to the</p>	<p>The ES Appendix 17.1 Flood Risk Assessment (DCO Document Reference 5.6) indicates that floodplain compensation is required for the DCO Scheme at Easton-in-Gordano stream to offset the widened railway embankment and at the Clanage Road construction and permanent maintenance compound to compensate for the new ramp from the compound to the railway. In both cases</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
		north of the proposed Clanage Road compound for flood compensation. The FRA modelling indicates that this is not required and flood compensation can be accommodated within the permanent maintenance compound.	the compensation comprises localising ground lowering. The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Ashton Vale Level Crossing and Pedestrian Ramp</i>			
Ashton Vale Level Crossing to be kept, with more cycles of the crossing barriers than existing due to four train passes per hour plus freight trains.	Ashton Vale Level Crossing to be kept, with more cycles of the crossing barriers than existing due to two train passes per hour (for the hourly scheme) plus freight trains. Modifications to Winterstoke Road onto Ashton Vale Road, optimisation of the Ashton Vale Road signals, and upgrade of traffic signals. Alternative pedestrian access via a new pedestrian and	Work No. 27 a new public foot and cycle path and ramp from the A370 Ashton Road to Ashton Vale Road. Work No. 28 improvement of Winterstoke Road, including extending the existing left turn land into Ashton Vale Road and improvements of the traffic signals. <u>Material Design Change</u> The temporary construction compound is now located on the pavement between the	Between the Scoping Report and the PEI formal consultation, consideration was given to closing Ashton Vale Level Crossing and providing an alternative highway access into the Ashton Vale Industrial Estate. However, following further transport assessment, the increased cycles of the crossing barriers for the one train per hour scheme (1tph) are not sufficient to warrant closing the Level Crossing. While the alternative access into the Ashton Vale Industrial Estate was consulted upon with the interested parties in the Industrial Estate, this proposal has not been brought forward into the DCO Scheme.

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>cycle link between Ashton Vale Road and Ashton Road.</p> <p>Small temporary construction compound off Ashton Vale Road.</p>	<p>skew bridge and Winterstoke Road.</p>	<p>The main environmental issues at this location concern traffic management on the Winterstoke Road / Ashton Vale Road and pedestrian / cyclist movements. These are covered in the ES at Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19).</p> <p>The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.</p>
<i>Barons Close Pedestrian Crossing</i>			
<p>This crossing was expected to be removed by the Ashton Vale Metrobus Project in 2016 and pedestrians re-routed to the Ashton Vale Road Junction Level Crossing 200 metres to the north.</p>	<p>Assumed the crossing remains closed.</p>	<p>Assumed the crossing remains closed.</p>	<p>The Barons Close Pedestrian Crossing was closed temporarily during the construction of the MetroBus scheme for route “m2” between the Ashton Vale Park and Ride and Bristol city centre. The crossing remains closed and it is proposed to close it permanently as part of the DCO Scheme. The permanent closure of the Barons Close Pedestrian Crossing is discussed in the ES Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.7).</p>

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
			The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Liberty Lane</i>			
Not identified as a work.	Liberty Lane Sidings improvements are required for the operation of the DCO Scheme to avoid adversely affecting the Freightliner operational movements. However, they formed part of the permitted development works to be undertaken by Network Rail and were not included in the DCO Scheme.	While the Liberty Lane Sidings improvements are still required for the operation of the DCO Scheme and will be undertaken by Network Rail under their permitted development rights, it is proposed to occupy part of the site temporarily as a construction compound for the DCO Scheme.	As permitted development works required for the delivery of the DCO Scheme, the Liberty Lane Sidings improvements are assessed as part of the cumulative effects assessment. The description of the DCO Scheme with the design iterations remains materially the same as the proposed development that was the subject of the Scoping Opinion.
<i>Fencing Strategy</i>			
Not identified.	Network Rail protocols to be followed for the type of fence. <ul style="list-style-type: none"> Palisade fencing. Metal vertical bar fencing in areas of risk to trespass. 	To follow Network Rail protocols. Minor adjustments to fencing to reduce visual intrusion through the Avon Gorge.	The fencing strategy is assessed in the ES in relation to ecology and landscape and visual impact assessments. The description of the DCO Scheme remains materially the same as the

Table 1: Changes in Scheme Design and Implications for the Scoping Opinion

DCO Scheme Design Assumed in the Scoping Report	Changes in Scheme Design between scoping and PEI	Changes in DCO Scheme between PEI and the ES	Implications for the Scoping Opinion
	<p>To be adopted close to the stations.</p> <ul style="list-style-type: none"> • Paladin fencing. Welded mesh fence usually up to 1.8 metres high. To be used through the Avon Gorge. • Post and wire fencing. Suitable in the countryside where trespass is not an issue. 		<p>proposed development that was the subject of the Scoping Opinion.</p>

ch2m.SM