



MetroWest+

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council

6.14, Environmental Statement, Volume 2, Chapter 11 Landscape and Visual Impacts Assessment

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, regulation 5(2)(a)
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CHAPTER 11

Landscape and Visual Impacts Assessment

11.1 Introduction

11.1.1 The Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme ("the DCO Scheme") has the potential to give rise to significant landscape and visual effects. This Chapter:

- describes the relevant legal and policy framework which has informed the undertaking of the assessment;
- describes the methodology used for the identification and assessment of likely significant landscape and visual impacts effects in this Environmental Statement ("ES");
- describes the landscape and visual baseline having regard to existing information;
- describes the measures that have been adopted as part of the DCO Scheme;
- identifies and assesses the likely significant effects that could result from the DCO Scheme during construction and operation phases;
- considers mitigation of likely significant effects and assesses residual effects;
- considers the cumulative effects of other developments in combination with the DCO Scheme on landscape and visual receptors;
- identifies the limitations encountered in compiling this ES; and
- provides a summary of the residual effects for the mitigated DCO Scheme.

11.1.2 Landscape character and visual impact assessments are separate, but related topics. The landscape character assessment relates to changes to the elements, features and patterns which together make up the landscape character, regardless of where it is viewed from. The visual impact assessment relates to the change in the view from particular locations which are referred to as the visual receptors.

11.1.3 The process of landscape and visual impact assessment ("LVIA") involves developing an understanding of both the existing landscape character and the visual resources in relation to the DCO Scheme, and then assessing the impact of the DCO Scheme on these resources. Mitigation measures are proposed and included as part of the design where required.

11.1.4 The landscape character has been assessed through consideration of nationally and locally designated landscapes and their features, as well as site specific qualities.

- 11.1.5 An understanding of the visual impact has been developed by preparing an approximate visual envelope of the DCO Scheme and assessing the magnitude of the change in views from selected viewpoints within that visual envelope where those viewpoints are considered potentially to undergo a significant change in view.
- 11.1.6 The cumulative effects consider the impact of other development in the vicinity of the DCO Scheme, as well as the construction and operation of the proposed works required for MetroWest Phase 1 comprising the modifications to Parson Street Junction (including Liberty Lane Sidings) where the DCO Scheme will join the south west main line between Bristol and Exeter, Parson Street Station and the Bedminster Down Relief Line in the Bristol area, the Avonmouth / Severn Beach Signalling, and the Bathampton Turnback, which is located near the outskirts of Bath.
- 11.1.7 This chapter should be read in conjunction with Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) and Chapter 8 Cultural Heritage (DCO Document Reference 6.11) with regard to the impact of the DCO Scheme on the setting of heritage features.

11.2 Legislation and Policy Framework

National Policy

National Policy Statement for National Networks

- 11.2.1 The National Policy Statement for National Networks ("NPSNN") advises on the assessment of landscape and visual impacts for nationally significant infrastructure projects ("NSIP") for national networks including railways at paragraphs 5.143 to 5.161. Applicants should undertake an assessment of any likely significant landscape and visual impacts and describe these in the ES. Table 11.1 summarises the requirements of the NPSNN for developers.

Table 11.1: Summary of relevant NPSNN advice on landscape and visual impact assessment

Summary of NPSNN provision	Consideration within the ES
Paragraph 5.144. The assessment should include reference to any landscape character assessment and associated studies and take account of any relevant policies based on these assessments in local development documents in England.	The relevant National Character Areas ("NCA") developed by Natural England and landscape character areas as developed by North Somerset District Council have been identified and described in the baseline Section 11.4. The potential effects on these areas have been assessed in Section 11.6.
Paragraph 5.145. The assessment should include any significant effects during the construction of the project and/or the significant effects of the completed development in its operation on landscape components and landscape character (including historic landscape characterisation).	The landscape and visual assessment consider potentially significant effects during the construction phase and the operation phase in Section 11.6.

Table 11.1: Summary of relevant NPSNN advice on landscape and visual impact assessment

Summary of NPSNN provision	Consideration within the ES
Paragraph 5.146. The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation.	An approximate visual envelope has been developed for the DCO Scheme and the potential significant change in views caused by the DCO Scheme from within that area have been assessed in Section 11.6.

11.2.2 Chapter 15, Soils, Agriculture, Land Use and Assets (DCO Document Reference 6.18) addresses linear infrastructure in the context of the Green Belt.

National Planning Policy Framework

11.2.3 The LVIA has been considered in relation to the National Planning Policy Framework (“NPPF”) Chapter 7 *Requiring good design* and Chapter 12 *Conserving and enhancing the historic environment*. NPPF Chapter 7 states that planning policies should:

- “respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation” (paragraph 58)
- be “visually attractive as a result of good architecture and appropriate landscaping” (paragraph 58) and in addition, it is “proper to seek to promote or reinforce local distinctiveness” (paragraph 60), and
- “take the opportunities available for improving the character and quality of an area and the way it functions” (paragraph 64).

11.2.4 NPPF Chapter 12 states that local authorities should develop policies that take into account:

- “the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place” (paragraph 126).

Local Policy

11.2.5 The local planning framework comprises a number of key adopted documents which form the statutory development plan for each authority, against which proposals seeking planning permission are assessed. These policy documents comprise saved policies from extant Local Plans as well as new emerging policy documents.

11.2.6 The DCO Scheme crosses two local planning authorities, North Somerset District Council (“NSDC”) and Bristol City Council (“BCC”). Relevant policies

are summarised in Table 11.2 below and further information is provided in the ES Chapter 6 Planning Framework (DCO Document Reference 6.9) .

Table 11.2: Summary of local policy on landscape and views

Policy No.	Title	Description
<i>North Somerset Council Core Strategy, adopted January 2017</i>		
CS5	Landscape and the Historic Environment	<p>Page 40. <i>“The character, distinctiveness, diversity and quality of North Somerset’s landscape and townscape will be protected and enhanced by the careful, sensitive management and design of development. Close regard will be paid to the character of National Character Areas in North Somerset and particularly that of the 11 landscape types and 31 landscape character areas identified in the North Somerset Landscape Character Assessment.”</i></p> <p>Paragraph 3.80; Page 41. <i>“Within urban areas, townscapes are also affected by the amount and type of landscaping...In certain areas these can make a significant contribution to character of the overall environment and to the quality of life of local residents”.</i></p>
CS9	Green Infrastructure	Paragraph 3.135; Page 53. <i>“Green infrastructure, particularly if properly planned and integrated into development, can enhance the townscape and visual amenity.”</i>
<i>North Somerset Council, Sites and Policies Plan Part 1: Development Management Policies, Adopted July 2017</i>		
DM3	Conservation Areas	Seeks to protect conservation areas and their setting from inappropriate development.
DM4	Listed Buildings	Seeks to protect listed buildings and their setting from inappropriate development.
DM5	Historic Parks and Gardens	Includes provisions to ensure that development proposals will not adversely affect designated landscape character within the district including both nationally registered and unregistered Historic Parks and Gardens.
DM6	Archaeology	Seeks to ensure that new development will not significantly impact on archaeological remains or their setting.
DM9	Trees and Woodland	This policy seeks to incorporate existing trees and wooded areas into design proposals where practical and ensure that the planting of new trees is properly designed and

Table 11.2: Summary of local policy on landscape and views

Policy No.	Title	Description
		adequately maintained in the longer term and recognise the place-making quality of trees.
DM10	Landscape	Page 28. The policy aim is <i>“To protect and enhance the diversity, quality and distinctive qualities of the landscape of North Somerset identified in the North Somerset Landscape Character Assessment. Protect dark skies from light pollution and areas of greatest tranquillity from development.”</i>
<i>North Somerset Landscape Character Assessment Supplementary Planning Document, Adopted September 2018</i>		
		This document sets out the current status of the North Somerset landscape and indicates the areas in need of enhancement and of conservation.
<i>Bristol Development Framework, Bristol Core Strategy, adopted June 2011</i>		
BCS9	Green Infrastructure	Page 75. <i>“Open spaces which are important for recreation, leisure and community use, townscape and landscape quality and visual amenity will be protected.”</i>
BCS22	Conservation and the Historic Environment	Page 127. <i>“Development proposals will safeguard or enhance heritage assets and the character and setting of areas of acknowledged importance including: Scheduled ancient monuments Historic buildings both nationally and locally listed; Historic parks and gardens both nationally and locally listed; Conservation areas; Archaeological remains”.</i>
<i>Bristol Site Allocations and Development Management Policies, July 2014</i>		
DM15	Green Infrastructure Provision	States that the provision of additional and/or improved management of existing trees will be expected as part of the landscape treatment of new development.
DM26	Local Character and Distinctiveness	This policy requires development to contribute towards local character and distinctiveness by responding to existing land forms, green infrastructure and historic assets, and retaining and enhancing important existing views.

Table 11.2: Summary of local policy on landscape and views

Policy No.	Title	Description
DM27	Layout and Form	This policy requires the layout and form of new development and landscapes to contribute towards the creation of quality urban design.
DM31	Heritage Assets	The policy identifies that development that has an impact upon a heritage asset will be expected to conserve and, where appropriate, enhance the asset or its setting.

11.3 Methodology

Guidance and Best Practice

- 11.3.1 This ES has broadly followed the procedures set out in *Guidelines for Landscape and Visual Impact Assessment* ("GLVIA") 3rd Edition (2013). GLVIA has been produced under the joint auspices of the Landscape Institute ("LI") and the Institute of Environmental Management and Assessment ("IEMA").
- 11.3.2 Construction and operational impacts have been assessed against both landscape character and visual receptors.
- 11.3.3 Landscape impacts were assessed through firstly establishing the existing landscape character through desk based study and site survey, in order to determine the baseline conditions. The next step was to assess the impact (or change) of the DCO Scheme on the existing landscape and determine to what extent it would affect the various elements and features which together make up the landscape character. The assessment of the effects seeks to identify what changes are likely to occur as a result of the DCO Scheme, and how they would 'fit', or otherwise, into the existing landscape character. The effect of the DCO Scheme on landscape receptors was considered through determining the nature of the receptor likely to be affected and the nature of the effect likely to occur.
- 11.3.4 The visual impact assessment identified key receptors and views, through desk study and site survey. The change in view from particular viewpoints, known as visual receptors, was then considered. The assessment described the change in view between the existing view and the potential view with the DCO Scheme in place. The sensitivity of the receptors was determined in order to assess the magnitude and significance of visual effects, as well as considerations such as whether the DCO Scheme would be central or peripheral to the view, and the distance between the receptor and the site.
- 11.3.5 Seasonal changes in landscape character and views have been considered through the undertaking of both winter and summer site surveys.

Consultations

11.3.6 A summary of consultations undertaken to date is presented in Table 11.3 below.

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
Scoping Opinion Responses (August 2015)		
Planning Inspectorate	Paragraph 3.29. The Scoping Report does not provide sufficient evidence to scope out the cumulative effects with the Bedminster Down Relief Line, Avonmouth / Severn Beach Signalling and Bathampton Turnback.	The cumulative effects of the DCO Scheme on other works for MetroWest Phase 1 are discussed in Section 11.8 and Chapter 18 In-combination and Cumulative Effects Assessment (DCO Document Reference 6.21) and Appendix 18.2 (DCO Document Reference 6.25).
	Paragraph 3.61. Careful consideration to be given to the form, siting, and use of materials and colours to help minimise the landscape and visual impacts of the development.	The design of the station building at Portishead and its surrounding landscape respond to the contemporary urban context of Portishead. The colour of fencing to the track will be selected to minimise visual impact. Local stone is to be reused for boundary walls. Further information on design development is provided in the Design and Access Statement (DCO Document Reference 8.1).
	Paragraph 3.62. The LVIA to cover construction works; removal of trees, hedgerows and other vegetation; changes to existing bridges and other structures which contribute to the character and appearance of the landscape; noise and movement of trains during operation; and lighting during operation.	The LVIA covers effects during construction and the movement of trains and lighting during operation. The effects are assessed in Section 11.6. Noise effects are addressed in Chapter 13 Noise and Vibration (DCO Document Reference 6.16).
	Paragraph 3.63. Describe models used for example in defining the Zone of Visual Influence ("ZVI"). Provide information on the area it	The use of digital models to develop the ZVI has been limited for the reasons set out in paragraph 11.3.12.

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
	covers and timing/methodology of any survey work. Location of viewpoints should be agreed with the local authorities and other relevant consultees such as Natural England.	The study area is defined in paragraphs 11.3.7 to 11.3.14 and details of surveys are included in paragraphs 11.3.5 and 11.3.19. A range of general views of the landscape have been selected and are shown in Appendix 11.1 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25).
	Paragraph 3.64. Describe and assess changes in views supported by suitable illustrations to describe the worst case.	The views shown in Appendix 11.2 in the ES Volume 4 Technical Appendices illustrate the potential change in view between summer and winter months. Appendix 11.3 provides a description of the change in views. Appendix 11.4 presents a number of photomontages. See DCO Document Reference 6.25.
	Paragraph 3.65. Provide replacement screen planting as appropriate. Where impacts can be avoided to minimised through changes in location, size or design of the proposals these should be discussed and agreed with the relevant consultees.	Railway Landscape Plans (disused line) to show replacement planting and ecological mitigation for the disused line are presented in DCO Document Reference 2.10.
	Paragraph 3.66. Cross-refer to other parts of the ES where appropriate.	References to other parts of the ES have been made within this chapter where appropriate.
Historic England	The assessment needs to cover the impact of the Project on cultural heritage assets including the setting of heritage assets, historic open spaces, historic features and the wider historic landscape.	The potential effects on the setting of listed buildings are addressed in 11.7. The effects on heritage assets are presented Chapter 8 Cultural Heritage (DCO Document Reference 6.11).

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
Natural England	The EIA should include an assessment of the project on the local landscape character area. The assessment methodology should follow the Guidelines for Landscape and Visual Impact Assessment, by the Landscape Institute and IEMA, 3rd Edition. Use of Landscape Character Assessment is encouraged. New development should consider the character and distinctiveness of the area, with the siting and design of the development reflecting local design characteristics and using local materials. The assessment should include the cumulative effect of the developments with other relevant developments in the area. The assessment should refer to the National Character Areas.	The LVIA includes an assessment of the potential effects on the NCAs, local landscape character areas described by NSDC, and site-specific landscape character areas developed as part of this LVIA. The assessment is presented in Section 11.6. The methodology used is in line with the methodology set out in GLVIA 3rd Edition as explained in Section 11.1 and 11.3.
<i>Informal micro-consultation on DCO scheme boundary (22 June to 3 August 2015)</i>		
Historic England	Photomontages should include long distance views of assets of interest with proposed development accurately scaled in same view. Effects on landscape amenity should be considered.	A range of general views of the landscape have been selected and are shown in Appendix 11.1 and 11.2 in the ES Volume 4 Technical Appendices. This includes a description of the potential changes. A number of photomontages are presented in Appendix 11.4. See DCO Document Reference 6.25.
North Somerset Local Access Forum/	Works in the Pill Tunnel area should be designed with consideration for the rural nature of this lane.	Railway Landscape Plans (disused line) to show native hedge and woodland planting and are presented in DCO Document Reference 2.10.
<i>Formal Stage 1 Consultation (22 June to 3 August 2015)</i>		

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
Public	<p>The scheme should be designed to be in keeping with the existing structures of the area, and consideration should be given to include landscaping and greenery within the design.</p> <p>General concerns for the lighting of the scheme with specific focus on the pedestrian and cycleways having adequate lighting.</p>	<p>The existing structures, for example road bridges, are being retained.</p> <p>Railway Landscape Plans (disused line) to show replacement planting and ecological mitigation for the disused line are presented in DCO Document Reference 2.10.</p> <p>Lighting is to Network Rail and North Somerset Council standards.</p>
Redacted	<p>Views from Quays Avenue, Harbour Road and Phoenix Way towards the station should be assessed. Opportunities for public art should be considered. Design should create appropriate 'gateway' and 'sense of place'.</p>	<p>Public art does not form part of the proposals, but the DCO Scheme does not prevent future art work.</p> <p>Visualisations of the bridge and its setting are presented in the ES Appendix 11.4 (DCO Document Reference 6.25).</p>
	<p>Visual impact of Trinity Primary School Bridge should be fully assessed, with consideration for impact on amenity of local residents and school.</p>	<p>Photomontages of the proposed bridge are contained in Appendix 11.4 (DCO Document Reference 6.25).</p>
Sustrans	<p>Security fencing below 1.8 m preferred for cycle bridges to reduce feeling of enclosure.</p>	<p>Fencing is in accordance with Network Rail standards.</p>
British Horse Society	<p>Works in the Pill Tunnel area should be designed with consideration for the rural nature of this lane.</p>	<p>Railway Landscape Plans (disused line) to show native hedge and woodland planting and are presented in DCO Document Reference 2.10.</p>
Formal Stage 2 Consultation (23 October 4 December 2017)		
North Somerset Council	<p>Various comments regarding the design of Portishead station:</p> <ul style="list-style-type: none"> The way the railway track is terminated and enclosed. The defensive nature on the boundary treatment and 	<p>The development of the scheme in the Portishead area, design and visualisations are illustrated in the Design and Access Statement (DCO Document</p>

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
	<p>impact on the user environment.</p> <ul style="list-style-type: none"> • Need for signposting to the station. • Need for a very strong, high quality hard and soft landscaping scheme to guide pedestrians to the entrance and create a more welcoming entrance. • Passengers arriving at the station may not know how to get to the town centre. • Need to explain the pedestrian routes between the station entrance and the town centre and provide details of the boulevard design. • A visualisation of the station entrance and associated landscaping would be useful. 	<p>Reference 8.1). The layout and associated landscaping are shown in the General Arrangement Plans and inset (DCO Document Reference 2.4).</p>
Bristol City Council	<p>The Council recognised the potential indirect landscape benefits through reduced highway congestion, reduced need for highway infrastructure projects, reduced parking pressures, and other gains relating to the public realm.</p> <p>Concerns were raised on the potential loss of vegetation within the Avon Gorge and the effect of reduced screening of railway infrastructure (fencing, masts, trains, etc).</p> <p>Policy BCS9 requirement for replacement planting must be complied with, and the landscape requirements to include an arboriculture survey and statement, with mitigation of vegetation loss and details of the new elements to be approved by the LPA.</p> <p>Specific comments:</p>	<p>Estimates of vegetation to be removed are provided in the ES Chapter 9 Ecology and Biodiversity (DCO Document Reference 6.12), Appendix 9.11 Avon Gorge Vegetation Management Plan (DCO Document Reference 8.12), and Appendix 9.12 Habitats Regulations Assessment (DCO Document Reference 5.5).</p> <p>Proposals for tree replacement will be agreed between NSDC and BCC for the removal of trees within BCC's jurisdiction.</p> <p>The proposals for fencing of the Bower Ashton temporary construction compound and permanent maintenance compound are determined by Network Rail's requirements, which take</p>

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
	<p>The impact of vegetation loss will be twofold: firstly the railway corridor would become more evident from viewpoints identified along the gorge; second elements such as security fencing, relay masts and train movements would be more obvious. Vegetation clearance also has the potential to change the walking and cycling experience of users of the Pill cycle route, a much used recreational facility providing access along the length of the Avon Gorge tidal reach to Gordano and beyond.</p> <p>Figure 4-16 in the PEI Report indicates both a permanent and temporary fence line that impact the character of the Bower Ashton Conservation Area and the open nature of the green belt when viewed from the south; the design of the permanent fence line in particular must be sympathetic to the conservation area character; it is suggested that security palisade fencing is not appropriate.</p>	<p>security and health and safety risks into consideration.</p> <p>The type of fencing follows Network Rail's policy. Paladin fencing will be used through the Avon Gorge.</p>
Public	<p>The visual that shows the walls that would enclose the end of the railway line/station appear unsightly and need refinement to appear attractive. The structural protection that surrounds the end of the track as it meets Quays Avenue must be designed appropriately, recognising that this will be a prominent viewpoint for station users and residents. It would be worthwhile for instance considering how this could potentially be treated using green walls.</p>	<p>The walls around the end of the railway line/station are included to screen views of the buffer stops and other equipment from the view from surrounding paths and road network. The height and location of the walls are determined by safety and security requirements. The walls have been designed so that they make a positive contribution to the view. Green walls are not considered to be viable considering the spatial requirements, the loading requirements on the wall and long-term maintenance and management commitments.</p>

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
		Further discussion of the design is presented in the Design and Access Statement in DCO Document Reference 8.1.
Public	Consideration needs to be given to the new landscaping and tree screening around the station and critical areas.	The planting design has been an integral part of the station forecourt design. Further discussion of the design is presented in the Design and Access Statement in DCO Document Reference 8.1.
Public	Very local residents in Portishead have not been involved enough in the plans. Local residents want more information about the look and feel of the proposals outside their homes. Information is inadequate.	Photomontages have been prepared to ensure further information is conveyed as to the visual appearance as well as the visibility of the station within the view. These are presented in the ES Appendix 11.4 (DCO Document Reference 6.25). Other plans and cross sections are provided in Part 2 Plans of the DCO Application.
Trinity School Portishead	Support for the nearby Bridge to replace the existing foot crossing over the railway [and] the project to consider: 1. additional screening of the school from the bridge through planting or similar, particularly at the north eastern corner where users would exit the bridge close to the school's gate (which is not their main entrance and only used occasionally); 2. adequate lighting on the footpaths to the north and south of the bridge as it can get very dark in the area; 3. anti-skateboarding measures on the bridge.	A visual screen (a perforated steel screen) is proposed on the bridge parapet to limit views from the bridge to the school. (Note: the steps from the bridge in this location have been removed). The approach footpaths and the bridge are lit to NSDC and Network Rail standards. Visualisations of the bridge and its setting are presented in Appendix 11.4 (DCO Document Reference 6.25).

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
Public	<p>Concerns over the design / over-engineering of the Trinity School Bridge.</p> <p>Concerns about its height, size, and visual impact.</p> <p>Consider shorter / circular ramps or steps only.</p> <p>Move it to another location such as closer to the station.</p>	<p>The location of the bridge is constrained by the public open space and avoiding loss of that, the proximity to adjacent properties and the presence of underground services.</p> <p>Circular ramps would mean ramps are closer to the adjacent houses. The ramps are designed to the relevant accessibility standards and cannot be shortened. The bridge is located in approximately the same location as the current railway line crossing to the school.</p>
Public	<p>Concerns over privacy and security as people using the bridge will be able to:</p> <ul style="list-style-type: none"> • See into people's windows • See into people's gardens • See into the school. <p>Concerns that planting will not resolve the privacy issues.</p> <p>Lighting needs to be balanced between safety and intrusive to local properties.</p> <p>Concerns over the proximity to the school / houses.</p> <p>High barriers to stop items being thrown from the bridge.</p>	<p>A visual screen (a perforated steel screen) is proposed on the bridge parapet to limit views from the bridge to the school.</p> <p>The approach footpaths and the bridge are lit to NSDC and Network Rail standards.</p> <p>The height of the bridge parapets (barriers) are designed to Network Rail standards</p>
Public	<p>The path between Peartree Field and Quays Avenue is not needed and will disturb residents.</p>	<p>The path provides connectivity between the station and those houses to the east. To limit disturbance to residents it has been located to the north of the existing planting which would be retained to provide visual screening of the path and passing people from the houses. A cross section showing the proposals are</p>

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
		presented in the Cross Section Plans (DCO Document Reference 2.36).
Public	The height of the train track has not been addressed. The train track is higher than the garden and if screening is not put in place occupants will lose privacy within their gardens. Please ensure planting and screening are to a height of the train along the length of properties.	The planting has been proposed to help retain the privacy of residential receptors.
Redacted land owner	Privacy and views lost facing west.	Replacement hedge and trees are proposed to be planted along the railway line boundary which will provide some visual screening (see Railway Landscape Plans (disused line) DCO Document Reference 2.10).
Redacted land owner	Runs too close to the house and garden and needs adequate screening to protect loss of privacy and disturbance.	Replacement hedge and trees are proposed to be planted along the railway line boundary which will provide some visual screening. The planting proposals are shown on the Railway Landscape Plans (disused line) DCO Document Reference 2.10.
Public	No accounting for loss of privacy to houses due to increased footfall along Monmouth Road. Privacy issues to Sambourne Lane residents.	This is not an environmental issue and so has not been taken into consideration in the assessment. The increase in people using the footpath as people go the car park from arriving train once an hour is not considered to be a significant impact. No mitigation is possible due to lack of space.
Clifton Suspension Bridge	Fencing in the Gorge - preference for mesh as this can be camouflaged easier through use of	New fencing in the gorge will be paladin and vegetation will be allowed to regrow around it after installation.

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
	planting. Requests any fencing to be hidden.	<p>Fencing is required for the DCO Scheme to prevent trespass in particular. Some proposed sections of fencing were removed at outline design following feedback to reduce the amount of vegetation clearance required. More sections may be removed during the detailed design stage. There are, however, benefits to fencing by managing public access and disturbance to the SAC, which is highlighted as a pressure/threat in the Site Improvement Plan, so the DCO Scheme will continue to work closely with stakeholders to ensure the correct balance is achieved.</p> <p>Fencing type options are determined by Network Rail's safety requirements along the track. There is insufficient space alongside the track within the Avon Gorge for planting which would be wide enough to form an effective visual screen. The effect of the DCO Scheme on Clifton Suspension Bridge is presented in Section 11.6.</p>
Historic England	<p>We believe that the most visual impact upon setting would be as a result from the proposed security fencing on both sides of the railway. The cumulative impact of fencing, the proposed communications mast and new signals would draw attention to the operating railway, together with the projected frequency of passenger trains (20 per day, Monday to Saturday). We advise that the impact of new equipment and</p>	<p>Fencing is required to prevent trespass which is a greater issue 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 more fencing may be de-scoped during the detailed design of the DCO Scheme (GRIP Stage 5).</p>

Table 11.3: Summary of consultation responses

Organisation and Date	Summary of Response	Consideration within ES
	design/finishes of fencing is carefully considered.	<p>There are, however, benefits to fencing by managing public access and disturbance to the SAC, which is highlighted as a pressure/threat in the Site Improvement Plan.</p> <p>In addition, and to address visual amenity concerns paladin (mesh) fencing has been chosen to lessen its visual impact.</p> <p>The impact of new equipment and design/finishes of fencing is considered in Section 11.6.</p>
Historic England	It would be useful to have confirmation of exactly where [the GSM-R repeaters] are to be positioned in the vicinity of the Clifton Suspension Bridge	<p>Descriptions and locations of masts and other associated elements of the scheme are included in Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) of the ES.</p>
Natural England	<p>Section 4.3.99 Replacement of fencing. Whilst we support a review and upgrade of fencing to manage and reduce trespass and damage to sensitive parts of the Avon Gorge, we need to be sure that the landscape and visual impacts have been assessed (as well as more broadly in terms of overall landscape because of the local significance of the Gorge itself). Additionally, we need to be confident that the physical fencing installation works have been considered in terms of their potential impact on sensitive features.</p>	<p>The impact of new equipment and design/finishes of fencing is considered in Section 11.6.</p>

Definition of the Study Area

- 11.3.7 The study area for the landscape and visual impact assessment varies for a number of reasons as described below.
- 11.3.8 The study area for the landscape character assessment takes into account the landscape at a variety of scales. It considers the landscape character areas at a national scale as defined within the NCAs produced by Natural England. These, by their very nature, cover large areas and where the DCO Scheme crosses only a small part.
- 11.3.9 The Local Authority Landscape Character areas, as identified in their various plans and policies, similarly have their own defined boundaries. The potential effects of the DCO Scheme have considered what part the existing railway line takes in defining the character of the area as a notable element of that landscape, or not.
- 11.3.10 The extent of these areas are shown on Figure 11.1 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
- 11.3.11 A smaller scale, site specific landscape character assessment has been undertaken as part of this particular landscape character assessment and this is within a 500 m study area. The extent of these character areas are shown on Figure 11.2 Sheets 1 and 2 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
- 11.3.12 The study area for the visual assessment was determined by establishing an approximate visual envelope. This has been used to identify the areas from within which the DCO Scheme would be visible. In order to develop the approximate visual envelope, the zone of theoretical visibility ("ZTV") was firstly prepared using digital terrain modelling software. This ZTV illustrated the visual envelope based on a bare earth model i.e. one which did not take into consideration the screening effects of vegetation, buildings and other features. However, in relation to the proposed scheme, the screening effect of vegetation and buildings is an important factor in the assessment of views. This is particularly the case in the urban areas of Portishead and Bristol city centre where the buildings form a significant screening feature. The value of the bare earth model was therefore considered to be limited as it showed large numbers of visual receptors which would not actually experience a view to the railway line because of the screening effect of the existing vegetation and buildings. The ZTV was used as a starting point to assist in the development of the visual envelope, however due to its limited value, it has not been included in this ES.
- 11.3.13 The visual envelope was therefore primarily developed through field work, and thereby taking into account the other screening features such as the existing vegetation and buildings. The envelope extends beyond 500 m in some places, for example at Sheepway where the landscape is more open and level. In other areas it is narrower than the 500 m, for example in the Avon Gorge where views to the west are immediately to the cliff face. The visual receptors are shown on Figure 11.3 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
- 11.3.14 Considering the type and nature of the DCO Scheme as primarily as an existing railway corridor within the landscape, rather than the introduction of

a new feature, an approximate visual envelope is considered appropriate. In addition, the built form of the urban areas means that the visual envelope is complex. It includes for example some narrow, glimpsed views down streets perpendicular to the railway line. Where those views to the DCO Scheme and the potential changes to those views, are not considered to be significant, these have been excluded from the assessment.

Key Receptors

- 11.3.15 Landscape receptors are the landscape character areas which are likely to be impacted by the DCO Scheme. Regional, local and site specific character areas have been considered as noted above and described below in Section 11.4.
- 11.3.16 Visual receptors are locations from which people have views of the DCO Scheme and where there is likely to be a significant change in view towards the DCO Scheme. These include private residential, commercial/industrial properties, publicly accessible areas such as parks and gardens and public rights of way, designated features and other features from where views of the DCO Scheme are afforded, such as roads and railways. Where appropriate, visual receptors that are physically close together with broadly similar views, and of the same sensitivity, have been grouped together in the assessment.
- 11.3.17 The potential effects of the DCO Scheme on the settings of listed buildings, registered parks and gardens and scheduled monuments have been given specific consideration.

Defining the Baseline

- 11.3.18 A desk based study was undertaken to identify and review landscape character areas, local planning designations, and features of interest that make up the character of the landscape such as heritage assets and ecological sites of interest. Further information on these features is provided in Chapters 8 Cultural Heritage (DCO Document Reference 6.11) and 9 Ecology and Biodiversity (DCO Document Reference 6.12) respectively.
- 11.3.19 Baseline field surveys were undertaken involving site character analysis, through consideration of landform, vegetation, human influence (built form and culture), the nature of views in general, and by identifying the visual receptors and their particular views.

Assessment of Construction Impacts

- 11.3.20 In order to assess the construction impacts for the DCO Scheme, the following information was obtained and considered:
- location of site compounds;
 - extent of the works required to facilitate construction, including working areas and haul routes;
 - vegetation clearance;
 - construction methods and likely plant and equipment; and
 - programme and phasing of works.

Assessment of Operational Impacts

11.3.21 In order to assess the operational impacts of the DCO Scheme, the following information was obtained and considered:

- preferred option for the new station in Portishead;
- preferred option for re-opening of the station at Pill;
- replacement and new planting proposals;
- scale, layout and extent of the proposals, including vertical elements;
- proposed elements, material and finishes;
- proposed lighting; and
- frequency of proposed trains.

Assessment of Decommissioning Impacts

11.3.22 Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) explains that consideration has been given to likely significant effects arising during the decommissioning phase. However, owing to the nature and life span of the proposed development, the regulated process of any closure in the future, which would be overseen by the Office of Rail and Road, and there being no reasonably foreseeable decommissioning proposals such that likely impacts could be identified and assessed, these effects are not considered further in this chapter.

Assessment of Cumulative Effects

11.3.23 The landscape and visual impacts of the DCO Scheme, in combination with other projects, were considered. The other projects were identified following the guidance provided by The Planning Inspectorate's in Advice Note 17 *Cumulative Effects Assessment* (The Planning Inspectorate, 2019). This approach is explained in Chapter 18 In-Combination and Cumulative Effects Assessment (DCO Document Reference 6.21). A long list of possible projects to be considered is provided in Appendix 18.1 in the ES Volume 4 Technical Appendices and the cumulative effects assessment of a short list of other projects is provided in Appendix 18.2 in the ES Volume 4 Technical Appendices (see DCO Document Reference 6.25).

11.3.24 The other projects to be considered in the cumulative effects assessment comprise:

- Other NSIPs requiring a DCO within 10 km of the Portishead Branch Line DCO Scheme
- Other projects on the local planning authorities' planning portal within 500 m of the Portishead Branch Line,
- Other projects and proposals suggested by the NSDC and BCC local planning authorities; and
- Other projects and works required for MetroWest Phase 1 that have not yet been implemented.

11.3.25 Severn Beach / Avonmouth Signalling works for MetroWest Phase 1 have been completed and so are not included in this cumulative effects assessment, as they are considered as part of the baseline.

11.3.26 The locations of other projects within 500 m of the Portishead Branch Line considered in the assessment of cumulative effects are identified on Figure 18.1 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).

11.3.27 The purpose of the assessment is to consider the significance of the DCO Scheme in relation to these other projects, whereby their combined influence may have a greater influence than the DCO Scheme alone. The known details of relevant other projects were considered in order to determine whether they are likely to contribute to effects on overall landscape character. The effects are assessed as additional/combined effects.

Use of Significance Criteria

11.3.28 The significance criteria used to assess the impact of the DCO Scheme set out below have been based on those set out in GLVIA (LI and IEMA, 2013) and Highways England's Interim Advice Note 135/10 *Landscape and Visual Effects Assessment*.

Nature of Receptor

11.3.29 In order to determine the nature of the receptor likely to be affected, consideration is given to the susceptibility of the receptor to change and the value of the receptor. Typical descriptors of these judgements, for both landscape and visual receptors, are defined in Tables 11.4 and 11.5 below.

Table 11.4: Landscape character value

Value and Susceptibility to Change	Typical Descriptors
High	<p>Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> • Of high quality with distinctive elements and features making a positive contribution to character and sense of place • Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale • Areas of special recognised value through use, perception or historic and cultural associations • Likely to contain features and elements that are rare and could not be replaced.
Medium	<p>Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> • Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place • Locally designated, or their value may be expressed through non-statutory local publications

Table 11.4: Landscape character value

Value and Susceptibility to Change	Typical Descriptors
	<ul style="list-style-type: none"> Containing some features of value through use, perception or historic and cultural associations Likely to contain some features and elements that could not be replaced.
Low	<p>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place Not designated Containing few, if any, features of value through use, perception or historic and cultural associations Likely to contain few, if any, features and elements that could not be replaced.

Source: IAN 135/10 (Highways England, 2010)

Table 11.5: Sensitivity of visual receptors and typical descriptors

Sensitivity	Typical Descriptors
High	<ul style="list-style-type: none"> Residential properties with views from ground and first floor windows and gardens towards the proposals. Important public sites used by many people. Public rights-of-way, public open spaces and other locations where the view is part of the reason for the visit.
Medium	<ul style="list-style-type: none"> Commercial and industrial premises. Schools. Playing fields. Other areas where the view is not central to the use.
Low	<ul style="list-style-type: none"> Roads and rail with views towards the development where the viewer passes at speed and the view is not central to the use.

Source: IAN 135/10 (Highways England, 2010)

Nature of Effect (Magnitude of Impact)

11.3.30 In order to determine the nature of effect, consideration is given to the size and scale of the effect, the geographical extent of the area that will be affected, and the duration of the effect and its reversibility. Typical descriptors of these judgements, for both landscape and visual receptors, are defined in the Tables 11.6 and 11.7 below.

Table 11.6: Magnitude of impact for landscape character effects

Significance	Typical Descriptors
Major adverse	Total loss or large scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements.
Moderate adverse	Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements.
Minor adverse	Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.
Negligible adverse	Barely noticeable loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.
No change	No noticeable loss, damage or alteration to character or features or elements.
Negligible beneficial	Barely noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic features.
Minor beneficial	Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.
Moderate beneficial	Partial or noticeable improvement of character by the restoration of existing features and element, and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.
Major beneficial	Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features.

Source: IAN 135/10 (Highways England, 2010)

11.3.31 Typical descriptors or criteria for the magnitude of visual impact are listed in Table 11.7, following the logic that the greater the change, the more major the impact.

Table 11.7: Magnitude of visual impact and typical descriptors

Magnitude of Impact	Typical Criteria Descriptors
Major	The project, or a part of it, would become the dominant feature or focal point of the view.
Moderate	The project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Minor	The project, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Only a very small part of the project would be discernible, or it is at such a distance that it would form a barely noticeable feature of element of the view.
No Change	No part of the project, or work or activity associated with it, is discernible.

Source: IAN 135/10 (Highways England, 2010)

Significance of Effect

11.3.32 Significance of effect of the DCO Scheme on each landscape and visual receptor has been determined through combining the judgements made for the value or sensitivity of the receptor and the magnitude of the impact and summarised through categories of significance, as indicated in Tables 11.8 and 11.9 below. For the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (“the EIA Regulations”) effects of moderate or larger significance are generally considered to be likely significant effects.

Table 11.8: Significance of landscape effects

Value and Susceptibility to Change	Magnitude of Impact (Degree of Change)				
	No Change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate

Source: IAN 135/10 (Highways England, 2010)

Table 11.9: Significance of visual effects

Sensitivity of Visual Receptor	Magnitude of Impact (Degree of Change)				
	No Change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or Large
Low	Neutral	Neutral or slight	Neutral or Slight	Slight	Slight or Moderate

Source: IAN 135/10 (Highways England, 2010)

11.4 Baseline, Future Conditions and Value of Resource

Designations Relevant to Landscape

- 11.4.1 Table 11.10 summarises those environmental and planning designations that have a bearing on the landscape character and visual receptors within the DCO Scheme study area. The locations of these designations are shown on various figures in the ES.

Table 11.10: Designations relevant to the DCO Scheme

Designations	Location within the Study Area
Key Designations	
Green Belt	Green Belt is bounded by Portishead, The Royal Portbury Dock and Pill, as well as the western bank of the River Avon and the outskirts of Bristol. It includes sections of the disused railway and freight line, along the Avon Gorge and at Sheepway and between Pill and the M5. See Figure 6.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
Local Green Space (North Somerset Site Allocations Plan)	The Vale, Portishead (bounded by the disused railway line to the north); Yew Tree Gardens, Pill; Victoria Park, Pill and Crockerne Pill, Pill (immediately to the north and south of Pill Viaduct); and Watchhouse Hill, to the east of Pill. See Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
Common Land and Town or Village Greens	Land known as The Landun, Priors Field, Pump Square, Victoria Park and Waterloo Wharf, to the north, south and east of Pill; and The Point, Chapel Pill to the east of Ham Green. See Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
Forest of Avon (Community Forest)	Covers the whole of North Somerset.

Table 11.10: Designations relevant to the DCO Scheme

Designations	Location within the Study Area
National Forest Inventory	Woodland to the east of Elm Tree Farm with its southern extent adjacent to the line (refer to Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24)); woodland north of Junction 19 and adjacent to the railway line; woodland on the River Avon bridge approach embankment of the M5 (south side).
<i>Additional Designations</i>	
Conservation Areas	Several Conservation Areas are located within 500 m of the DCO Scheme. These are described in the following section and their locations are shown on Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).
Listed Buildings	Numerous Listed Buildings lie within 500 m of the DCO Scheme (see Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24)). The most relevant Listed Buildings are described below.
Registered Parks and Gardens ("RP&G")	Leigh Court and Ashton Court, registered parks and gardens ("RP&G") on the west bank of the River Avon.
Unregistered Parks and Gardens (Designated in North Somerset Adopted Local Plan and North Somerset's emerging proposals map)	St. George's Hall (south of the M5 and east of junction 19) and Ham Green Hospital (see Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24)).
Special Area of Conservation ("SAC")	Avon Gorge Woodlands
Sites of Special Scientific Interest ("SSSI")	Avon Gorge (which is co-incident with the boundary of the Avon Gorge Woodlands SAC); Severn Estuary; and Ashton Court
National Nature Reserve ("NNR")	Leigh Woods (which forms part of the Avon Gorge Woodlands SAC/Avon Gorge SSSI).

Conservation Areas

- 11.4.2 Eight conservation areas are located within 500 m of the DCO Scheme. The principal characteristics of these conservation areas are summarised in the following text, while the locations are shown on Figure 11.1 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24). The information provided here is based on the Bristol City Council's Conservation Area Enhancement Statements (BCC, 1993) and Conservation Area Character Appraisals which are to replace the Enhancement Statements and, to date, have been drafted for Sea Mills, Clifton and Hotwells, and City

Docks Conservation Areas. The text below includes various quoted extracts from these documents to assist in the description of the principal characteristics.

- 11.4.3 Leigh Woods lies within North Somerset Council's boundary. North Somerset District Council does not have written descriptions of conservation areas. A brief description of the Leigh Woods Conservation Area has been developed by the author of this assessment in order to provide a baseline description.

- 11.4.4 Conservation areas have been accorded a medium value.

Shirehampton Conservation Area

- 11.4.5 Shirehampton Conservation Area includes the historic centre of Shirehampton, as well as The Lamplighters area. The River Avon forms the boundary to The Lamplighters section of the conservation area. The Lamplighters is predominately a residential area, typified by Georgian properties. The Lamplighters Public House, with its large garden, faces towards the River Avon. Station Road forms part of the setting of the conservation area. Key issues in the area are generally related to the village centre. There are also concerns that the open land of the Avon foreshore will come under pressure for development, detracting from the open character. Bristol City Council (1993) stated that it *"will resist development of the Avon Foreshore"*. Bristol City Council also stated that *"a study should be undertaken to assess whether the Conservation Area boundary should be refined to reflect the true focus, that of the village centre around the green"*. Since then the Conservation Area boundary has been updated.

Sea Mills Conservation Area

- 11.4.6 Sea Mills *"is a rare example of a "detached" garden suburb, its boundary being well-defined on three sides by green open spaces"*. A number of unlisted, but nonetheless valuable buildings are found within the Conservation Area, including Sea Mills Station booking office and house.
- 11.4.7 The quality of views out of and into the Conservation Area are an important feature. Of particular note are views looking out to the Green Belt land of North Somerset and across the Avon and the view looking back from the River Avon Trail towards Sea Mills. Footpaths, whilst overgrown in places, often afford views of the Avon.
- 11.4.8 In addition to the Sea Mills development, the Conservation Area also includes a section of the River Avon, Roman remains and the port of *Abonae*, the redundant Sea Mills Docks, signal stations and Sea Mills Railway Station.
- 11.4.9 Strengths of the Conservation Area include high quality views, in particular from footpaths, the Severn Beach Railway line and unlisted buildings of value. Of detriment to the area is the parcel of land to the south-west of the Conservation Area, with its floodlights and mobile phone masts. These features are out-of-character and reduce the quality of views. Another weakness is the poor maintenance of the Severn Way footpath. Opportunities include improving the Severn Way footpath and general improved maintenance of landscape. Threats to the area include loss of views.

- 11.4.10 The Conservation Area has been divided into a number of individual areas. Of relevance to this assessment is The Trym Valley and River Avon area. This is an area of low lying land with an open, green character and built form limited to just a small section. According to Bristol City Council The Trym Valley and River Avon area *“is extremely important in providing a green ‘buffer’ to the Garden Suburb...It is an area of outstanding scenic beauty, part of Bristol’s network of green corridors, and important for wildlife.”* (Bristol City Council, 2011).

Sneyd Park Conservation Area

- 11.4.11 Sneyd Park Conservation Area is a leafy residential area of Bristol built on an undulating landform. To the southwest, the Avon valley forms the boundary to the Conservation Area at the point where open floodplain transitions to wooded scarp. Landscape has always been key to the Sneyd Park character and *“together with rubble walls”* it *“defines and encloses streets and provides the setting for housing; creating a very mature arcadian suburb”*.
- 11.4.12 Key issues include the heavy commuter traffic, the effect of The Portway, both in terms of traffic noise and bisecting visual links. Another concern is future development for housing and its effect on views. Bristol City Council states that *“The City Council will oppose the development of open land in the Avon Valley and Avon Gorge...Non-residential uses out of character with the area will be resisted”* (Bristol City Council, 1993).

The Downs Conservation Area

- 11.4.13 The Downs is bounded by Clifton to the southeast and to the west, the Avon Gorge marks the edge of The Downs plateau. A section of the railway line passes alongside the boundary of this Conservation Area.
- 11.4.14 The area is characterised by a considerable area of parkland of open, short grassland and shrubs. Towards Clifton, the area becomes more densely vegetated. Grand villas, terraces and avenue trees line the streets surrounding The Downs.
- 11.4.15 According to Bristol City Council, *“to the south west, an open narrow ridge edging the Gorge rises gently through a landscaped promenade to the Iron Age Hill Fort terminated by the Observatory. The Gorge, a precipitous chasm edged by tree-clad cliffs, is spanned by Brunel’s suspension bridge and forms a national landmark. Apart from the Portway at the base, the area remains unbuilt on with the open valley floor forming a pleasing contrast to the cliffs”*.
- 11.4.16 Key issues in the area include traffic, noise from The Portway impacting on the setting of the Avon Gorge and the decline of landscape features. The Downs are very sensitive to change.

Clifton & Hotwells Conservation Area

- 11.4.17 According to Bristol City Council (2010) *“Clifton has a very remarkable inheritance of trees in public parks, communal gardens, and in private gardens. There are relatively few street trees in Clifton...Despite this, the conservation area has a verdant and leafy character ... Planted green spaces, whether public or private are extremely important to the character and special interest of the area”*.

11.4.18 The Conservation Area is made up of a number of individual areas. The following areas are relevant to the assessment: The Promenade, Clifton Spa Terraces and Hotwells.

The Promenade

11.4.19 According to Bristol City Council (2010), *“This character area includes the arc of grand villas lining The Promenade and Clifton Down, which face west across The Downs. Along the edge of The Downs, grand terraces give way to palatial villas of monumental scale”*.

11.4.20 This area has a leafy character, due to a considerable number of mature trees and The Promenade’s proximity to The Downs. Of particular note is The Promenade and The Engineers House. *“This character area has a particularly rich, high quality townscape, with many Grade II and II* properties, listed railings and street furniture”*.

Clifton Spa Terraces

11.4.21 The Georgian and Regency Clifton Spa Terraces area is characterised by four storey terraced housing *“composed either as groupings around informal spaces, or located as raised causeways facing the south slopes over the River Avon”*. Of particular note in the area is The Paragon which *“forms a sharp convex crescent of 14 Grade II* listed houses”*. Bristol City Council (2010). The buildings are designed to afford dramatic views looking south.

11.4.22 In addition to *“the outstanding townscape of the area are the integral green spaces, which contribute greatly to its character. Whether formal or informal, private or public, the various gardens and squares are vital”*. Paragon Gardens are *“luscious and informal, providing key features when viewed from the south.”*

Hotwells

11.4.23 According to Bristol City Council (2010) *“Hotwells lies at the base of the south Clifton slope, centred on Dowry Square and Dowry Parade and the terraces immediately north of Hotwell Road. This is the earliest portion of the conservation area to be developed, with buildings characterised by early Georgian brick architecture”*.

11.4.24 *“The quality of Dowry Square and most of Hotwells is downgraded by heavy through traffic using it as a mass route to the city centre...Clifton Vale Close is a poor post-WWII pair of ‘T’ plan flats, which respond badly to the surrounding context and occupy a large plot south of Cornwallis Avenue. Chapel Row terminates abruptly with negative 1960s flats...The traditional shopfronts along south Hotwell Road are undermined in places by poorly designed and obtrusive signage”*. Of note are The Colonnade and The Clifton Rocks Railway, an underground funicular railway. The busy Hotwell Road detracts from the closed funicular railway’s southern station.

11.4.25 According to Bristol City Council (2010) negative features of Clifton and Hotwells Conservation Area include loss of boundary features, loss of traditional street furniture/signs and unsympathetic alterations to buildings. They state that in terms of traditional street surface and street features *“work should be undertaken to ensure consistency and quality of replacement materials”*.

Leigh Woods Conservation Area

11.4.26 Leigh Woods Conservation Area has been designated by North Somerset Council. The conservation area covers the small, historic village of Leigh Woods, with the southern and western boundaries of the conservation area being defined by the A369. To the north, the conservation area is bounded by North Road, and to the east, the boundary is defined by Leigh Woods woodland. The conservation area is characterised by large, characterful, detached properties, contained within enclosed plots and set back from the road. There is a leafy feel due to tall evergreen hedges and pockets of woodland. Stone boundary walls often abut the highway. Two late 19th century gardens are found within the conservation area. One is Bristol University Botanic Gardens and Rayne Thatch, designated as a Registered Park and Garden, and the other is Burgh Walls terraced garden, which is designated by North Somerset as an Unregistered Park and Garden. Leigh Woods woodland wraps around the north and east sides of the village, containing the village and limiting views beyond the local environs.

City Docks Conservation Area

11.4.27 The City Docks Conservation Area has been subdivided into a number of individual character areas. The Portbury Freight Line passes close to the Cumberland Basin section of the Conservation Area. The area is dominated by features such as late 20th century concrete highway and 19th/20th century industrial dockside including notable warehouse units.

11.4.28 Areas of soft landscape provide valuable softening to what would otherwise be a very hard environment. Of particular note is the Cumberland Basin, with its mature trees and landscape areas. The Cumberland Basin *“is under-appreciated in the wider city context but is a major asset to the Conservation Area”* (City Docks Character Appraisal and Management Proposals, Bristol City Council 2011).

11.4.29 As part of its assessment, Bristol City Council has identified structures, buildings and views of particular note and importance within the City Docks Conservation Area.

11.4.30 Notable buildings and structures in the area include:

- Lock gates and harbour walls by Brunel below 20th century Plimsoll Bridge
- Brunel’s Swing (Swivel) Bridge, North Entrance Lock
- Bonded warehouses
- Riverside Garden Centre
- Ashton Avenue Swing Bridge, and
- Railway lines of former docks railway.

11.4.31 Notable views include:

- From Clift House Road, northwards towards the Clifton Suspension Bridge and Avon Gorge.

11.4.32 Bristol City Council has also identified strengths, opportunities, weaknesses and threats of the area.

- Strengths include landscape along the harbour as well as wildlife habitat along railway lines, *“high quality views out of area”*

- Opportunities include *“improved management and maintenance of landscaping, especially around the railway”* and *“more interpretation of industrial heritage”* (City Docks Character Appraisal and Management Proposals, Bristol City Council 2011).
- Weakness include *“over-development of elevated highways with dead areas of car parking beneath, high volume of vehicular traffic with noise and pollution”* and *“some dereliction in evidence”*
- Threats include *“increased decline of industrial buildings, bridges etc. contributing to a sense of neglect”* and *“threat to key views and panoramas from within the character area to key landscapes or landmark features”*.

Bower Ashton Conservation Area

11.4.33 According to Bristol City Council (1993) Bower Ashton *“is a pleasant rural area of open pastureland on the south facing slopes leading to Leigh Woods”* which forms *“the setting to Ashton Court”*. Rownham Hill acts as a defining edge to the urban section of Bristol and can be seen from many parts of the city. To the south of Bower Ashton *“are former meadows now used as playing fields. To the west and north, traditional pastureland forming the natural setting of Ashton Court (Listed Grade 1), rises to Rownham Hill. Clanage Road bounded by dramatic pennant boundary walls, encloses flat open ground to the east laid out as sport grounds or allotments”*. Key issues include traffic, notably on Clanage Road. BCC states *“The pasturelands surrounding Ashton are an essential part of the character of the Estate. Any potential change needs to be very carefully addressed so as not to downgrade this important historic mansion...Insufficient and inadequate landscaping exposes the southern part of Conservation Area to Ashton Road”*.

Listed Buildings

11.4.34 The DCO Scheme may impact the setting of listed buildings. The setting of these listed buildings has been considered in Table 11.11 below following consultation by the Planning Inspectorate with Historic England for the Scoping Opinion. In addition, a number of Grade II Listed buildings have been considered. Of particular relevance is the Grade I listed Clifton Suspension Bridge. The locations of these listed buildings are shown on Figure 11.1 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24) with supporting information in Appendix 8.1 Cultural Heritage Gazetteer of the Technical Appendices (DCO Document Reference 6.25).

Table 11.11: Listed buildings relevant to the DCO Scheme

Grade	Description
<i>Grade I</i>	
Church of St Mary, Portbury (Figure 11.1, Sheet 2 in the ES, Volume 3 Book of Figures - DCO Document Reference 6.24).	The 12 th century church lies in a small churchyard and is detached from the settlement of Portbury to its west. It is set within a landscape of agricultural fields, with a small school to its south. To the north of the village runs the M5 motorway. Although the motorway is not highly visible from the church, the sense of movement and road noise has a strong influence on the overall setting of the church.
Clifton Suspension bridge and two toll houses, Bristol (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The Clifton Suspension Bridge is an imposing landmark, with its notable scale and distinctive construction. It spans the Avon Gorge, and offers long views down the wooded river valley that is enclosed by cliffs. Looking south, panoramic views are afforded across the City of Bristol. The Portbury Freight Line at the bottom of the Avon Gorge forms a small part of the overall view.
<i>Grade II*</i>	<i>Description</i>
Church of St George, Portbury (Figure 11.1, Sheet 2 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The church lies in a small churchyard, set within the village of Easton-in-Gordano. The church itself is a prominent feature in the village. The M5 motorway lies to the north of the village with the disused railway line beyond that. Although the motorway is not visible from the church, the road noise has a strong influence on the overall setting of the church. The houses immediately north of the church, the Marsh Lane Bridge embankment and the motorway all screen views towards the disused line.
Trafalgar House; Taylor Maxwell House; Promenade House; Engineer's House; and Alva House, all in Clifton, Bristol (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	These buildings form a row of large scale detached neoclassical style properties sitting on the east side of Clifton Down overlooking The Promenade. The Promenade consists of a grass area with established, mature trees and dense vegetation. This vegetation and landform acts to screen the Avon Gorge beyond.
Clifton Observatory, Bristol (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The Clifton Observatory is a distinctive landmark, which sits on the crown of the Avon Gorge in a prominent position. It is set within the relatively open landscape of Clifton Downs and affords panoramic views across Bristol, views to Clifton Suspension Bridge, and views down and along the vegetated river corridor of the Avon Gorge.

Table 11.11: Listed buildings relevant to the DCO Scheme

Grade	Description
Swing Bridge over north entrance lock; Brunel's South Entrance Lock; Swing Bridge over Brunel's south entrance lock, Bristol (Figure 11.1, Sheet 5 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	These features form part of the Cumberland Basin but are set low down in the landscape. The setting of these listed features is one of built form and highway infrastructure, distinctive features such as the B-bond building, as well as views towards the River Avon. Looking north-west from the structures, there are long views to the Avon Gorge and the established wooded slopes.
The Colonnade, Hotwells, Bristol (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The Colonnade is a row of four terraced houses, located on Hotwells Road. It fronts onto Hotwells, Bristol, with views across the busy A4 road, looking towards the west side of the Avon Gorge. The railway forms part of the view, across the River Avon, behind an established belt of trees.
No. 1-14 and No. 15 The Paragon, Clifton, Bristol, (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	These properties are set within the Clifton & Hotwells Conservation Area and afford views across Bristol, looking down towards the River Avon and Avon Gorge. According to Historic England The Paragon forms " <i>part of the important view of Clifton from the south across the Avon</i> " (http://www.historicengland.org.uk/).
Freeland Court (Figure 11.1, Sheet 5 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	This early Georgian style L-shaped property fronts onto the busy A4 road, with Clifton rising up to its rear. Along with these primary features, other components of the building's setting include the sweeping, densely wooded Avon Gorge, the existing railway, the Clifton Suspension Bridge and the River Avon. The A4 is a particularly dominant feature of the setting, with road noise and fast moving traffic.
Numbers 2-9 Albemarle Row (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	These terraced properties on Albemarle Row, Bristol, form part of the townscape of Clifton, and as such have narrow views enclosed by the surrounding built form.
Grade II	Description

Table 11.11: Listed buildings relevant to the DCO Scheme

Grade	Description
Moor Farmhouse, Portishead (Figure 11.1, Sheet 1 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The farmhouse on the edge of the residential area on the east edge of Portishead just north of Sheepway with some views north east towards the disused line. The existing boundary hedge provides some screening but there are views from the disused line towards the building.
The Thatched Cottage (Figure 11.1, Sheet 1 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The building lies to the south of Sheepway with views from the rear of the house south west towards the existing vegetation on the field boundary with some views south towards the disused line through gaps in the existing hedges.
Elm Tree Farm (Figure 11.1, Sheet 1 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The farmhouse is located on the east side of Sheepway north of the disused railway line with the business centre to its north. Views from the farmhouse south towards the disused line and partially screen by matures trees within the garden, but with some views to the railway.
Court House Farm (Figure 11.1, Sheet 2 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	<p>Court House Farm forms part of a complex of farm buildings which lies in close proximity to the north of the M5 and west off Marsh Lane. Planting adjacent to the motorway and the Marsh Lane Bridge provide some screening of the motorway. There are some views north west towards the disused line through the planting which lies adjacent to Marsh Lane.</p> <p>A recent consented planning application by The Bristol Port for additional car storage has seen the fields around the farm surfaced for cars along with fencing and lighting.</p>
The Watch House and Mulberry Cottage (Figure 11.1, Sheet 2 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	These two properties lie at the end of the valley at Pill adjacent to the River Avon. They have some views up toward the Pill Viaduct, partially screened by other properties.

Registered Parks and Gardens

11.4.35 The existing Portbury Freight Line passes through the eastern edge of Leigh Court RP&G and close to the eastern edge of Ashton Court RP&G which is bordered by the A365 between Leigh Woods and Bower Ashton. These features are described in Table 11.12 below.

Table 11.12: Registered parks and gardens relevant to the DCO Scheme

Grade II*	Description
Leigh Court (Figure 11.1, Sheet 3 and 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	<p>Leigh Court Registered Park and Garden covers an area of approximately 128 ha and <i>“is bounded by the River Avon to the north-east, field boundaries to the east and south, Pill Road to the south-west, and field boundaries to the west and north...To the south and east of the house a broad valley narrows as it runs from south-west to north-east across the site...East of the house the valley bottom, Paradise Bottom, is wooded and further east the ground rises under the densely wooded Oak Wood. To the east, outside the area here registered, are the extensive Leigh Woods, owned by the National Trust, which run down the south bank of the Avon Gorge to the River Avon. Land to the north and west is fairly level with gentle undulations and is in agricultural production”</i>.</p> <p>In addition <i>“To the north of the house is an open lawn studded with specimen trees and bounded to the north, north-east, north-west, and west by a c20 line of shrubs and trees, on an early C19 fence line, which partly block the previously open views to the north...c100 m south-east of the house is the entrance to a walk to Paradise Bottom which occupies a steep-sided ravine leading down towards the River Avon to the north-east”</i>.</p> <p>(https://historicengland.org.uk/listing/the-list/list-entry/1000407).</p>
Ashton Court (Figure 11.1, sheet 5 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24)	<p>Ashton Court Registered Park and Garden covers an expansive area. According to Historic England <i>“the park is extensive and its design exploits the dramatic topography of the site to afford the visitor a rich sequence of varied views. This is achieved by the placing of, and relationship between, plantations, grass, and trees”</i> (http://www.historicengland.org.uk/). The eastern section, including the Deer Park and Mansion Car Park, is considered most relevant to this study. The Deer Park and Mansion Car Park slope towards Bristol, with views looking down towards the valley basin, with glimpsed views of the railway line through vegetation.</p>

Scheduled Monuments

11.4.36 There are three Scheduled Monuments within 500 m of the DCO Scheme (Table 11.13). Two of them, the Roman settlement at *Abonae* (now Sea Mills) and Clifton Down Camp, lie on the eastern side of the River Avon, and one Stokeleigh Camp, lies on the western side of the Avon Gorge and above the Portbury Freight Line. Scheduled monuments are accorded a high value.

Table 11.13: Scheduled monuments relevant to the DCO Scheme

Scheduled Monument	Description
Part of the Roman Settlement at <i>Abonae</i> , Sea Mills (Figure 11.1, Sheet 3 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	The Roman Settlement at <i>Abonae</i> consists of part of a Roman town and port, which is now buried and not visible above ground. The monument is situated on the edge of the settlement of Sea Mills, and the above ground situation nowadays includes allotments with hedgerow boundary, part of the Severn Way public footpath trail and part of the Bristol Temple Meads to Severn Beach Railway. The setting of the monument includes Sea Mills and the River Trym to the east, and views across and down the Avon towards the adjacent scarp.
Clifton Down Camp, Clifton (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	Clifton Down Camp, where Clifton Observatory is sited, is an iron-age hillfort which sits on the east crown of the Avon Gorge. It is set within the relatively open landscape of Clifton Downs parkland and affords panoramic views across Bristol, views to Clifton Suspension Bridge, and views down and northwards along the wooded river corridor of the gorge, from the north edge of the camp. Further inwards, the camp has a more enclosed feel with no views down into the gorge and the Portbury Freight Line.
Stokeleigh Camp: a promontory fort in Leigh Woods (Figure 11.1, Sheet 4 in the ES Volume 3 Book of Figures - DCO Document Reference 6.24).	Stokeleigh Camp is a hillfort on the west side of the Avon Gorge. The clearing is surrounded by the ancient woodland of Leigh Woods, with views over and to the eastern slopes of the gorge and with views down to the Portbury Freight Line limited by landform and vegetation.

Landscape Character - Regional Overview

11.4.37 This section considers the wider landscape character and context within which the DCO Scheme sits, through consideration of relevant designations and NCAs. In addition, there are numerous landscape designations within the wider study area, including Green Belt, which are crossed by the DCO Scheme. The parklands of Leigh Court and Ashton Court RP&Gs are in close proximity to the Portbury Freight Line. There are no Areas of Outstanding Natural Beauty ("AONB"), which would be affected by the DCO Scheme.

11.4.38 The DCO Scheme passes through two NCAs (see Figures 11.1 Sheets 1 to 5 in the ES Volume 3 Book of Figures – DCO Document Reference 6.24). These are:

- Natural England NCA 106 Severn and Avon Vales (Portishead to Pill disused section of railway line); and
- Natural England NCA 118 Bristol, Avon Valleys and Ridges (Portbury Freight Line).

NCA 106 Severn and Avon Vales

11.4.39 According to Natural England (2014) NCA 106 Severn and Avon Vales encompasses the lower valleys of the rivers Severn and Avon which dominate "*this low lying open agricultural vale landscape*". Industrial development is a defining element of this character area. Evidence of former industry is apparent in areas such as Pill. The M5 and M49 (which connects the M5 to the Second Severn Crossing) motorways bisect the landscape.

11.4.40 The rivers of the Avon and Severn, and their associated floodplains contribute to the character of the NCA. The Severn Estuary Special Protection Area (designated for wintering wildfowl) and Ramsar site provides valuable habitat (see the ES Chapter 9 Ecology and Biodiversity, DCO Document Reference 6.12). Avonmouth and its surroundings are at risk of flooding as indicated by flood risk zones 2 and 3 (see Figure 17.1 in the ES Volume 3 Book of Figures – DCO Document Reference 6.24).

11.4.41 In the south of the NCA, peat deposits in the Gordano Valley create wetlands and wetland woodlands called carr. Productive soils occur east of the Severn and within the Avon Valley. Fossil bearing river terrace gravels flank the edges of watercourses.

11.4.42 Current trends within this NCA include:

- Increased management of woodlands through Woodland Grant Schemes;
- Traditional smaller holdings replaced with a few large-scale farms;
- Neglected field boundaries; and
- Reasonably high development rate in rural areas, especially alongside major transport corridors.

11.4.43 Forces for change within this NCA include:

- Climate change resulting in dried out, eroded and exhausted soils, increased flooding of development and infrastructure, and the loss of isolated habitats;
- Demands for renewable energy resulting in the introduction of onshore windfarms and tidal energy creation which could impact the tidal reaches of the Severn Estuary;
- Continued industrial expansion to Avonmouth;
- Population growth resulting in increased pressure for food production; and
- Partnership work seeking to improve biodiversity and habitats on a largescale.

11.4.44 The landscape associated with the DCO Scheme displays many of the characteristics and features described in the Severn and Avon Vales NCA. This includes industrial development and evidence of former industry at Pill, the motorways and the low-lying agricultural landscape. However, the estuarine levels, wetlands, and cliffs are not dominant features in the landscape traversed by the DCO Scheme.

11.4.45 The character area possesses some features of importance, such as remnants of industrial heritage and wildfowl habitat, which could not be replaced if lost. Therefore, the character area has **medium value**.

NCA 118 Bristol, Avon Valleys and Ridges

11.4.46 According to Natural England (2014) the NCA of Bristol, Avon Valleys and Ridges "*encompasses the City of Bristol with its historic port, and the surrounding area including the Chew and Yeo valleys, Keynsham, Clevedon, Portishead and parts of the Cotswolds and Mendip Hills AONB. The area is characterised by alternating ridges and broad valleys, with some steep, wooded slopes and open rolling farmland*". The western part of this NCA includes the Severn and Avon Vales and the small stretch of coastline between Clevedon and Portishead, which flanks the mouth of the Severn.

11.4.47 The NCA includes both urban and rural areas, with the City of Bristol and infrastructure such as the M5 contributing to the considerable amount of urban development. The surroundings are maintained as farmland, heritage parkland, grassland and woodland.

11.4.48 The landform of this character area is one of alternating ridges and broad valleys, with a limestone scarp which spans from the Yeo Valley towards Thornbury, forming a predominately wooded scarp. Above the scarp there is open arable farmland, with scattered farmsteads and low hedgerows. The coastal section from Clevedon to Portishead sees the ridge descend towards the Severn Estuary.

11.4.49 The Avon Gorge cuts through the scarp, exposing Carboniferous Limestone and creating cliffs, scree, scrub and pockets of grassland of considerable ecological value. The ancient woodland of the Avon Gorge SSSI and Leigh Woods NNR lie mainly to the west of the Avon Gorge.

11.4.50 From a historic perspective, this character area has a wealth of significant buildings and landscapes, including the Clifton Suspension Bridge, the

townscape of Clifton, the parkland of Ashton Court and the Roman port at Sea Mills.

11.4.51 This NCA provides substantial opportunities for recreation through parklands such as Ashton Court and The River Avon Trail, a walk between Pill and Pulteney Bridge in Bath which follows the River Avon Tow Path for part of the route, as well as a large number of other trails and cycle routes.

11.4.52 Current trends within this NCA include:

- Improvement to boundary features (ditches, hedgerows and stone walls);
- Increased management of woodlands through Woodland Grant Schemes;
- Increased management and planting of orchards;
- Countryside Stewardship uptake for semi-natural features e.g. grassland;
- Traditional smaller holdings replaced with a few large-scale farms; and
- Increasing urbanisation and development, particularly to motorway corridors damaging historic character.

11.4.53 Forces for change within this character area include:

- Climate change resulting in increased flooding;
- Climate change resulting in changes to woodland composition, loss of veteran trees and ancient woodland;
- Population growth resulting in increased urbanisation and pressure for food production; and
- Green infrastructure strategies leading to improved landscape quality.

11.4.54 The landscape along the Portbury Freight Line displays many of the characteristics and features described in the Bristol, Avon Valleys and Ridges NCA. These include the steep, wooded slopes of the Avon Gorge and rolling farmland, although this is mainly pastoral. The historic Clifton Suspension Bridge and Ashton Court are particularly relevant.

11.4.55 The character area possesses designated sites and distinctive, special areas, of historic and nature conservation interest such as Clifton Suspension Bridge, the townscape of Clifton, the Avon Gorge landscape and the Roman port at Sea Mills, which are rare, and could not be replaced if lost. Therefore, the character area has **high value**.

Local Authority Character Areas

11.4.56 The DCO Scheme passes through landscape character areas defined by NSDC (North Somerset Council Landscape Character Assessment, Supplementary Planning Guidance, 2018), as shown on Figure 11.1 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24). These are listed and summarised below:

- North Somerset Local Character Area A2 Clapton Moor;
- North Somerset Local Character Area C2 Portbury Settled Coastal Edge;
- North Somerset Local Character Area J6 Avon Rolling Valley Farmland;

- North Somerset Local Character Area E5 Tickenham Ridge;
- North Somerset Local Character Area D1 Avon Gorge; and
- North Somerset Local Character Area G2 Failand Settled Limestone Plateau.

11.4.57 The following landscape character areas fall within the 500 m study area at its edges. These have been not been assessed further due their relative position to the proposed DCO Scheme and it is considered that no significant effects on the landscape character areas are likely.

- F1 Abbots Leigh Sandstone Uplands: visually separated from the DCO Scheme by the M5 and junction 19 and by the woodland of Leigh Woods and landform at the Avon Gorge.
- J5 Land Yeo and Kenn Rolling Valley Farmland: extends over the area north of the A370 and around the University of the West of England Bower Ashton Campus and is screened from the DCO Scheme by the existing A370.
- B1 Land Yeo, Kenn River and River Avon Floodplain: extends into the study area from the west by just including half of the David Lloyd tennis centre and is sufficiently visually separated from the proposed works at the Winterstoke Road junction.

A2 Clapton Moor

11.4.58 Clapton Moor is characterised by the distinct geography of the Gordano Valley with flat to undulating valley floor and enclosed by limestone ridges to the north and south. The area has a number of important geological features, for example the Weston-in-Gordano SSSI. This area has a rural, pastoral character, with other landscape types including woodland, marshy grassland fens, reed beds, scrub and occasional arable fields, creating a varied landscape. Gordano Valley National Nature Reserve is found in the western part of the character area between Portishead and Clevedon (some 5 km west of the DCO Scheme).

11.4.59 This rural feel is somewhat diluted by views along the valley towards The Royal Portbury Dock, as well as views to the M5 and edge of Portishead.

11.4.60 Field boundaries are defined by irregular hedgerows, ditches and belts of trees. However, these are increasingly being replaced by fencing.

11.4.61 NSDC has described the following as forces for change:

- Increasing use of fencing to field boundaries and decline in condition of hedgerows;
- Increasing ribbon development and infill along rural roads;
- Change in land use at the urban fringes to horse pasture;
- Views to the urban edge of Portishead encroaching on the area; and
- Pressure for recreational land around Portishead.

11.4.62 According to the character area assessment, the overall strength of character is considered to be moderate. This character area is described as in good condition, with well managed farmland. However, hedges are becoming replaced with fences and the edges are becoming less unified as

a result in changing activities. The overall strategy is to conserve the rural character of the landscape, with opportunities to enhance and strengthen the character, notably through encouraging the retention of hedgerows.

- 11.4.63 As part of this assessment process, the value of this character area has been determined. The character area possesses some features of importance, such as remnants of industrial heritage, important geology and sites of conservation interest, which could not be replaced if lost. Therefore, it is concluded that the character area has **medium value**.

C2 Portbury Settled Coastal Edge

- 11.4.64 According to the assessment, the Portbury Settled Coastal Edge is characterised by flat, low lying land giving rise to wide views. Its character is predominately industrial and maritime, with the large scale Royal Portbury Docks, with large scale industrial buildings, expanses of hard-standing, numerous cranes and tall metal fences, are prominent, along with remnant areas of woodland shelter belts. Associated unsympathetic amenity landscape provides limited visual amenity. Large container ships and wide views over the Bristol Channel contribute to the maritime character.
- 11.4.65 Remnant grazing marshland and Court House Farm, with its traditional building style, influence the character to the east, although now Court House Farm is enclosed by car storage. There are some areas of nature conservation interest, however these are not easily accessible. The presence of the elevated M5 and junction 19, and the Portbury Freight Line passing nearby, reduce the sense of tranquillity and remoteness. Along the coast, marshy grassland and remnant woodland provide biodiversity value.
- 11.4.66 NSDC has described the following as forces for change:
- Poor hedgerow management resulting in declining visual amenity and biodiversity;
 - Proliferation of visually dominant elements linked to large scale industrial land use which are also visually intrusive in views from other character areas;
 - Increasing large-scale industrial development, resulting in the loss of pastoral farmland;
 - Amenity landscape fails to integrate installations with the surrounding rural landscape; and
 - Lower Palaeolithic artefacts that may be present in gravel deposits may be damaged as a result of future development.
- 11.4.67 The landscape associated with the DCO Scheme in the section between Portishead and Pill displays some of the characteristics and features described by NSDC in their character assessment summarised above. For example, the DCO Scheme sits within a rural, pastoral character, which is diluted in places by features such as the edge of Portishead. However, the Royal Portbury Dock with its industrial maritime character and the wide views typical of this character area, are not key features of the DCO Scheme.
- 11.4.68 According to the character area assessment, the overall strength of character is considered to be strong. The condition of the character area is

stated as mixed with the industrial area in good condition. However, with hedgerows in neglect generally the condition is considered to be in decline. The overall strategy is to conserve the working maritime landscape, whilst restoring declining elements such as hedgerows.

- 11.4.69 As part of this assessment process, the value of this character area has been determined. The character area possesses very few features of importance, with a low sense of tranquillity and elements such as industrial buildings, which could be replaced if lost. Therefore, it is concluded that the character area has **low value**.

J6 Avon Rolling Valley Farmland

- 11.4.70 Avon Rolling Valley Farmland *"is a transitional area, with gentle slopes falling away northward...at the banks of the River Avon."*
- 11.4.71 The overall character of the area is disjointed, lacking unity and a coherent pattern. It is split into two halves by the A369 and associated ribbon development. South of the A369, large fields are enclosed by low, gappy hedgerows and fences. North of the A369, the landscape is more complex with numerous landscape elements.
- 11.4.72 To the east, the registered park and garden of Leigh Court, mainly comprising pasture, creates the setting for the main Grade II* listed building. Specimen trees in the parkland and belts of woodland around the freight line and fishing lake at Ham Green create a *"deceptively wooded feel."*
- 11.4.73 The large settlement of Pill developed around remnants of historic parkland has an urbanising influence on the rural landscape, with the larger office developments to the east being particularly visible.
- 11.4.74 NSDC describe the following forces for change:
- Development along transport corridors and infill within historic villages;
 - Division of historic parkland for intensive farming and by new development;
 - Encroachment of development along rural roads;
 - Visual impact of unsympathetic urban edges within adjacent landscapes; and
 - Damage to archaeological remains such as earthworks due to development and modern farming techniques.

- 11.4.75 According to the character area assessment, the overall strength of character is considered to be weak due to urbanising influences. The condition of the character area is described as declining due to declining management of the urban fringe. The overall strategy is to strengthen the positive landscape features.

- 11.4.76 As part of this assessment process, the value of this character area has been determined. The character area possesses few features of importance. Therefore, it is concluded that the character area has **low value**.

E5 Tickenham Ridge

- 11.4.77 Tickenham Ridge Character Area is characterised by narrow ridges with large areas of ancient broad-leaved woodland, parkland in historic estates

and pastoral farmland, creating a rural character and sense of remoteness. Stone walls, carriage drives, parkland trees are key landscape features. The roads vary widely with steep rural roads and the M5.

11.4.78 Forces for change are:

- Poor management of landscape elements such as stone walls;
- Small scale incremental changes such as signage, visual clutter, masts and traffic noise;
- Leisure causing "wear and tear" to landscape, including important geological and ecological sites;
- Increased use of rural roads leading to urbanisation with kerbs, road markings and lighting;
- Encroachment of development along roads with the expansion of villages such as Tickenham;
- Pressure for diversification of land uses e.g. recreation which are sometimes visually intrusive; and
- Damage to archaeological remains due to modern farming techniques.

11.4.79 According to the character area assessment, the overall strength of character is considered to be strong with large areas of woodland, parkland and pastoral land. The condition of the character area is generally good with a few elements of historic estates showing decline e.g. stone walls. The overall strategy is to conserve the woodland, parkland and pasture.

11.4.80 As part of this assessment process, the value of this character area has been determined. The character area has a strong heritage feel and possesses some features of importance, such as historic parkland and large areas of broad-leaved woodland, which could not be replaced if lost. Therefore, it is concluded that the character area has **medium value**.

D1 Avon Gorge

11.4.81 The Avon Gorge Character Area is of geologic interest due to its exposed carboniferous limestone faces. This area is also ecologically important, with varied habitat types such as coppiced and ancient woodland, wood pasture, calcareous grassland, scrubland and rare species such as Whitebeam. Woodland clinging to the slopes creates an intimate, enclosed feel. Views to the listed Clifton Suspension Bridge contribute to the character. There is a sense of movement and noise with the traffic on the Portway A4 road which disrupts this otherwise peaceful area. The disused railway line (freight line) and the River Avon Tow Path are also mentioned as features in the landscape.

11.4.82 Forces for change are:

- Limited maintenance of coppiced woodland and wood pasture;
- Volume of leisure use causing "wear and tear" to fragile habitats, historic and geological sites;
- Small scale incremental changes with proliferation of clutter, signage and increased noise;

- Visual impact of unsympathetic urban edges influencing adjacent landscapes; and
- Pressure of major transport routes increasing noise and disruption.

11.4.83 According to the character area assessment, this character area is in declining condition overall. However, this area is well used for recreation, resulting in erosion of paths. The changing tide results in the build-up of rubbish to the banks of the Avon. The landscape strategy is to conserve the sense of drama and wilderness.

11.4.84 As part of this assessment process, the value of this character area has been determined. The character area possesses designated sites and distinctive, special areas, such as Clifton Suspension Bridge, exposed limestone faces and ancient woodland, which are rare, and could not be replaced if lost. Therefore, it is concluded that the character area has **high value**.

G2 Failand Settled Limestone Plateau

11.4.85 The Failand Settled Limestone Plateau is a level, upland area characterised by leisure and recreational uses. It is influenced by the proximity of Bristol and dominated by large leisure facilities in the landscape such as golf courses and playing fields. Unsympathetic brick buildings, goal posts and fencing associated with the playing fields lack visual amenity. Woodland plantations and parkland to historic estates, along with the ancient woodland at Leigh Woods create a rural feel in places. Settlement is limited to occasional farmsteads and properties at Failand. There are also straight roads with an urban feel, some fringed with shelter belts of woodland.

11.4.86 NSDC describe the following as forces for change:

- Management of sports pitches impacting woodland through fertilizer run-off and removal of woodland edge;
- Modern farming methods reducing visual amenity and biodiversity of hedgerows;
- Limited maintenance of coppiced woodland, mixed woodland, hedgerows and drystone walls;
- Further diversification of land for recreational land uses which are already visually dominant in the landscape;
- Increasing signage, visual clutter and traffic noise associated with quarrying and sports fields; and
- Loss of mining remains and lack of information on the existing remains.

11.4.87 According to the character area assessment, the overall strength of character is considered to be moderate. The condition of the character area is described as declining with gappy hedgerows and collapsing dry stone walls. A high proportion of the area is maintained as sports pitches. The landscape strategy is to conserve the wooded rural character and enhance elements in decline particularly the field boundaries.

11.4.88 As part of this assessment process, the value of this character area has been determined. The character area possesses very few features of importance, with commercial units and amenity landscape common

elements, which could be replaced if lost. Therefore, it is concluded that the character area has **low value**.

Summary

- 11.4.89 The landscape associated with the DCO Scheme and Portbury Freight Line contains many of the characteristics and features described by NSDC in their Character Assessment. These include the gentle slopes and settlement of Pill described in J6, Ashton Court and parkland described in E5, the intimate, wooded slopes and Clifton Suspension Bridge described in D1, and Leigh Woods described in G2. Of less relevance are the large fields enclosed by low, broken up hedgerows and fences described in J6 and the golf courses and playing fields described in G2.

Bristol City Council's Central Area Context Study – Character Areas

- 11.4.90 The freight line section of the route also sits within BCC's *Central Area Context Study Character Area of Cumberland Basin*, the focus of which is the *"low lying land at the western end of Floating Harbour"*.
- 11.4.91 According to Bristol City Council (City Design Group 2013) *"the character area is a major gateway into Bristol's Central Area, characterised by a hard industrial dockside landscape...interlaced by the concrete multi-level road junction that carries vehicles across the Avon and Floating Harbour. The large brick-bonded warehouses are landmarks that identify the area from the south west. The surviving railway and maritime infrastructure provides a unique industrial heritage...Despite the dominance of road and rail infrastructure, the area suffers from poor and convoluted connections. The Ashton Avenue Bridge is an important route for cycles and pedestrians from south Bristol, though this route is undermined by physical deterioration"*. This bridge is currently being refurbished as part of the Ashton Vale to Temple Meads MetroBus project.
- 11.4.92 Another relevant character area identified in the Central Area Context Study is Hotwells, which sits in close proximity to the DCO Scheme. However, this character area is not considered in depth by BCC as it does not *"intersect with the major areas of change as identified by the Bristol Central Area Plan"*.

Site Specific Character Areas

- 11.4.93 Site specific landscape character areas are shown on Figure 11.2 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24). These smaller scale character areas have been derived by this study specifically to allow consideration of the potential landscape character effects at the smaller scale of the site and its immediate surroundings. In order to assess landscape character on a smaller scale, the site-specific character areas have been confined to the 500 m distance from the DCO Scheme, although in reality, boundaries are more variable.

Commercial Portishead

- 11.4.94 This area of Portishead has a predominately flat, low lying landform. It has an urban character, with its mix of commercial units and modern apartments, generally three to four storeys high, and associated areas of car parking and managed amenity landscaping of trees and shrubs. Contrasting with this, there are also areas of undeveloped land with unmanaged grassland and

scrub. The units have a large footprint and are quite spread out from one another, creating a disjointed feel, with little connectivity between individual units.

11.4.95 Views are variable, with both open views across the car parks and areas of grassland and scrubland, as well as views constrained by industrial units in places.

11.4.96 The character area possesses very few features of importance, with commercial units and amenity landscape as common elements, which could be replaced if lost. Therefore, it is concluded that the character area has **low value**.

Residential Portishead

11.4.97 This section of Portishead has a predominately flat, low lying landform. The area is one of residential estates, with occasional amenity landscape features such as The Vale and Trinity Primary School playing fields. The residential properties are modern and of brick construction. The disused railway has an overgrown, derelict character.

11.4.98 Views are generally enclosed due to tightly packed properties, narrow and short streets and small front gardens. Occasional areas of amenity landscape, such as The Vale park offer more open views.

11.4.99 The character area possesses very few features of importance, with residential estates and common amenity landscape elements. Therefore, it is concluded that the character area has **low value**.

Sheepway

11.4.100 This area is predominately rural and is characterised by small, regular fields bounded by a mix of fences and hedgerows with occasional mature trees. Long views across the flat, pastoral landscape look south towards distant, gently rolling hills, which enclose the area.

11.4.101 Dense, shrubby vegetation follows the line of the disused railway, which can be seen most easily from the Sheepway Bridge. To the west, the edge of Portishead is visible, slightly diluting the rural feel. To the south, the A369 Portbury Hundred and M5 are generally screened by vegetation, however, they are clearly visible to the east of the character area.

11.4.102 Settlement is generally limited to small, traditional stone farmsteads and rendered residential properties, which tend to cluster around the Sheepway road. Farming appears to be on a small scale. There are a number of listed buildings in the area.

11.4.103 Footpaths and Sustrans cycle paths provide a recreational aspect to this character area.

11.4.104 There are patches of woodland to the north and south of the DCO Scheme centreline.

11.4.105 The character area possesses some features of importance, such as mature trees, and small, traditional farmsteads, which could not be replaced if lost. Therefore, it is concluded that the character area has **medium value**.

Royal Portbury Dock

- 11.4.106 The Royal Portbury Dock has a predominantly industrial character, with industrial units and the extensive car storage areas as dominant elements. The units are generally large developments, which enclose the view. The car storage areas offer wider views, however, there is still a strong sense of enclosure due to mesh boundary fencing. The landform is generally flat.
- 11.4.107 Amenity landscape associated with the development, road embankments, as well as poorly managed grassland and woodland/shrub belt contribute to the character, often screening views and furthering the sense of enclosure. The disused railway line is overgrown and derelict.
- 11.4.108 To the east of this character area, the visually intrusive and elevated M5 stretches above the cycle path.
- 11.4.109 Footpaths, Sustrans cycle paths and a small section of bridleway provide a recreational aspect to this character area.
- 11.4.110 The high level mast lighting of the car storage areas and that of the motorway junction are a dominant local landscape feature often visible above the existing hedgerows and other vegetation.
- 11.4.111 There are patches of woodland, mainly clustered around Junction 19 of the M5. To the east, the character area includes a section of the Severn Estuary SAC, SPA, Ramsar and SSSI. The Grade II listed Court House Farmhouse building lies to the south of the DCO Scheme off Marsh Lane.
- 11.4.112 An extension to the car storage area at Marsh Lane has been consented and constructed which has extended the storage area closer to the M5 and is characterised by further lighting and hard surfacing. A new access bridge over the railway will be constructed in due course and prior to the opening of the DCO Scheme.
- 11.4.113 The character area possesses very few features of importance. With the exception of the designated Severn Estuary, commercial units and common amenity landscape elements dominate, which could be replaced if lost. Therefore, it is concluded that the character area has **low value**.

Pill

- 11.4.114 Pill is a village with a compact, enclosed character at its centre, resulting from small, traditional properties, steeply undulating landform and narrow roads and alleyways. The properties tend to be brick and render. They often have small front gardens or are built directly onto the street. There are also a number of stone retaining walls, which contribute to the intimate feel.
- 11.4.115 The landform is locally complex, with properties built into the slope. Views are generally constrained, although there are wider ranging views from open areas and properties built on higher ground. To the western edge of this character area, there are views to the dominant, elevated M5, and from the open space to the east similar long views to the M5 and south over the residential area of the village and to the wider landscape.
- 11.4.116 The railway line passes through the village centre in cutting at the location of the station, on viaduct over the small scale valley, and on the side of the slope before entering Pill Tunnel to the east. The red brick viaduct is a dominant feature of this character area, which contributes to the sense of history, along with the small harbour.

- 11.4.117 Below Pill Viaduct is the village green, with its grass, perennial planting beds and mature trees. The viaduct is a dominant feature looking south back up towards the village. Elsewhere, vegetation is limited to front gardens, and woodland and scrub alongside the railway line.
- 11.4.118 Footpaths and National Route 41 of the National Cycle Network provide a recreational aspect to this character area. Above Pill Tunnel is a relatively large open space, Watchhouse Hill, laid out to areas of amenity grass with trees and hedges and containing some formal features and sculpture. There are extensive views from this open landscape.
- 11.4.119 There are patches of woodland alongside the River Avon. Markham Brook flows under Pill Viaduct in culvert. Common Land and Town or Village Greens occur at The Landun, Pump Square, Victoria Park and Waterloo Wharf and Priors Field. The River Avon (part of) Site of Nature Conservation Interest ("SNCI") occurs to the north east of Pill, providing ecological value. The Grade II Listed Buildings Watch House, retaining walls to the River and Garage and Mulberry Cottage/Mulberry House are found to the north adjacent to the River Avon.
- 11.4.120 The character area possesses some features of importance, such as the historic red brick viaduct and village green, which could not be replaced if lost. Therefore, it is concluded that the character area has **medium value**.

Ham Green

- 11.4.121 Ham Green has an intimate, well maintained, pastoral character. Hedgerows, occasional mature trees and woodland bound rural lanes and fields. However, these are fragmented and have been replaced with fencing in places.
- 11.4.122 The landform is one of gentle slopes which constrain views. Views are further constrained by vegetation and winding roads, although there are occasional views across open fields as a result of fragmentation of hedgerows.
- 11.4.123 Settlement is limited to occasional, scattered properties and farmsteads, often with long, private driveways. Features such as the private fishing lake (Ham Green Lakes) and allotments provide a recreational aspect, as do local footpaths and the River Avon Tow Path and NCN 41 cycle route.
- 11.4.124 To the edge of this character area, views to Sea Mills to the east, and Pill and the elevated M5 to the west, dilute the rural character.
- 11.4.125 A patch of woodland occurs alongside Ham Green Lakes. Common Land occurs at The Point at Chapel Pill. The character area also includes Ham Green SSSI, which is a geological designation in the railway cutting. Also found in the character area is Ham Green Hospital, an unregistered park and garden (as designated in North Somerset Adopted Local Plan and North Somerset's policies map), which includes a number of listed buildings.
- 11.4.126 The character area possesses some features of importance, such as the mature trees and designated features like Ham Green Hospital, which could not be replaced if lost. Therefore, it is concluded that the character area has **medium value**.

Sea Mills

- 11.4.127 North of Leigh Woods and the Avon Gorge character areas, the landscape begins to open out giving way to views across open flood meadow. Nonetheless, views are still constrained to within the overall valley.
- 11.4.128 This area has contrasting elements and a semi-rural feel, with rough flood meadow and cultivated fields, and the settlement of Sea Mills contributing to the character.
- 11.4.129 Fences and low hedges provide field boundaries. There are also occasional mature trees, as well as blocks of woodland, creating a sense of a fragmented landscape.
- 11.4.130 Looking from the River Avon Tow Path northeast, there are views to the settlement of Sea Mills and its church, fencing associated with the railway line, as well as the railway bridge and the A4 road.
- 11.4.131 The River Avon Tow Path and NCN 41 provide a recreational aspect to this character area.
- 11.4.132 The character area lies partially within Green Belt. A small patch of woodland identified in the National Forest Inventory is located alongside the Portbury Freight Line. The character area also includes the Avon Gorge SSSI, Leigh Court RP&G, the scheduled monument part of the Roman Settlement of *Abonae* and the Grade II listed Harbour Walls of Sea Mills Docks. The settlement of Sea Mills is designated as a Conservation Area by BCC.
- 11.4.133 The character area possesses designated sites and distinctive, special areas, which are rare and could not be replaced if lost. Therefore, it is concluded that the character area has **high value**.

Avon Gorge

- 11.4.134 This area is characterised by the rugged Avon Gorge, with its exposed rock faces. Patches of scrub and woodland cling to the exposed rock on the east bank. To the west bank, the densely wooded Leigh Woods create an intimate feel. Views are narrow and channelled down the gorge, with the cliff constraining views outwards.
- 11.4.135 Buildings and settlement are limited to the edges of this character area. To the south, where the slope of the gorge begins to slacken, Clifton, with its Georgian terraces, steps up the landform in terraces and overlooks the River Avon. To the north, the 20th century residential properties of Sneyd Park are built on the flat top of the gorge and are surrounded by woodland.
- 11.4.136 The Avon Gorge is an historic transport corridor with shipping using the river from Avonmouth up to docks in the centre of Bristol. The movement of boats is constrained by the tide to some extent and there is now little traffic on the river. The A4 runs parallel to the River Avon on the east bank. The movement of large numbers of vehicles is dominant in the view.
- 11.4.137 On the west bank, the railway line is well screened by the existing vegetation with glimpsed views to the various tunnels, retaining walls and other structures and the occasional passing freight train.

- 11.4.138 The River Avon Tow Path and NCN 41 runs along the foot of the gorge on the west bank, with the River Avon to the east, and the Portbury freight line and Leigh Woods to the west, providing a recreational aspect within the character area.
- 11.4.139 The historically important Grade I listed Clifton Suspension Bridge crosses the Avon Gorge and is a dominant feature. The gorge is overlooked from both the bridge, which provides long views, and the edge of Clifton Downs, which provides panoramic views.
- 11.4.140 Whilst the nature of the gorge creates an enclosed feel, the residential properties visible on the edge of the gorge, well used cycle route and noisy A4 road dilute the sense of remoteness.
- 11.4.141 The character area lies partially within Green Belt. Leigh Woods, identified in the National Forest Inventory, occurs alongside the Portbury freight line, and part of it is designated as a NNR. The Avon Gorge (including Leigh Woods NNR) is designated as a SSSI and a SAC. The settlements of Sneyd Park and Clifton & Hotwells are designated as Conservation Areas by BCC. Leigh Woods is designated as a Conservation Area by NSDC. Clifton Down Camp and Stokeleigh Camp are Scheduled Monuments. Listed buildings in the area include Cooks Folly House at Sneyd Park, Clifton Suspension Bridge, Clifton Observatory, Burwalls at Leigh Woods, as well as a considerable number within the townscape of Clifton & Hotwells, such as The Colonnade, The Paragon and Freeland Court.
- 11.4.142 The character area possesses designated sites and distinctive, special areas, such as Clifton Suspension Bridge, the settlements of Clifton and Sneyd Park, exposed limestone faces and ancient woodland, which are rare, and could not be replaced if lost. Therefore, it is concluded that the character area has **high value**.

Ashton Gate

- 11.4.143 At Ashton Gate, the landform is generally flat, with the parkland of Ashton Court sloping upwards to the Avon Gorge to the north, with views south across the landscape and railway line. More generally, views are constrained by vegetation, fences and buildings.
- 11.4.144 The landscape here appears sprawling, disjointed and piecemeal, with a complex network of roads dividing the area. Occasional large buildings, such as the residential flats and the ex-Police Dog Kennels (paddocks), as well as the railway line, allotments and the parkland of Ashton Court are all contrasting features creating a complex character. Areas of fencing associated with the railway line, paddocks and roads create visual clutter. The A Bond and B Bond buildings contribute to the sense of industrial heritage in the area and are dominant features.
- 11.4.145 An important feature is the Cumberland Basin where the docks with their high quay walls and lock gates meet with the New Cut. Some of the small scale dock features are dominated by the road network with the Brunel Way elevated on a viaduct as it crosses Cumberland Basin. It is a visually intrusive feature of the landscape.
- 11.4.146 The parkland type landscape around Brunel Way, designed by Dame Sylvia Crowe, is well maintained, and generally consists of open grassland

interspersed with mature belts of woodland. Scrubby vegetation is associated with the railway line.

11.4.147 Footpaths and the River Avon Tow Path provide a recreational aspect to this character area.

11.4.148 The character area lies partially within Green Belt. There are patches of woodland identified in the National Forest Inventory within the grounds of Ashton Court. Ashton Court is a RP&G and Country Park. A section of Ashton Court is designated as a SSSI and a SNCI. Bower Ashton and City Docks are designated as Conservation Areas by BCC. Listed buildings in the area include the A Bond and B Bond Warehouses, Brunel's Entrance Locks and Bower Cottage in Bower Ashton.

11.4.149 The character area possesses some features of importance, such as the parkland of Ashton Court, A Bond and B Bond buildings and allotments with local value, which could not be replaced if lost. Also, two sections of the site are within conservation areas. Therefore, it is concluded that the character area has **medium value**.

Ashton Vale

11.4.150 This area has a strong urban-fringe feel. The railway line, wide distributor roads such as Winterstoke Road, large scale buildings with predominately commercial and office uses, as well as associated metal security fences, lighting and car parks all contribute to the character.

11.4.151 Vegetation is limited to areas of amenity landscape with few trees, as well as the scrubby landscape associated with the railway line.

11.4.152 The landform is fairly flat, and views are generally constrained due to large, dominant buildings.

11.4.153 The character area possesses very few features of importance, with commercial units and amenity landscape common elements, which could be replaced if lost. Therefore, it is concluded that the character area has **low value**.

Visual Amenity

11.4.154 The visual amenity assessment is presented in four parts as listed below:

1. A description of views in general given below;
2. Appendix 11.1 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) uses photographs to illustrate the landscape character;
3. Appendix 11.2 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) also uses photographs to illustrate summer and winter views;
4. Appendix 11.3 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) lists the potential visual receptors; and
5. Appendix 11.4 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) presents a selection of photomontages at Portishead and Pill Stations.

11.4.155 The text below in this section describes the *views in general* from the landscape around the disused line and the Portbury Freight Line.

11.4.156 Appendix 11.1 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) uses photographs to illustrate views from a number of locations looking towards the disused line and the Portbury Freight Line. A short narrative is included that explains how the DCO Scheme fits within the view presented. The locations from where the photographs were taken are shown on Figure 11.3 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).

11.4.157 Appendix 11.2 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) also uses photographs to illustrate views from a number of locations looking towards the disused line and the Portbury Freight Line from the surrounding landscape, with the photographs presenting summer and winter views from the same location. These illustrate how the landscape character changes seasonally, and what effects this has on the visibility of the DCO Scheme. The potential changes in view are described briefly. The locations from where the photographs are taken are shown on Figure 11.3 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).

11.4.158 Appendix 11.3 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) lists the potential visual receptors from which it is considered there may be a likely significant change in view and provides an assessment in the potential change in view. It should be read alongside the approximate visual envelope, Figure 11.3 Sheets 1 to 5 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24), and in conjunction with Section 11.6 of this chapter.

11.4.159 Appendix 11.4 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25) presents a number of photomontages of the proposals at Portishead and Pill Stations setting out the methodology used in their preparation.

Views in general

11.4.160 Views from within the residential area of the east side of Portishead are generally constrained by the buildings and the short road lengths. They become more open around Harbour Road and Phoenix Way where the roads are wider and straighter.

11.4.161 The open rural landscape to the east of Portishead and from Sheepway allows open views in most directions. Views are constrained in the middle distance with the trees alongside the A369 Portbury Hundred and the M5. There are long distance panoramic views over Clapton Moor to the south west and to the higher ground of Tickenham Ridge to the south and west.

11.4.162 Views north from Sheepway tend to be constrained by the localised rise in landform and the woodland to the western edge of the car storage areas of the docks.

11.4.163 There are extensive views northwards from Caswell Lane, just to the north of the M5, over the Sheepway area with the A369 Portbury Hundred and the disused line visible as lines of vegetation forming a small part of the overall view.

11.4.164 The area around Junction 19 of the M5 is complex and mixed. Existing woodlands by the M5 motorway junction 19 and alongside the railway line limit views out, but with some limited views from the elevation junction

roundabout. The large scale industrial buildings to the north of the disused railway line provide further screening. In contrast the large areas of car storage associated with Royal Portbury Dock allow open views and in particular of the higher ground to the south.

11.4.165 There are longer views from the disused line east of the M5 north across the River Avon.

11.4.166 The complex landform and urban character of Pill with its elevated viaduct and cuttings and the locally complex landform at Ham Green, where the line passes into tunnel, result in complex views in and out from the railway line. The M5 Avonmouth Viaduct over the River Avon is the dominant feature in many of the views from elevated areas. In contrast views from within Pill and from around the docks are constrained by the adjacent landform and buildings with channelled views north over the River Avon to Shirehampton.

11.4.167 East of Ham Green there are more open views from within the rural landscape north to the residential development at Shirehampton and Sea Mill. The cliffs at Horseshoe Point enclose the views to the north.

11.4.168 Views become constrained along the valley of the Avon Gorge with views to the surrounding areas at the higher levels limited by the edge of the gorge itself. Views down into the gorge are possible only from its edge, for example from the viewing area on the Circular Road on The Downs. Views from Leigh Woods are constrained by the wooded slopes. Ashton Court and Hotwells/Clifton mark the southern entrance to the Avon Gorge.

11.4.169 There are longer views out to the higher ground of the Ashton Court Estate to the west and the housing in Clifton on the higher ground above Hotwells to the north east.

11.4.170 More open views are possible to the south of the Cala Trading Estate, but again views out are constrained by larger buildings, and highway structures at the Winterstoke Road and Brunel Way junctions.

11.4.171 The dense urban nature at Ashton Vale with its larger scale retail and commercial buildings limit views to the line from the surroundings. Glimpsed views are possible between buildings, down roads and across car parking areas.

11.4.172 There are large numbers of potential visual receptors due to the urban nature of parts of the study area. There is a mix of residential and commercial land uses at Portishead, commercial through the Royal Portbury Docks, residential at Pill and Ham Green, woodland, road and leisure through the Avon Gorge, longer distance residential from the edge of Clifton and Hotwells, commercial and roads at Winterstoke Road and a mix of residential and commercial at Ashton Vale and Parson Street.

11.5 Measures Adopted as Part of the DCO Scheme

11.5.1 A number of measures have been included as part of the project design in order to minimise certain environmental effects. These include:

- careful designing of the DCO Scheme to ensure key receptors are avoided where possible;
- construction adopting best practice techniques, which are introduced in the Code of Construction Practice ("CoCP") and presented in more detail

in the Master Construction Environmental Management Plan (“CEMP”), where these techniques are known to be effective and have not been identified in order to mitigate likely significant environmental effects; and

- compliance with regulatory and legislative regimes as required by law.

11.5.2 Reference should be made to Chapter 4, Description of the Proposed Works (DCO Document Reference 6.7) and Appendices 4.1 CoCP (DCO Document Reference 8.15) and 4.2 Master CEMP (DCO Document Reference 8.14). An indicative Construction Strategy has been developed for the DCO Scheme, which is presented in DCO Document Reference 5.4. The construction strategy will be developed in detail once the contractor has been appointed.

11.6 Assessment of Landscape Effects

Construction Phase

11.6.1 This section assesses the potential effects on landscape character during construction for the each of the various scales of landscape character.

11.6.2 The assessment of landscape effects during construction assumes that mitigation measures are in place and they have therefore been taken into consideration in the assessment below. The mitigation measures for landscape and visual effects during construction are effectively limited to good construction practice as detailed in the CoCP and Master CEMP. It is considered that no other landscape mitigation measures would be effective. For example, replacement planting is not considered to be effective until 15 years after planting and would likely not be installed until after the main engineering works in any case.

11.6.3 Landscape effects during the construction phase are considered as temporary in nature.

NCA 106 Severn and Avon Vales

11.6.4 The most noticeable change during construction will be the removal of vegetation alongside the disused line, in particular the larger trees. Replacement hedge planting alongside the track will mitigate the effect to some extent when it becomes established. The large trees will be a permanent loss as the replacement planting cannot include large scale trees due to the Network Rail replacement planting standards that restrict tree planting within a certain proximity to the operational line.

11.6.5 In addition, the construction compound off the A369 Portbury Hundred will be a temporary feature during the whole of the construction period with its accommodation, plant and materials. Other activities will vary, for example the excavation period will see the movement of lorries alongside the track and haul roads, whereas machinery laying the new track will move more slowly in the landscape.

11.6.6 In the context of the NCA, the construction activity will be seen in the overall context of the M5 motorway, the A369 Portbury Hundred and the large scale docks to the north. The activity will form a relatively small part of the view in the overall landscape.

11.6.7 The NCA has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

NCA 118 Bristol, Avon Valleys and Ridges

- 11.6.8 This NCA covers the area from the M5 along the River Avon and into the Avon Gorge. Construction activity would be mostly contained within the limits of the existing freight line, an existing feature of the landscape. The urban area of Pill, Pill Tunnel and the steep and narrow corridor of Avon Gorge, all screen the freight line from the wider NCA and therefore limit effects during construction on the immediately surrounding landscape.
- 11.6.9 In the context of the NCA, the construction activity will be contained within a narrow corridor. Whilst the Avon Gorge is a sensitive landscape and people come to view it in particular, it forms a small part of the overall NCA.
- 11.6.10 The NCA has a high value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Local Authority Character Areas

A2 Clapton Moor

- 11.6.11 As noted above, the most noticeable change during construction will be the removal of the larger trees alongside the disused line. This would mean that views across the character area would be more open, albeit these views cannot be experienced from many places.
- 11.6.12 In addition, the construction compound off the A369 Portbury Hundred will be a significant local feature during the whole of the construction period with its accommodation, plant and materials, and lighting in a relatively dark landscape.
- 11.6.13 Other activities will include the excavation period with the movement of lorries alongside the track and haul roads, whereas vehicles laying the new track will move more slowly in the landscape.
- 11.6.14 The character area has a medium value, the magnitude of impact would be minor adverse and the significance of effect on the A2 Clapton Moor LCA is **slight adverse**.

C2 Portbury Settled Coastal Edge

- 11.6.15 This character area encompasses the section of disused line between the docks and the M5. Again, the most significant change would be the loss of the larger trees adjacent to the track, in particular those to the north of the line to the east of Royal Portbury Dock Road. The loss of these trees will open up views from the M5 and Junction 19 northwards to the factories at Avonmouth which would become a more visible feature in the landscape.
- 11.6.16 The construction compound between Pill and the M5 at Lodway Farm would have a localised impact on the character area as it is mostly visually contained by the M5 to the north and west, and the settlement of Pill to the south and east.
- 11.6.17 The character area has a low value, the magnitude of impact would be negligible adverse, with a significance of **slight adverse**.

J6 Avon Rolling Valley Farmland

- 11.6.18 This character area extends from the freight line junction into the docks to the west of Pill and as far east as the entrance to the Avon Gorge. Apart from the section of freight line over Pill Viaduct, it is mostly screened from view by the tunnel, the cutting east of Pill Tunnel and the trackside

vegetation from Ham Green up to the entrance to the Avon Gorge. The influence on the character area is therefore contained by these screening features.

- 11.6.19 There would be some effects with construction activity on the freight line being visible in some places. Areas of localised vegetation clearance would open up limited views in places. Construction vehicles gaining access to the site at Pill Tunnel eastern portal would have a localised effect on the local road through Ham Green.
- 11.6.20 The character area has a low value, the magnitude of impact would be negligible adverse, with a significance of **slight adverse**.

E5 Tickenham Ridge

- 11.6.21 This is a long character area extending from Clevedon with the eastern edge of this character area covering the area just west of the Avon Gorge including the Ashton Court Estate. There would be some views from the edge of the estate down onto the construction compound at Clanage Road (outside the character area). Most of the construction activity on the freight line would be screened from this area by the A370 and Ashton Gate industrial estate.
- 11.6.22 The character area has a medium value, the magnitude of impact would be negligible adverse, with a significance of **slight adverse**.

D1 Avon Gorge

- 11.6.23 This is a small character area covering the west side of the Avon Gorge, extending up the cliffs and into Leigh Woods. The areas of influence of construction activity would be contained to the bottom of the gorge with limited views from the upper areas as they are screened by the change in landform of the cliffs and by the woodland.
- 11.6.24 The construction activity would generally be during blockades, either at weekends or longer periods during the summer months. There would therefore be peaks of activity during construction. There would also be a greater impact at night where temporary lighting is used.
- 11.6.25 There would be loss of vegetation adjacent to the track to create the space required for passenger trains, and loss of vegetation to install the new fencing, in particular between the track and the Avon Gorge Tow Path, and loss of some trees on the cliff. The result would be that the construction activity would be more noticeable in the landscape with the loss of screening.
- 11.6.26 There would also be localised areas of geotechnical rock stabilisation work on the cliff above the track. This would involve the removal of vegetation and rock pinning and descaling works, and in three areas the installation of catch fencing to the bottom of the slope. More detail on the potential effects are given below in the site specific character area assessment. The presence of the works on the cliff side would be noticeable and unusual.
- 11.6.27 The D1 Avon Gorge character area has a high value, the magnitude of impact would be moderate adverse, with a significance of effect of **moderate adverse**.

G2 Failand Settled Limestone Plateau

- 11.6.28 This character area similarly extends east-west with its eastern boundary against the Avon Gorge character area (D1) and includes Leigh Woods. It is visually separated from the freight line by the change in landform of the gorge and the woodland. Construction activity is unlikely to be visible from this character area.
- 11.6.29 The character area has a low value, the magnitude of impact would be negligible adverse, with a significance of **neutral**.

Site Specific Character Areas

- 11.6.30 The site specific character areas are shown on Figure 11.2 Sheets 1 and 2 in the ES Volume 3 Book of Figures (DCO Document Reference 6.24).

Commercial Portishead

- 11.6.31 The removal of the existing vegetation around the site will open up views across the area of car park and station. The more formal tree planting around the existing highway will also be removed. This is a permanent loss with replacement planting generally more limited in extent.
- 11.6.32 The highway diversion works, including utilities diversions, would be highly visible in the landscape as there will be no means of screening. Typical features would be site offices, excavators and other plant and machinery, materials and site safety fencing. The main car park (car park B) would be constructed at the same time as the highway works and will be used temporarily for workforce car parking.
- 11.6.33 The areas created for the station building and station forecourt will be used temporarily as an area of construction compound and site access for the railway line.
- 11.6.34 Construction traffic would use the new highway to gain access to the track, bringing in the Trinity Primary School Bridge components with larger lorries and cranes moving in the landscape.
- 11.6.35 The construction of the station would require a piling rig temporarily, and this and the cranes for the bridge and station roof will be more visible in the local landscape due to their height.
- 11.6.36 These effects will generally be contained by the existing buildings which will limit the effects on the landscape character to a small localised area.
- 11.6.37 The character area has a low value, the magnitude of impact would be moderate adverse, with a significance of **slight adverse**.

Residential Portishead

- 11.6.38 There will be some loss of the existing vegetation alongside the disused line, in particular the larger trees and planting on the north side. The poplar trees on the south side will be a noticeable loss due to their size and will open up some views across the disused line from the wider landscape. The loss of these larger scale trees will be a permanent change as replacement planting will consist of hedgerow planting and smaller scale trees in accordance with the Network Rail planting standards and would only be effective during operation once established.

- 11.6.39 There would be the temporary loss of open space at Tansy Lane as the area would be used as a part of the site for the construction of the Trinity Primary School Bridge. Construction of bridge foundations including the piling and associated piling rig, and the use of cranes to lift and position the bridge components would be intrusive in the local landscape due to their height.
- 11.6.40 Footpath diversions would be required.
- 11.6.41 There would also be construction traffic moving up and down the disused line to gain access to other parts of the site towards Sheepway. This would be mostly screened by existing vegetation, particularly on the south side.
- 11.6.42 The character area has a low value, the magnitude of impact would be moderate adverse, with a significance of **slight adverse**.

Sheepway

- 11.6.43 The construction of the compound and access to the track at Sheepway Bridge would be relatively well screened by the bridge itself, and the localised dip in landform. The adjacent footpath and cycle way would be diverted locally around the compound area, partially screened by fencing. The construction of the access point with larger turning area (for low loaders during operation) and relocated bus stop would be more visible in the wider landscape and from the road.
- 11.6.44 It is possible that the works would be carried out at the same time as the Hinkley Point C Connection works, which are also described in Chapter 18 In-combination and Cumulative Effects Assessment (DCO Document Reference 6.21). In order to facilitate this, a combined access point has been designed. This would mean a larger area of disturbed ground for the works, site access and haul roads, and an increase the amount of construction vehicles and machinery visible within the landscape generally.
- 11.6.45 The construction compound to the south of disused line off the A369 Portbury Hundred would be a larger scale feature in the local landscape as a site compound. Features would include site offices, car parking, plant and materials storage including ballast. The construction compound would introduce lighting into a relatively dark landscape. The haul road to the south of the disused line would be more visible in the open landscape, with lorries moving up and down the line.
- 11.6.46 There would be the loss of trackside vegetation on one side of the disused line, with the other side retained. The relatively open landscape would mean that the construction activity would generally be more visible.
- 11.6.47 An area between Sheepway and the track is proposed to be used for ecological mitigation. This includes shrub planting within the field as well as bands of planting around the field edges at 5 m and 10 m wide. This would introduce tree and shrub planting into the landscape.
- 11.6.48 The character area has a medium value, the magnitude of impact would be moderate adverse, with a significance of **moderate adverse**.

Royal Portbury Dock

- 11.6.49 There would be loss of trackside vegetation, in particular the larger birch trees to the north side. To the north are the open car storage facilities and the south the roadside vegetation of the A369 Portbury Hundred and the M5. Some of the trees would be retained to maintain some screening.

- 11.6.50 Further, relatively small areas of vegetation removal to improve visibility would occur around the various bridges which cross over the railway line and adjacent to the footway and cycle path. This would also be the case on the Royal Portbury Dock Road where a crossing point for equestrians is proposed at the north side of the bridge and vegetation clearance is required to achieve the required visibility splays at the crossing point.
- 11.6.51 Construction access and vehicles would be a locally dominant feature at the northern end of Marsh Lane, as this would be used as an access point under the M5 to the construction compound to the east of the M5 at Lodway Farm. The Lodway Farm construction compound would be used for the storage of ballast removed from the track. This would be stored on the site until the end of the construction period before being removed by train. The amount of material stored would be a noticeable feature in the local landscape.
- 11.6.52 The road network would be used for construction vehicles getting from the compound off the A369 Portbury Hundred into the docks as part of the haul route for excavated materials away, and potentially for ballast in. Construction traffic and machinery up and down the line would also be a feature later on during track laying and fencing operations.
- 11.6.53 This is a relatively enclosed area with limited access between the docks and the M5.
- 11.6.54 The character area has a low value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Pill

- 11.6.55 A construction compound is proposed to the east of the M5 at Lodway Farm. Access to the compound would be via rail off the Portbury freight line, by road from Marsh Lane along the bridleway and under the M5 on the disused line and by road through Pill for smaller vehicles such as vans and cars. The open nature of the landscape locally means that it would be relatively visible in the view. The area would also be used for the storage of ballast removed from the existing track, which would be stored on this site until the end of the works. It would be a relatively large-scale feature in the local landscape.
- 11.6.56 The rebuilding of Avon Road Bridge and the widening of the embankment for the second track to Portishead would be by crane located on the site of twelve garages on the north side of the bridge which would have to be demolished to make way for a small construction compound. A temporary access route from Lodway Farm construction compound to the bridge site would cross six gardens on Lodway Close. The bridge replacement and embankment works would involve relatively large-scale plant and machinery which would dominate the local landscape.
- 11.6.57 There would be the loss of trackside vegetation on the embankment including the large trees, which would open up views to the construction activity, as well as views across the line to the M5, which are currently screened by the trees.
- 11.6.58 The demolition of No. 7 Station Road to create space for the station forecourt would be locally damaging to the character at the street level. The rebuilding of the platforms, steps and ramps will be partially screened from the local landscape being set within the existing cutting. However, the soil nailing, and the construction of retaining walls and ramps are relatively large-

scale activities in a small-scale area which would intrude into the local landscape. Access to these works would generally be along the track from the Lodway Farm construction compound, with a small compound at the existing yards which will become the new Pill car park, and to some extent a small compound with limited access through the plot of No. 7 Station Road.

- 11.6.59 The track laying operations would be relatively contained in the cutting, however more visible on Pill Viaduct from the surrounding areas that are elevated. Pill Viaduct would be covered in scaffolding for a period whilst the brickwork is repointed and repaired.
- 11.6.60 To the east of Pill Viaduct, localised earthworks would be visible in the surrounding landscape due to their elevated position on the side of the hill on the approach to the tunnel portal.
- 11.6.61 The station car park and highway works on Monmouth Road would be smaller in scale and be part of the later construction activities.
- 11.6.62 The character area has a medium value, the magnitude of impact would be major adverse, with a significance of **large adverse**.

Ham Green Lakes

- 11.6.63 There would be very minor work to the highways to enable large vehicles to negotiate the roundabout and corners off Ham Green so that they could access the Pill Tunnel eastern portal access. Construction traffic to the portal area would be visible on the highway during the construction period.
- 11.6.64 The construction activity at the Pill Tunnel eastern portal would be visually contained by the localised landform and surrounding vegetation. This area is within an unregistered park and garden at Ham Green hospital. The earthworks would be the most noticeable activity. The new access point and relocation of the field access would involve the removal of sections of existing hedge and the creation of a turning area for large lorries resulting in more open views south.
- 11.6.65 The character area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Sea Mills

- 11.6.66 Sea Mills is a small character area at the northern entrance to the Avon Gorge influenced by the built-up area of Sea Mills to the east of the river. There would be the loss of some trackside vegetation, in particular at the area around the Miles Dock Bridge, where a small construction compound would be visible.
- 11.6.67 This is a relatively open and rural location where the construction activity would be out of character.
- 11.6.68 The character area has a high value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Avon Gorge

- 11.6.69 The freight line is an existing feature of the landscape of the Avon Gorge and changes to the track are small in scale in terms of the landscape character. The DCO Scheme would result in the loss of vegetation within the Avon Gorge, both as a direct result of the implementation of the DCO Scheme, such as with the installation of fences, and as a result of the Avon Gorge

Vegetation Management Plan (see ES Appendix 9.11, DCO Document Reference 8.12).

- 11.6.70 Lack of management over the years has resulted in the growth of tall etiolated trees. These are growing on shallower soils on the rock slopes and the stability of these trees cannot be guaranteed. Therefore there would be some loss of some trackside vegetation, including some larger trees which overhang the freight line.
- 11.6.71 Ash die back has infected a number of individual trees through the gorge and would result in the death of mature Ash trees along the railway in the next few years. These dead trees may then need to be removed.
- 11.6.72 There would be further loss of planting along the boundary as a result of the replacement fencing being installed, as outlined below in Table 11.14, as well as in localised areas where works to existing structures such as bridges are required.
- 11.6.73 Whilst some of the railway is screened in views from the east by vegetation on embankments where the railway line is on elevated banks, the works will result in exposed stretches of the line through the Avon Gorge, predominantly identified by new the 1.8 m high paladin fencing proposed along both sides of the railway. These exposed stretches are outlined in more detail within Table 11.14 below.

Table 11.14: Impact of proposed fencing within the Avon Gorge

Stretch of Railway	Description
Approach to Clifton Suspension Bridge from the south	<p>To avoid vegetation clearance the existing fencing will be retained along the section of the track that runs between Clifton Bridge and a point near Clanage Road. A secondary 1.8 m high paladin fence will be constructed within the cess along this section of the railway, thereby avoiding existing vegetation being removed and exposing the railway line.</p> <p>It is likely that filtered winter views will be afforded towards construction of the new fence, as well as other construction activity on the line. During operation it is unlikely that the fence will be visible amongst the existing vegetation given its location.</p>
Stretch of railway between the ex-rifle range in Quarry 3 and Clifton Bridge No. 2 Tunnel	<p>Travelling north out of the Clifton Bridge No. 2 Tunnel the retaining wall that runs along the east of the embankment pinches in, resulting in no potential for planting to mitigate the vegetation removal that will be required as part of the fencing works.</p> <p>Views to this stretch of the track are limited by planting along the western edge of The Portway.</p>

Table 11.14: Impact of proposed fencing within the Avon Gorge

Stretch of Railway	Description
Section of railway opposite the southern edge of Sneyd Park	<p>Gap between railway and retaining wall along this section will result in exposed edge once vegetation has been removed as part of the works.</p> <p>Whilst views to this section of the track are filtered by intermittent planting, the new fencing will have an urbanising effect in elevated panoramic views from residential receptors on the edge of Sneyd Park.</p>
11.6.74	Geotechnical works to the cliff face are required to remove unstable stones and rocks or to install rock bolts. This would result in some further loss of vegetation on the cliff face exposing some areas of rock face. In addition, rock catch fencing is required in three locations to the foot of the slope and west of the railway. These are located both within Network Rail land and also on the third party land.
11.6.75	The proposed works required on Network Rail and third party land are outlined in Tables 11.15 and 11.16 respectively. The approach to estimating the loss of vegetation is described in the ES Appendix 9.11 Avon Gorge Vegetation Management Plan (DCO Document Reference 8.12). Proposed works to the Network Rail rock faces relate to vegetation clearance to allow the removal of loose blocks and installation of rock bolts.

Table 11.15: Impact of proposed geotechnical works on Network Rail land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Rock Face ID01 – Secondary (recent) Woodland habitat				
Clear ivy, do not remove any rare/notable plants. Ecological watching brief.	Remove loose blocks Remove 3 trees causing root jacking	None	Routine type of work, no significant impact	None present
Rock Face ID02 – SAC grassland habitat				
Light vegetation clearance, do not remove any rare/notable plants. Ecological watching brief.	None	None	None	None present
Rock Face ID03 – Ancient woodland habitat				
Light vegetation clearance. Remove unstable trees from portal. Avon Whitebeam numbers on the portal have been already considered and require removal (dangerous trees). Ecological watching brief.	Remove loose blocks Remove approx. 5 trees causing root jacking and assume 5 rock bolts in portal.	10 rock bolts, no mesh	Removal of 60 m ² of ancient woodland. 4 m ² per rock bolt, assume 15 in total needed.	13 Avon whitebeam present. Total area = 1570 m ² Impacted area = 60 m ² 3.82% of trees = 0.49 Assume 1 tree lost
Rock Face ID04 - Ancient woodland habitat				
Clear ivy, do not remove any rare/notable plants. Ecological watching brief.	Remove loose blocks Remove approximately. 10 trees causing root jacking	10 rock bolts, no mesh	Removal of 40 m ² of ancient woodland.	6 Avon whitebeam present. Total area = 310 m ² Impacted area = 40 m ² 13% of trees = 0.78 Assume 1 tree lost

Table 11.15: Impact of proposed geotechnical works on Network Rail land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Rock Face ID05 – Ancient woodland habitat				
Clear ivy, do not remove any rare/notable plants. Ecological watching brief.	Remove loose blocks	10 rock bolts, no mesh	Removal of 40 m ² of ancient woodland.	3 Round-leaved whitebeam present. Total area = 2120 m ² Impacted area = 40 m ² 1.89% of trees = 0.1 Assume 1 tree lost
Rock Face ID06 – SAC grassland habitat				
Light vegetation clearance, do not remove any rare/notable plants for inspection. Ecological watching brief.	Remove loose blocks	10 rock bolts, no mesh	Removal of 40 m ² of SAC grassland. Bristol rock-cress present in approx. half of the rock face.	1 Bristol whitebeam present. Already considered to coppice. No additional trees. Assume 20 m ² of area where Bristol rock-cress is present will be removed.
Rock Face ID07 – SAC grassland habitat				

Table 11.15: Impact of proposed geotechnical works on Network Rail land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Clear vegetation, do not remove any rare/notable plants. Ecological watching brief.	Remove loose blocks	10 rock bolts, no mesh	Removal of 40 m ² of SAC grassland.	13 Wilmotts whitebeam, 2 Observatory whitebeam present. Total area = 730 m ² Impacted area = 40 m ² 5.5% of trees = 0.82 Assume 1 tree lost
Rock Face ID08 – Ancient woodland habitat				
Light vegetation clearance, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks	10 rock bolts, no mesh	Removal of 40 m ² of Ancient woodland.	No whitebeam present
Rock Face ID09 – Ancient woodland habitat				
Light vegetation clearance, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks. Remove 5 trees causing root jacking.	10 rock bolts, no mesh	Removal of 40 m ² of ancient woodland.	Approximately 188 whitebeam trees present. Rare species mostly Leigh Woods whitebeam. Total area = 1610 m ² Impacted area = 40 m ² 2.5% of trees = 4.7 Assume 5 trees lost
Rock Face ID10				

Table 11.15: Impact of proposed geotechnical works on Network Rail land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Clear vegetation, do not remove any rare/notable plants. Ecological watching brief.	None	None	None	None present
Rock Face ID11 – Ancient woodland habitat				
Clear ivy, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks	10 rock bolts, no mesh	Removal of 40 m ² of ancient woodland.	2 common whitebeam. No impacts on rare whitebeam.
Rock Face ID12 – Ancient woodland habitat				
Clear vegetation, do not remove any rare/notable plants. Ecological watching brief.	None	Assume 2 rock bolts, no mesh.	Removal of 8 m ² of ancient woodland	None present
Rock Face 13 – Ancient woodland habitat				
Clear vegetation, do not remove any rare/notable plants. Ecological watching brief.	None	Assume 2 rock bolts, no mesh.	Removal of 8 m ² of ancient woodland	None present
Rock face ID14 – Ancient woodland habitat				
Clear vegetation, do not remove any rare/notable plants. Ecological watching brief.	None	Assume 5 rock bolts (no mesh) and light scaling	Removal of 20 m ² of ancient woodland	None present

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Rock Face Area 1 – Ancient Woodland habitat				
Vegetation removal and light scaling of rock escarpment, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks that are an immediate risk to the railway	5 rock bolts	Removal of 20 m ² of ancient woodland (4 m ² per rock bolt).	None present.
Rock Face Area 1a – Ancient Woodland habitat				
Vegetation removal and light scaling of rock escarpment, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks that are an immediate risk to the railway	None	None	Not inspected due to requiring rope access but previous surveys indicate there are unlikely to be any rare plants present.
Rock Face Area 2 – Secondary (recent) woodland habitat				
None specified	Rock catch fence along top of cutting from tunnel portal at 122 m 0565 yds to edge of old quarry at approximately 120 m 0650 yds. Fence 2 m high and 78 m long. Rock blocks to be removed from slope to allow safe working below.		Removal of 390 m ² of secondary (recent) woodland habitat for installation of rock fence (5 m x 78 m).	No rare whitebeams on cliff top. Avon whitebeam present on lower slopes on NR land (NR Rock Face ID03). Should be possible to avoid rare whitebeams. 13 Avon whitebeam present on NR Rock Face ID03. Total area = 1570 m ² Impacted area = 390 m ²

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
				25% of trees = 3.25 Assume 4 Avon whitebeam trees
Rock Face Area 3 – Secondary (recent) woodland habitat				
No works required	No works required	No works required	No works required	No rare whitebeam or rare plants present and no works required.
Rock Face Area 4 – Secondary (recent) woodland habitat				
None specified	Notify land owner, recommend that block is monitored for signs of future movement.	No works required	No works required	No rare whitebeam or rare plants present and no works required.
Rock Face Area 5 – SAC grassland habitat				
Vegetation removal and light scaling of an area totaling 10 m ² , do not remove any rare/notable plants. Ecological watching brief	5 rock bolts to support wedge feature identified.		Removal of 20 m ² of SAC grassland.	No rare whitebeams where works required, but are present on NR land below. Fingered sedge (<i>Carex digitata</i>) at least 10 clumps. Bristol rock-cress (<i>Arabis stricta</i>) has been present in the past but not confirmed at present. Rare species will be avoided by an ecological watching brief.

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
				No impacts on rare plants.
Rock Face Area 6 – Ancient woodland habitat				
None specified	<p>Targeted scaling on rock face to remove worst blocks (estimate 40% of rock face).</p> <p>Catch fence proposed between 122 miles 1494 yds to 122 miles 1551 yds. 2 m high, 52 m long.</p>		<p>Removal of 260 m² of ancient woodland habitat for installation of rock fence (5 m x 52 m). Assume scaling will avoid removal of rare plants</p>	<p>5 Wilmott's whitebeam on edge of quarry slab and 1 Wilmott's whitebeam in crack in slab.</p> <p>3 Observatory whitebeams present at base on NR land.</p> <p>Bristol rock-cress present in the adjacent quarry and occasionally plants occur along top edge of this cliff and rarely on the north face.</p> <p>Fingered sedge - at least 30 clumps recorded on slopes below the cave but not noted during geotechnical. It may still be present in low numbers.</p> <p>Rare species will be avoided by an ecological watching brief.</p> <p>No impacts on rare plants.</p>

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Rock Face Area 7 – Ancient woodland habitat				
None specified	<p>Rock catch fence along cess 122 m 1680 yds to 123 m 0080 yds. Fence will be 2 m high and 147 m long.</p> <p>Scaling of escarpment and removal of blocks on slope to allow safe working below.</p>		Confirmed removal of 3 m vegetation up slope and 1 m down slope for fence installation. Total removal of 588 m ² of Ancient Woodland (4 m x 147 m).	<p>1 Bristol whitebeam on woodland slope in middle of rock face. 1 Bristol whitebeam present on cliff top.</p> <p>No rare trees or plants noted along bottom where catch fence proposed. Trunk of Bristol whitebeam on slope should be protected with temporary padding prior to and during scaling works to prevent damage. Padding of Bristol whitebeam tree would be undertaken with an ecological watching brief.</p> <p>No impacts on rare plants.</p>
Rock Face Area 8 – Ancient woodland habitat				
No works required	No works required	No works required	No works required	<p>1 Bristol whitebeam on cliff top.</p> <p>No works required.</p>
Rock Face Area 9 – Ancient woodland habitat				

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Vegetation removal and light scaling of rock escarpment, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks that are an immediate risk to the railway	None	None	<p>None present on third party rock face.</p> <p>1 grey-leaved whitebeam (<i>Sorbus porrigentiformis</i>) on low cliff at south end, fingered sedge, lily of the valley <i>Convallaria majalis</i>; and angular Solomon's' seal <i>Polygonatum odoratum</i> are present on the adjacent NR land immediately to the east and are vulnerable to clearance during scaling works.</p> <p>It is assumed that the rare plants on adjacent land will not be affected.</p>
Rock Face Area 10 – Ancient woodland habitat				
No works required	No works required	No works required	No works required	Not investigated, probably no rare whitebeam or rare plants present based on existing data. No impact on rare plants.
Rock Face Area 11 – Ancient woodland habitat				

Table 11.16: Impact of proposed geotechnical works on third party land within the Avon Gorge Woodlands SAC

Vegetation clearance for inspection	Confirmed remediation works	Potential remediation works	Predicted impact on SAC	Predicted impact on rare whitebeam trees and other rare plants
Vegetation removal and light scaling of rock escarpment, do not remove any rare/notable plants. Ecological watching brief	Remove loose blocks that are an immediate risk to the railway	None	None	None present.
Summary: removal of 868 m ² of ancient woodland; 390 m ² of secondary (recent) woodland; 20 m ² of SAC grassland, 4 rare Avon whitebeam trees				

- 11.6.76 The process of the geotechnical works would in itself be an unusual feature in the Avon Gorge with workers on the cliff face, working from the top of the cliff down the slope, clearing vegetation, rock scaling or drilling bolts into the rock face.
- 11.6.77 The resultant vegetation clearance would expose areas of rock and create areas of exposed soils and un-weathered rock faces. Installed rock bolts would be visible in the open areas, potentially with metal plates being new features in the view, albeit small in scale.
- 11.6.78 The catch fences would be new features in the landscape. Their visibility would vary depending on their location, the extent of vegetation removal required for their installation and their final design. Nevertheless, the need for thicker posts, heavier weight mesh and restraining wires mean they are visually intrusive features.
- 11.6.79 Mitigation for the loss of rare Whitebeam trees, woodland, and grassland habitat in the SAC will be undertaken by positive management on other areas of Network Rail land within the SAC. The positive management focuses on vegetation clearance to benefit the rare Whitebeam trees by reducing competition and shade from other plants by removal of vegetation surrounding Whitebeam trees, particularly invasive non-native species. Table 11.17 indicates the various areas of losses and management proposed.

Table 11.17: Areas of vegetation clearance within semi-natural ancient woodland, secondary woodland and SAC grassland (m²) compared to areas where positive management is proposed

	Semi-natural ancient woodland	Secondary woodland	SAC grassland	Total
Total area lost	4,002	3,280	582	7,864
Positive management proposed	12,582	1,914	1,470	15,966

- 11.6.80 This will result in further open views of the cliff faces on the western side of the Avon Gorge, resulting less wooded appearance to the slopes.
- 11.6.81 It is assumed that track construction works would result in temporary night-time effects with locally confined high levels of lighting.
- 11.6.82 Micro-compounds to provide welfare and storage facilities, similar in form and size to a shipping container, would be required in various places along the freight line within the Avon Gorge. This would not be significant on a local scale.
- 11.6.83 Repeater masts would be required for train communications. These would be mostly screened by the backdrop of existing vegetation. It is proposed to colour the mast to reduce the potential visibility.
- 11.6.84 The character area has a high value, the magnitude of impact would be moderate adverse, with a significance of **moderate adverse**.

Ashton Gate

- 11.6.85 The construction compound off Clanage Road sits within a locally disjointed landscape with the complex highway arrangements at the A370, allotments and occasional large buildings as some elements of its context. Other features within the view include the Clifton Car Boot sales between April to November outside Bright Horizons Bristol Day Nursery. The construction compound off Clanage Road sits in a relatively open area north of the cricket ground and Ashton Court to the west and is therefore relatively exposed in the local landscape. It would be just possible to see the compound from the Clifton Suspension Bridge, albeit partially screened by existing vegetation and forming a small part of the open expansive view.
- 11.6.86 In addition to the compound itself, there would be construction vehicles using the site and the adjacent road on a regular basis, as well as the works adjusting the location of the stone wall boundary.
- 11.6.87 The character area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Ashton Vale

- 11.6.88 The freight line is mostly enclosed by the buildings of Ashton Vale industrial estate and by those between it and Winterstoke Road. Any works along the railway line would therefore be mostly screened from the surrounding landscape.
- 11.6.89 The construction of the modification for the left hand turn off Winterstoke Road and across the Ashton Vale Level Crossing would be very localised. The area is mostly surrounded by large scale buildings.
- 11.6.90 The construction of the pedestrian ramp would similarly have a localised effect with works being undertaken mostly from the railway line and visually screened by the adjacent large-scale building and MetroBus bridge. There would be some works at Brunel Way to tie in the top of the ramp.
- 11.6.91 The character area has a low value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

Conservation Areas

Shirehampton Conservation Area

- 11.6.92 There would be no effect on the core area with some narrow views to the construction activity and the works on the Pill Viaduct. The conservation area has a medium value, the magnitude of impact would be slight adverse, with a significance of **slight adverse**.

Sea Mills Conservation Area

- 11.6.93 There would be some views to the construction activity at Miles Dock on the opposite side of the River Avon from around the Sea Mills Station area. Views to works on the track would be mostly screened by the existing trackside vegetation. The conservation area has a medium value, the magnitude of impact would be slight adverse, with a significance of **slight adverse**.

The Downs Conservation Area

- 11.6.94 The conservation boundary extends to the west side of the Avon Gorge which includes a small section of the freight line. There are open views from the edge of The Downs to the Avon Gorge with the freight line on the opposite bank. There would be views towards the works on the track.
- 11.6.95 There would be the loss of some trackside vegetation resulting in slightly more open views to the construction works. There would be some loss of trees on the cliff face as part of the geotechnical rock stabilisation works, resulting in a less wooded appearance to the opposite cliff face.
- 11.6.96 The potential effects are limited to the edge of The Downs Conservation Area, with majority of it unaffected as the construction activity would not be visible from the upper areas. The conservation area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse** in relation to the effects on edge of the conservation area.

Sneyd Park Conservation Area

- 11.6.97 The conservation area is bounded by the Avon Gorge. Views from the residential area to the construction activity on the track would be screened by existing track side vegetation and also the woodland areas on the east side of the River Avon. The conservation area has a medium value, the magnitude of impact would be negligible adverse, with a significance of **neutral**.

Clifton and Hotwells Conservation Area

- 11.6.98 The conservation area boundary extends to the east of the Avon Gorge at Hotwells with the freight line on the opposite bank of the River Avon. There would be the loss of some of the trackside vegetation resulting in slightly more open views to the construction works. There would be some loss of trees on the cliff as part of the geotechnical rock stabilisation works, resulting in a less wooded appearance to the opposite cliff face.
- 11.6.99 The potential effects are limited to the edge of conservation area, with the majority of it unaffected as the construction activity would not be visible from within the upper areas of the conservation area. The conservation area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse** in relation to the edge of the conservation area.

Leigh Woods Conservation Area

- 11.6.100 This conservation area is visually separated from the DCO Scheme so would not be affected.

City Docks Conservation Area

- 11.6.101 The western edge of this conservation areas extends out to the River Avon and the locks into Cumberland Basin with the elevated section of Brunel Way as a dominate feature and the DCO Scheme opposite on the western side of the River Avon. There are views from this western edge towards the freight line which is partly screened by trackside vegetation. There would be some views towards the construction activity. The conservation area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse** in relation to the western edge of the conservation area.

Bower Ashton Conservation Area

- 11.6.102 The proposed Clanage Road construction and permanent access compound lies within the conservation area on part of the “*former meadows now used as playing fields*”. There are some views from the proposed site over the high boundary wall towards the parkland slopes to the west of Ashton Court House, although there are no views to the house. There would be some loss of vegetation adjacent to the track. The conservation area has a medium value, the magnitude of impact would be moderate adverse, with a significance of **moderate adverse**.

Operation Phase

NCA 106 Severn and Avon Vales

- 11.6.103 The DCO Scheme will result in the introduction of moving trains on to an existing linear feature of the landscape. Historically this feature has been used as a railway line. The DCO Scheme could be considered to reduce the sense of remoteness and tranquillity associated with this landscape type due to the introduction of passenger trains for the hourly (or hourly plus) passenger service.
- 11.6.104 The DCO Scheme only traverses a small proportion of the Severn and Avon Vales area, so its potential effects are on a scale that would not impact the overall landscape character of the NCA.
- 11.6.105 The character area has a medium value, the magnitude of impact would be no change, with a **neutral** significance.

NCA 118 Bristol, Avon Valleys and Ridges

- 11.6.106 The character area presently includes a mix of urban and rural elements, such as the city of Bristol, infrastructure including the M5, open arable farmland and the wooded scarp of the Avon Gorge. The DCO Scheme is an existing railway line amongst these features such as the City and the existing transport infrastructure of the Avon Gorge. The increased frequency of trains resulting from the introduction of the passenger service would increase the sense of transport movement within the Avon Gorge.
- 11.6.107 Current trends and forces for change in the area include increased urbanisation and development resulting from increased population. The DCO Scheme would only traverse a small proportion of the Bristol, Avon Valleys and Ridges NCA, so it is not on a scale that would impact the overall character.
- 11.6.108 The character area has a high value, the magnitude of impact would be no change, with a **neutral** significance.

Local Authority Character Areas

A2 Clapton Moor

- 11.6.109 As the linear feature of the disused railway line is already an element of this area, the physical works of the DCO Scheme would not result in a significant change in character. The introduction of occasional passing passenger trains would add a new element of movement into the landscape. Existing features in this area already dilute the sense of tranquillity, such as views towards the Royal Portbury Dock, the M5 and the edge of Bristol.

11.6.110 The DCO Scheme would only traverse a small proportion of the Clapton Moor area, so is not on a scale that would impact the overall character of the area.

11.6.111 Current forces for change in the area include development at Portishead and deterioration of hedgerows. The DCO Scheme, alongside these forces, could contribute to an increasingly urban landscape in the future with the development of the station and the increase in movement caused by the passenger trains in the landscape. However, the replacement mitigation planting associated with the DCO Scheme would re-establish the hedgerows alongside the track.

11.6.112 The character area has a medium value, the magnitude of impact would be negligible adverse, with a **neutral** significance.

C2 Portbury Settled Coastal Edge

11.6.113 As the linear features of the Portbury Freight Line and the disused section are already elements of this area, the DCO Scheme would not result in a change in character. The introduction of occasional passing passenger trains would add a new element of movement to the landscape, resulting in a reduced sense of tranquillity, which is already lessened by the M5 and activities in and around the docks.

11.6.114 The DCO Scheme would only traverse a small proportion of the Portbury Settled Coastal Edge area, so is not on a scale that would impact the overall character.

11.6.115 Current forces for change in the area include the proliferation of small scale but visually dominant features such as fencing. The DCO Scheme, alongside these forces, could contribute to an increasingly urban landscape in the future with fencing and other railway elements, and the increase in movement caused by the passenger trains in the landscape.

11.6.116 The character area has a low value, the magnitude of impact would be negligible adverse, with a **neutral** significance.

J6 Avon Rolling Valley Farmland

11.6.117 As the linear feature of the Portbury freight line is already an element of this area, the DCO Scheme would not result in a change in character. The introduction of passenger trains would add an increased element of movement into the landscape.

11.6.118 The DCO Scheme would only traverse a small proportion of the Avon Rolling Valley Farmland CA, so is not on a scale that would impact the overall character. Much of the freight line is screened in tunnel, or by existing cut slopes and by vegetation alongside the track.

11.6.119 Current trends and forces for change in the area include infill development and development along transport corridors. The DCO Scheme, alongside these forces, does not contribute to these forces in a significant way.

11.6.120 The character area has a low value, the magnitude of impact would be negligible adverse, with a **neutral significance**.

E5 Tickenham Ridge

11.6.121 The DCO Scheme would only traverse a small proportion of the Tickenham Ridge area along its eastern extent, so is not on a scale that would impact the overall character. The freight line is also mostly screened from this character area.

11.6.122 The character area has a medium value, the magnitude of impact would be neutral, with a **neutral** significance of effect.

D1 Avon Gorge

11.6.123 As the freight line is already a feature of this character area, the DCO Scheme would not result in a change in overall character, although the introduction of the passenger trains would add an increase in movement to the landscape and reduce the sense of remoteness and tranquillity. The sense of tranquillity is already lessened by existing traffic noise and movement of vehicles on the A4 Portway.

11.6.124 Loss of planting adjacent to the track and due to the geotechnical rock stabilisation works would result in more open views to the track and the passing trains. It is assumed that vegetation would naturally regenerate over time around the fences and over the rock stabilisation areas, such that screening is re-established by the track and disturbed areas on the cliffs become visually less prominent.

11.6.125 The removal of invasive tree species as part of the proposed management plan for the vegetation on the slopes of the gorge above the railway line will contribute to the more open views to the rock forming the side of the cliff and a resultant less wooded appearance to the slopes.

11.6.126 Current forces for change in the area include increased visual clutter and noise from transport routes. An increase in noise from trains could combine with noise from the existing road resulting in a greater impact, and the introduction of new fencing will contribute to the visual clutter.

11.6.127 The character area has a high value, the magnitude of impact would be minor adverse, with a **slight adverse** significance of effect.

G2 Failand Settled Limestone Plateau

11.6.128 As the linear feature of the freight line is already a constituent feature of this area, the DCO Scheme would not result in a change in character.

11.6.129 The DCO Scheme would only traverse a small proportion of the Failand Settled Limestone Plateau area, so is not on a scale that would impact the overall character.

11.6.130 The character area has a low value, the magnitude of impact would be negligible adverse, with a **neutral** significance of effect.

Site Specific Character Areas

Commercial Portishead

11.6.131 This area has an urban character and is dominated by relatively large buildings. The area of the disused railway line is an open area in contrast to the built form. The introduction of passenger trains and station building would add new elements to the landscape, although the design of the station and its forecourt would mean that it sits well within the existing urban character and features. The GSM-R mast would be a new feature in the

landscape and its effect would depend on its location. It may be that it is located close to the existing trees and therefore 'back-dropped' by the trees and less prominent in the landscape. The loss of the disused derelict open area to the main car park (Car Park B) would contribute to the increased urbanisation of character. Replacement planting associated with the station forecourt and main car park areas would help to screen the car parking and enhance the amenity landscape.

- 11.6.132 The character area has a low value, the magnitude of impact would be minor beneficial, with a **slight beneficial** significance of effect.

Residential Portishead

- 11.6.133 This area is characterised by residential estates and amenity landscape. The disused, overgrown railway line also contributes to the character. As the disused railway line is already a feature of this area, the DCO Scheme would not result in a change in overall character.

- 11.6.134 The introduction of movement associated with the passenger trains and the new Trinity Primary School Bridge would add new elements to the landscape. The bridge would be a new relatively large-scale feature in the small scale open landscape between the houses at Tansy Lane and Trinity Primary School.

- 11.6.135 The character area has a low value, the magnitude of impact would be moderate adverse, with a **slight adverse** significance of effect.

Sheepway

- 11.6.136 This area has a rural character. The disused railway line creates a low-key linear feature which cuts through the flat landscape. As the disused railway line is already a feature of this area, the DCO Scheme would not result in a change in overall character. The introduction of passenger trains would add a new element to the landscape in the form of moving trains, which would dilute the sense of tranquillity. The sense of tranquillity is already diluted to some extent by features such as the M5 and the A369 Portbury Hundred.

- 11.6.137 The loss of planting adjacent to the track would open out views to and from the line, in particular the loss of large scale trees which would open up some of the views across the whole area. Replacement hedgerows would provide screening in time.

- 11.6.138 The permanent Road Rail Access Point ("RRAP") off Sheepway will be set low in the landscape and screened by the adjacent road bridge on Sheepway to the south and the local rise in landform to the north, and therefore its effects on the landscape are limited and localised.

- 11.6.139 The character area has a medium value, the magnitude of impact would be minor, with a **slight adverse** significance of effect.

Royal Portbury Dock

- 11.6.140 This area has a predominantly industrial character, although a number of environmental sites are also found in this area. As the disused railway line is already a feature of this area, the DCO Scheme would not result in a change in character. The introduction of passenger trains would add a new element of movement to the landscape, however the movement of vehicles on the M5 motorway and the A369 Portbury Hundred which are close by, are already a significant feature in the landscape. The loss of existing track side

vegetation, notably some of the larger trees, would open up the views to the moving trains from some viewpoints, and also of the industrial buildings from the M5 junction 19.

- 11.6.141 The character area has a low value, the magnitude of impact would be minor adverse, with a **slight adverse** significance of effect.

Pill

- 11.6.142 This area has a predominately residential character. The railway line passes through the local green spaces of Crockerne Pill (local green space) and Victoria Park and Waterloo Wharf (town and village green) with Pill Viaduct as a notable feature. As the freight line is already a feature of this area, the DCO Scheme would not result in a change in overall character. The re-introduction of passenger trains and the rebuilt station at Pill would add new elements to the landscape, however, these would fit with the existing townscape features.

- 11.6.143 The new bridge and embankment at Avon Road would be considerably more exposed in the local landscape due to the loss of the existing vegetation, with more open views across to the north to the M5.

- 11.6.144 At Pill Station, the rebuilt platform and its ramp and step access are mostly set within the existing cutting and their influence on the surrounding areas is limited as a result. The location of the station forecourt and station car park, which also house the principal power point for signalling equipment, and RRAP, would introduce a transport related feature into an otherwise mostly residential area.

- 11.6.145 In Pill, outside of the existing railway land, minor realignment works are proposed on the junction of Lodway, Heyward Road and Station Road to provide greater visibility to pedestrians when crossing Lodway Road to access the bus stop. The proposed works also include creating more space for the footpath and bus stop by reducing the area of car park of Pill Memorial Club. On completion the works will result in a minor positive beneficial impact significance due to the widening of the streetscape, resulting in greater visibility and safety for pedestrians.

- 11.6.146 The character area has a medium value, the magnitude of impact would be moderate adverse, with a **moderate adverse** significance of effect.

Ham Green Lakes

- 11.6.147 This moderate value area has a pastoral character. The existing freight line passes alongside the Unregistered Park and Garden of Ham Green Hospital, the locally designated Watchhouse Hill (Local Green Space) and Ham Green SSSI (albeit that the geological feature of Ham Green SSSI is not easily accessible and only visible to train passengers). As the freight line is already an element of this area, the DCO Scheme would not result in a change in character. As the trains pass through Pill Tunnel for the majority of this section, the DCO Scheme would only affect a small proportion of the character area.

- 11.6.148 The Pill Tunnel Eastern Portal maintenance and emergency access point would have a localised impact on landscape character with the loss of part of the unregistered park and garden. The location of the access point is set low

down in the landscape screened by the adjacent landform which means its area of influence would be limited.

- 11.6.149 The character area has a medium value, the magnitude of impact would be negligible adverse, with a **neutral** significance of effect.

Sea Mills

- 11.6.150 This high value area has a semi-rural character and includes the Conservation Area of Sea Mills. As the freight line is already an element in this area, the DCO Scheme would not result in a change in character. The introduction of passenger trains would add a new moving element to the landscape, however, as the trains will pass through this area in cutting, the DCO Scheme would only affect a small proportion of the character area.

- 11.6.151 The character area has a high value, the magnitude of impact would be negligible adverse, with a **slight adverse** to **neutral** significance of effect.

Avon Gorge

- 11.6.152 This high value character area is characterised by the Avon Gorge and includes the Conservation Areas of Sneyd Park and Clifton. The Grade I listed Clifton Suspension Bridge is a key feature of this character area. As the linear feature of the freight line is already an element this area, the DCO Scheme would not result in a change in overall landscape character.

- 11.6.153 The introduction of passenger trains would add a new element of movement into the landscape, which would dilute the sense of tranquillity slightly, although it is already heavily influenced by the busy A4.

- 11.6.154 The DCO Scheme would result in the loss of some mature trackside vegetation, which currently screens the existing freight line from views looking across the River Avon. The loss of planting between the trackside and adjacent River Avon Tow Path would mean that the track, its associated fencing and passing trains would be more visible.

- 11.6.155 The proposed management plan for the vegetation on the slopes of the gorge above the railway line, would mean that there will be some removal of selected trees species. This will result in more open views to the rock forming the side of the cliff and a resultant less wooded appearance to the slopes.

- 11.6.156 It is assumed that vegetation would naturally regenerate over time around the fences and over the rock stabilisation areas, such that screening is re-established by the track and disturbed areas on the cliffs become visually less prominent.

- 11.6.157 The character area has a high value, the magnitude of impact would be minor adverse, with a **slight adverse** significance of effect.

Ashton Gate

- 11.6.158 This area includes some features of importance such as the parkland of Ashton Court. It has a complex urban character with a network of roads dividing the area. As the freight line is already an element of this area, the DCO Scheme would not result in a change in character. The introduction of passenger trains would add a new element of movement into the landscape, however, this would sit congruously against the existing urban features.

11.6.159 The character area has a medium value, the magnitude of impact would be minor adverse, with a **slight adverse** significance of effect.

Ashton Vale

11.6.160 This area has an urban-fringe character, with industrial units and distributor roads dominant features. As the linear feature of the freight line is already a constituent of this area, the DCO Scheme would not result in a change in character. The introduction of passenger trains would add a new element of movement into the landscape, however, this would sit congruously within the existing urban features and movement of vehicles on the adjacent road network.

11.6.161 The Ashton Vale Level Crossing will remain, and the layout of Winterstoke Road will be modified to improve the left hand turn over the level crossing and stacking of vehicles when the level crossing is down.

11.6.162 The character area has a low value, the magnitude of impact would be minor adverse, with a **neutral** significance of effect.

Conservation Areas

Shirehampton Conservation Area

11.6.163 The DCO Scheme would have no effect on the village centre, which is considered the 'core' of the Conservation Area, as the DCO Scheme is not near this area. The importance of the Avon in terms on the setting of the Conservation Area is key to the character.

11.6.164 The DCO Scheme would have a negligible impact on the setting of the Lamplighters section of the Conservation Area as freight trains already run along this section of the railway. It cannot be considered a change on the setting, rather it is the accentuation of an existing, established element through the introduction of passenger trains on the viaduct at Pill on the other side of the River Avon. The conservation area has a medium value, the magnitude of impact would be negligible, with a significance of **neutral**.

Sea Mills Conservation Area

11.6.165 The DCO Scheme would have a negligible impact on the setting of The Trym Valley and River Avon section of the Conservation Area. Views to the Avon are considered an important element of the character of the area, however, as trains already run along both banks of the River Avon, the increase in frequency of the trains and associated new fencing associated with the DCO Scheme cannot be considered a material change on the setting, rather it is the accentuation of an existing, established element through the introduction of passenger trains on the west side of the River Avon mostly screened by existing vegetation. The conservation area has a medium value, the magnitude of impact would be negligible, with a significance of **neutral**.

The Downs Conservation Area

11.6.166 Freight trains already run along the operational line within this section of the Avon Gorge and through the edge of the conservation area at the base of the Avon Gorge. The increase in frequency of passing trains and associated new fencing is not considered a change to the setting, but rather the accentuation of an existing, established element.

11.6.167 However, due to the sensitivity of The Downs to change, high quality, designated features in the area, it can be concluded the DCO Scheme would have an impact on the setting of The Trym Valley and River Avon section of The Downs Conservation Area due to the loss of vegetation with the effect of more open views to passing trains and the boundary fencing. The conservation area has a medium value, the magnitude of impact would be minor, with a significance of **slight adverse**.

Sneyd Park Conservation Area

11.6.168 The DCO Scheme would have a negligible impact on the setting of the Conservation Area. As trains already run along the freight line within this section of the Avon Gorge, the increase in frequency of the trains and associated new boundary fencing is not considered a change on the setting, but rather it is the accentuation of an existing, established element in the form of additional movement. The movement of road vehicles on the A4 Portway is a dominant feature of the area. The conservation area has a medium value, the magnitude of impact would be negligible, with a significance of **neutral**.

Clifton and Hotwells

11.6.169 The DCO Scheme would have a negligible impact on the setting of the Hotwells section of the Conservation Area. As trains already run along the freight line within this section of the Avon Gorge, the increase in frequency of the trains and associated new boundary fencing is not considered a change on the setting, but rather it is the accentuation of an existing, established element in the form of additional movement through the introduction of passenger trains. The movement of road vehicles on the A4 Portway at the base of this narrow section of the Avon Gorge is a dominant feature of the area already. The conservation area has a medium value, the magnitude of impact would be negligible, with a significance of **neutral**.

Leigh Woods

11.6.170 This conservation area is visually separated from the DCO Scheme by dense areas of woodland and because the majority of the conservation area is at a higher level above the Avon Gorge. Neither views towards the DCO Scheme nor the setting of this conservation area will be affected during construction or operation.

City Docks

11.6.171 The DCO Scheme would have a negligible impact on the setting of the western edge of Conservation Area. The movement of road vehicles on the elevated section of Brunel Way is a dominant feature of the area. As trains already run along the freight line within this section of the Avon Gorge, the increase in frequency of the trains and associated new boundary fencing is not considered a change on the setting, but rather it is the accentuation of an existing, established element in the form of additional movement. The conservation area has a medium value, the magnitude of impact would be negligible, with a significance of **neutral**.

Bower Ashton

11.6.172 The permanent access point at Clanage Road would be a new feature within a low lying and open area of the conservation area. Whilst the repositioned

stone boundary walls will match the existing along Clanage Road, the unsurfaced compound area would be unobtrusive, and its associated new landscape planting offering some screening, the access point would still have a slight adverse impact on the conservation area. The conservation area has a medium value, the magnitude of impact would be minor adverse, with a significance of **slight adverse**.

11.7 Assessment of Visual Effects

Introduction

- 11.7.1 This section assesses the potential effects of the DCO Scheme on the setting of Listed Buildings, Registered Parks and Gardens and on Scheduled Monuments.
- 11.7.2 The assessment of potential likely significant effects on the visual receptors is presented in Appendix 11.3 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25).

Listed Buildings

- 11.7.3 For ease of reading, the assessment of effects on the setting of listed buildings has been set out in Table 11.18 below for both during construction and operation.

Table 11.18: Effects on the setting of listed buildings

Listed building	During construction	During operation
Moor Farmhouse	<p>The works are some distance from this property across the field and partially screened by existing boundary hedges. There will be some open views to moving construction vehicles on the haul route.</p> <p>This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>	<p>Glimpsed views of passing trains across the field partially screened by existing hedges.</p> <p>This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>
The Thatched Cottage	<p>Mostly visually separated from the disused line by existing trees and other vegetation. Some views towards the construction through gaps in vegetation. Whilst the A369 Portbury Hundred compound is physically separated from the setting by intervening features such as the disused railway and fields / field boundary, its scale would have an urbanising impact on the area and therefore the wider setting of listed buildings further north.</p>	<p>Glimpsed views through gaps in existing vegetation to passing trains.</p> <p>This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>

Table 11.18: Effects on the setting of listed buildings

Listed building	During construction	During operation
	<p>This asset has a medium value. Whilst there will be no change on the setting of this asset, given construction activity locally, it has a significance of effect of slight to neutral.</p>	
Elm Tree Farm	<p>Mostly visually separated from the disused line by existing trees and other vegetation to the south of the property with some views from to upper floors.</p> <p>This asset has a medium value. Whilst there will be no change on the local setting of this asset, the character of the wider context will change with views to taller construction machinery over and through scattered intervening vegetation, and of views to the construction compound, and a significance of effect of slight or moderate.</p>	<p>Mostly visually separated from the disused line by existing trees and other vegetation.</p> <p>This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>
Church of St George	<p>There is no inter-visibility with the DCO Scheme and the construction area.</p> <p>This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>	<p>There is no inter-visibility with the DCO Scheme.</p> <p>This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>
Church of St Mary	<p>There is no inter-visibility with the DCO Scheme and the construction area.</p> <p>This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>	<p>There is no inter-visibility with the DCO Scheme.</p> <p>This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</p>
Court House Farm	<p>Some views across Marsh Lane and the adjacent field towards the haul route up onto the track and under the M5. The setting of the building has changed due to the construction of the cargo storage area on the fields to the west of the farm buildings.</p>	<p>Some views of passing passenger trains.</p> <p>This asset has a medium value. There will be no change on the setting of this asset during operation, and a significance of effect of neutral. The potential for</p>

Table 11.18: Effects on the setting of listed buildings

Listed building	During construction	During operation
	This asset has a medium value. Construction activity might result in a minor negative impact, resulting in significance of effect of slight adverse . The potential for likely significant cumulative effects is considered at Section 11.9.	likely significant cumulative effects is considered at 11.9.
The Watch House and Mulberry Cottage	Mostly screened by nearby properties with some views to construction activity on the existing Pill Viaduct including the repair works on the viaduct. These assets have a medium value. Construction activity might result in a minor negative impact, resulting in significance of effect of slight adverse .	Limited views to an increased number passing trains on Pill Viaduct. This asset has a medium value. There will be no change on the setting of this asset during operation, and a significance of effect of neutral .
Clifton Suspension Bridge	Open views from the bridge and its piers down to the DCO Scheme extending north along the base of the Avon Gorge and south into Ashton Vale. The freight line forms part of the existing setting. This asset has a high value. Removal of vegetation for fencing and rock stabilisation work and construction activity over the short period of time might result in a minor negative impact, resulting in a significance of effect of moderate adverse .	Partial views down to the DCO Scheme with the line and an increased number of passing trains partially screened by existing vegetation. This asset has a high value. Features such as new fencing, and GSM-R masts to the south of the suspension bridge, in combination with vegetation removal will have an effect in views and result in a significance of effect of slight adverse .
Trafalgar House, Taylor Maxwell House, Promenade House, Engineer's House, Alva House	There is no inter-visibility with the DCO Scheme and the construction area. These assets have a high value. There will be no change on the setting of these assets, and a significance of effect of neutral .	There is no inter-visibility with the DCO Scheme. These assets have a high value. There will be no change on the setting of these assets, and a significance of effect of neutral .
Clifton Observatory	Limited views down to the DCO Scheme as an existing feature in	Limited views down to the DCO Scheme with the line and passing trains partially

Table 11.18: Effects on the setting of listed buildings

Listed building	During construction	During operation
	<p>the landscape, at the base of the Avon Gorge.</p> <p>This asset has a high value. Removal of vegetation adjacent to the track and construction activity over the short period of time might result in a minor negative impact, resulting in a significance of effect of slight adverse.</p>	<p>screened by existing vegetation.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>
Swing Bridge over lock, Brunel's South Entrance Lock	<p>These features form part of the Cumberland Basin with views across the river to the freight line as an existing feature of the setting.</p> <p>These assets have a high value. Limited views across the river under the Brunel Way. Removal of vegetation adjacent the track and construction activity over the short period of time might result in a minor negative impact, resulting in a significance of effect of slight adverse.</p>	<p>Limited views across the River Avon under the Brunel Way to the DCO Scheme with the line and passing trains partially screened by existing vegetation.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>
The Colonnade	<p>Construction activity will be visible across the busy A4 and the River Avon on the opposite bank.</p> <p>The Colonnade has a high value, and this will amount to a minor negative impact, resulting in a significance of effect of slight adverse</p>	<p>The setting of the assets adjacent to the A4 and River Avon will be unaffected, with views across the river to wooded slopes on the opposite bank with an increase in the number of passing trains partially screened by existing vegetation.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>
No. 15 The Paragon	<p>Open views from an elevated position across the Avon Gorge down to the construction activity at the DCO Scheme site.</p> <p>This asset has a high value. Removal of vegetation adjacent to the track and construction activity over the short period of time might</p>	<p>Limited views across the River Avon to the DCO Scheme with the line and passing trains partially screened by existing vegetation.</p> <p>This asset has a high value. There will be no overall</p>

Table 11.18: Effects on the setting of listed buildings

Listed building	During construction	During operation
	result in a minor negative impact, resulting in significance of effect of slight adverse .	change on the setting of this asset, and a significance of effect of neutral .
No. 1-14 The Paragon	Open views east across the city with oblique views to the Cumberland Basin with construction activity at the DCO Scheme site. This asset has a high value. Removal of vegetation adjacent to the track and construction activity over the short period of time might result in a minor negative impact, resulting in significance of effect of slight adverse .	Oblique views to the DCO Scheme as an existing feature in the setting with passing passenger trains partially screened by existing vegetation. This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral .
Freeland Court	Construction activity will be visible across the busy Brunel Way and the River Avon on the opposite bank. Tall construction machinery may be seen above intervening vegetation on Clanage Road Compound. This asset has a high value, and this will amount to a minor negative impact, resulting in a significance of effect of slight adverse .	The setting of this asset adjacent to Brunel Way and River Avon will be unaffected, with views across the river to passing passenger trains partially screened by existing vegetation. This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral .
Nos. 2-9 Albermarle Row	Limited and oblique views down the road and over Cumberland Basin towards to construction activity. These assets have a high value. There will be no change on the setting of these assets, and a significance of effect of neutral .	Limited views to passing trains. These assets have a high value. There will be no change on the setting of these assets during operation, and a significance of effect of neutral .

Registered Parks and Gardens

- 11.7.4 For ease of reading, the assessment of effects on the setting of registered parks and gardens has been set out in Table 11.19 below for both during construction and during operation.

Table 11.19: Effects on the setting of registered parks and gardens

Park and Garden	During construction	During operation
Leigh Court	<p>The boundary of the Park and Garden extends down to, and includes part of the freight line at the base of the Avon Gorge. Construction activity for the repair works on Miles Dock Bridge, and minor repair works to Quarry Bridges 4, 5 and 6, as well as new boundary fencing and associated vegetation removal will have a localised impact at the edge of the designated area.</p> <p>This asset has a high value. There will be minor / no overall change on the setting of this asset, and a significance of effect of slight adverse.</p>	<p>The DCO Scheme is an existing feature in the setting of Leigh Court, with an increase in the numbers passing trains partially screened by existing vegetation.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>
Ashton Court	<p>Views looking towards Bristol, with limited view of construction activity on the track which is partially screened by vegetation and forming a nominal proportion of the view. There would be views towards the Clanage Road construction compound.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>	<p>Views looking towards Bristol, with limited view of railway line with an increase in moving passenger trains, partially screened by vegetation, and forming a nominal proportion of the view.</p> <p>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</p>

Scheduled Monuments

- 11.7.5 For ease of reading, the assessment of effects on scheduled monuments has been set out in Table 11.20 below for both during construction and during operation.

Table 11.20: Effects on the setting of scheduled monuments

Scheduled Monument	During construction	During operation
Part of the Roman Settlement of <i>Abonae</i>	Partial view from southern section of scheduled monument towards construction activity and vegetation removal at Miles Dock Bridge and new signal mast on the opposite side of the Avon Gorge. Intervisibility between other works on the track generally screened by existing vegetation. Given its existing context, construction activity on the other side of the gorge would result in a significance of effect of neutral or slight adverse .	Partial view from southern section of scheduled monument towards the railway line with an increase in moving trains in the landscape, and a significance of effect of neutral .
Clifton Down Camp	Views from the very edge of Clifton Down Camp are afforded down into the Avon Gorge towards the River Avon with the existing railway line on opposite side of the gorge. Construction activity and vegetation removal result in temporary change in a small proportion of the view, and a significance of effect of slight adverse .	View from northern edge of Clifton Down Camp looking north downwards towards the River Avon with railway line on opposite side of the gorge. New fencing, GSM-R masts and passenger trains passing through the gorge result in change in a small proportion of the overall view and a significance of effect of neutral .
Stokeleigh Camp	There would be no view of construction activity / vegetation removal as the monument is screened by the surrounding woodland and the freight line is located at the base of the cliff resulting in no change in view and a neutral significance of effect.	No view of the railway line resulting in a neutral significance of effect.

11.8 Mitigation and Residual Effects

- 11.8.1 As no likely significant effects have been identified, no further mitigation is proposed and therefore the residual effects are as those described above.

11.9 Cumulative Effects

- 11.9.1 The methodology for assessing cumulative effects with other projects is set out in Chapter 18 In-combination and Cumulative Effects (DCO Document Reference 6.21) of the ES. For the purposes of this chapter, the value, magnitude and sensitivities are as described in Section 11.3.

Other Projects along the Portishead Branch Line

- 11.9.2 Other projects which have the potential to give rise to likely significant effects when considered in combination with the Portishead Branch Line DCO Scheme have been considered in Chapter 18 of the ES and are summarised below.

Works close to the Proposed Station at Portishead

- 11.9.3 Several developments are proposed within close proximity of the proposed Portishead Station and associated works, these are listed below and indicated on Figure 18.2:

- 18/P/3591/OUT (redevelopment of Old Mill Road, mixed use with 350 residential units);
- 18/P/3512/FUL (mixed use scheme between Harbour Road and Martingale Way) (planning application refused); and
- 17/P/1229/F (35 dwellings off Wyndham Way).

- 11.9.4 Though these developments are separated from the proposed station and associated works, if construction proceeds at the same time there will be a slight adverse cumulative impact to the character of the area during construction, with a greater number of construction compounds, cranes, hoarding, demolition and construction vehicles altering the overall balance of features and elements that comprise existing views, resulting in a moderate adverse cumulative effect.

- 11.9.5 In the longer term, the area's urban character and visual amenity will improve, resulting in a greater overall sense of place. In general, there will be a greater focus on better designed streetscapes and building frontages as well as increased tree planting. Though the proposals will have an urbanising effect on the local character due to the loss of open derelict areas, this will result in a moderate beneficial cumulative effect on the overall character of the area surrounding Portishead Station, and a moderate beneficial cumulative effect on visual amenity in the area.

Works Close to Ashton Junction

- 11.9.6 Three developments proposed within the locality of Ashton Junction are listed below and indicated on Figure 18.2:

- 17/01789/F (Access Self Storage - Winterstoke Road);
- 17/06938/F ETM, Ashton Vale Road, demolition of buildings and erection of new portacabins, and plant; and
- 17/06559/FB (Land to Rear of Silbury Road, Alderman Moores Allotments, Bristol major residential application for 133 dwellings).

- 11.9.7 The combined impacts from the Access Self Storage on Winterstoke Road and the residential development at Alderman Moores will have a greater

cumulative impact on the wider landscape character of the area during construction. The increase in construction activity within views will result in an imbalance in local character during construction. This will result in a moderate adverse cumulative effect on both views and character. The extension of the ETM facilities is too far away from the DCO Scheme to have a cumulative effect.

- 11.9.8 During operation, the projects will have an urbanising effect in views, and the introduction of new urbanising features in the landscape will result in a moderate adverse cumulative effect for both views and character which would be temporary during the construction phase in the absence of mitigation.

West of England Joint Spatial Plan and Transport Study – Draft Strategy

- 11.9.9 Works associated with the Draft Strategy include proposals for future improvements such as new junction on the M5, ‘Smart Motorway’ management, increased rail capacity, improvements and bypasses on the A38 and A368/A371 and a mass transit link between Bristol City Centre and Bristol International Airport. The effect is an increase in transport infrastructure within the landscape.

DCO Hinkley Point C Connection Project

- 11.9.10 The changes to the overhead powerlines where they cross the disused line at Sheepway, through the works to bury the existing lines and the introduction of a new 400 kV overhead power line, would have a temporary effect on views across the landscape during construction.
- 11.9.11 The cable works to bury the cables and access roads associated with the new line would result in the loss of some existing trees and other vegetation. When considered alongside the loss of large trees currently adjacent to the disused line as part of the DCO Scheme, there would be an opening up of views across the landscape generally. In addition there would be a greater area of land being used for construction with the combined construction site access point, haul roads and actual construction site, resulting in a localised minor adverse cumulative effect.

Ashton Gate Sports Centre

- 11.9.12 There are plans for a new sports and entertainment development between the existing football stadium and Winterstoke Road. The proposed development includes a 4000-capacity venue along with housing, offices, a multi-storey car park and two hotels. It would replace the current commercial and retail development with development which is larger in scale. This would result in a denser urban environment with more enclosure created by the proposed buildings whereas the DCO Scheme proposes small scale highway works. Cumberland Village, a housing development linked with the Ashton Gate Sports Centre, but located to the west of Winterstoke Road and south east of the Ashton Vale Park and Ride, lies too far from the DCO Scheme to have cumulative landscape and visual impacts as the two developments are not visually connected.

16/P/1987/F Car Storage Compound, Portbury

- 11.9.13 Crossing the disused railway line in Portbury is The Bristol Port's application 16/P/1987/F, a cargo storage compound for the storage of cars in transit through the Royal Portbury Docks, including a proposed crossing which will be at grade until implementation of the DCO Scheme then requiring a vehicular bridge to be constructed. The cargo storage area has been constructed and is in operation. The bridge has not yet been constructed. Receptors nearby include Court House Farm (Grade II listed building) and Marsh Lane Easton-In-Gordano. Receptors have limited or interrupted views, and given the change in landscape from a rural to an industrial setting due to the new cargo storage area, the construction and operation of the DCO Scheme will not materially change the landscape character and views further. The cumulative effect is therefore **neutral**.

Other Works for MetroWest Phase 1

- 11.9.14 Other elements of MetroWest Phase 1, namely Liberty Lane Freight Depot and Parson Street Junction remodelling, Parson Street Station Improvements, the Bedminster Down Relief Line, Avonmouth / Severn Beach Signalling and Bathampton Turnback comprise small scale works, confined within the existing railway land. These works are to be undertaken by Network Rail under their permitted development rights and do not form part of the DCO Application. The works required to increase services on the Avonmouth / Severn Beach line were completed by Network Rail under their permitted development rights as part of the Filton Four Track project.
- 11.9.15 The management and control process used by Network Rail for delivering projects that enhance or renew the operational railway is called Governance for Railway Investment Projects ("GRIP"). The GRIP process provides assurance that a project can successfully progress to the next stage and requires the preparation of reports for each GRIP stage. Environmental studies are undertaken as part of the GRIP process to identify potential issues and capture the need for mitigation during design and construction. The environmental reports are carried forward from options and feasibility design (GRIP Stages 3 and 4), into the detailed design phase (GRIP Stage 5) and construction (GRIP Stage 6). In this way, environmental issues and mitigation measures are identified at an early stage and addressed through the design and construction phases. Consequently, while permitted development works do not require statutory environmental impact assessment, the GRIP process provides an internal, non-statutory environmental impact assessment process.
- 11.9.16 Given the small-scale nature of these works and the distances between these projects and the Portishead Branch Line, it is considered that there are no significant cumulative effects during the construction and operation of these projects on landscape and views. Consequently, these works have been scoped out of further cumulative impact assessment for Portishead Branch Line DCO Scheme.

11.10 Limitations Encountered in Compiling the ES

- 11.10.1 The site visits carried out as part of this assessment have been undertaken from publicly accessible places and therefore assumptions have had to be made as to the actual view from private properties and whether or not that the view towards the DCO Scheme is the principal view.
- 11.10.2 BCC has not compiled local character area assessments; however, BCC Conservation Area descriptions provide a useful substitute. These have been summarised in this ES.
- 11.10.3 NSDC has not compiled descriptions of the Conservation Areas which lie within their boundaries. Therefore, the report summarises BCC Conservation Areas, but not those within North Somerset.

11.11 Summary

- 11.11.1 The disused railway line between Portishead and Pill and the freight line from Royal Portbury Docks to the southwest mainline are existing features in the landscape and are not new elements being introduced. Their current appearance and prominence in the existing landscape varies.
- 11.11.2 At Portishead east of the town centre, the disused line forms a clear gap between the residential developments to the north and south of the disused line. The undeveloped land closer to the centre is the former station approach. Fences, sleepers and tracks are all remaining features. East of Portishead in the open landscape around Sheepway, the railway line is difficult to see in the open landscape, appearing as a line of trackside vegetation amongst other field boundaries. The disused line fits into a narrow space between the A369 Portbury Hundred, the docks and the M5, mostly screened by the roads and buildings.
- 11.11.3 The freight line is operational with the occasional passing freight train. The railway line is a feature of Pill, enclosed in cutting at the station, in an open position on the viaduct, before passing under Ham Green in a tunnel. East of Ham Green the line is in cutting and screened by trackside trees, before entering the Avon Gorge. Here it fits along a narrow ledge at the base of the gorge with three tunnels. The track is visible from above as a line or break in the woodland and other vegetation. It passes under the Clifton Suspension Bridge before entering the urban area of Ashton Vale where it becomes screened by buildings and highway infrastructure.
- 11.11.4 The most likely significant effects on landscape and views will occur during construction. At Portishead, effects would be screened from the wider landscape by buildings but be more immediate to those people who live around the DCO Scheme area. In the open area of Sheepway, the construction compound and the movement of construction traffic on the haul roads would be visible in the wider landscape.
- 11.11.5 The buildings and highway infrastructure by the docks and M5 would screen the construction activity from the wider landscape.
- 11.11.6 The freight line would be rebuilt using conventional methods during the day and at night in shifts and including weekend blockades. There would be short and intense periods of activity, but taking place over a longer period as set out in the construction strategy.

- 11.11.7 Trees and planting would be lost, both as a safety requirement but also during construction to create working space to rebuild the track, for ditches and to install new fencing. Replacement planting is proposed along the disused line. Restrictions on species that can be used adjacent to an operational railway mean that large scale or tall trees are not appropriate to plant for safety and maintenance reasons.
- 11.11.8 The fencing would become a more noticeable feature when close to the railway, such as in the urban areas, by the National Cycle Network and along the River Avon Tow Path. The type of fencing is determined by the risk of likely access to the track and would generally be higher and visually denser than the current fencing. Further information is provided in Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) of the ES.
- 11.11.9 Once the passenger service is operational, there would be more movement in the landscape with the passing trains. The impacts of this will vary. At Portishead it would increase the sense of urbanisation with the new station building and car park. The trains would be a new moving element at Sheepway but lost in the busyness of the M5 and lorry movements at the Docks.
- 11.11.10 The cutting at Pill and tunnel at Ham Green would offer limited views to the moving trains from a wider landscape but would be in closer proximity to people at Pill. There would be an increase in movement through the Avon Gorge; freight trains are currently low in number, but the A4 Portway on the opposite bank is a busy road.
- 11.11.11 The movement of passenger trains through the landscape when dark during winter mornings and evenings would introduce a new element of lighting into the landscape. These would be most visible in the relatively dark landscape at Sheepway and through the Avon Gorge.
- 11.11.12 The setting of listed buildings, conservation areas, scheduled monuments and other designated landscapes would be generally unaffected as the disused line and freight line are already part of the setting to these.
- 11.11.13 Table 11.21 summarises the potential impacts, mitigation proposed, and residual effects of the DCO Scheme on landscape and views.

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
Construction activities				
Removal of vegetation up to 5 m either side of the railway tracks along the disused section of the railway between Portishead and Pill. Works such as site clearance, laying track and installing signals, lighting and structures will require plant and machinery including moving vehicles in the construction areas. Working at night with temporary use of lighting. Introduction of new fencing/replacement of existing [per 4-58 Table 4-8]. Temporary installation of site compound, lighting, haul routes and working areas, as	National Character Areas NCA 106 Severn and Avon Vales: Value: Medium NCA 118 Bristol, Avon Valleys and Ridges Value: High	Change in NCA landscape character Magnitude: Minor adverse	None	Magnitude: Minor adverse Significance of Effect: Slight adverse Significance for EIA Legislation: Not significant
	Local Authority Character Areas A2 Clapton Moor (Medium) C2 Portbury Settled Coastal Edge (Low) J6 Avon Rolling Valley Farmland (Low) E5 Tickenham Ridge (Medium) G2 Failand Settled Limestone Plateau (Low) Value: Low / Medium	Change in Local Authority Character Areas Magnitude: Negligible / minor adverse	None	Magnitude: Negligible / minor adverse Significance of Effect: Neutral / slight adverse Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
well as site clearance and earthworks in order to facilitate the works in the construction areas. Temporary diversions of the cyclepath and footpaths along disused section. Construction-related impacts to be managed through the CoCP, CEMP and Construction Traffic Management Plan.	D1 Avon Gorge (High)	Change in Local Authority Character Areas Magnitude: Moderate adverse	None	Magnitude: Moderate adverse Significance of Effect: Moderate adverse Significance for EIA Legislation: Significant
	Site Specific Character Areas Commercial Portishead (Low) Residential Portishead (Low) Royal Portbury Dock (Low) Ham Green Lakes (Medium) Sea Mills (High)	Change to site specific character areas Magnitude: Negligible / minor adverse	None	Magnitude: Negligible / minor adverse Significance of Effect: Neutral / slight adverse Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
	Ashton Gate (Medium) Ashton Vale (Low)			
	Residential Portishead (Low) Sheepway (Medium) Pill (Medium) Avon Gorge (High)	Magnitude: Moderate	None	Magnitude: Moderate Significance of Effect: Moderate adverse Significance for EIA Legislation: Significant
	Conservation Areas Shirehampton Sea Mills The Downs Sneyd Park Clifton and Hotwells Leigh Woods City Docks Bower Ashton Value: Medium	Changes in views / setting of conservation areas Magnitude: No change / minor adverse	None	Magnitude: No change / minor adverse Significance of Effect: Neutral / slight adverse Significance for EIA Legislation: Not significant
	Listed Buildings G1 Court House Farm, The Watch House and Mulberry Cottage, Clifton Suspension Bridge, Clifton Observatory,	Change in setting and views Magnitude: Minor adverse	None	Magnitude: Minor adverse Significance of Effect: Slight adverse (Moderate Adverse for the Clifton Suspension Bridge) Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
	Swing Bridge, Brunel's South Entrance Lock, Swing Bridge over Brunel's South Entrance Lock, The Colonnade, No. 1-14 The Paragon, No. 15 The Paragon, and Freeland Court. Value: Medium / High			
	Listed Buildings G2 Moor Farmhouse, The Thatched Cottage, Elm Tree Farm, Church of St George, Church of St Mary, Trafalgar House, Taylor Maxwell House, Promenade House, Engineer's House, Alva House, Nos. 2-9 Albermarle Row. Value: Medium / High	Change in setting and views Magnitude: No change	None	Magnitude: No change Significance of Effect: Neutral Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
	Registered Parks and Gardens Leigh Court Ashton Court Value: High	Change in setting and views Magnitude: No change	None	Magnitude: No change Significance of Effect: Neutral Significance for EIA Legislation: Not significant
	Scheduled Monuments Settlement of <i>Abonae</i>	Removal of vegetation currently screening the railway Magnitude: Minor adverse	None	Magnitude: Minor adverse Significance of Effect: Slight adverse Significance for EIA Legislation: Not significant
	Clifton Down Camp, Stokeleigh Camp Value: High	Removal of vegetation currently screening the railway Magnitude: No change / slight adverse	None	Magnitude: No change / slight adverse Significance of Effect: Neutral Significance for EIA Legislation: Not significant
	Public Rights of Way Users of the cycle paths. Value: High	Change in view and view to construction activities. Magnitude: Slight adverse	None	Magnitude: Slight adverse Significance of Effect: Neutral Significance for EIA legislation: Not significant
Operation activities				
Operation of an hourly plus services between	National Character Areas 106 and 118 Value: Medium	Change in landscape character and views	None	Magnitude: No change Significance of Effect: Neutral

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
Portishead, Pill and Bristol Temple Meads.		Magnitude: No change		Significance for EIA legislation: Not significant
Two train passes per hour (45 minutes during peak periods). Movement of lit carriages during the dusk / dark. Static light sources at signals, angled down the track and hooded. Increased activity around Portishead and Pill stations. New lighting on station platform and car parks at Portishead. New station and car park at Pill. Increased road traffic and pedestrian movements. New permanent light source from lighting at station and car park.	Local Authority Character Areas A2 Clapton Moor (Medium) C2 Portbury Settled Coastal Edge (Low) J6 Avon Rolling Valley Farmland (Low) E5 Tickenham Ridge (Medium) D1 Avon Gorge (High) G2 Failand Settled Limestone Plateau (Low) B1 Land Yeo and Kenn River Floodplain (Medium) J5 Land Yeo and Kenn Rolling Valley Farmland (Medium) Value: Low / Medium / High	Change in landscape character and views Magnitude: Neutral / negligible / minor adverse	None	Magnitude: Neutral / negligible / minor adverse Significance of Effect: Neutral / slight adverse Significance for EIA legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
Passenger service as above	Site specific character areas: Commercial Portishead (Low) Residential Portishead (Low) Sheepway (Medium) Royal Portbury Dock (Low) Ham Green Lakes (Medium) Sea Mills (High) Avon Gorge (High) Ashton Gate (Medium) Ashton Vale (Low)	Change in landscape character and views Magnitude: Minor beneficial / Neutral / Minor adverse	Details of landscaping around Portishead station and car parks and proposed planting along the disused line are submitted with DCO Application (DCO Document References 2.38 Portishead Station Car Park Layout, Landscaping and New Boulevard and Access Plan and 2.10 Railway Landscape Plans (disused line) respectively).	Magnitude: Minor beneficial / Neutral / Minor adverse Significance of Effect: Slight beneficial / Neutral / Slight adverse Significance for EIA Legislation: Not significant
Passenger service as above	Pill (Medium)	Change in landscape character and views Magnitude: Moderate adverse	Details of landscaping around Pill car park and Lighting design for the station platform and car park submitted with	Magnitude: Moderate adverse Significance of Effect: Moderate adverse Significance for EIA Legislation: Significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
			DCO Application (DCO Document Reference 2.41 Pill Station Car Park and PSP Layout, Landscaping, Lighting and Access Plan).	
	Conservation Areas Shirehampton, Sea Mills, Sneyd Park, Clifton and Hotwells, City docks, and Leigh Woods Value: Medium	Accentuation of existing transportation infrastructure Magnitude: No change / Minor adverse	None	Magnitude: No change / Minor adverse Significance of Effect: Neutral / Slight adverse Significance for EIA Legislation: Not significant
Passenger service as above	The Downs Value: Medium	Impact on the setting of The Trym Valley and River Avon Magnitude: Minor adverse	None	Magnitude: Minor adverse Significant of Effect: Slight adverse Significance for EIA Legislation: Not significant
New permanent maintenance and emergency access compound	Bower Ashton Value: Medium	Change in setting and views Magnitude: Minor adverse	Landscaping around the perimeter of the Clanage Road Maintenance Compound (DCO	Magnitude: Minor adverse Significance of Effect: Slight adverse Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
			Document Reference 2.52 Clanage Road Compound, Landscaping and Access Plan)	
Passenger service as above	Listed Buildings Value: Medium / High	Change in setting and views Magnitude: No change Clifton Suspension Bridge Magnitude: Slight adverse	None	Magnitude: No change / Slight adverse (Clifton Suspension Bridge) Significance of Effect: Neutral / Slight adverse (Clifton Suspension Bridge) Significance for EIA Legislation: Not significant
Passenger service as above	Registered Parks and Gardens Leigh Court Ashton Court Value: High	Change in setting and views Magnitude: No change	None	Magnitude: No change Significance of Effect: Neutral Significance for EIA Legislation: Not significant
Passenger service as above	Scheduled Monuments Settlement of <i>Abonae</i> , Clifton Down Camp, Stokeleigh Camp Value: High	Change in setting and views Magnitude: No change	None	Magnitude: No change Significance of Effect: Neutral Significance for EIA Legislation: Not significant

Table 11.21: Summary of the assessment of the DCO Scheme on landscape and views

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
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11.12 References

- Bristol City Council, 2015. Bristol Central Area Plan Adopted March 2015.
- Bristol City Council, 2014. Site Allocations and Development Management Policies Local Plan Adopted July 2014.
- Bristol City Council, 2011. Bristol Development Framework Core Strategy Adopted Version June 2011.
- Bristol City Council, 2011. Conservation Area 17 City Docks Character Appraisal and Management Proposals.
- Bristol City Council, 2011. Conservation Area 21 Sea Mills Character Appraisal and Management Proposals.
- Bristol City Council, 2010. Conservation Area 5 Clifton & Hotwells Character Appraisal and Management Proposals.
- Bristol City Council, 1998. Responding to Local Character – A Design Guide – Bristol Local Plan Policy Advice Note 15.
- Bristol City Council, 1993. Conservation Area Enhancement Statements Bristol Local Plan Policy Advice Note 2.
- Highways England, 2010. Interim Advice Note 135/10 Landscape and Visual Effects Assessment.
- Landscape Institute (LI) and the Institute of Environmental Management & Assessment (IEMA), 2013. Guidelines for Landscape and Visual Impact Assessment. Third edition. Routledge.
- Natural England, 2014. National Character Area profile: 106 Severn and Avon Vales.
- Natural England, 2014. National Character Area profile: 118 Bristol, Avon Valleys and Ridges.
- North Somerset Council, 2013. Core Strategy Adopted April 2012.
- North Somerset Council, 2007. North Somerset Replacement Local Plan Written Statement Adopted March 2007.
- North Somerset Council, 2015. Sites and Policies Plan Part 1 Development Management Policies Publication Version.
- The Planning Inspectorate, 2015. Cumulative Effects Assessment. Advice Note 17.
- Wardell Armstrong, 2018. North Somerset Landscape Character Assessment Supplementary Planning Document.

11.13 Abbreviations

BCC	Bristol City Council
CEMP	Construction Environmental Management Plan
CoCP	Code of Construction Practice
DCO	Development Consent Order
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GRIP	Governance for Railway Investment Projects
IEMA	Institute of Environmental Management and Assessment
LI	Landscape Institute
LVIA	Landscape and visual impact assessment
NCA	National Character Area
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
NPSNN	National Policy Statement for National Networks
NSDC	North Somerset District Council
NSIP	Nationally significant infrastructure project
PEI	Preliminary environmental information
RP&G	Registered Park and Garden
RRAP	Road Rail Access Point
SAC	Special Area of Conservation
SNCI	Site of Nature Conservation Importance
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
ZTV	Zone of theoretical visibility
ZVI	Zone of visual influence

