Chapter 11

Landscape and Visual Impacts Assessment
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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 Preliminary Environmental Information Report (“PEI Report”);
- 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, operation and decommissioning 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 PEI Report; 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. The visual assessment relates to the change in the view from particular locations 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 and 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 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 where the DCO Scheme will join the south west main line between Bristol and Taunton, Parson Street Station, the Bedminster Down Relief Line and Severn Beach / Avonmouth Signalling in the Bristol area, 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 and Chapter 8 Cultural Heritage with regards 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 impact assessments and describe these in the Environmental Statement ("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

<table>
<thead>
<tr>
<th>Summary of NPS provision</th>
<th>Consideration within the PEI Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>The relevant National Character Areas developed by Natural England, and landscape character areas as developed by North Somerset Council have been identified and the potential effects on these areas have been assessed.</td>
</tr>
<tr>
<td>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).</td>
<td>The landscape and visual assessment considers potentially significant effects during the construction phase and the operation phase.</td>
</tr>
<tr>
<td>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.</td>
<td>An approximate visual envelope has been developed for the DCO Scheme and the potential significant change in views cause by the DCO Scheme from within that area have been assessed.</td>
</tr>
</tbody>
</table>

National Planning Policy Framework

11.2.2 The landscape and visual impact assessment 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).

11.2.3 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

11.2.4 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.

11.2.5 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 Chapter 6 Planning Framework.

Table 11-2: Summary of local policy on landscape and views

<table>
<thead>
<tr>
<th>Policy No.</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS5</td>
<td>Landscape and the Historic Environment</td>
<td>Page 40. “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.” Paragraph 3.80; Page 41. “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”</td>
</tr>
<tr>
<td>CS9</td>
<td>Green Infrastructure</td>
<td>Paragraph 3.135; Page 53. “Green infrastructure, particularly if properly planned and integrated into development, can enhance the townscape and visual amenity.”</td>
</tr>
<tr>
<td>DM3</td>
<td>Conservation Areas</td>
<td>Seeks to protect conservations areas and their setting from inappropriate development.</td>
</tr>
<tr>
<td>DM4</td>
<td>Listed Buildings</td>
<td>Seeks to protect listed buildings and their setting from inappropriate development.</td>
</tr>
<tr>
<td>DM5</td>
<td>Historic Parks and Gardens</td>
<td>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.</td>
</tr>
<tr>
<td>Policy No.</td>
<td>Title</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DM6</td>
<td>Archaeology</td>
<td>Seeks to ensure that new development will not significantly impact on archaeological remains or their setting.</td>
</tr>
<tr>
<td>DM10</td>
<td>Landscape</td>
<td>Page 28. The policy aim is “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.”</td>
</tr>
<tr>
<td>LC3</td>
<td>Local green space</td>
<td>Identifies areas designated as Local Green Space, which includes the Ashton Court Estate (covering the area which lies within Long Ashton Parish). The policy states that development on these areas will not be permitted unless it enhances the existing use and community value or in very special circumstances.</td>
</tr>
<tr>
<td>ENV1</td>
<td>Area of Separation</td>
<td>Designates an Area of Separation that is required to remain open in aspect in order to maintain an actual and visual separation between the City of Bristol and the parish of Long Ashton. This area lies within the Green Belt and development contrary to Green Belt policies that threatens the open and rural aspect will not be permitted.</td>
</tr>
<tr>
<td>ENV5</td>
<td>Conserve and enhance areas of value to nature or landscape</td>
<td>States that any development proposal must conserve and enhance the wildlife, biodiversity and historic assets of the village. Nightingale Valley and Stokeleigh Camp is identified as an area of local ecological and landscape value.</td>
</tr>
<tr>
<td>BCS22</td>
<td>Conservation and the Historic Environment</td>
<td>Page 127. “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”.</td>
</tr>
</tbody>
</table>
11.3 Methodology

Guidance and Best Practice

11.3.1 This PEI Report 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 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 sought 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 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>
<thead>
<tr>
<th>Organisation and Date</th>
<th>Summary of Response</th>
<th>Consideration within PEI Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping Opinion Responses (August 2015)</td>
<td>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.</td>
<td>The cumulative effects of the DCO Scheme on other works for MetroWest Phase 1 are discussed in Section 11.8 and Cumulative Effects Assessment.</td>
</tr>
<tr>
<td>Planning Inspectorate</td>
<td>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</td>
<td>The design of station building at Portishead and its surrounding landscape respond to the contemporary urban context of Portishead. The colour of fencing to the track has been selected to minimise visual impact. Local stone is to be reused for boundary walls.</td>
</tr>
</tbody>
</table>
### Table 11-3: Summary of consultation responses

<table>
<thead>
<tr>
<th>Organisation and Date</th>
<th>Summary of Response</th>
<th>Consideration within PEI Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scoping Opinion Responses (August 2015)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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. Paragraph 3.63. Describe models used for example in defining the Zone of Visual Influence (&quot;ZVI&quot;). Location of viewpoints should be agreed with the local authorities and other relevant consultees such as Natural England. Paragraph 3.64. Describe and assess changes in views supported by suitable illustrations to describe the worst case. 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. Paragraph 3.66. Cross-refer to other parts of the ES where appropriate.</td>
<td>The LVIA covers effects during construction and the movement of trains and lighting during operation. Noise effects are addressed in Chapter 13 Noise and Vibration. The use of digital models to develop the ZVI has been limited for the reasons set out in paragraph 11.3.8. A range of views have been selected and are shown in Appendix 11.1 in the PEI Report Volume 4 Appendices. The views shown in Appendix 11.2 in the PEI Report Volume 4 Appendices describe the potential change in view. A figure to show replacement screen planting for the disused line will be prepared for the Environmental Statement. References to other section of the PEI Report have been made within this section.</td>
<td></td>
</tr>
</tbody>
</table>

**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 Section 11.7.

**Natural England**

The EIA should include as 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. 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 as assessment of the potential effects on the National Character Areas, local landscape character areas described by NSC, and site specific landscape character areas developed as part of this LVIA. The methodology used is in line with the methodology set out in GLVIA 3rd Edition.
11.3.7 The study area for the landscape and visual impact assessment varies and extend beyond the 500 m study area 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 National Character Areas (“NCA”) 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 extend beyond the 500 m study area. 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 PEI Report Volume 3 Book of Figures.

11.3.11 A smaller scale site specific landscape character areas has been undertaken as part of this landscape character assessment and this is within the 500 m study area. The extent of these areas are shown on Figure 11-2 Sheets 1 and 2 in the PEI Report Volume 3 Book of Figures.

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 report.

11.3.13 The visual envelope was therefore primarily developed through field work, using the ZTV as a basis, 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 PEI Report Volume 3 Book of Figures.

11.3.14 Considering the type and nature of the DCO Scheme as primarily as an existing railway corridor within the landscape, rather than 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.

11.3.16 Visual receptors are locations from which people have views of the 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 and 9 respectively.

11.3.19 Baseline field surveys were undertaken involving site character analysis, through consideration of landform, vegetation, human influence (built form and culture) and 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 No specific plans have been formulated for the decommissioning phase of the Portishead Branch Line. It is expected that the services will continue for as long as there is a business case for doing so. Closure of railways is a regulated process, overseen by the Office of Rail and Road. Disposal of railway assets is also regulated by the Office of Rail and Road under the terms of Network Rail’s licence.

11.3.23 Railways are not designed to be decommissioned, although in accordance with paragraph 5.85 of the NPSNN, development plan policies [and Network Rail’s Sustainable Development Strategy], consideration will be given to the sustainability of materials used in construction, including their embodied carbon content, where choice is available and some information on this is provided in Chapter 12 Materials and Waste. For the NSIP, in the event that the train operating company decides to cease services on the Portishead Branch Line, it is likely that the railway assets will remain in place, as occurred after traffic ceased in the 1980s. Previous practice following railway closures suggests that the railway formation will remain available either for re-development over time or finding an alternative transport use such as a guided busway or a cycle path. Such proposals would be subject to their own assessment including consideration of environmental effects. As such proposals are not reasonably foreseeable, the likely impacts cannot be assessed.

11.3.24 For any abandoned part of the railway track bed, vegetation would gradually encroach upon the railway line, with herbaceous plants, shrubs and trees gradually recolonising the railway corridor. The assets comprising the trackbed would gradually fall into disrepair due to the action of erosion and corrosion from rain, plants and animals. As the railway to be authorised by the DCO is largely laid at surface level between Portishead and Pill it is not anticipated that there would be significant need for ongoing maintenance work for embankments or cuttings. Ongoing maintenance of the cuttings and embankments would still be required along the operational railway from the Port to the main line. Network Rail would probably recover (and ideally re-use) items of values such as wiring, signalling equipment and principal supply points (“PSP”).

11.3.25 Remaining assets such as fencing would continue to be maintained. The bridges carrying highways over the DCO scheme and public rights of way would continue to be maintained to standards appropriate for the public use, as a result of the obligations of North Somerset District Council as local highway authority.

11.3.26 It is anticipated the line between Royal Portbury Dock and Parson Street would remain open for services to the Port. The currently operational railway would remain open for freight traffic even if passenger services ceased and any decision regarding the cessation of freight services would be one for the Freight Operating Companies and Bristol Port Company, so decommissioning the operational railway is not considered relevant or foreseeable for assessing the DCO Scheme. Were any decommissioning of all or part of the operational railway to be proposed in the future, a separate project would be developed, which would be accompanied by a specific assessment of the implications for the SAC.

11.3.27 It is not anticipated that the associated development comprising highway works or car parks at Portishead would be altered as a result of the cessation of rail passenger services between Portishead and Bristol. Similarly it is anticipated the car parks at Pill would remain as car parks albeit for all of the car parks development proposals might come forward over time and would be assessed for their planning impacts and any environmental effects at such time as such schemes came forward for the local planning authority to consider. Changes to the UK’s use of fuel for transport mean that the nature of emissions from vehicles undertaking any removal of items could only be a matter of speculation.
Assessment of Cumulative Effects

11.3.28 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, 2015). This approach is explained in Chapter 18, and a long list of possible projects to be considered is provided in Appendix 18.1 in the PEI Report Volume 4 Appendices and a short list of other projects to be considered in the cumulative effects assessment is provided in Appendix 18.2 in the PEI Report Volume 4 Appendices.

11.3.29 The other projects to be considered in the cumulative effects assessment comprise:
- Other DCO projects within 5 km of the Portishead Branch Line
- Other projects on the local planning authorities’ planning portal within 500 m of the Portishead Branch Line, and
- Other projects required for MetroWest Phase 1.

11.3.30 The locations of other projects within 500 m of the Portishead Branch Line considered in the assessment of cumulative effects are identified on Figure 6-1 Sheets 1 to 5 in the PEI Report Volume 3 Book of Figures.

11.3.31 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 landscape effects on overall character, aesthetics and the fabric of the landscape. The effects are assessed as additional/combined effect.

Use of Significance Criteria

11.3.32 The significance criteria used to assess the impact of the DCO Scheme 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

11.3.33 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>
<thead>
<tr>
<th>Value and Susceptibility to Change</th>
<th>Typical Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be:</td>
</tr>
<tr>
<td></td>
<td>• Of high quality with distinctive elements and features making a positive contribution to character and sense of place</td>
</tr>
<tr>
<td></td>
<td>• Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale</td>
</tr>
<tr>
<td></td>
<td>• Areas of special recognised value through use, perception or historic and cultural associations</td>
</tr>
<tr>
<td></td>
<td>• Likely to contain features and elements that are rare and could not be replaced.</td>
</tr>
</tbody>
</table>
### Table 11-4: Landscape character value

<table>
<thead>
<tr>
<th>Value and Susceptibility to Change</th>
<th>Typical Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medium</strong></td>
<td>Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically these would be:</td>
</tr>
<tr>
<td></td>
<td>• Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place</td>
</tr>
<tr>
<td></td>
<td>• Locally designated, or their value may be expressed through non-statutory local publications</td>
</tr>
<tr>
<td></td>
<td>• Containing some features of value through use, perception or historic and cultural associations</td>
</tr>
<tr>
<td></td>
<td>• Likely to contain some features and elements that could not be replaced</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be:</td>
</tr>
<tr>
<td></td>
<td>• Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place</td>
</tr>
<tr>
<td></td>
<td>• Not designated</td>
</tr>
<tr>
<td></td>
<td>• Containing few, if any, features of value through use, perception or historic and cultural associations</td>
</tr>
<tr>
<td></td>
<td>• Likely to contain few, if any, features and elements that could not be replaced</td>
</tr>
</tbody>
</table>

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

### Table 11-5: Sensitivity of visual receptors and typical descriptors

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Typical Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>• Residential properties with views from ground and first floor windows and gardens towards the proposals.</td>
</tr>
<tr>
<td></td>
<td>• Important public sites used by many people.</td>
</tr>
<tr>
<td></td>
<td>• Public rights-of-way, public open spaces and other locations where the view is part of the reason for the visit.</td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>• Commercial and industrial premises.</td>
</tr>
<tr>
<td></td>
<td>• Schools.</td>
</tr>
<tr>
<td></td>
<td>• Playing fields.</td>
</tr>
<tr>
<td></td>
<td>• Other areas where the view is not central to the use.</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>• Roads and rail with views towards the development where the viewer passes at speed and the view is not central to the use.</td>
</tr>
</tbody>
</table>

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

### Nature of Effect (Magnitude of Impact)

11.3.34 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

<table>
<thead>
<tr>
<th>Significance</th>
<th>Typical Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major adverse</td>
<td>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.</td>
</tr>
<tr>
<td>Moderate adverse</td>
<td>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.</td>
</tr>
<tr>
<td>Minor adverse</td>
<td>Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.</td>
</tr>
<tr>
<td>Negligible adverse</td>
<td>Barely noticeable loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements.</td>
</tr>
<tr>
<td>No change</td>
<td>No noticeable loss, damage or alteration to character or features or elements.</td>
</tr>
<tr>
<td>Negligible beneficial</td>
<td>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.</td>
</tr>
<tr>
<td>Minor beneficial</td>
<td>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 features.</td>
</tr>
<tr>
<td>Moderate beneficial</td>
<td>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.</td>
</tr>
<tr>
<td>Major beneficial</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

11.3.35 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

<table>
<thead>
<tr>
<th>Magnitude of Impact</th>
<th>Typical Criteria Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>The project, or a part of it, would become the dominant feature or focal point of the view.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.</td>
</tr>
<tr>
<td>Minor</td>
<td>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.</td>
</tr>
<tr>
<td>Negligible</td>
<td>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.</td>
</tr>
<tr>
<td>No Change</td>
<td>No part of the project, or work or activity associated with it, is discernible.</td>
</tr>
</tbody>
</table>

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

11.3.36 Significance of effect of the DCO Scheme on each landscape and visual receptor has been determined through combining the judgements made for the nature of the receptor and the nature of the effect and summarised through categories of significance, as indicated in the tables below. Table 11-8 provides typical descriptions for the level of significance of impact for changes to the landscape character for both adverse and beneficial effects while Table 11-9 provides typical descriptions for the level of significance of impact for changes to the view for both adverse and beneficial effects. For the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 effects of moderate or larger significance are generally considered to be likely significant effects.

<table>
<thead>
<tr>
<th>Value and Susceptibility to Change</th>
<th>Magnitude of Impact (Degree of Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Change</td>
<td>Negligible</td>
</tr>
<tr>
<td>High</td>
<td>Neutral</td>
</tr>
<tr>
<td>Medium</td>
<td>Neutral or Slight</td>
</tr>
<tr>
<td>Low</td>
<td>Neutral or Slight or Slight</td>
</tr>
</tbody>
</table>

Table 11-8: Significance of landscape effects

<table>
<thead>
<tr>
<th>Sensitivity of Visual Receptor</th>
<th>Magnitude of Impact (Degree of Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Change</td>
<td>Negligible</td>
</tr>
<tr>
<td>High</td>
<td>Neutral</td>
</tr>
<tr>
<td>Medium</td>
<td>Neutral or Slight</td>
</tr>
<tr>
<td>Low</td>
<td>Neutral or Slight or Slight</td>
</tr>
</tbody>
</table>

Table 11-9: Significance of visual effects

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 PEI Report.

<table>
<thead>
<tr>
<th>Key Designations</th>
<th>Location within the Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Belt</td>
<td>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 PEI Report Volume 3 Book of Figures.</td>
</tr>
<tr>
<td>Amenity (North Somerset Adopted Local Plan)</td>
<td>The Vale, Portishead (bounded by the disused railway line to the north); and Yew Tree Gardens, Pill.</td>
</tr>
<tr>
<td>Local Green Space (North Somerset’s emerging proposals map)</td>
<td>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 PEI Report Volume 3 Book of Figures.</td>
</tr>
<tr>
<td>Common Land and Town or Village Greens</td>
<td>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.</td>
</tr>
<tr>
<td>Forest of Avon (Community Forest)</td>
<td>Covers the whole of North Somerset.</td>
</tr>
<tr>
<td>National Forest Inventory</td>
<td>Woodland to the east of Elm Tree Farm with its southern extent adjacent to the line (refer to Figure 11-1 in the PEI Report Volume 3 Book of Figures); woodland north of Junction 19 and adjacent to the railway line; woodland on the River Avon bridge approach embankment of the M5 (south side).</td>
</tr>
<tr>
<td>Additional Designations</td>
<td>Location within study area</td>
</tr>
<tr>
<td>Conservation Areas</td>
<td>Refer to Conservation Area section for list of relevant Conservation Areas.</td>
</tr>
<tr>
<td>Listed Buildings</td>
<td>Refer to Listed Buildings section below for list of relevant listed buildings.</td>
</tr>
<tr>
<td>Registered Parks and Gardens (&quot;RP&amp;G&quot;)</td>
<td>Leigh Court and Ashton Court, registered parks and gardens (&quot;RP&amp;G&quot;) on the west bank of the River Avon.</td>
</tr>
<tr>
<td>Unregistered Parks and Gardens (Designated in North Somerset Adopted Local Plan and North Somerset’s emerging proposals map)</td>
<td>St. George’s Hall (south of the M5 and east of junction 19); and Ham Green Hospital.</td>
</tr>
<tr>
<td>Special Area of Conservation (&quot;SAC&quot;)</td>
<td>Avon Gorge Woodlands</td>
</tr>
<tr>
<td>Sites of Special Scientific Interest (&quot;SSSI&quot;)</td>
<td>Avon Gorge; Severn Estuary; and Ashton Court</td>
</tr>
<tr>
<td>National Nature Reserve (&quot;NNR&quot;)</td>
<td>Leigh Woods</td>
</tr>
</tbody>
</table>
Conservation Areas

11.4.2 Eight conservation areas are located within 500 m of the DCO Scheme. The principal characteristics of these conservations areas are summarised in the following text, while the locations of these conservation areas are shown on Figure 11-1 in the PEI Report Volume 3 Book of Figures. 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.

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 has been developed by the author of this assessment, of the Leigh Woods Conservation Area, 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) states that it “will resist development of the Avon Foreshore”. Bristol City Council also states 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”. This study has not been undertaken to date.

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 Abona, the redundant Sea Mills Docks, signal stations and Sea Mills Railway Station.

11.4.9 Strengths of the 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 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 “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”. 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 “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”.

**Leighwoods Conservation Area**

11.4.26 Leighwoods 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 C19 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 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
- 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” and “remnants of industrial heritage”
- Opportunities include “improved management and maintenance of landscaping, especially around the railway” and “more interpretation of industrial heritage”
- 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”.

11-18
### Listed Buildings

11.4.34 The DCO Scheme may impact the setting of listed buildings. Therefore 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 1 listed Clifton Suspension Bridge. The location of these listed buildings is shown on Figure 11.1 Sheets 1 to 5 in the PEI Report Volume 3 Book of Figures.

**Table 11-11: Listed buildings relevant to the DCO Scheme**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade I</strong></td>
<td></td>
</tr>
<tr>
<td>Church of St Mary, Portbury (Figure 11.1, Sheet 2 in the PEI Report, Volume 3 Book of Figures).</td>
<td>The 12th 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.</td>
</tr>
<tr>
<td>Clifton Suspension bridge and two toll houses, Bristol (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 escarpment. Looking south, panoramic views are afforded across the City of Bristol. The Portbury Freight Line at the bottom of the gorge forms a small part of the overall view.</td>
</tr>
<tr>
<td><strong>Grade II</strong></td>
<td></td>
</tr>
<tr>
<td>Church of St George, Portbury (Figure 11.1, Sheet 2 in the PEI Report Volume 3 Book of Figures).</td>
<td>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. North of the village runs the M5 motorway 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 overbridge embankment and the motorway all screen views towards the disused line.</td>
</tr>
<tr>
<td>Trafalgar House; Taylor Maxwell House; Promenade House; Engineer’s House; and Alva House, all in Clifton, Bristol (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 gorge beyond.</td>
</tr>
<tr>
<td>Clifton Observatory, Bristol (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 gorge.</td>
</tr>
<tr>
<td>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 PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td>Grade</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Table 11-11: Listed buildings relevant to the DCO Scheme</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Grade I</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>The Colonnade, Hotwells, Bristol (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 gorge. The railway forms a part of the view, across the River Avon, behind an established belt of trees.</td>
</tr>
<tr>
<td>No. 1-14 and No. 15 The Paragon, Clifton, Bristol, (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>These properties are set within the Clifton &amp; Hotwells Conservation Area and afford views across Bristol, looking down towards the River Avon and gorge. According to Historic England The Paragon forms “part of the important view of Clifton from the south across the Avon” (<a href="http://www.historicengland.org.uk/">http://www.historicengland.org.uk/</a>).</td>
</tr>
<tr>
<td>Freeland Court (Figure 11.1, Sheet 5 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td>Numbers 2-9 Albemarle Row (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td><strong>Grade II</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Moor Farmhouse, Portishead (Figure 11.1, Sheet 1 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td>The Thatched Cottage (Figure 11.1, Sheet 1 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td>Elm Tree Farm (Figure 11.1, Sheet 1 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 line.</td>
</tr>
<tr>
<td>Court House Farm (Figure 11.1, Sheet 2 in the PEI Report Volume 3 Book of Figures).</td>
<td>Court House Farm forms part of a complex of farm buildings which lies in close proximity to the north of the MS and west off Marsh Lane. Planting adjacent to the motorway and the overbridge 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. A recent planning application by The Bristol Port for additional cargo storage would see the fields around the farm surfaced for cars along with fencing and lighting.</td>
</tr>
<tr>
<td>The Watch House and Mulberry Cottage (Figure 11.1, Sheet 2 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
</tbody>
</table>
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 Count 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

<table>
<thead>
<tr>
<th>Grade II*</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leigh Court (Figure 11.1, Sheet 3 and 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>Leigh Court Registered Park and Garden covers an area of approximately 128 ha and “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”. In addition“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”. (<a href="https://historicengland.org.uk/listing/the-list/list-entry/1000407">https://historicengland.org.uk/listing/the-list/list-entry/1000407</a>).</td>
</tr>
<tr>
<td>Ashton Court (Figure 11-1, sheet 5 in the PEI Report Volume 3 Book of Figures).</td>
<td>Ashton Court Registered Park and Garden covers an expansive area. According to Historic England “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” (<a href="http://www.historicengland.org.uk/">http://www.historicengland.org.uk/</a>). 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.</td>
</tr>
</tbody>
</table>

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 Abona (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 gorge and above the Portbury Freight Line. Scheduled monuments are accorded a high value.

Table 11-13: Scheduled monuments relevant to the DCO Scheme

<table>
<thead>
<tr>
<th>Scheduled Monument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of the Roman Settlement at Abona (Figure 11.1, Sheet 3 in the PEI Report Volume 3 Book of Figures).</td>
<td>The Roman Settlement at Abona 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.</td>
</tr>
<tr>
<td>Scheduled Monument</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Clifton Down Camp, Clifton (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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.</td>
</tr>
<tr>
<td>Stokeleigh Camp: a promontory fort in Leigh Woods (Figure 11.1, Sheet 4 in the PEI Report Volume 3 Book of Figures).</td>
<td>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 landscape and vegetation.</td>
</tr>
</tbody>
</table>

### Landscape Character - Regional Overview

**11.4.37** This section considers the wider landscape character and context within which the Portishead Branch Line DCO Scheme sits, through consideration of relevant designations and National Character Areas (“NCA”). 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 are designated as Registered Parks and Gardens (“RP&G”) and 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 PEI Report Volume 3 Book of Figures). These are:

- Natural England NCA 106 Severn and Avon Vales (Portishead to Pill disused section of railway line)
- 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 Chapter 9 Ecology and Biodiversity). Avonmouth and its surroundings are at risk of flooding as indicated by flood risk zones 2 and 3 (see Figure 17.1 in the PEI Report Volume 3 Book of Figures).

**11.4.41** In the south of the NCA, peat deposits in the Gordano Valley create wetlands and 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
• 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
• Partnership work seeking to improve biodiversity and habitats on a large scale.

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 a dominant feature in the landscape traversed by the DCO Scheme.

11.4.45 As part of the 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 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 and geology 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 stretch from Clevedon to Portishead sees the ridge descend towards the Severn Estuary.

11.4.49 The Avon Gorge, crossed by the Clifton Suspension Bridge, cuts through the scarp, exposing Carboniferous Limestone and creating areas of 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.
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.

This NCA provides substantial opportunities for recreation through parklands such as Ashton Court and The River Avon Trail, as well as a large number of other trails and cycle routes.

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
- Increasing urbanisation and development, particularly to motorway corridors damaging historic character

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
- Green infrastructure strategies leading to improved landscape quality.

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 gorge and rolling farmland, although this is mainly pastoral. The historic Clifton Suspension Bridge and Ashton Court are particularly relevant.

As part of the 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, the townscape of Clifton, the Avon Gorge landscape and the 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

The Portishead Branch Line DCO Scheme passes through two landscape character areas defined by NSDC (North Somerset Landscape Character Assessment 2005), as shown on Figure 11.1 Sheets 1 to 5 in the PEI Report Volume 3 Book of Figures. 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
- North Somerset Local Character Area G2 Failand Settled Limestone Plateau
A2 Clapton Moor

11.4.57 According to NSDC (2005), Clapton Moor is characterised by the distinct geography of the Gordano Valley 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, which lies to the south west of Weston Big Wood. 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.

11.4.58 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.

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

11.4.60 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
- Change in land use of fringe to horse pasture
- New development around Portishead.

11.4.61 According to the character area assessment, this character area is 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.

11.4.62 As part of the 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

11.4.63 According to NSDC (2005) the Portbury Settled Coastal Edge is characterised by flat, low lying land giving rise to wide views. Its character is predominately industrial and maritime. The Royal Portbury Docks, with huge industrial buildings, expanses of hard-standing, numerous cranes and tall metal fences, are prominent. Associated unsympathetic amenity landscape provides limited visual amenity. Large container ships and wide views over the Bristol Channel contribute to the maritime character.

11.4.64 Remnant grazing marshland and Court House Farm, with its traditional building style, influence the character to the east. 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.

11.4.65 NSDC has described the following as forces for change:

- Poor hedgerow management resulting in declining condition
- Increasing large-scale industrial development, resulting in the loss of pastoral farmland
- Lower Palaeolithic artefacts that may be present in gravel deposits may be damaged as a result of future development
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.

According to the character area assessment, this character area is in declining condition, with hedgerows in neglect. Shelter belts and marshy grassland are reasonably well maintained, as are the industrial elements.

As part of the 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**

Avon Rolling Valley Farmland "is a transitional area, with gentle slopes falling away northward...at the banks of the River Avon."

The overall character of the area lacks cohesion, with no defining elements across the site as a whole. It is split into two halves by the A369 and associated ribbon development. South of the A369, large fields are enclosed by low, broken up hedgerows and fences. North of the A369, the landscape "is more complex with numerous landscape elements".

To the west, the registered park and garden of Leigh Court, mainly comprising pasture, creates the setting for the main Grade II* listed building. Watercourses, which bisect the area, are well wooded. Specimen trees in the parkland and belts of woodland create a "deceptively wooded feel."

There is also an urban aspect to this area. The large settlement of Pill, developed around remnants of historic parkland, is a dominant feature of the landscape.

NSDC describe the following forces for change:

- Development along transport corridors
- Infilling of historic settlements and new ribbon development
- Increased large-scale farming detrimental to historic landscape and grasslands
- Damage to archaeological remains such as earthworks due to development and modern farming techniques, which would have the potential to affect landscape character

According to NSDC, this character area is in declining condition, with poor management to urban fringe elements and intensive farming resulting in runoff (NSDC, 2005).

As part of the 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

11.4.76 Tickenham Ridge Character Area is characterised by elevated ridges and intimate wooded steep slopes, with wide views across open lowlands. Large areas of ancient broad-leaved woodland, parkland and pastoral farmland create a rural character and sense of remoteness. The topography creates concealed coombes with winding roads. There are a number of small working limestone quarries. A strong sense of heritage exists in the area, due to features such as the parkland of Ashton Court and its mature pollards. The area has a strong rural character, however in places this is diluted by ribbon development and suburban settlements.

Forces for change are:

• Poor management of landscape elements such as stone walls
• Increasing signage, visual clutter, masts and traffic noise
• Increasing lighting, kerbs and road markings to rural roads
• Leisure causing "wear and tear" to landscape, including important geological and ecological sites
• Expansion of villages such as Tickenham
• Increasing abundance of rural/urban fringe activities including recreation, horse paddocks, tip sites and quarrying, and
• Damage to archaeological remains due to modern farming techniques.

11.4.78 According to the character area assessment, this character area is in good condition, with well-maintained estates, farmland and woodland. However, features such as stone walls are showing signs of neglect (NSDC, 2005).

11.4.79 As part of the 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

11.4.80 The Avon Gorge character area is of geologic interest due to its exposed 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 with the traffic on the Portway A4 road.

Forces for change are:

• Limited maintenance of coppiced woodland and wood pasture
• Leisure causing "wear and tear" to landscape, including important geological, historical and ecological sites
• Increasing signage, visual clutter and traffic noise
• Development to urban fringe in adjacent landscape types impacting the rural character.

11.4.82 According to the character area assessment, this character area is in good condition, with continued woodland management. 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 (NSDC, 2005).

11.4.83 As part of the 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. It also has a tranquil feel. Therefore, it is concluded that the character area has high value.

**G2 Failand Settled Limestone Plateau**

11.4.84 Failand Settled Limestone Plateau is a flat, upland area characterised by leisure and recreational uses. There are numerous large leisure facilities which dominate 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 linear roads with occasional shelter belts, as well as both working and discussed quarries.

11.4.85 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 damaging landscape quality
- Limited maintenance of coppiced woodland, mixed woodland, hedgerows and drystone walls
- Increasing demand for recreational land uses
- Increasing signage, visual clutter and traffic noise, and
- Loss of mining remains.

11.4.86 The landscape associated with the Portbury Freight Line contains many of the characteristics and features described by North Somerset 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 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.

11.4.87 According to the character area assessment, this character area is in declining condition, with gappy hedgerows and poorly maintained dry stone walls. Numerous sports pitches and areas of amenity grassland are reliant on the use of fertiliser (NSDC, 2005).

11.4.88 As part of the 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.

**B1 Land Yeo and Kenn River Floodplain**

11.4.89 The Land Yeo, Kenn River and River Avon Floodplain is a narrow, generally unsettled, lowland area of flat land based on Alluvium, River Terrace Deposits and Head, with Mercia Mudstone below. This lowland valley landscape varies between open and enclosed character, however, south east of Long Ashton, the sense of a valley landscape is less distinguishable.

11-28
11.4.90 The character area is generally tranquil and pastoral, although at Long Ashton this rural feel is diluted as a consequence the proximity to Bristol City, resulting in views to urban areas, with fragmentation of the landscape and infrastructure features such as road and rail more common here. The A370 is an intrusive feature, which reduces the sense of tranquillity in this section, through noise, movement and lighting.

11.4.91 The character area is frequented by areas of grazed open grassland. There are a number of small water bodies such as ponds and reservoirs, as well as small rivers and their tributaries, such as the Ashton Brook and Colliter’s Brook which flow towards the River Avon. Fields are generally large in size. There are also a number of small woodlands, vegetated river banks and hedgerow trees creating a leafy character, although hedgerows are mainly low and fragmented. To the east there is an area of post medieval enclosure of open heath.

11.4.92 NSDC has described the following as forces for change:
- Mechanical management of hedges.
- Few young hedgerow trees to replace existing stock.
- Pressure for new land uses such as fish farming and horse paddocks.
- Proliferation of tall structures such as lighting and signage.
- Visual impact of the edge of Bristol and the Long Ashton.
- Cumulative impact of change - affecting the rural, peaceful ambience of the area.

11.4.93 The landscape associated with the scheme displays some of the characteristics of this character area. For example, the east section of the character area is influenced by Bristol City, and the busy A370 which is typical of the scheme landscape. However, these features are of detriment to the wider rural character and of lower quality than elsewhere within the character area.

11.4.94 According to the character area assessment, this character area is in declining condition. The area has well maintained pastoral farmland and generally intact hedgerows, woodland and wetland. There are, however, signs of decline such as fragmented hedges, limited young hedgerow trees and areas of less well maintained pasture to the far east.

11.4.95 The character area has many landscape features characteristic of the River Floodplain Landscape Type, such as flat landform with views to wooded ridges and a peaceful, rural ambience. However, the east of the area is highly influenced by the urban edge of Bristol and the presence of the A370. Therefore, it is concluded that the overall character is considered to be medium value.

**J5 Land Yeo and Kenn Rolling Valley Farmland**

11.4.96 The character of the Land Yeo and Kenn Rolling Valley is one of gentle undulations based on Mercia Mudstone with Head and Alluvium. It is a pastoral landscape within the setting of a wide valley with wooded ridges. The hedgerow network, which includes hedgerow trees of oak, is in a good condition. The character area is characterised by historic parkland, numerous large settlements, such as Long Ashton, Backwell and Claverham with historic centres and infill development, as well as scattered farmsteads, which are often screened by coniferous planting of Yew. In addition, the character area includes winding rural roads and major roads and rail which run along the edge of the valley floor, including the intrusive A370 to the south west.

11.4.97 There are frequent areas of grazing within the character area, horse paddocks and small, poorly maintained farm orchards, as well as medium and small scale irregular fields. There is a rural, tranquil feel at the southern end. To the north, there are views towards grand parkland and houses, such as Ashton Court.
11.4.98 Forces for Change

- Some small farm orchards in poor condition and no longer maintained.
- Pressure for diversification of land uses (e.g. horse paddocks, recreational uses).
- Ubiquitous development along roads such as the A370 and as infill development.
- Unsympathetic urban edges within adjacent landscapes.
- Small scale incremental changes impacting on the peaceful secluded character.
- Agricultural practices and changes in land use may affect archaeological remains.

11.4.99 According to the character area assessment, the condition of this area is considered to be good, due to areas of intact pasture, thick hedgerows, hedgerow trees and winding rural roads. Farm orchards are in decline.

11.4.100 The Land Yeo and Kenn Rolling Valley displays a medium value due to modern developments on edges of villages and ribbon development along major roads, which undermines the rural character.

**Bristol City Council’s Central Area Context Study – Character Areas**

11.4.101 This section of the route also sits within Bristol City Council'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".

11.4.102 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.

11.4.103 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**

11.4.104 Site specific landscape character areas are shown on Figure 11.2 in the PEI Report Volume 3 Book of Figures. These smaller scale character areas have been derived by this study 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 radius from the proposed scheme, although in reality, boundaries are more variable.

**Commercial Portishead**

11.4.105 This area of Portishead has a predominately flat, low lying landform. It has an urban character, with its mix of unsympathetic, 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.
11.4.106 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.

11.4.107 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**.

**Residential Portishead**

11.4.108 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 School playing fields. The residential properties are modern and of brick construction. The disused railway has an overgrown, derelict character.

11.4.109 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.

11.4.110 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**

11.4.111 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.

11.4.112 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 Portbury Hundred and M5 are generally screened by vegetation, however, they are clearly visible to the east of the character area.

11.4.113 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.

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

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

11.4.116 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**

11.4.117 The Royal Portbury Dock has a predominately industrial character, with industrial units and the expansive cargo storage areas as dominant elements. The units are generally large developments, which enclose the view. The cargo storage areas offer wider views, however, there is still a strong sense of enclosure due to mesh boundary fencing. The landform is generally flat.

11.4.118 Amenity landscape associated with the development, 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.

11.4.119 To the east of this character area, the visually intrusive and elevated M5 stretches above the cycle path.
11.4.120 Footpaths, Sustrans cycle paths and a small section of bridleway provide a recreational aspect to this character area.

11.4.121 The high level mast lighting of the cargo storage areas and that of the motorway junction area a dominant local landscape feature often visible above the existing hedgerows and other vegetation.

11.4.122 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.

11.4.123 An extension to the cargo storage area at Marsh Lane has been consented which will extend the storage area closer to the M5 and be characterised by further lighting, a new access bridge over the railway and hard surfacing.

11.4.124 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**

11.4.125 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.

11.4.126 The landform is locally complex, with properties built into the slope. Views are generally constrained, although there are wider ranging views from 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 to the wider landscape.

11.4.127 The railway line cuts 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. The red brick viaduct is a dominant feature of this character area, which contributes to the sense of history, along with the small harbour.

11.4.128 Below Pill viaduct is the village green, with its grass, perennial planting beds and mature trees. The viaduct is a dominant feature looking back up towards the village. Elsewhere, vegetation is limited to front gardens and woodland and scrub alongside the railway line.

11.4.129 Footpaths and National Route 41 of the National Cycle Network provide a recreational aspect to this character area. Above Pill Tunnel is a relative large open space 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.

11.4.130 There are patches of woodland alongside the River Avon and Markham Brook, which flows under Pill Viaduct. 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) SNCI occurs to the north east of Pill, providing ecological value. The grade II listed Watch House Retaining Walls to the River and Garage and Mulberry Cottage/Mulberry House are found to the north adjacent to the River Avon.

11.4.131 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

11.4.132 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.

11.4.133 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.

11.4.134 Settlement is limited to occasional, scattered properties and farmsteads, often with long, private driveways. Features such as the private fishing lake and allotments provide a recreational aspect, as do local footpaths and the Avon Trail Sustrans cycle route.

11.4.135 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.

11.4.136 A patch of woodland is found alongside Ham Lakes. Common Land occurs at The Point at Chapel Pill. The character area also includes Ham Green SSSI, which is a geological designation. 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 emerging proposals map), which includes a number of listed buildings.

11.4.137 The character area possesses some features of importance, such as the mature trees and designated features such as Ham Green Hospital, which could not be replaced if lost. Therefore, it is concluded that the character area has medium value.

Sea Mills

11.4.138 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.

11.4.139 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.

11.4.140 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.

11.4.141 Looking from the Avon Trail 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.

11.4.142 The River Avon Trail and National Route 41 of the National Cycle Network, provide a recreational aspect to this character area.

11.4.143 The character area lies partially within green belt. A small patch of woodland identified in the National Forest Inventory is found 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 Bristol City Council.

11.4.144 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

11.4.145 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.

11.4.146 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 surrounded by woodland.

11.4.147 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.

11.4.148 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.

11.4.149 The River Avon Trail and National Route 41 of the National Cycle Network runs alongside the gorge, 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.

11.4.150 The historically important Grade I listed Clifton Suspension Bridge crosses the 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.

11.4.151 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.

11.4.152 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 National Nature Reserve ("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 Bristol City Council. Leigh Woods is designated as a Conservation Area by North Somerset Council. 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.

11.4.153 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.
11.4.154 At Ashton Gate, the landform is generally flat, with the parkland of Aston Court sloping upwards to the gorge to the north, with views south across the landscape and railway line. More generally, views are constrained by vegetation, fences and buildings.

11.4.155 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 urban 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.

11.4.156 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.

11.4.157 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.

11.4.158 Footpaths and the River Avon Trail provide a recreational aspect to this character area.

11.4.159 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 Registered Park and Garden 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 Bristol City Council. Listed buildings in the area include the A Bond and B Bond Warehouses, Brunel’s Entrance Locks and Bower Cottage in Bower Ashton.

11.4.160 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

11.4.161 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.

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

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

11.4.164 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

11.4.165 The visual amenity assessment is presented in four parts. This section describes the views in general from the landscape around the disused line and the Portbury Freight Line.

11.4.166 Appendix 11.1 in the PEI Report Volume 4 Appendices uses photographs to illustrate views from a number of locations looking towards the disused line and the Portbury Freight Line. The locations from where the photographs were taken are shown on Figure 11.3 Sheets 1 to 5 in the PEI Report Volume 3 Book of Figures.

11.4.167 Appendix 11.2 in the PEI Report Volume 4 Appendices 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 PEI Report Volume 3 Book of Figures.

11.4.168 Appendix 11.3 in the PEI Report Volume 4 Appendices lists the potential visual receptors where it is considered there may be a 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 PEI Report Volume 3 Book of Figures.

Views in general

11.4.169 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.

11.4.170 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 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.

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

11.4.172 There are extensive views northwards from Caswell Lane, just to the north of the M5, over the Sheepway area with the Portbury Hundred and the disused line visible as lines of vegetation.

11.4.173 The area around Junction 19 of the M5 is complex and mixed. Existing woodland by the M5 motorway junction 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 cargo storage associated with Royal Portbury Dock allow open views and in particular of the higher ground to the south.

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

11.4.175 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 bridge 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 with channelled views north over the River Avon to Shirehampton.
11.4.176 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.

11.4.177 Views become constrained along the line 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.

11.4.178 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.

11.4.179 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.

11.4.180 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.

11.4.181 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 project to ensure key receptors are avoided where possible;
- construction adopting best practice techniques, which will be set out in the Code of Construction Practice ("CoCP") - this document is still being finalised and will be submitted with the DCO application;
- compliance with regulatory and legislative regimes as required by law.

11.5.2 The ES will fully set out in detail those embedded mitigation measures within each of the topic chapters, including the Landscape and Visual Impacts Assessment Chapter.

11.6 Assessment of Landscape Effects

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

**NCA 106 Severn and Avon Vales**

11.6.2 The most noticeable change during construction will be the removal of vegetation alongside the disused line, in particular the larger trees. In addition the construction compound off Portbury Hundred will be a feature during the whole of the construction period of 18 months 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.

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

11.6.4 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**

11.6.5 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, the tunnel at Ham Green and the steep and narrow corridor of Avon Gorge, all screen the freight line from the wider NCA area and therefore limit effects during construction on the immediately surrounding landscape.

11.6.6 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.

11.6.7 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**

11.6.8 As noted above for the NCA, the most significant 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.

11.6.9 In addition the construction compound off Portbury Hundred will be a significant local feature during the whole of the construction period of 18 months with its accommodation, plant and materials and lighting in a relatively dark landscape.

11.6.10 Other activities will include the excavation period with the movement of lorries alongside the track and haul roads, whereas laying the new track will move more slowly in the landscape.

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

**C2 Portbury Settled Coastal Edge**

11.6.12 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 Docks Road. The loss of these trees will open up views from the M5 and Junction 19 northwards to the factories which would become a more visible feature in the landscape.

11.6.13 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 Pill to the south and east.

11.6.14 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

11.6.15 This character area extends from the freight line junction into the docks west of Pill as far 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 cutting at 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 limited by these screening features.

11.6.16 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.

11.6.17 The character area has a low value, the magnitude of impact would be negligible adverse, with a significance of slight adverse.

E5 Tickenham Ridge

11.6.18 This is a long character area extending from Clevedon with the eastern edge of this character area covering the area just west of the 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.

11.6.19 The character area has a medium value, the magnitude of impact would be negligible adverse, with a significance of slight adverse.

D1 Avon Gorge

11.6.20 This is a small character area covering the west side of the Avon Gorge, extending up the cliffs and into Leigh Woods. Construction activity would include both traditional and high output train techniques. The areas of influence of this 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.

11.6.21 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 with the temporary lighting.

11.6.22 There would be loss of vegetation adjacent to the track to create the space required for passenger trains, loss of vegetation to install the new fencing, in particular between track and tow path, and loss of some trees on the cliff. The result would be that the construction activity would be more intrusive in the landscape with the loss of screening.

11.6.23 The character area has a high value, the magnitude of impact would be moderate adverse, with a significance of moderate adverse.

G2 Failand Settled Limestone Plateau

11.6.24 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.

11.6.25 The character area has a low value, the magnitude of impact would be negligible adverse, with a significance of neutral.
B1 Land Yeo and Kenn River Floodplain

11.6.26 This character area abuts the NSC / BCC boundary and encompasses and is dominated by the park and ride site, the start of the AVTM, David Lloyd tennis centre, the open area to the west of the car auction site, and the Ashton Gate industrial estate. However, this character area is unlikely to be affected by the modifications to Winterstoke Road to improve the left hand turn across the Ashton Vale Level Crossing and into the industrial estate.

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

J5 Land Yeo and Kenn Rolling Valley Farmland

11.6.28 This character area is similarly extensive covering an area from Claverham, and more specifically the area north of the A370 and around the University of the West of England (“UWE”) Bower Ashton Campus. The construction of the DCO Scheme will be screened by the existing A370.

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

Site Specific Character Areas

11.6.30 The site specific character areas are shown on Figure 11.2 Sheets 1 and 2 in the PEI Report Volume 3 Book of Figures.

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.

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 would be constructed at the same time as the highway works.

11.6.33 The areas created for the station building and station forecourt will be used as an area of site access for the railway line. The main station car park will be used temporarily for workforce car parking.

11.6.34 Construction traffic would use the new highway to gain access to the track, bringing in the Trinity Primary School Footbridge components with larger lorries and cranes.

11.6.35 The construction of the station would require a piling rig, and this and the cranes for the bridge and station roof will be more visible in the local landscape.

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 moderate 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.

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 footbridge. 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.

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 moderate adverse.

Sheepway

11.6.43 There would be the construction of the compound and access to the track at Sheepway Bridge which 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 car park (for low loaders during operation) and relocated bus stop would be more visible in the wider landscape and from the road.

11.6.44 The construction compound to the south of disused line off The Portbury Hundred would be a larger scale feature in the local landscape as the main 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.

11.6.45 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.

11.6.46 The character area has a medium value, the magnitude of impact would be moderate adverse, with a significance of moderate adverse.

Royal Portbury Dock

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

11.6.48 Further relatively small areas of vegetation removal would occur around the various over bridges and adjacent to the footway and cyclepath to improve visibility. This would also be the case at The Royal Portbury Dock Road where a crossing point for equestrians is proposed at the north side of the bridge.

11.6.49 Construction access and vehicles would be a locally dominant feature at 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.

11.6.50 The road network would be used for construction vehicles getting from the compound off Portbury Hundred into the docks as part of the haul route for excavated materials away, and ballast in. Construction traffic up and down the line would also be a feature later on during track laying and fencing.

11.6.51 This is a relatively enclosed area with limited access between the docks and the M5.

11.6.52 The character area has a low value, the magnitude of impact would be minor adverse, with a significance of slight adverse.
Pill

11.6.53 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, 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.

11.6.54 The rebuilding of Avon Road underbridge and the widening of the embankment for the second track to Portishead would be by one of a number of options. This includes the demolition of the garages on the north side for an area to locate a crane, via a track based crane, or by crane located on the railway itself. The large crane and embankment works would involve relatively large scale plant and machinery which would dominate the local landscape.

11.6.55 In all options there would be the loss of trackside vegetation including the large trees. This would open up views to the construction activity, as well as views across the line which are currently screened by the trees.

11.6.56 The demolition of Station House 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 compound, with small compounds at the existing car storage area and to some extent, limited access through the Station House plot.

11.6.57 The track laying operations would be relatively contained in the cutting, however more visible on Pill Viaduct from surrounding areas which area elevated. Pill Viaduct would be covered in scaffolding for a period whilst the brickwork is repointed and repaired.

11.6.58 To the east of the viaduct, localised earthworks would be visible in the surrounding landscape due to their elevated position on the side of the hill.

11.6.59 The car park and highway works would be smaller in scale and be part of the later construction activities.

11.6.60 The character area has a medium value, the magnitude of impact would be moderate adverse, with a significance of moderate adverse.

Ham Green Lakes

11.6.61 There would be very minor work to the highways to enable large vehicles to negotiate the roundabout and corners so that they could access the Pill Tunnel eastern portal road rail access. Construction traffic to the portal area would be visible during the construction period.

11.6.62 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. The earthworks would be the most noticeable activity. The new access point and relocation of the field access would involve the removal of some short sections of existing hedge.

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

Sea Mills

11.6.64 This is a small character area at the entrance to the Avon Gorge influenced by the built up area of Sea Mill to the east of the river. There would be the loss of some trackside
vegetation, in particular at the area around the re-construction of the bridge, where a small construction compound would also be visible.

11.6.65 This is relatively open and rural location where the construction activity would be out of character.

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

Avon Gorge

11.6.67 There would be some loss of some trackside vegetation, in particular larger trees which overhang the freight line. There would be further loss of planting along the boundary as a result of the replacement fencing being installed, and in localised areas where works to existing structures such as bridges, are required. The loss of vegetation would open up some views to the track and the construction activity on the site.

11.6.68 Works to the cliff face are required to remove unstable rocks. This would result in some further loss of vegetation on the cliff face exposing some areas of rock face. In addition the proposed management plan for the vegetation on the slopes of the gorge above the railway line includes the removal of selected trees species. This may result in more open views to the rock forming the side of the cliff and a resultant less wooded appearance to the slopes.

11.6.69 It is assumed that track construction will be by conventional means undertaken during the daytime and at night working in shifts, including 50 hr and 75 hr weekend possessions. This would result in night-time effects with high levels of lighting, but for a limited period of time.

11.6.70 Micro-compounds, in the form of shipping container sized welfare and storage facilities, would be required in various places along the freight line. This would not be significant on a local scale.

11.6.71 A repeater mast would be required for train communications. This would be mostly screened by the backdrop of existing vegetation.

11.6.72 The narrow landform of the Avon Gorge means that effects on the landscape would be visible from the whole extent of the gorge. The existing vegetation offers some screening.

11.6.73 The character area has a high value, the magnitude of impact would be moderate adverse, with a significance of moderate adverse.

Ashton Gate

11.6.74 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. 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 landscape. It would be possible to see the compound from the Clifton Suspension Bridge, albeit partially screened by existing vegetation.

11.6.75 In addition to the compound itself, there would be construction vehicles using the site and the adjacent road on a regular basis.

11.6.76 The character area has a medium value, the magnitude of impact would be minor adverse, with a significance of slight adverse.
Ashton Vale

11.6.77 The freight line is mostly enclosed by the buildings of Ashton Gate industrial estate and by those between it and Winterstoke Road. Any works along the railway line would therefore be mostly screened for the surrounding landscape.

11.6.78 The construction of 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.

11.6.79 The construction of the pedestrian ramp would similarly have a localised effect with works being undertaken mostly from the railway line. There would be some works at Brunel Way to tie in the top of the ramp.

11.6.80 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

11.6.81 There would be no effect on the core area with some narrow views to the construction activity and the scaffolding 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

11.6.82 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

11.6.83 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 of the works on the track, which would be undertaken during weekend blockades or the longer summer blockade.

11.6.84 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 as part of the safety works to the cliffs, resulting in a less wooded appearance to the opposite cliff face.

11.6.85 The potential effects are limited to the edge of The Downs conservation area, with most of it unaffected as the construction activity would not be visible for 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 edge of the conservation area.

Sneyd Park Conservation Area

11.6.86 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.
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Clifton and Hotwells Conservation Area

11.6.87 The conservation 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 safety works to the cliffs, resulting in a less wooded appearance to the opposite cliff face.

11.6.88 The potential effects are limited to edge of conservation area, with most of it unaffected as the construction activity would not be visible from within the upper areas of Clifton. 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

11.6.89 This conservation area is visually separated from the DCO scheme so would not be affected.

City Docks Conservation Area

11.6.90 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 DSO 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 to 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

11.6.91 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

11.6.92 The DCO Scheme will result in the introduction of moving trains 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 moving passenger trains.

11.6.93 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.

11.6.94 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

11.6.95 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 features such as the City...
of Bristol and the existing transport infrastructure of the Avon Gorge. The increased frequency of trains would increase the sense of transport activity within the gorge.

11.6.96 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 character area, so it is not on a scale that would impact the overall character.

11.6.97 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

11.6.98 As the linear feature of the disused railway line is already a constituent of this area, the physical works of the DCO Scheme would not result in a significant change in character. The introduction of 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. The replacement mitigation planting associated with the DCO Scheme would re-establish hedgerows and tree belts and reinstate the screening effect.

11.6.99 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.

11.6.100 Current trends and forces for change in the area include development at Portishead and increasing ribbon development. The DCO Scheme, alongside these forces, could contribute to an increasingly urban landscape in the future with the increase in movement caused by the passenger trains in the landscape.

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

C2 Portbury Settled Coastal Edge

11.6.102 As the linear features of the Portbury Freight Line and the disused section are already constituents 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, resulting in a reduced sense of tranquillity, which is already lessened by the M5 and activities in and around the docks.

11.6.103 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.

11.6.104 Current trends and forces for change in the area include large scale development. The DCO Scheme, alongside these forces, could contribute to an increasingly urban landscape in the future with the increase in movement caused by the passenger trains in the landscape.

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

J6 Avon Rolling Valley Farmland

11.6.106 As the linear feature of the Portbury 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 an increased element of movement into the landscape.

11.6.107 The DCO Scheme would only traverse a small proportion of the Avon Rolling Valley Farmland area, so is not on a scale that would impact the overall character. Much of the freight line is screened in tunnel, existing cut slopes and vegetation alongside the track.
11.6.108 Current trends and forces for change in the area include infill development and development along transport corridors. The DCO Scheme, alongside these forces, could contribute to an increasingly urban landscape in the future.

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

**E5 Tickenham Ridge**

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

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

**D1 Avon Gorge**

11.6.112 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 from the A4 Portway.

11.6.113 Loss of planting adjacent to the track would result in more open views to the track and the passing trains.

11.6.114 Pending completion of the proposed management plan for the vegetation on the slopes of the gorge above the railway line it is assumed that there will be some removal of selected trees species. This may result in more open views to the rock forming the side of the cliff and a resultant less wooded appearance to the slopes.

11.6.115 Current trends and forces for change in the area include increased visual clutter and traffic noise. An increase in noise from trains could combine with noise from the existing road resulting in a greater impact.

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

**G2 Falland Settled Limestone Plateau**

11.6.117 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.

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

11.6.119 Current trends and forces for change in the area include increased visual clutter and traffic noise. An increase in traffic noise could combine with noise from the DCO Scheme resulting in a greater impact.

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

**B1 Land Yeo and Kenn River Floodplain**

11.6.121 The minor modifications to Winterstoke Road and any minor changes to the railway alignment would fit within the existing transport infrastructure and built up area on the eastern edge of this landscape character area.

11.6.122 The character area has a medium value, the magnitude of impact would be negligible adverse, with a **neutral** significance of effect.
**J5 Land Yeo and Kenn Rolling Valley Farmland**

11.6.123 The minor modifications to Winterstoke Road and any minor changes to the railway alignment would fit within the existing transport infrastructure and built up area on the eastern edge of this landscape character area.

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

**Site Specific Character Areas**

**Commercial Portishead**

11.6.125 This area has an urban character, and is dominated by relatively large buildings. The area of the disused railway line provides 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 features. The loss of the disused derelict open area to the main car park would contribute to the increased density of urban character. Replacement planting associated with the station forecourt and car parking areas would help to screen the car parking and enhance the landscape.

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

**Residential Portishead**

11.6.127 This low value 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.

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

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

**Sheepway**

11.6.130 This moderate value area has a rural character. The disused railway line provides a 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 by features such as the M5 and the Portbury Hundred.

11.6.131 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.

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

11.6.133 The character area has a medium value, the magnitude of impact would be minor, with a slight adverse significance of effect.
Royal Portbury Dock

11.6.134 This low value area has an industrial character, although a number of environmental sites are also found in this area. As the disused railway 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 to the landscape, however the movement of vehicles on the M5 motorway and the Portbury Hundred are already a significant feature in the landscape. The loss of existing track side vegetation would open up the views to the moving trains from some viewpoints, and also of the industrial buildings from the M5 junction 19.

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

Pill

11.6.136 This moderate value area has a predominately residential character. The railway line passes through the locally designated sites of Crockern Pill, Victoria Park and Waterloo Wharf with the 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.

11.6.137 The new bridge and embankment at Avon Road would be more exposed in the landscape due to the loss of the existing vegetation.

11.6.138 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 may also house the principal power point for signalling equipment, would introduce a transport related feature into an otherwise mostly residential area.

11.6.139 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

11.6.140 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 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 a tunnel for the majority of this section, the DCO Scheme would only affect a small proportion of the character area.

11.6.141 The Pill Tunnel Eastern Portal RRAP 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 set is low down in the landscape screened by the adjacent landform means its area of influence would be limited.

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

Sea Mills

11.6.143 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 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 effect a small proportion of the character area.

11.6.144 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

11.6.145 This high value character area is characterised by the gorge and includes the Conservation Areas of Sneyd Park and Clifton. The 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.

11.6.146 The introduction of passenger trains would add a new moving element to the landscape, which would dilute the sense of tranquillity slightly, although it is already heavily influenced by the busy A4. The DCO Scheme would result in the loss of some mature vegetation, which currently screens the existing freight line from key vistas looking across the River Avon. The loss of planting between the trackside and adjacent path would mean that the track, its associated fencing and passing trains would be more visible.

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

Ashton Gate

11.6.148 This moderate value 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.

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

Ashton Vale

11.6.150 This low value 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.

11.6.151 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.

11.6.152 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

11.6.153 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 in the vicinity of this area. The importance of the Avon in terms on the setting of the Conservation Area is key to the character.

11.6.154 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 Avon. 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

11.6.155 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 this section of the Avon, on both sides, the increase in frequency of the trains and associated new fencing 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 other 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

11.6.156 Freight trains already run along this section of the Avon 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.

11.6.157 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, more open views to trains and the 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

11.6.158 The DCO Scheme would have a negligible impact on the setting of the Conservation Area. As trains already run along this section of the Avon Gorge, the increase in frequency of the trains and associated new 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

11.6.159 The DCO Scheme would have a negligible impact on the setting of the Hotwells section of the Conservation Area. As trains already run along this section of the Avon Gorge, the increase in frequency of the trains and associated new 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 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

11.6.160 This conservation area is visually separated from the DCO Scheme so would not be affected.
City Docks

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 this section of the Avon Gorge Valley, the increase in frequency of the trains and associated new 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

11.6.161 The permanent access point at Clanage Road would be a new feature within an open area conservation area. Whilst the stone boundary walls to Clanage Road will match the existing, the unsurfaced compound area, the lack of permanent buildings or other features, and its associated new landscape planting offering some screening, it 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.

Decommissioning Phase

11.6.162 For the reasons set out at 11.3.22 – 11.3.27 it is not possible to identify realistic options for decommissioning for assessment and no basis on which to consider that there would be reasonably foreseeable significant environmental impacts on landscape and views resulting from decommissioning.

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 significant effects on the visual receptors is contained within Appendix 11.2 in the PEI Report Volume 4 Appendices.

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 11-14 below for both during construction and operation.

<table>
<thead>
<tr>
<th>Listed building</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moor Farmhouse</td>
<td>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. This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
<td>Glimpsed views of passing trains across the field partially screened by existing hedges. This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
<tr>
<td>The Thatched Cottage</td>
<td>Mostly visually separated from the disused line by existing trees and other vegetation. Some views towards the construction through gaps in vegetation.</td>
<td>Glimpsed views through gaps in existing vegetation to passing trains. This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
</tbody>
</table>
### Table 11-14: Effects on the setting of listed buildings

<table>
<thead>
<tr>
<th>Listed building</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elm Tree Farm</td>
<td>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. This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
<td>Mostly visually separated from the disused line by existing trees and other vegetation. This asset has a medium value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
<tr>
<td>Church of St George</td>
<td>There is no inter-visibility with the DCO Scheme and the construction area. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
<td>There is no inter-visibility with the DCO Scheme. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
<tr>
<td>Church of St Mary</td>
<td>There is no inter-visibility with the DCO Scheme and the construction area. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
<td>There is no inter-visibility with the DCO Scheme. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
<tr>
<td>Court House Farm</td>
<td>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 will change due to the expansion of the cargo storage which will occupy the fields to the west of the farm buildings. This asset has a medium value. Construction activity might result in a minor negative impact, resulting in significance of effect of slight adverse.</td>
<td>Some views of passing passenger trains. 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.</td>
</tr>
<tr>
<td>The Watchhouse and Mulberry Cottage</td>
<td>Mostly screened by nearby properties with some views to construction activity on the existing Pill Viaduct including the scaffolding 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.</td>
<td>Limited views to an increased number passing trains on the 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.</td>
</tr>
<tr>
<td>Clifton Suspension Bridge</td>
<td>Open views from the bridge and its piers down to the DCO Scheme extending north along the base of the Gorge and south into Ashton Vale. The freight line forms part of the existing setting. This asset has a high value. Removal of vegetation and construction activity over the short period of time might result in a minor</td>
<td>Open 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. There will be no overall change on the setting of this asset, and a significance of effect of neutral.</td>
</tr>
</tbody>
</table>
Table 11-14: Effects on the setting of listed buildings

<table>
<thead>
<tr>
<th>Listed building</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative impact, resulting in a significance of effect of <strong>slight adverse</strong>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trafalgar House, Taylor Maxwell House, Promenade House, Engineer’s House, Alva House</strong></td>
<td>There is no inter-visibility with the DCO Scheme and the construction area. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of <strong>neutral</strong>.</td>
<td>There is no inter-visibility with the DCO Scheme. This asset has a high value. There will be no change on the setting of this asset, and a significance of effect of <strong>neutral</strong>.</td>
</tr>
<tr>
<td><strong>Clifton Observatory</strong></td>
<td>Limited views down to the DCO Scheme as an existing feature in the landscape, at the base of the gorge. This asset has a high value. 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 <strong>slight adverse</strong>.</td>
<td>Limited views down to the DCO Scheme with the line and passing 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 <strong>neutral</strong>.</td>
</tr>
<tr>
<td><strong>Swing Bridge over lock, Brunel’s South Entrance Lock, Swing Bridge over Brunel’s South Entrance Lock,</strong></td>
<td>These features form part of the Cumberland Basin with views across the river to the freight line as an existing feature of the setting. These assets have a high value. 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 <strong>slight adverse</strong>.</td>
<td>Limited views across the river under the Brunel Way to the DCO Scheme with the line and passing 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 <strong>neutral</strong>.</td>
</tr>
<tr>
<td><strong>The Colonnade</strong></td>
<td>Construction activity will be visible across the busy A4 and the river on the opposite bank. These have a medium value with the exception of the latter property (The Colonnade), which has a high value, and this will amount to a minor negative impact, resulting in a significance of effect of <strong>slight adverse</strong>.</td>
<td>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. These assets have a medium and a high value. There will be no overall change on the setting of this asset, and a significance of effect of <strong>neutral</strong>.</td>
</tr>
<tr>
<td><strong>No 15 The Paragon</strong></td>
<td>Open views from an elevated position across the gorge down to the construction activity at the DCO Scheme site. This asset has a high value. Removal of vegetation adjacent the track and construction activity over the short period of time might result in a minor negative impact, resulting in significance of effect of <strong>slight adverse</strong>.</td>
<td>Limited views across the river to the DCO Scheme with the line and passing 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 <strong>neutral</strong>.</td>
</tr>
</tbody>
</table>
Table 11-14: Effects on the setting of listed buildings

<table>
<thead>
<tr>
<th>Listed building</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 1 – 14 The Paragon</td>
<td>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 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.</td>
<td>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.</td>
</tr>
<tr>
<td>Freeland Court</td>
<td>Construction activity will be visible across the busy Brunel Way and the river on the opposite bank. This asset has a high value, and this will amount to a minor negative impact, resulting in a significance of effect of slight adverse.</td>
<td>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.</td>
</tr>
<tr>
<td>No 2- 9 Albermarle Row</td>
<td>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 this asset, and a significance of effect of neutral.</td>
<td>Limited views to passing trains. This asset has a high value. There will be no change on the setting of this asset during operation, and a significance of effect of neutral.</td>
</tr>
</tbody>
</table>

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 11-15 below for both during construction and during operation.

Table 11-15: Effects on the setting of registered parks and gardens

<table>
<thead>
<tr>
<th>Park and Garden</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leigh Court</td>
<td>The boundary of the Park and Garden extends down to, and includes part of the freight line at the base of the Gorge. Construction activity replacing Miles Dock underbridge, and works to Quarry underbridges 4, 5 and 6 will have a localised impact at the edge of the designated area. 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.</td>
<td>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. 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.</td>
</tr>
<tr>
<td>Ashton Court</td>
<td>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.</td>
<td>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.</td>
</tr>
</tbody>
</table>
### Table 11-15: Effects on the setting of registered parks and gardens

<table>
<thead>
<tr>
<th>Park and Garden</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of <strong>neutral</strong>.</td>
<td>This asset has a high value. There will be no overall change on the setting of this asset, and a significance of effect of <strong>neutral</strong>.</td>
</tr>
</tbody>
</table>

### Scheduled Monuments

#### 11.7.5 For ease of reading, the assessment of effects on scheduled monuments has been set out in Table 11-16 below for both during construction and during operation.

#### Table 11-16: Effects on the setting of scheduled monuments

<table>
<thead>
<tr>
<th>Scheduled Monument</th>
<th>During construction</th>
<th>During operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of the Roman Settlement of Abonae</td>
<td>Partial view from southern section of scheduled monument towards construction activity and vegetation removal at Miles Dock underbridge on the opposite side of the Avon Gorge. Views to other works on the track generally screened by existing vegetation resulting in a significance of effect of <strong>slight adverse</strong>.</td>
<td>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 <strong>neutral</strong>.</td>
</tr>
<tr>
<td>Clifton Down Camp</td>
<td>View from the northern edge of Clifton Down Camp looking north downwards towards the River Avon with the existing railway line on opposite side of the gorge. Construction activity during weekend blockades and vegetation removal result in temporary change in a small proportion of the view, and a significance of effect of <strong>neutral</strong>.</td>
<td>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 and passenger trains passing through the gorge result in change in a small proportion of the view and a significance of effect of <strong>neutral</strong>.</td>
</tr>
<tr>
<td>Stokeleigh Camp</td>
<td>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. <strong>Neutral</strong>.</td>
<td>No view of the railway line. <strong>Neutral</strong>.</td>
</tr>
</tbody>
</table>

### 11.8 Mitigation and Residual Effects

#### 11.8.1 Where likely significant effects have been identified consideration is being given to landscaping and other measures to mitigate effects. Draft schemes have been prepared and consultation will continue with statutory consultees and other parties before the schemes are finalised. Residual effects will be reported in the Environmental Statement. Other mitigation measures are being considered where adverse (but not significant) effects are identified. Proposals are currently being finalised to assess whether they are feasible to include as part of the project. This will be fully documented as part as the Environmental Statement and there will be ongoing discussions with key stakeholders to consider this further between now and the submission of the DCO application.
11.9 Cumulative Effects

Other Projects along the Portishead Branch Line

11.9.1 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 and are summarised below.

**DCO Hinkley Point C Connection Project**

11.9.2 The changes to the overhead powerlines where they cross the disused line at Sheepway would mean the undergrounding of the existing lines and the introduction of a new 400 kV overhead power line. The undergrounding works 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 this scheme, there would be an opening up of views across the landscape generally.

**14/P/2570/F Marina Gardens, Portishead**

11.9.3 An EIA was not required for this development to provide assisted living for the over 60s. According to the planning application, this development comprises 118 apartments with integrated care support and well-being facilities within a landscaped plot. The development will lead to an increase in the number of people living near the proposed station.

11.9.4 The construction of Marina Gardens, in combination with the construction of the DCO Scheme, including the railway station, will result in the increased development of the urban framework of Portishead, and infilling of local areas of open land. This would reinforce the urban character of this part of Portishead. The combined impact will result in a change in view from Newfoundland Way and Harbour Road.

**13/05648/FB MetroBus Ashton Vale to Temple Meads and Bristol City Centre**

11.9.5 MetroBus AVTM is currently under construction and is close to the DCO Scheme to the south west of Ashton Vale industrial area at Winterstoke Road where it crosses over the freight line at the junction with Ashton Vale Road. It introduces an element of transport infrastructure into the landscape to the south west of Ashton Gate.

11.9.6 At Winterstoke Road, AVTM crosses over the freight line on the elevated section skew bridge. The freight line is an existing element in this landscape with the most significant change being the extension of the Winterstoke Road left turn lane into Ashton Vale and an increase in movement with the introduction of the passing passenger trains.

**Other Works for MetroWest Phase 1**

11.9.7 Other elements of MetroWest Phase 1, namely the Parson Street Junction remodelling, Parson Street Station, Bedminster Down Relief Line, Severn Beach / Avonmouth 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.

11.9.8 Network Rail is undertaking an environmental appraisal, environmental risk register and environmental action plan of the works required for the Bedminster Down Relief Line, Severn Beach / Avonmouth Signalling and Bathampton Turnback as part of the reporting for Network Rail’s Governance for Railway investment Projects (“GRIP”) process. This process will identify the potential impacts and capture the need for mitigation during design and construction. The results will be carried forward from the present GRIP 3 phase, into the detailed design phase (GRIP 4 and 5) and construction (GRIP 6).
11.9 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 PEI Report

11.10.1 The assessment has been undertaken from publicly accessible places and therefore assumptions have had to be made as to the actual view from properties and whether or not that the view towards the DCO Scheme is the principle view.

11.10.2 The data provided on construction methodologies and design proposals is in early draft form, therefore assumptions have been made in terms of the effect of the DCO Scheme on the landscape and visual resources.

11.10.3 Bristol City Council has not compiled local character area assessments, however BCC Conservation Area descriptions provide a useful substitute. These have been summarised in this PEI Report.

11.10.4 North Somerset District Council has not compiled descriptions of the Conservation Areas which fall under their boundaries. Therefore, the report summarises Bristol City Council 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 appearance and prominence in the existing landscape varies.

11.11.2 At Portishead east of the town centre, there is 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 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 freight trains. The railway line is a feature of Pill, enclosed in cutting at the station but 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 effects on landscape and views will occur during construction. At Portishead the effects would be screened from the wider landscape by the buildings, but be more immediate to those people who live around the 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. The buildings and highway infrastructure by the docks and M5 would also screen the construction activity from the wider landscape.
11.11.5 The freight line would be rebuilt following conventional methods during the day and at night in shifts and including weekend blockades. There would be short and intense periods of activity, but over a protracted period.

11.11.6 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 will be proposed along the disused line but the restrictions on the species which could be used adjacent to an operational railway would mean that large scale or tall trees would not be possible to plant.

11.11.7 The fencing would become a more dominant feature when close to the railway, such as in the urban areas, by the National Cycle Network and along the 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 current fencing.

11.11.8 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. 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.

11.11.9 The movement of passenger trains through the landscape when dark during winter mornings and evening 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.

11.11.10 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.

11.11.11 Table 11-17 summarises the potential impacts, mitigation proposed, and residual effects of the DCO Scheme on landscape and views.
Table 11.17: Potential impacts, mitigation and residual impacts for the DCO Scheme on landscape and views

<table>
<thead>
<tr>
<th>Aspect of the DCO Scheme</th>
<th>Impact</th>
<th>Receptors</th>
<th>Mitigation</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction activities</strong></td>
<td>Change in landscape character</td>
<td>National Character Areas&lt;br&gt;NCA 106 Severn and Avon Vales:&lt;br&gt;<strong>Value:</strong> Medium&lt;br&gt;NCA 118 Bristol, Avon Valleys and Ridges&lt;br&gt;<strong>Value:</strong> High</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: Minor adverse&lt;br&gt;Significance of Effect: Slight adverse&lt;br&gt;Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td></td>
<td>Change to local authority Character Areas</td>
<td>Local Authority Character Areas&lt;br&gt;A2 Clapton Moor (Medium)&lt;br&gt;C2 Portbury Settled Coastal Edge (Low)&lt;br&gt;J6 Avon Rolling Valley Farmland (Low)&lt;br&gt;E5 Tickenham Ridge (Medium)&lt;br&gt;G2 Failand Settled Limestone Plateau (Low)&lt;br&gt;B1 Land Yeo and Kenn River Floodplain (Medium)&lt;br&gt;J5 Land Yeo and Kenn Rolling Valley Farmland (Medium)&lt;br&gt;<strong>Value:</strong> Low / Medium</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: Negligible / minor adverse&lt;br&gt;Significance of Effect: Neutral / slight adverse&lt;br&gt;Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D1 Avon Gorge (High)</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: Moderate adverse&lt;br&gt;Significance of Effect: Moderate adverse&lt;br&gt;Significance for EIA Legislation: Significant</td>
</tr>
</tbody>
</table>

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 increase in light pollution. Temporary installation of site compound, lighting, haul routes and working areas, as 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.

Change to local authority Character Areas
## Table 11-17: Potential impacts, mitigation and residual impacts for the DCO Scheme on landscape and views

<table>
<thead>
<tr>
<th>Aspect of the DCO Scheme</th>
<th>Impact</th>
<th>Receptors</th>
<th>Mitigation</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change to site specific character areas</td>
<td>Site Specific Character Areas</td>
<td>Commercial Portishead (Low)</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: Negligible / minor adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residential Portishead (Low)</td>
<td></td>
<td>Significance of Effect: Neutral / slight adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Royal Portbury Dock (Low)</td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ham Green Lakes (Medium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sea Mills (High)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ashton Gate (Medium)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ashton Vale (Low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residential Portishead (Low)</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sheepway (Medium)</td>
<td></td>
<td>Significance of Effect: Moderate adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pill (Medium)</td>
<td></td>
<td>Significance for EIA Legislation: Significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avon Gorge (High)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in views / setting of</td>
<td>Conservation Areas</td>
<td>Shirehampton</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: No change / minor adverse</td>
</tr>
<tr>
<td>conservation areas</td>
<td></td>
<td>Sea Mills</td>
<td></td>
<td>Significance of Effect: Neutral / slight adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Downs</td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sneyd Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clifton and Hotwells</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leigh Woods</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>City Docks</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bower Ashton</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value: Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspect of the DCO Scheme</td>
<td>Impact</td>
<td>Receptors</td>
<td>Mitigation</td>
<td>Residual Impact</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Change in setting and views</td>
<td><strong>Listed Buildings</strong></td>
<td>Court House Farm, The Watchhouse and Mulberry Cottage, Clifton Suspension Bridge, Clifton Observatory, 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.</td>
<td>None</td>
<td>Magnitude: <strong>Minor</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Value: Medium / High</strong></td>
<td></td>
<td>Significance of Effect: Slight adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td>Change in setting and views</td>
<td><strong>Listed Buildings</strong></td>
<td>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, No. 2-9 Albermarle Row.</td>
<td>None</td>
<td>Magnitude: <strong>No change</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Value: Medium / High</strong></td>
<td></td>
<td>Significance of Effect: Neutral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td>Change in setting and views</td>
<td><strong>Registered Parks and Gardens</strong></td>
<td>Leigh Court Ashton Court</td>
<td>None</td>
<td>Magnitude: <strong>No change</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Value: High</strong></td>
<td></td>
<td>Significance of Effect: Neutral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td>Removal of vegetation currently screening the railway</td>
<td><strong>Scheduled Monuments</strong></td>
<td>Settlement of &lt;em&gt;Abonae&lt;/em&gt;</td>
<td>Good housekeeping at construction sites</td>
<td>Magnitude: <strong>Minor adverse</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance of Effect: Slight adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
</tbody>
</table>
Table 11-17: Potential impacts, mitigation and residual impacts for the DCO Scheme on landscape and views

<table>
<thead>
<tr>
<th>Aspect of the DCO Scheme</th>
<th>Impact</th>
<th>Receptors</th>
<th>Mitigation</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of vegetation currently screening the railway</td>
<td>Clifton Down Camp, Stokeleigh Camp</td>
<td>Value: High</td>
<td>None</td>
<td>Magnitude: No change / slight adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance of Effect: Neutral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA Legislation: Not significant</td>
</tr>
<tr>
<td>Change in view and view to construction activities.</td>
<td>Public Rights of Way Users of the cycle paths.</td>
<td>Value: High</td>
<td>Mitigation under development</td>
<td>Magnitude: To be determined</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance of Effect: To be determined</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA legislation: To be determined</td>
</tr>
<tr>
<td>Operation activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation of an hourly plus services between Portishead and Pill.</td>
<td>Change in landscape character and views National Character Areas 106 and 118</td>
<td>Value: Medium</td>
<td>None</td>
<td>Magnitude: No change</td>
</tr>
<tr>
<td>Two train passes per hour (45 minutes during peak periods).</td>
<td></td>
<td></td>
<td></td>
<td>Significance of Effect: Neutral</td>
</tr>
<tr>
<td>Movement of lit carriages during the dusk / dark.</td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA legislation: Not significant</td>
</tr>
<tr>
<td>Static light sources at signals, angled down the track and hooded.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased activity around Portishead and Pill stations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New lighting on station platform and car parks at Portishead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New station and car park at Pill. Increased road traffic and pedestrian movements. New permanent light source from lighting at station and car park.</td>
<td>Change in landscape character and views Local Authority Character Areas A2 Clapton Moor (Medium)</td>
<td>Value: Low / Medium / High</td>
<td>None</td>
<td>Magnitude: Neutral / negligible / minor adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance of Effect: Neutral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significance for EIA legislation: Not significant</td>
</tr>
</tbody>
</table>
Table 11-17: Potential impacts, mitigation and residual impacts for the DCO Scheme on landscape and views

<table>
<thead>
<tr>
<th>Aspect of the DCO Scheme</th>
<th>Impact</th>
<th>Receptors</th>
<th>Mitigation</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in landscape character and views</td>
<td>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)</td>
<td>Details of landscaping around Portishead station and car parks to be submitted with DCO Application.</td>
<td>Magnitude: Minor beneficial / Neutral / Minor adverse&lt;br&gt;Significance of Effect: Slight beneficial / Neutral / Slight adverse&lt;br&gt;Significance for EIA Legislation: Not significant</td>
<td></td>
</tr>
<tr>
<td>Change in landscape character and views</td>
<td>Pill (Medium)</td>
<td>Details of landscaping around Pill car park and Lighting design for the station platform and car park to be submitted with DCO Application</td>
<td>Magnitude: Moderate adverse&lt;br&gt;Significance of Effect: Moderate adverse&lt;br&gt;Significance for EIA Legislation: Significant</td>
<td></td>
</tr>
<tr>
<td>Accentuation of existing transportation infrastructure</td>
<td>Conservation Areas Shirehampton, Sea Mills, Sneyd Park, Clifton and Hotwells, City docks, and Leigh Woods</td>
<td>None</td>
<td>Magnitude: No change / minor&lt;br&gt;Significance of Effect: Neutral / slight adverse&lt;br&gt;Significance for EIA Legislation: Not significant</td>
<td></td>
</tr>
<tr>
<td>Impact on the setting of The Trym Valley and River Avon</td>
<td>The Downs</td>
<td>None</td>
<td>Magnitude: Moderate adverse&lt;br&gt;Significance of Effect: Moderate adverse&lt;br&gt;Significance for EIA Legislation: Significant</td>
<td></td>
</tr>
<tr>
<td>Aspect of the DCO Scheme</td>
<td>Impact</td>
<td>Receptors</td>
<td>Mitigation</td>
<td>Residual Impact</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>----------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
</tbody>
</table>
|                         |                             | Bower Ashton | Landscaping around the perimeter of the Clanage Road Maintenance Compound to be submitted with DCO Application | Magnitude: Minor  
Significance of Effect: Slight adverse  
Significance for EIA Legislation: Not significant |
| Change in setting and views |                             | Listed Buildings  | None                                                                 | Magnitude: No change  
Significance of Effect: Neutral  
Significance for EIA Legislation: Not significant |
|                         |                             | Registered Parks and Gardens  | None                                                                 | Magnitude: No change  
Significance of Effect: Neutral  
Significance for EIA Legislation: Not significant |
| Change in setting and views |                             | Scheduled Monuments  | None                                                                 | Magnitude: No change  
Significance of Effect: Neutral  
Significance for EIA Legislation: Not significant |
11.12 References


11.13 Abbreviations

BCC          Bristol City Council
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
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPPF</td>
<td>National Planning Policy Framework</td>
</tr>
<tr>
<td>NPSNN</td>
<td>National Policy Statement for National Networks</td>
</tr>
<tr>
<td>NSDC</td>
<td>North Somerset District Council</td>
</tr>
<tr>
<td>NSIP</td>
<td>Nationally significant infrastructure project</td>
</tr>
<tr>
<td>PEI</td>
<td>Preliminary environmental information</td>
</tr>
<tr>
<td>RP&amp;G</td>
<td>Registered Park and Garden</td>
</tr>
<tr>
<td>RRAP</td>
<td>Road Rail Access Point</td>
</tr>
<tr>
<td>SAC</td>
<td>Special Area of Conservation</td>
</tr>
<tr>
<td>SNCI</td>
<td>Site of Nature Conservation Importance</td>
</tr>
<tr>
<td>SPA</td>
<td>Special Protection Area</td>
</tr>
<tr>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
</tr>
<tr>
<td>ZTV</td>
<td>Zone of theoretical visibility</td>
</tr>
<tr>
<td>ZVI</td>
<td>Zone of visual influence</td>
</tr>
</tbody>
</table>