

POR^TISHEAD BRANCH LINE PRELIMINARY
ENVIRONMENTAL INFORMATION REPORT
VOLUME 4

APPENDIX 14.1

Equality Impact Assessment

ch2mSM

travelwest⁺

Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire
Councils working together to improve your local transport

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Abbreviations

AQMA	Air Quality Management Area
BCC	Bristol City Council
BME	Black and Minority Ethnic
B&NES	Bath and North East Somerset
CoCP	Code of Construction Practice
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
Defra	Department of Environment, Food and Rural Affairs
DFLE	Disability-free life expectancy
DfT	Department for Transport
EqIA	Equality Impact Assessment
EU	European Union
HGV	Heavy goods vehicle
HIA	Health Impact Assessment
IMD	Index of Multiple Deprivation
LSOA	Lower Super Output Area
NPSNN	National Policy Statement for National Networks
NSDC	North Somerset District Council
ONS	Office for National Statistics
PEI Report	Preliminary Environmental Information Report
PPG	Planning Policy Guidance
ProW	Public right of way
PSED	Public Sector Equality Duty
SGC	South Gloucestershire Council
SME	Small and medium sized enterprises
WHO	World Health Organisation
WofE LEP	West of England Local Enterprise Partnership

SECTION 1

Introduction

1.1 Introduction

1.1.1 This report identifies the impacts of the Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme (“the DCO Scheme”) from an equalities perspective. An equalities impact assessment (“EqIA”) is now a legal obligation under the Equality Act 2010, which requires local authorities and public bodies under the public sector equality duty (“PSED”) to identify and consider the potential adverse impacts of major developments, strategies and policies. This assessment, along with the transport assessment, environmental impact assessment (“EIA”) and health impact assessment (“HIA”) will form part of the suite of documents to support the DCO application for the Scheme under the Planning Act 2008 (“PA 2008”).

1.1.2 EqIA is a technique to identify whether the scheme, project, function, service, policy or procedure has a potentially adverse impact on equality of opportunity. It should also seek to identify any unmet needs, on the basis of a person’s race, gender, disability, age or faith or in terms of relations between or within those groups, and how these can subsequently be addressed.

1.1.3 An important outcome of the EqIA process is to integrate the needs of equalities groups in the design process. An EqIA has potential to highlight the impact of a proposed design or policy on the equalities groups, with an aim to respond to their specific requirements and to improve their participation in activities that may have been disproportionately low.

1.1.4 This EqIA has been conducted to ensure compliance with legislation as well as to assess and identify mitigation options to help reduce inequality for the equalities group or the protected characteristic group. The Equalities Act 2010 identifies people with certain characteristics as vulnerable and classified them as protected characteristic group, also referred to as the equalities group. The following provides list of people from this group:

- Age;
- Disability;
- Gender reassignment;
- Pregnancy and maternity;
- Race;
- Religion or belief;
- Sex; and
- Sexual orientation.

1.1.5 The EqIA considers both the construction and operations impacts on the protected characteristic group for the following:

- Transport and accessibility to use the service, including integrated transport and parking;
- Station design – facilities, access and egress;
- Change in transport and accessibility features in the neighbourhood, including path closures;
- Safety and security, particular focus on the elderly and on race related crime; and
- Well-being and quality of life.

1.1.6 The assessment has taken into account measures that have already been included in the design process and likely measures to be included in the Code of Construction Practice (“CoCP”) for controls during the construction stage.

SECTION 2

Legal and Policy Framework

2.1 Legislation

2.1.1 The Equality Act 2010 requires public bodies (and others carrying out public functions) to be subject to the public sector equality duty (“PSED”). This involves preventing unlawful discrimination, harassment, victimisation and any other conduct prohibited by the Act, advancing equal opportunities for people with protected characteristics and people without these characteristics, and building good relations between people with protected characteristics and without these characteristics.

2.1.2 The Equality Act 2010 unites several previous Acts, including the Race Relations Act 1976, the Disability Discrimination Act 1995 and the Sex Discrimination Act 1975. These three Acts have been repealed.

2.1.3 People with and without protected characteristics may be unequally affected during the construction and operation of the Portishead Branch Line (MetroWest Phase 1) DCO Scheme. This EqIA aims to identify protected groups and assess the impacts that the DCO Scheme may have on them in order to provide suitable mitigation measures to reduce this inequality. It also proposed reasonable positive outcomes to incorporate into the DCO Scheme which will enhance the equality outcome, thereby supporting the objectives of the Equalities Act and fulfilling the PSED requirement in considering the equalities impact during the decision making process of the proposal development.

2.2 Policy

National Policy

National Policy Statement for National Networks

2.2.1 The National Policy Statement for National Networks (“NPSNN”) sets out the Government’s revision and strategic objectives for the national networks to meet the country’s long-term needs, supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system: *“this means:*

- *Networks with the capacity and connectivity and resilience to support the national and local economic activity and facilitate growth and create jobs.*
- *Networks which support and improve journey quality, reliability and safety.*
- *Networks which support the delivery of environmental goals and the move to a low carbon economy.*
- *Networks which join up our communities and link effectively to each other”* (p9, NPSNN).

2.2.2 The NPSNN Section 2.9 emphasises the need to enhance accessibility for non-motorised users. For the DCO Scheme, this will mean improving the links between Portishead and Bristol and ensure the stations are accessible by cyclists and pedestrians (who are likely to include people with disability).

2.2.3 The NPSNN also highlights the importance of open space and the need to maintain the functionality and connectivity of green infrastructure.

Transport for Everyone

2.2.4 *Transport for Everyone: an Action Plan to Improve Accessibility for All* (Department for Transport, 2012) sets out the Government's strategy for improving the accessibility of the transport network for disabled people. Transport schemes should build the accessibility requirements of all transport network users into the scheme design. In addition, improvements to reduce the severance of communities should be considered.

Regional Policy

2.2.5 The West of England Joint Local Transport Plan 3 ("JLTP3") (West of England Partnership, 2011) has been produced by North Somerset District Council ("NSDC"), Bristol City Council ("BCC"), Bath and North East Somerset Council ("B&NES"), and South Gloucestershire Council ("SGC") for the years 2011 – 2026. Among other things, the councils' vision includes:

- Supporting economic growth, for example by increasing access to employment from deprived neighbourhoods.
- Contributing to better safety, health and security, for example by designing out crime and fear of crime, encouraging walking and cycling, monitoring air quality and improving it in Air Quality Management Areas ("AQMA").
- Enhancing accessibility, for example access to health services, employment and other local services, and improving disability access.
- Improving quality of life and a healthy natural environment, for example by enhancing the urban environment and increasing access to the countryside.

2.2.6 The plan highlights major transport improvements as a key priority for the local economy and aims to synchronise transport investment with development such as Bristol's Temple Quarter Enterprise Zone. The plan indicates that residents in North Somerset would be beneficiaries of any investment in transport infrastructure. Currently, residents in the district have the worst accessibility to major employment sites of any residents across the West of England. Only 21% of residents can access major employment sites by public transport within 20 minutes, compared to an average of 31%.

2.2.7 The West of England Local Enterprise Partnership ("WofE LEP") sets out its strategic focus of Equality and Diversity in the technical document "*Equality and Diversity – Impacts for the West of England Strategic Economic Plan 2013-30*" (West of England LEP, 2014). This plan will help to achieve the West of England Vision to have "*closed the gap between disadvantaged and other communities*" and its strategic objective to "*ensure all our communities share in the prosperity, health and well-being and reduce the inequality gap*" by 2030. Equality and Diversity Values and Principles will underpin the Strategic Economic Plan's four "*Levers of Growth*":

- Skills and People, including increasing opportunities for education and employment for everyone.
- Investment and Promotion, including encouraging innovation through diversity in the workplace.
- Place and Infrastructure, including the promotion of accessibility.
- Small and medium enterprises ("SME") Business Support, including supporting, encouraging and developing women and minority ethnic led businesses.

2.2.8 The plan recommends a delivery action to "*assess all schemes in relation to both the built environment and travel in order to ensure the integration of inclusive design principles*" (p9).

2.2.9 The Emerging West of England Joint Spatial Plan is a proposed statutory document that will establish the housing requirement to be accommodated across the four West of England local authorities for the period from 2016 to 2036. The scope of the plan is limited to the distribution of housing to be accommodated, identification of strategic locations and the infrastructure that is needed. The consultation draft indicates the need for a further 85,000 houses in the wider Bristol Housing Market Area in addition to 30,000 houses already planned, across the four West of England authorities, North Somerset, Bristol City Council, South Gloucestershire, and Bath and North East Council by the year 2036. The plan points to strategic development locations to the south of the study area in Nailsea, Backwell and south Bristol and to the north of Bristol and strategic employment locations in Avonmouth, Bristol and Bath. These requirements point to future trends of increasing urbanisation and the need for improved transport links between the new development and employment centres. The plan is supported by the Joint Transport Strategy which examines the future transport needs of the proposed development.

Local Policy

2.2.10 The following key local policies are relevant to the EqIA for the DCO Scheme. These have been extracted from North Somerset's and Bristol City Council's Core Strategies:

North Somerset Council Core Strategy, Adopted 2017

- Policy CS10: Transportation and movement – connectivity will improve and facilities for users, including people with reduced mobility, will be enhanced.
- Policy CS31: Clevedon, Nailsea and Portishead – development proposals that improve transport links to other towns are supported; the re-opening of the Portishead Branch Line (MetroWest Phase 1) is prioritised.
- Policy CS32: Service villages – Public transport proposals will be supported to improve accessibility (includes village of Easton-in-Gordano/Pill).

Bristol Development Framework Core Strategy, Adopted 2011

- Policy BCS2: Bristol City Centre: acknowledges that major developments should increase social inclusion and community cohesion and severance of communities should be reduced.
- Policy BCS10: Transport and access improvements prioritises the re-opening of the Portishead line to passengers and the need to consider disabled people in transport developments.

SECTION 3

Methodology

3.1 Guidance and Good Practice

3.1.1 The methodology employed for this assessment follows the wider guidance frameworks set by the following documentation:

- Equality Act 2010 Technical Guidance on the Public Sector Equality Duty (Equality and Human Rights Commission, 2014);
- Equality Impact assessments: How to do them (Transport for London, 2004), and
- European Regional Development Fund equality impact assessment guidance and forms (Department for Communities and Local Government, 2012).

3.2 Definition of the Study Area

3.2.1 For purposes of the EqIA, two study areas have been defined, to assess the direct and cumulative effects of the Portishead Branch Line (MetroWest Phase 1) DCO Scheme and the wider study area to assess the cumulative effects of the DCO Scheme in combination with other activities associated with MetroWest Phase 1.

3.2.2 For purposes of the EqIA, the local study area comprises a 300 m buffer along the DCO Scheme to be consistent with the air quality and noise and vibration assessments reported in Chapters 7 and 13 of the PEI Report.

3.2.3 The EqIA recognises that there might be wider cumulative effects for the DCO Scheme. For this reason, the study area for the cumulative effects covers other nationally significant infrastructure projects (“NSIP”) within 10 km of the DCO Scheme, other projects identified from NSDC’s and BCC’s planning portals within 0.5 km, major applications further away in the Bristol area and other works associated with MetroWest Phase 1, namely:

- Parson Street Junction modifications;
- Partial reinstatement of the Bedminster Down Relief Line;
- Avonmouth/Severn Beach Signalling; and
- Bathampton turnback.

3.3 Defining the Baseline

3.3.1 The Public Sector Equality Duty requires the public body to have sufficient evidence to provide proper consideration of the impact of a function (the DCO Scheme in this case). This report is based on evidence obtained from secondary baseline data, feedback from the informal consultation held in summer 2015, and baseline information gathering meeting with the North Somerset Council Equality officers held in January 2016. The Impact Centre at Liverpool University was also consulted upon for the methodology development who supplied information sources, including the *Health Impact Assessment: A Literature Review* (Lyn Winters, 1997).

3.3.2 The data sources examined for the EqIA are:

- Census 2001;
- Census 2011;
- Department for Communities and Local Government (“DCLG”);
- Office of National Statistics;

- Public Health England;
- National Child Measurement Programme;
- North Somerset Council, Bath and North East Somerset Council and Bristol City Council; and
- Avon and Somerset Constabulary website.

3.3.3 Baseline data for areas close to the works, including the temporary construction compounds, have been obtained from specific Lower Super Output Areas ("LSOA"). LSOAs are used to collect information at the community level. In the 2011 Census, the LSOAs were defined as areas with a minimum population of 1,000 people and a maximum of 3,000 people, with a minimum household number of 400 and a maximum of 1,000 households. Table 3-1 summarises the LSOAs used in the EqIA, the components of the DCO Scheme within each LSOA and the geographic area. The location of the LSOAs are shown in Figure 3-1.

Table 3-1. Location of Lower Super Output Areas within the Study Area

LSOA code	Scheme component	Area
Local Study Area		
North Somerset 001G (part), 003D and 003E	Proposed Portishead Station, Portishead construction compound and proposed footbridge to Trinity Primary School	Central Portishead
North Somerset 006F and 004B	Two temporary construction compounds on The Portbury Hundred and at Lodway, and a temporary construction compounds and permanent maintenance access at Sheepway.	East of Portishead and near Pill
North Somerset 004C and 004D	Avon Road Underbridge and three construction compounds; the proposed Pill Station, car park and associated temporary construction compounds; and Ham Green construction compound and maintenance access to the eastern portal of Pill Tunnel.	Northern Pill
North Somerset 004A	Avonmouth Signalling works and five micro compounds	Avon Gorge/Abbots Leigh/Leigh Woods
Bristol 036A and 041A	Bower Ashton Double Tracking works covered by the PDR and three construction compounds	Ashton Junction
Bristol 041D	Ashton Vale, Barons Close Pedestrian Crossing and one construction compound.	Ashton Junction
Wider Study Area (includes works under the Permitted Development Rights and works as part of wider MetroWest Project)		
Bristol 046A, 039A	Parson Street Junction	Parson Street Junction
Bristol 039B, 039H	No scheme components	Between Parson Street Junction and Bedminster
Bristol 040B, 040C, 039E	Bedminster Down Relief Line	Bedminster
Bristol 008E, 008F	Severn Beach/Avonmouth Signalling	Avonmouth
Bath and North East Somerset 010E	Bathampton Turnback	Bathampton

3.4 Key Receptors

3.4.1 The following groups have been considered in this EqIA.

- Age: this refers to persons defined by either a particular age or a range of ages. This EqIA considers effects for children (pre-school [0-4] and school age [5-17]); young people [18-25]; older people [60+] and very old people [75+].
- Disability: a disabled person is defined as someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities.
- Pregnancy and maternity: Pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth.
- Race: The Equality Act 2010 defines race as encompassing colour, nationality (including citizenship) and ethnic or national origins. This EqIA considers ethnic group classification as indicated in the Office of National Statistics (“ONS”) data.
- Religion or belief: Religion means any religion a person follows. Belief means any religious or philosophical belief, and includes those people who have no formal religion or belief.
- Sex: The term sex refers to a man or to a woman or a group of people of the same sex, while gender refers to the wider social roles and relationships that structure the lives of men and women, boys and girls. This EqIA considers effects for women and men.
- Sexual orientation: Sexual orientation of a person relates to their emotional, physical and/or sexual attraction and the expression of that attraction. This EqIA considers effects for lesbian, gay, and bisexual (“LGB”) people.
- Gender reassignment: This refers to people who are proposing to undergo, are undergoing, or have undergone a process for the purpose of reassigning their gender identity.

3.5 Approach

3.5.1 The EqIA assesses the potential effects of the proposed design, its construction and operations on equality. In order to assess this, the EqIA seeks to establish whether people with protected characteristics are disproportionately or differentially affected by the proposed scheme.

3.5.2 A disproportionate equality effect is one that has a proportionately greater effect on members of a protected characteristic group than on other members of the general population at a particular location. For example, near a school children (age protected characteristic group) may be disproportionately affected compared with the rest of the population.

3.5.3 A differential equality effect is one which affects members of a protected characteristic group differently from the rest of the general population because of specific needs or a recognised sensitivity or vulnerability associated with their protected characteristic. For example, accessing a railway station via steps may not be possible for some people from the age and disability protected characteristic groups.

3.5.4 It is likely that some members of a protected characteristic group are identified as potentially subject to both disproportionate and differential effects.

3.5.5 Where the proposed scheme work is considered relevant to each of the protected characteristic group, the following questions are used as guide to conduct the EqIA:

- Who benefits?
- Who does not benefit and why not?

- Who should be expected to benefit and why don't they?
- Who is affected?
- What is the significance of the impact and can it be altered?

3.5.6 The assessment of effects takes into account measures incorporated into the design of the Scheme, and measures undertaken during the construction and operational phase, to avoid, reduce, or remedy the effects on people. These measures are described in Chapter 6.

3.5.7 The effects of the Scheme on receptors may be major positive, minor positive, major negative, minor negative or neutral. Where the level of information or evidence on the protected characteristic is not sufficient to conclude the effect, this is marked as an uncertain impact.

3.5.8 A traffic light style colour coding has been adopted to highlight the nature of the effects and explanatory text is provided in Chapter 7 to describe whether the predicted effect is disproportionate or differential in nature.

Major positive	Minor positive	Neutral
Major negative	Minor negative	Uncertain

3.5.9 This assessment covers the impact of the proposed design and subsequent construction and operations of the DCO Scheme. The assessment does not discuss equality and diversity matters within the construction supply chain or the contractors' equality duty.

SECTION 4

Baseline and Screening

4.1 Community Profiling

4.1.1 This section uses the most recent data available to profile the local and wider study areas. Demographic data for mid-2014 were available from the Office for National Statistics, but for many of the other topics the latest data come from the UK 2011 Census. The Index of Multiple Deprivation data are from 2015 and Public Health England data are from 2014. Although from different years, these data provide an understanding of the present situation that is as accurate and up-to-date as possible.

Ward-Level Overview

4.1.2 A ward level community profile is presented below, covering the area of the DCO Scheme. Unitary Authority figures for NSDC and BCC are also included.

Demography

4.1.3 Mid-year population estimates for 2014 show that the population of North Somerset was roughly half the size of the population of Bristol (Office for National Statistics, 2015a). The wards in the study area with the greatest populations were Bedminster and Southville, near Ashton Junction. Easton-in-Gordano and Pill had the smallest populations (Table 4-1).

4.1.4 North Somerset had a lower percentage of males (48.6%) than Bristol (49.9%). Most wards had an almost equal number of males and females, with less than 1% difference between the populations of the two genders. However, larger differences were recorded in Portishead East, where only 47.7% of the population was male (lower than the NSDC value), and to a lesser extent in Southville, where 51.4% of the population was male.

4.1.5 At a Unitary Authority level, North Somerset had a much lower percentage of its population under the age of 25 than Bristol (27.0% compared to 34.1%), and a much higher percentage of its population aged 65 or older (23.0% compared to 13.3%). However, all wards in North Somerset except Easton-in-Gordano had a higher percentage of under 25 year-olds than the North Somerset as a whole, and a higher percentage than the Bristol wards. The Bristol wards had a lower percentage than Bristol as a whole.

4.1.6 Portishead East had the highest percentage of residents under the age of 25, at 31.9%, while having one of the lowest percentages of residents aged 65 or older (15.4%). Pill followed a similar trend but with slightly more equal percentages. Easton-in-Gordano had the lowest percentage of residents under 25 at 22.7%, but the highest percentage of residents aged 65 or older at 31.1%. Southville, Bedminster and Portishead East had the lowest percentages of residents aged 65 or older (11.3% and 14.7% respectively).

Table 4-1: Demographic characteristics of the study area at ward and Unitary Authority level

Ward/Unitary Authority	Total population	Gender		Age	
		Male (%)	Female (%)	Under 25 (%)	65 or older (%)
North Somerset	208,154	48.6	51.4	27.0	23.0
Portishead East	6,117	47.7	52.3	31.9	15.4
Gordano	4,941	50.8	49.2	27.7	19.8
Easton-in-Gordano	2,671	49.6	50.4	22.7	31.1
Pill	3,583	50.1	49.9	27.3	21.7

Table 4-1: Demographic characteristics of the study area at ward and Unitary Authority level

Ward/Unitary Authority	Total population	Gender		Age	
		Male (%)	Female (%)	Under 25 (%)	65 or older (%)
Wraxall and Long Ashton	8,158	49.1	50.9	27.6	20.4
Bristol	442,500	49.9	50.1	34.1	13.3
Southville	13,182	51.4	48.6	25.2	11.3
Bedminster	13,229	49.4	50.6	26.0	14.7

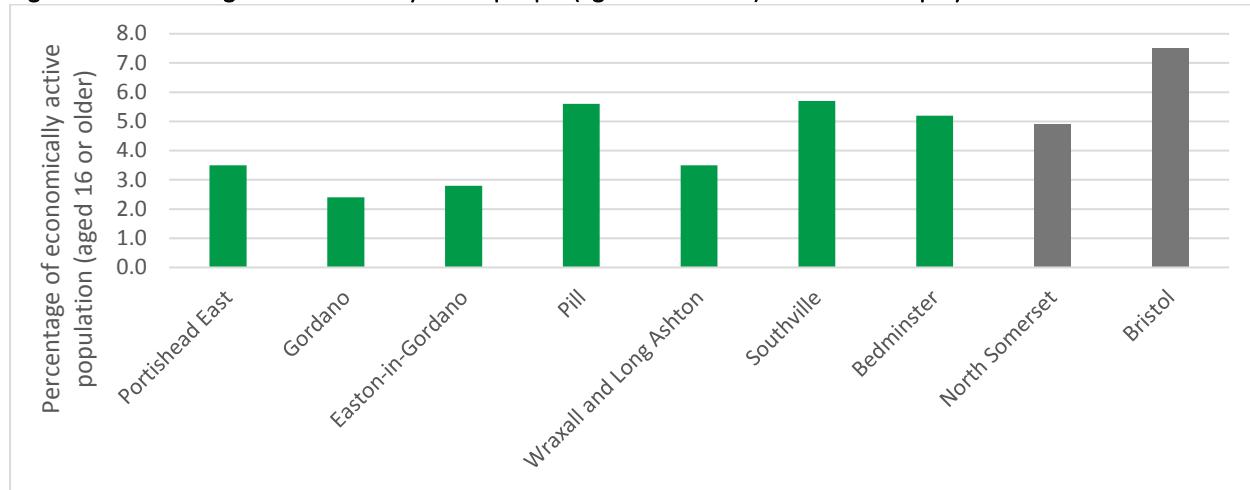
Economy and Employment

4.1.7 Figure 4-1 shows that according to the 2011 Census, unemployment among economically active people (aged 16 or older) was much higher in Pill (5.6%) than in Portishead (3.5%). Relatively high percentages were also found in Southville (Ashton Junction area) at 5.7%. The lowest percentage was recorded in Gordano (between Portishead and Pill).

4.1.8 All wards in North Somerset except for Pill had lower unemployment than the Unitary Authority value (4.9%) and the two Bristol wards had lower unemployment than the Unitary Authority value (7.9%).

4.1.9 The unemployment percentage of economically active people (aged 16 or older) at Bedminster is 5.2%.

Figure 4-1: Percentage of economically active people (aged 16 or older) who are unemployed



Source: Census (2011)

Ethnicity

4.1.10 The 2011 Census reveals that all wards in North Somerset along the DCO Scheme had a similar distribution of ethnicity across their populations, with around 97% being white, mixed/multiple ethnic groups and Asian/Asian British groups each making up less than 2% and the remaining population being spread between Black/African/Caribbean/Black British and other ethnic groups (less than 0.5% each) (Table 4-2).

4.1.11 The two Bristol wards had higher percentages of non-white residents; in Southville the main non-white ethnic group was Black/African/Caribbean/Black British (7.1%) and in Bedminster it was mixed/multiple ethnic groups.

Table 4-2: Ethnicity within the study area and at the Unitary Authority Level

Ward	White (%)	Mixed/multiple ethnic group (%)	Asian/Asian British (%)	Black/African/Caribbean/Black British (%)	Other ethnic group (%)
Portishead East	97.4	1.2	1.1	0.2	0.1
Gordano	97.9	1.2	0.8	0.1	0.1
Easton-in-Gordano	97.1	1.4	1.1	0.1	0.4
Pill	97.4	1.0	1.3	0.2	0.2
Wraxall and Long Ashton	96.8	1.6	1.3	0.3	0.1
Southville	82.1	4.2	4.5	7.1	2.1
Bedminster	94.0	2.8	1.3	1.0	0.9
North Somerset	97.3	1.0	1.2	0.3	0.2
Bristol	84.0	3.6	5.5	6.0	0.9

Source: Census (2011)

Disability

4.1.12 According to the 2011 Census, Pill has the highest percentage of its population whose day-to-day activities are limited a lot or a little (9.2% and 10.7%) (Table 4-3). These percentages are above the North Somerset percentages; all other North Somerset wards are below this. Portishead has a more able population with only 5.9% of residents limited a lot in their day-to-day activities and 6.9% limited a little.

4.1.13 The two Bristol wards have relatively high levels of disability, matching the Bristol wide level.

Table 4-3: Disability within the study area at ward and at the Unitary Authority Level

Ward	Day-to-day activities limited a lot	Day-to-day activities limited a little
Portishead East	5.9	6.9
Gordano	5.4	7.5
Easton-in-Gordano	7.5	9.4
Pill	9.2	10.7
Wraxall and Long Ashton	6.6	8.3
Southville	8.0	8.4
Bedminster	8.8	8.7
North Somerset	8.6	10.6
Bristol	8.1	8.7

Source: Census (2011)

Religion or Belief

4.1.14 Table 4-4 shows the religion or belief of the ward populations as recorded by the 2011 Census. In each ward, the majority of the population was found to be Christian, with percentages in North Somerset wards above 58% and the two Bristol wards having slightly lower percentages at 50.4% (Southville) and 48.7% (Bedminster). The majority of the remaining population had no religion or did not state their religion. Percentages for all other religious populations were below 1% for all cases except for Muslims in Southville, who made up 5.0% of the total population.

Table 4-4: Religion / belief within the study area at ward and at the Unitary Authority level

Ward	Percentage population (figures do not total to 100 due to rounding)								Religion not stated
	Christian	Buddhist	Hindu	Jewish	Muslim	Sikh	Other religion	No religion	
Portishead East	60.6	0.3	0.2	0.0	0.3	0.0	0.3	31.7	6.5
Gordano	64.5	0.2	0.1	0.1	0.1	0.0	0.3	28.4	6.2
Easton-in-Gordano	66.0	0.1	0.2	0.1	0.6	0.1	0.2	24.7	8.0
Pill	58.1	0.5	0.4	0.1	0.3	0.0	0.3	32.0	8.4
Wraxall and Long Ashton	60.5	0.4	0.3	0.1	0.4	0.1	0.3	30.7	7.2
Southville	50.4	0.6	0.5	0.1	5.0	0.0	0.7	33.1	8.8
Bedminster	48.7	0.5	0.4	0.2	0.9	0.1	0.5	41.1	7.6
North Somerset	61.0	0.3	0.2	0.1	0.4	0.0	0.5	30.0	7.5
Bristol	46.8	0.6	0.6	0.2	5.1	0.5	0.7	37.4	8.1

Source: Census (2011)

LSOA-Level Overview

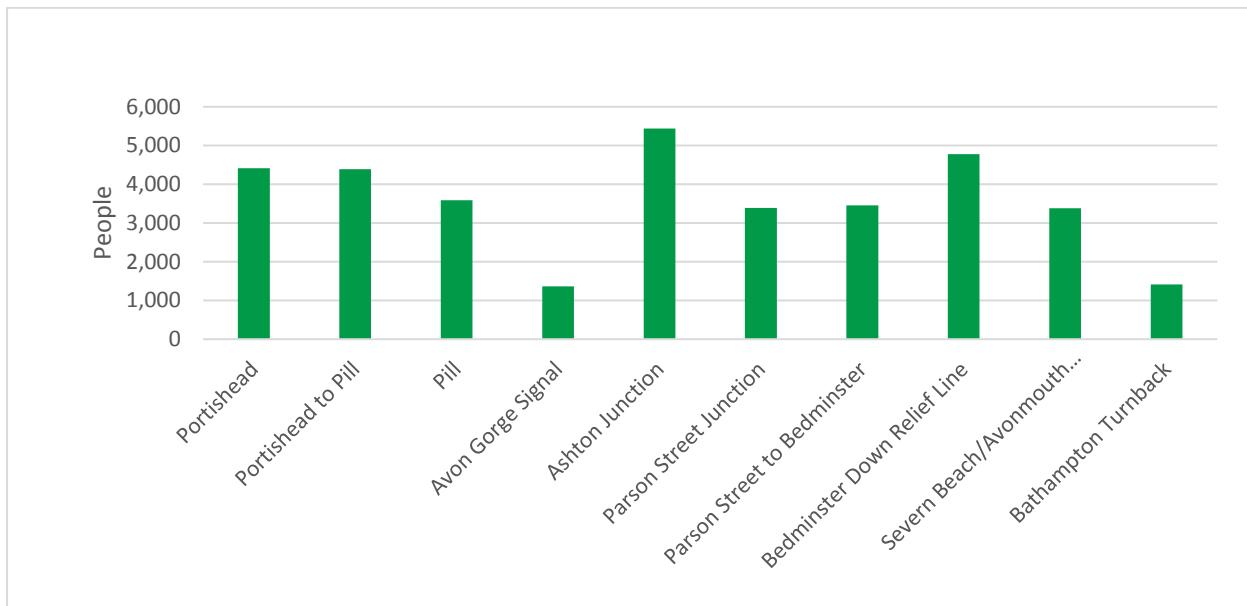
4.1.15 This section uses LSOA-level data and, where these are not available, Unitary Authority data to provide a detailed community profile for LSOAs along the DCO Schemes and for the wider study area covering other works for MetroWest Phase 1. For each topic, results are presented for the DCO Scheme study area (Portishead to Ashton Junction) and the wider study area for use in the cumulative effects assessment (Parson Street Junction to the Bedminster Down Relief Line, Severn Beach/Avonmouth Signalling Works and Bathampton Turnback Works). Results are mainly reported for the areas shown in Table 3-1, but where LSOAs within these areas differ significantly, individual LSOA results are discussed.

Population

The DCO Scheme

4.1.16 Mid-2014 population estimates for each section of the route (leading on from Table 3-1) are shown in Figure 4-2. The LSOAs along the DCO Scheme route had a combined population of 19,188 in mid-2014. Portishead LSOAs had a combined population of 4,414 while Pill LSOAs had a combined population of 3,583. The Ashton Junction LSOAs had the largest combined population (5,438).

Figure 4-2: Population of LSOAs surrounding the DCO Scheme and wider study area (mid-2014 estimate)



Source: Office for National Statistics

The Wider Study Area

4.1.17 The LSOAs between Parson Street Junction and Bedminster Station had a combined population of 11,616 in mid-2014. The combined population around Severn Beach/Avonmouth Signalling works was 3,380 and around the Bathampton Turnback the population was 1,413.

Age

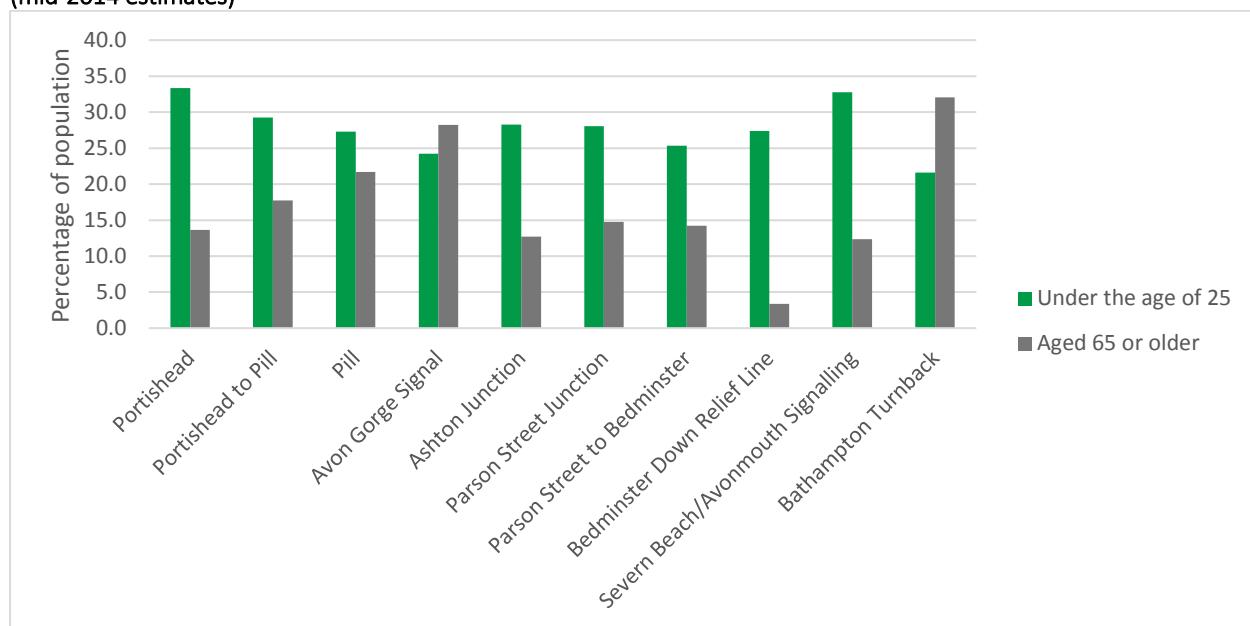
The DCO Scheme

4.1.18 Figure 4-3 shows that LSOAs around the proposed station at Portishead and the east side of the town (North Somerset 003D and 003E) had a high proportion of residents under the age of 25 (35.2 and 38.7 % of the population respectively) in 2014. These LSOAs had a very low percentage of residents aged 65 or older (7.5 and 6.2 % of the population respectively). In contrast, the LSOA to the west of the proposed Portishead station (North Somerset 001G) had fewer under 25 year-olds (23.7 %) and more residents aged 65 or older (31.3 %).

4.1.19 Between Portishead and Pill, LSOA 006F had a higher proportion of younger people than older people (32.7% of the population under 25 compared to 10.7% aged 65 or older). However, LSOA 004B, further east, had a higher proportion of older people (34.2% aged 65 or older compared to 21.1 % under 25).

4.1.20 The combined population of the two LSOAs covering Pill was found to be more evenly spread between younger and older residents than in Portishead; 27.3 % of the population was under the age of 25 and 21.7 % was aged 65 or older.

Figure 4-3 Age distribution of the population of LSOAs surrounding scheme components (mid-2014 estimates)



Source: Office for National Statistics

- 4.1.21 The Haven Lodge Care Centre is located on Phoenix Way, facing the proposed Portishead station. It lodges about 108 residents, mainly elderly and may be some with physical and mental illness such as dementia. Marina Health Centre, a GP surgery is located adjacent to the Haven Lodge Care Centre which may be visited by the elderly and young children alike.
- 4.1.22 The Trinity Anglican Methodist Primary School is located near the proposed Footbridge and a playground is located on The Vale (south of railway line).
- 4.1.23 Busy Bees Nursery is located on Serbert Road in Portishead (south of the proposed station).
- 4.1.24 The LSOA around the Avon Gorge Signal had a more even proportion of younger and older residents (24.2% and 28.2% respectively), while LSOAs in the Ashton Junction area were populated by many more younger residents than older residents (an average of 28.3% under 25s and 12.7% aged 65 or older over the three LSOAs).

The Wider Study Area

- 4.1.25 LSOAs between Parson Street Junction and Bedminster Station, around the Bedminster Down Relief Line and around Severn Beach/Avonmouth Signalling works all had much higher proportions of people under the age of 25 than people aged 65 or older in mid-2014 (Figure 4-3). In particular, the population of the Bedminster Down Relief Line area was 27.4% under 25 and only 3.4% aged 65 or older (the lowest proportion of older people out of all LSOAs within the DCO Scheme or wider study area). The population around the Severn Beach/Avonmouth Signalling works had the highest proportion of people under 25 of all LSOAs studied, at 32.8%. In contrast, the LSOA around Bathampton Turnback had the highest proportion of its population aged 65 or older out of all LSOAs studied, at 32.1%. It had a lower proportion of under 25s at 21.6% of the total population.

Gender

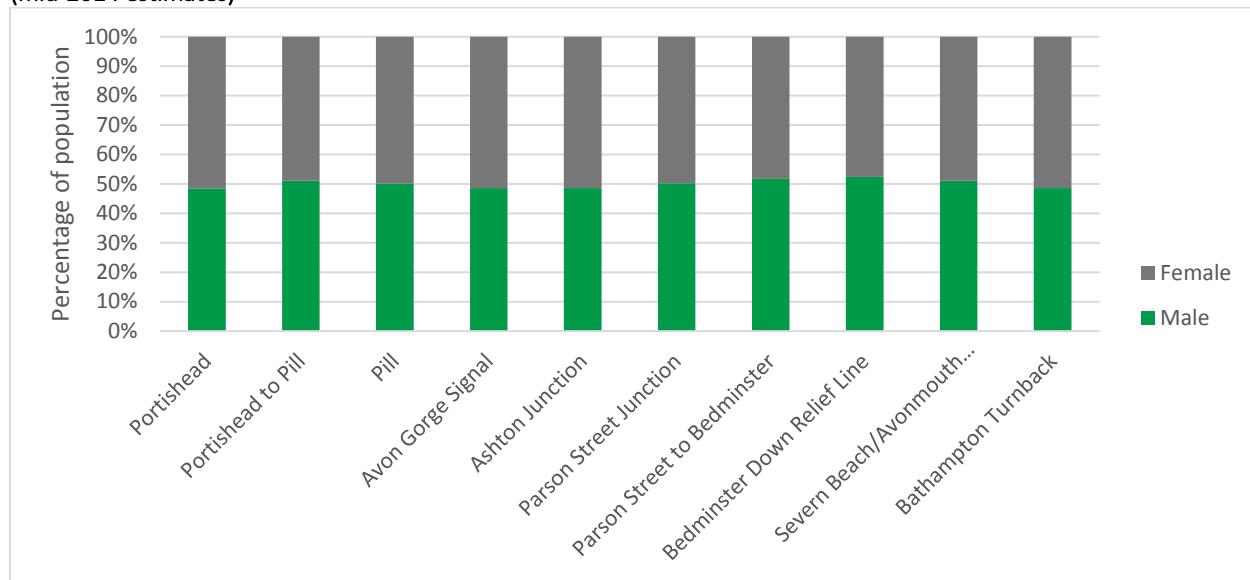
The DCO Scheme

4.1.26 Mid-2014 population estimates reveal that the proportion of male and female residents along the DCO Scheme route were quite close when considered in terms of route sections, ranging from 48.5% male in Portishead to 50.3% male at Parson Street Junction (Figure 4-4). However, there was more variation between individual LSOAs. For example, the most westerly LSOA in Portishead (North Somerset 001G) and the central LSOA near the proposed Portishead station (North Somerset 003D) had populations that were only 46.8% and 46.0% male respectively, whereas the easterly Portishead LSOA near the proposed station and Trinity Primary School (North Somerset 003E) had a population that was 51.8% male.

4.1.27 Between Portishead and Pill, North Somerset 006F and 004B had 51.3% and 50.5% male populations respectively. The two Pill LSOAs differed significantly in gender distribution (52.7% male for North Somerset 004C and 48.0% male for North Somerset 004D). The LSOA around the Avon Gorge had a 48.6% male population.

4.1.28 Around Ashton Junction the LSOAs had an overall percentage of males at 48.6%, with Bristol 041D having the lowest male percentage at 47.2%.

Figure 4-4 Gender distribution of the population of LSOAs surrounding scheme components (mid-2014 estimates)



Source: Office for National Statistics

The Wider Study Area

4.1.29 Around Parson Street Junction, Bristol 046A had a 51.6% male population whereas 039A had a 48.9% male population. Between Parson Street Junction and Bedminster the LSOAs had a combined 51.7% male population (both LSOAs had more males than females). Around the Bedminster Down Relief Line, distribution was more varied with the lowest male percentage at 48.8% (Bristol 040C) and the highest male percentage at 56% (Bristol 039E).

4.1.30 Around the Severn Beach/Avonmouth Signalling works, LSOA Bristol 008E had a 53.7% male population whereas Bristol 008F had a 48.4% male population. Around the Bathampton Turnback the LSOA had a 48.5% male population.

Deprivation

The DCO Scheme

4.1.31 Deprivation is measured by the Department for Communities and Local Government using multiple indices, which are combined to form the Index of Multiple Deprivation ("IMD"). This assessment focuses on the 2015 sub-domains of individual domains – *Geographical Barriers*, *Barriers to Housing and Services* and *Outdoor Living Environment* – that are relevant to this study. The *Geographical Barriers to Services* sub-domain relates to the physical proximity of local services. The *Outdoor Living Environment* contains measures of air quality and road traffic accidents and the *Barriers to Housing* sub-domain measures issues relating to access to housing such as affordability. The above sub-domains are linked to the income deprivation sub-domain represented in Figure 4-5.

4.1.32 The *Geographical Barriers* highlights several neighbourhoods which are among the 10% and 20% most deprived neighbourhoods in England in terms of their physical proximity to local services (Figure 4-6). North Somerset 004A is identified as one of the 10% most deprived LSOAs in England. However, this reflects the physical nature of the Avon Gorge which acts as a barrier to movement due to the difficult terrain and lack of transport connectivity rather than economic deprivation. North Somerset 006F (between Portishead and Pill) is among the 20% most deprived, again reflecting its geographical position and restricted transport links to Portishead and Bristol. All other LSOAs along the DCO Scheme route are less deprived.

4.1.33 No LSOAs along the DCO Scheme route are among the 10% or 20% most deprived neighbourhoods in England in relation to financial accessibility to housing and similar issues, under the *Wider Barriers* sub-domain of *Barriers to Housing and Services*.

4.1.34 Bristol 036A (around Ashton Junction) is among the 10% most deprived for *Outdoor Living Environment* sub-domain of *Living Environment* (air quality, road traffic accident occurrence and similar issues). No LSOAs along the DCO Scheme route are among the 10% or 20% most deprived neighbourhoods for the *Indoor Living Environment* (quality of housing) sub-domain (Figure 4-7).

The Wider Study Area

4.1.35 Bath and North East Somerset 010E (around Bathampton Turnback works) is among the 20% most deprived LSOAs in England for the *Geographical Barriers* sub-domain.

4.1.36 Bristol 039E (near the Bedminster Down Relief Line) is among the 20% most deprived neighbourhoods in England for the *Wider Barriers* sub-domain.

4.1.37 Bristol 039E is also identified as being one of the 10% most deprived neighbourhoods in England in relation to both the *Indoor Living Environment* (quality of housing) and *Outdoor Living Environment*. In addition, three neighbourhoods close to Bedminster Down Relief Line (Bristol 040B, 040C and 039H) are among the 20% most deprived for *Indoor* and *Outdoor Living Environment*.

Economy and Employment

The DCO Scheme

4.1.38 The 2011 Census reveals that unemployment rates in the economically active population (aged 16 or older, including full-time students) at the Portishead LSOAs and those between Portishead and Pill were between 1.8% and 4% (Figure 4-8), relatively low compared to the West of England average of 3.5%. The two LSOAs covering Pill had contrasting unemployment levels. North Somerset 004C (where the proposed station will be located) had 7.8 %

unemployment, while North Somerset 004D (further east of the proposed station) had 3.8 % unemployment.

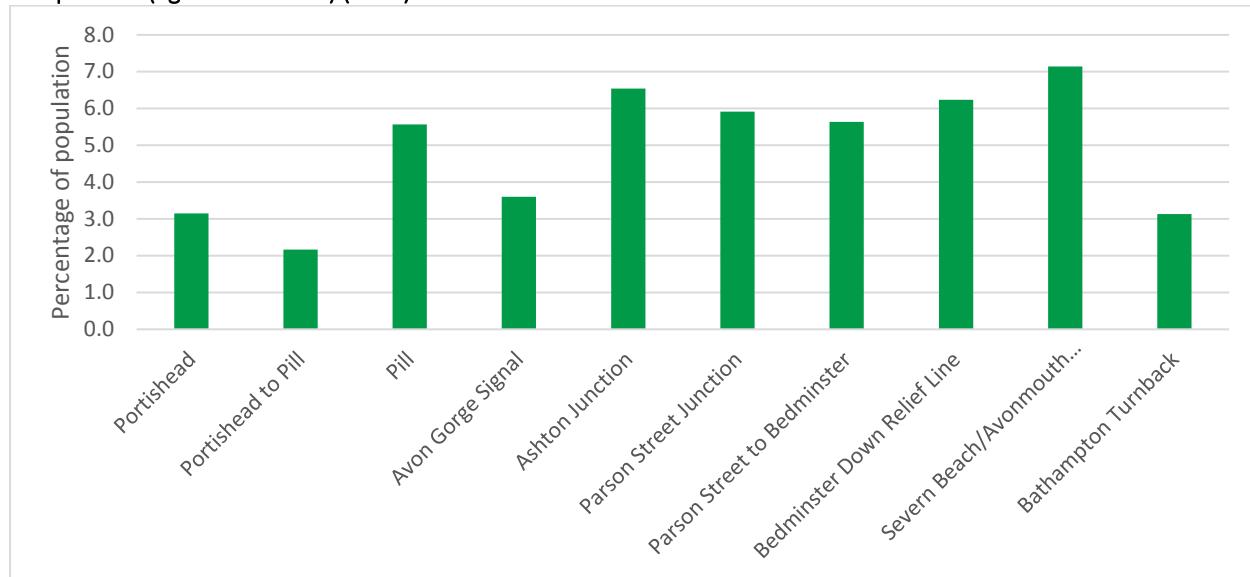
4.1.39 In the area surrounding the Avon Gorge Signal the unemployment rate was 3.6%. In the LSOAs around Ashton Junction unemployment was higher than in Portishead with the highest level in Bristol 036A at 7.9%.

The Wider Study Area

4.1.40 Rates of unemployment were mixed in the Parson Street Junction area with Bristol 039A at 4.7 % and Bristol 046A at 7.1 %. Between Parson Street Junction and Bedminster, unemployment rates were 6.0% for Bristol 039B and 5.3% for Bristol 039H.

4.1.41 In the LSOAs around the Bedminster Down Relief Line, unemployment measured between 5.1% and 7.9%, with the highest level in Bristol 039E. The LSOA surrounding the Bathampton Turnback was found to have only 3.1% of the economically active population unemployed, whereas at Avonmouth it was high at 7.3%.

Figure 4-8 Percentage of economically active people who are unemployed in LSOAs surrounding the scheme components (aged 16 or older) (2011)



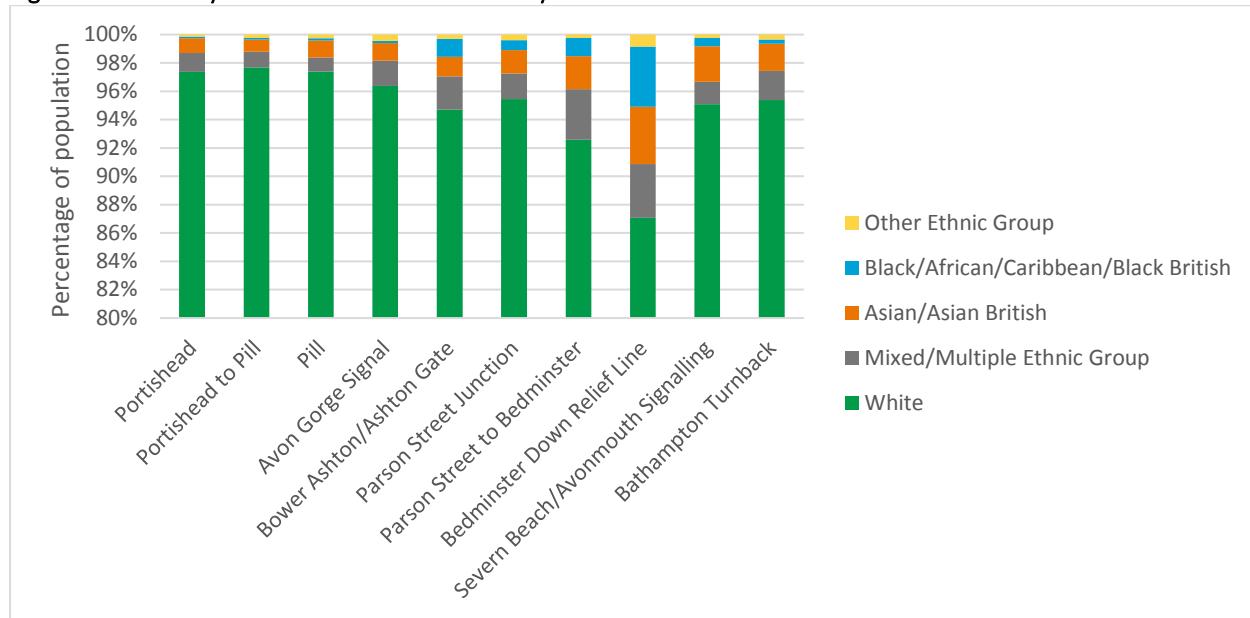
Source: Census 2011

Race and Ethnicity

The DCO Scheme

4.1.42 Ethnicity data were sourced from the 2011 Census and the results are summarised in Figure 4-9. Overall, the populations of the LSOAs along the DCO Scheme route were predominately made up of white people. The LSOAs around Ashton Junction had lower percentages of white people than North Somerset LSOAs, with the lowest in Bristol 036A (91.9% white). The rest of the LSOAs along the DCO Scheme route had populations that were between 96% and 99% white.

Figure 4-9 Ethnicity distribution in the Wider Study Area



Source: Census 2011

- 4.1.43 Across the three LSOAs in Portishead, 97.4% of the population was white, with low percentages of mixed/multiple ethnic groups and Asian/Asian British and very low percentages of Black/African/Caribbean/Black British and people of other ethnic origins.
- 4.1.44 Between Portishead and Pill, 97.7% of the population was found to be white in 2011 and at Pill this was at 97.4% followed by people of mixed ethnicity and Asian/ Asian British and Black, Minority and other Ethnic (“BME”) communities, respectively.
- 4.1.45 In the LSOA surrounding the Avon Gorge Signal, 96.4% of the population was white in 2011. The next largest ethnic group was the mixed/multiple ethnic group (1.8%), followed by the Asian/Asian British group (1.3%). This LSOA had the highest percentage of the population that was non-white out of all North Somerset LSOAs.
- 4.1.46 Across the three LSOAs located around Ashton Junction, 94.7% of the population was white, 2.3% was of mixed/multiple ethnic origin, 1.4% was Asian/Asian British and 1.3% was Black/African/Caribbean/Black British. Bristol 0036A had the highest percentage of all non-white ethnicities, with mixed/multiple ethnicity being the highest overall at 3.0%.

The Wider Study Area

- 4.1.47 Around Parson Street Junction, 95.5% of the population was white, and this dropped to 92.6% between Parson Street Junction and Bedminster and lower again to 87.1% near the Bedminster Down Relief Line works, making this area with the highest proportion of minority ethnic groups in the wider study area.
- 4.1.48 Around the Severn Beach/Avonmouth Signalling works area 95.1% of the population was white, with the second largest ethnic group being Asian/Asian British at 2.5%.
- 4.1.49 Around the Bathampton Turnback works area 95.4% of the population was white, with the second largest proportion of people being from mixed/multiple ethnic groups (2.1%).

Disability

The DCO Scheme

4.1.50 According to the 2011 Census, the majority of LSOAs in Portishead had a low percentage of the population whose day-to-day activities are limited a lot by long-term health or disability (7% or less). However, in the most westerly Portishead LSOA (North Somerset 001G), which was also characterised by a higher proportion of people over the age of 65, this figure was 9.8%, and a further 11.8% of the population felt that their day-to-day activities were limited a little.

4.1.51 The Haven Lodge Care Centre is located on Phoenix Way, facing the proposed Portishead station. It lodges about 108 residents, mainly elderly and may be some with physical and mental illness such as dementia.

4.1.52 Between Portishead and Pill in North Somerset 006F 3.9% were limited a lot and 5.6% were limited a little, compared to North Somerset 004B where these figures were 6.1% and 11.1%. In Pill, in North Somerset 004C and 004D respectively, 11.0% and 7.7% of the population were limited a lot and 11.9% and 9.7% were limited a little. Around the Avon Gorge Signal, 8.7% of the population were limited a lot and 7.8% were limited a little.

4.1.53 Around Ashton Junction, disability levels seemed to be higher than in many of the North Somerset LSOAs. Overall the LSOAs had combined percentages of 10.5% of the population limited a lot (highest being 14.5% in Bristol 041A) and 10.4% of the population limited a little (highest being 12.0% in Bristol 036A).

4.1.54 The IMD includes the *Health Deprivation and Disability* domain, which assesses the effect of poor physical and mental health, and measures morbidity, disability and premature mortality. No LSOAs in along the DCO Scheme route are among the 10% most deprived neighbourhoods for this IMD domain, but Bristol 036A (the Ashton Junction area) is among the 20% most deprived (Figure 4-10).

The Wider Study Area

4.1.55 The subsequent LSOAs on the route to Bedminster had similar levels of disability, with 9.3% limited a lot and 9.1% limited a little around Parson Street Junction and 9.1% limited a lot and 10.4% limited a little between Parson Street Junction and Bedminster.

4.1.56 However, LSOAs around Bedminster generally had lower disability levels, with 5.5% of the population limited a lot (highest was 8.8% in Bristol 039E) and 6.9% limited a little (highest was 8.6% in Bristol 039E).

4.1.57 Around Severn Beach/Avonmouth Signalling works, 9.8% of the population were limited a lot and 8.0% were limited a little (highest percentages were for Bristol 008F at 12.0% and 9.7% respectively).

4.1.58 Around the Bathampton Turnback Works 7.9% of the population were limited a lot and 11.4% were limited a little.

4.1.59 The IMD *Health Deprivation and Disability* domain reveals that Bristol 039E (Bedminster Down Relief Line) is among the 10% most deprived neighbourhoods in England for this domain. In addition, Bristol 008F (Severn Beach/Avonmouth Signalling works) is among the 20% most deprived.

Childhood Obesity

4.1.60 The National Child Measurement Programme data reveal that for the period 2014-2015, prevalence of overweight (including obese) reception class children (aged 4 to 5 years) was similar to the national value in all three Unitary Authorities of the study area, at between 21.6 and 23.5% (Table 4-5). In contrast, the prevalence of overweight (including obese) year 6

children (aged 10 to 11) was 'better' or lower than the national value in North Somerset and Bath and North East Somerset and 'worse' or higher in Bristol City. These data are not available at Ward or LSOA level.

Table 4-5: Prevalence of overweight (including obese) children

Region	Percentage of Reception-age children overweight (including obese)	Percentage of Year 6 children overweight (including obese)
England	21.9	33.2
North Somerset UA	21.6	29.4
Bristol City UA	23.0	35.0
Bath and North East Somerset UA	23.5	27.3

Religion or Belief

4.1.61 Along the route of the DCO Scheme, more than 50% of the population of each neighbourhood were recorded as Christian in the 2011 Census. The majority of the remaining population was not religious (around 25 to 40% of the total population), with around 7 to 8% not stating their religion. In the two most westerly neighbourhoods in Portishead (North Somerset 001G and 003D) 0.9% and 0.7% of the population were Muslim respectively and residents of all other religions accounted for 0.5% of the population or less. Between Portishead and Pill the population had even percentages of Buddhist, Hindu, Jewish, Muslim and Sikh people (at 0.1 or 0.2%). Within the two neighbourhoods covering Pill (North Somerset 004C and 004D), 58% of the population was found to be Christian. The Buddhist and Hindu populations were slightly larger than in Portishead, both at 0.6% of the total population in the neighbourhood covering eastern Pill. Islam was the next most prominent religion at 0.4% in this neighbourhood.

4.1.62 The LSOA around Avon Gorge Signal had slightly higher percentages of Hindus and Muslims, at 0.4% and 0.9% respectively. The Ashton Junction area also had a more diverse mix of religions than around Portishead and Pill, with Bristol 036A having the highest proportion of non-Christian people with 0.8% of the population being Buddhist and 1.6% of the population being Muslim.

The Wider Study Area

4.1.63 Near Parson Street Junction, between Parson Street Junction and Bedminster and around the Bedminster Down Relief Line the Christian population made up 50% or less of the overall population. Bristol 039E (around Bedminster Down Relief Line) had the highest percentages of other religions, with 4.8% of the population being Muslim and 3.2% being Hindu.

4.1.64 Around Severn Beach/Avonmouth Signalling works 54.5% of the population was Christian, with the next most common religions being Islam and Hinduism, both at 0.5%.

4.1.65 Around Bathampton Turnback Works, 61.5% of the population was Christian, with the next most common religion being Islam at 0.9%.

4.2 Amenities and Services

Access to Services

The DCO Scheme

4.2.1 The *Geographical Barriers* sub-domain of *Barriers to Housing and Services* domain highlights two neighbourhoods which are among the 10% and 20% most deprived neighbourhoods in England in terms of their physical proximity to local services. North Somerset 004A (around Avon Gorge Signal) is one of the 10% most deprived LSOAs in England for this sub-domain, while North Somerset 006F (between Portishead and Pill) is among the 20% most deprived.

4.2.2 The amenities and services (relating to leisure, culture/religion, healthcare and education) within 300 m of the proposed route are outlined below. As the DCO Scheme is mainly bordered by residential properties through Portishead, fewer features were identified than in some of the other areas.

Portishead

- Health Centre on Harbour Road – Harbourside Family Practice
- Nursing home adjacent to Health Centre – Haven Lodge Care Centre
- Busy Bees Nursery on Serbert Road in Portishead (south of proposed station)
- Trinity Anglican Methodist Primary School
- Playground in The Vale (south of railway line)

Pill

- Heywood Family Practice on Lodway south of railway line and Pill Health Clinic on Station Road south of railway line
- Pill Memorial Club on Lodway south of railway line (community events etc.)
- Pill Community Centre on Heywood Terrace south of railway line
- Portishead Sailing Club, Pump Square next to marina east of railway line
- Pill Union Church, east of railway line
- Pill Library, adjacent to railway line on east side

Ham Green

- Cricket Ground south of the railway line (line is in a tunnel under the cricket ground)
- Playground near Fitzharding Road south of railway line
- Penny Brohn Cancer Care north of railway line on eastern edge of Eden Office Park (located adjacent to a construction compound).

Avon Gorge

- Leigh Woods National Nature Reserve which is open to the public
- Clifton Observatory, east of the railway line on the east side of the Gorge
- Clifton Downs, east of the railway line on the other side of the Gorge
- Avon Gorge House Amitabha Buddhist Centre, North Road west of the railway line
- Clifton Suspension Bridge Visitor Centre, Bridge Road west of the railway line

- Ashton Court Registered Park and Garden

Ashton Junction

- Bedminster Cricket Club and Sports Ground between A369 and railway line on west side
- Teddies Bristol Nursery and Preschool, adjacent to the Sports Ground above
- Ashton Park School
- Bristol Kettlebell Club (fitness) on Blackmoors Lane west of the railway line
- Ashton Gate football stadium east of the railway line
- Gore's Marsh playground east of A3029 (Winterstoke Road) east of railway line

Greenspaces and Open Spaces

The DCO Scheme

4.2.3 The Vale Park in Portishead, bounded by the disused railway line to the north, is designated as Amenity in North Somerset Adopted Local Plan and Local Green Space on North Somerset's emerging proposals map.

4.2.4 Between Portishead and Pill, allotment gardens exist on the eastern side of Sheepway, north of the disused railway line. South of the disused railway line, playing fields are located to the east of Portbury, south of the M5.

4.2.5 The land between Yew Tree Gardens and Hardwick Road, Pill and Victoria Park, are designated as Amenity in North Somerset Adopted Local Plan and Local Green Space on North Somerset's emerging proposals map. Crockerne Pill (which includes Pill viaduct) and Watchhouse Hill (to the east of Pill) are also designated as Local Green Space on North Somerset's emerging proposals map. Common Land and Town or Village Greens exist to the north and east of Pill, including Pump Square, Victoria Park and Waterloo Wharf and The Point, Chapel Pill. Open space at Ham Green Hospital is designated an Unregistered Park and Garden in North Somerset Adopted Local Plan and North Somerset's emerging proposals map. In addition to these designated sites, Pill also has a playing field and playground south of the railway line on Hardwick Road and a playground near Water Lane west of the railway line. In Ham Green a Cricket Ground is located south of the railway line at the tunnelled section and there is a playground near Fitzharding Road south of the railway line.

4.2.6 In the Avon Gorge area, Leigh Court Registered Park and Garden is located adjacent to the railway line on the western side of the gorge. Other designations in this area are Leigh Woods National Nature Reserve, Avon Gorge Woodlands Special Area of Conservation and Avon Gorge Site of Special Scientific Interest.

4.2.7 Closer to Ashton Junction, Ashton Court Registered Park and Garden is located adjacent to the railway line on the western side. In addition, a sports ground, several allotment gardens and Gore's Marsh park and playground are located in close proximity to the railway line in the Ashton Junction area.

4.2.8 North Somerset Council has drawn up area profiles of current provision of open space within the District, to accompany its Developer Contributions Draft Supplementary Planning Document (January 2016). In Portishead there is currently an under supply of conservation sites and woodland, and sufficient supply of formal park and public garden and neighbourhood open space. Pill has an under supply of conservation sites, formal and public garden and woodland but sufficient neighbourhood open space.

The Wider Study Area

4.2.9 Informal and formal green spaces, seasonal and fixed active sports space, natural green space, young persons' space and children's play areas exist close to the operational railway line that runs through the Bristol City Council area and to Parson Street Junction and Bedminster Station. The Bedminster Down Relief Line is located next to Victoria Park, a large area of open space.

4.2.10 In the Bathampton area accessible natural green space, park and recreation ground, outdoor sport pitches and children's play space are found.

4.3 Crime and Safety

4.3.1 Table 4-6 details the incidence of race-motivated hate crime between 2010 and 2014 for the whole of the Avon and Somerset police force area, including the three local authorities relevant to this study as well as Somerset and South Gloucestershire (Avon and Somerset Constabulary, 2015b).

Table 4-6: Incidence of race-motivated hate crime in Avon and Somerset police force area between 2010 and 2014

Year	Race-motivated hate crime incidents
2010	1,395
2011	1,288
2012	1,071
2013	1,114
2014	1,366

4.3.2 The number of race-motivated hate crime incidents reported in 2014 were 791 in Bristol, 108 in North Somerset, and 115 in Bath and North East Somerset (Avon and Somerset Constabulary, 2015b). As a percentage of the population, these figures indicate levels less than 2%.

4.4 Transport and Accessibility

Portishead Station

4.4.1 The proposed Portishead station will be the terminus of the new service and will be located to the southeast of the Quays Avenue, Harbour Road and Phoenix Way roundabout. As a result, the existing roundabout will be relocated to the northwest. The DCO Scheme will provide two car parks – one to the immediate north of the station which will be accessed directly off Phoenix Way. This car park will comprise 52 spaces of which 13 will be designated for disabled users. The car park will also include a small area for drop off movements and for taxis. The second car park is proposed to the west of the station site and will be accessed from Harbour Road. This car park which is linear in shape will comprise 215 standard park spaces and no disability spaces.

4.4.2 The public realms have been designed to support the movement and circulation of pedestrians and cyclists around the station. A new toucan crossing across Quays Avenue will link the proposed new bus stops on the western side of Quays Avenue with the station. The crossing is also aligned with a new shared use path that will run parallel with Harbour Road and will provide the principal pedestrian and cyclist access from the station towards the town centre.

Portishead Trinity Primary School Footbridge

4.4.3 At present there is a permissive footpath over the disused railway that connects communities on both sides of the railway corridor and provides an informal route to the Trinity Anglican Methodist Primary School. The importance of this crossing was corroborated by pedestrian and cyclist counts. The re-opened railway line will sever this footpath and the footbridge proposed at this location will be compliant with Equality Act 2010 (formerly Disability Discrimination Act 1995) compliant with an acceptable gradient and access lit with appropriate levels of lighting.

Pill Station

4.4.4 The proposed Pill station will comprise an unmanned new entrance to the platform off Station Road with a forecourt area with three disabled parking space and a drop off point. The main car park will be located on Monmouth Road and provide 62 able bodied car parking spaces. The station proposal will also see minor enhancements to the pedestrian environment with informal crossing points added along Monmouth Road. These will be reinforced by parking controls in specific locations that will improve visibility for pedestrians.

Ham Green

4.4.5 The area in the vicinity of the access routes to Pill Tunnel is largely residential, with a commercial area off Macrae Road and the Penny Brohn Cancer Centre (day clinic and non-residential). The majority of the local roads have footways. The western end of Chapel Pill Lane leading to the tunnel currently is a poorly surfaced track.

Ashton Junction

4.4.6 Given the predominately commercial and industrial land use together with heavily trafficked roads, the pedestrian and cycling network is limited in the Ashton Vale Road area. The DCO Scheme will directly impact the network at two particular locations. The Ashton Vale Road level crossing and the Barons Close pedestrian crossing.

4.4.7 The operation of Ashton Vale Road level crossing equally applies to all pedestrians and cyclists with no immediate alternative route other than the Barons Close crossing. The Barons Close pedestrian crossing is located approximately 200 m south of the Ashton Vale Road level crossing. The nearest alternative crossing point over the railway line is along the A370 Ashton Road 140 m north. An indirect pedestrian route is available off the B3128 around 1 km further west. The other crossing point is around 630 m south of Barons Close. A pedestrian route through Ashton Drive is available although an indirect access through a recreation field is not good on personal safety grounds.

4.4.8 The Barons Close pedestrian crossing is closed temporarily during the construction of the Ashton Vale to Temple Meads Bus Rapid Transit Scheme (MetroBus) and is due to reopen once the works are complete. However the crossing is proposed to be closed as part of the DCO Scheme. The Ashton Vale level crossing will remain open under the DCO Scheme. A new pedestrian and bicycle ramp will be provided from Ashton Vale Road to Ashton Road to provide an alternative crossing when the level crossing is down.

4.4.9 The main pedestrians in the vicinity of Ashton Vale are likely to be employees of establishments in the Ashton Vale Industrial Estate or, on match days, football fans walking to and from the football stadium off Winterstoke Road. This would suggest that the majority are likely to be of working age and reasonably fit.

SECTION 5

Stakeholder Engagement

5.1.1 Engaging with stakeholders is an important step in collating evidence about the equalities groups. Two types of stakeholders are involved in the process, namely key informants, such as the North Somerset Council and Bristol City Council Health and Equalities teams, and wider stakeholders, including members of the public, non-governmental agencies, community groups and statutory authorities.

5.1.2 A meeting for the key informants was held on 12 January 2016 to inform them about the DCO Scheme and to discuss potential sources of further information, refinement of the assessment methodology as well as further leads on community groups who should be involved in the stakeholder engagement process.

5.1.3 Several non-statutory consultations have been undertaken to seek opinion of local communities, which included information relating to access and usage of the facilities.

- Public exhibitions were held in Portishead in 2014 to seek opinions on the options for the location of Portishead railway station and in 2015 focusing on initial proposals for the railway between Portishead and Pill, including the emerging proposals for Portishead station, the public realm, and the Trinity Primary School footbridge.
- A micro-consultation was held in Pill in March 2016 to seek feedback on options for the arrangement of the station and car park.
- Micro-consultations have been held at the Ashton Vale Industrial Estate during 2016 to seek opinion on alternative routes into the estate for the half hourly passenger service scheme which would have required permanent closure of the Ashton Vale Level Crossing.

5.1.4 This document is now presented for wider stakeholder consultation as part of the statutory Section 42 consultation. The responses will be reviewed and addressed in the final version of the EqIA to be submitted to the Planning Inspectorate with the DCO Application.

SECTION 6

Mitigation

6.1.1 This section describes possible and proposed mitigation measures incorporated into the design of the DCO Scheme and implemented during construction and operation. These measures aim to avoid, reduce, and remedy the potential adverse impacts of the DCO Scheme on the protected characteristic groups. Further details of the proposed measures incorporated into the DCO Scheme are discussed in the PEI Report Chapter 4 Description of the Proposed Works.

6.1.2 Portishead Station is designed as a step free access building (with ramps for people with mobility disability and the elderly). The station includes accessible toilets. The station, platform, and routes to the car parks will be lit.

6.1.3 The current limited parking spaces at the Marina Health Centre, near the proposed Portishead Station, will be addressed by providing spaces in the new Portishead station car park for visitors and patients of the Marina Health Centre. The new station car parking provision also includes spaces for disabled users close to the station entrance.

6.1.4 Diversions of pedestrian pathways have been designed to ensure that the shared pathways are of sufficient width, gradient and of appropriate surface for use by people with disability (wheelchair users and mobility buggy users). Where possible, clear delineation of pedestrian, cyclist and wheelchair paths will be provided.

6.1.5 There will be new a signalised crossing on the boulevard-main car park-station route and tiger crossings at the Quays Avenue roundabout. Toucan crossings will also be provided to allow pedestrian and cyclist access from Harbour Road and Quays Avenue.

6.1.6 Disabled car parking spaces will be provided in the forecourt of Pill Station. The station platform and the main car park will be lit.

6.1.7 The DCO Scheme includes proposals to prohibit on street parking in the vicinity of Portishead and Pill stations, which will encourage travellers to use the station car parks and also improve the street environment for pedestrians and householders.

6.1.8 The new Trinity Primary School pedestrian and cycle bridge in Portishead, the access ramp from the Pill station forecourt to the platform, and the new pedestrian and bicycle ramp between Ashton Vale Road and Ashton Road have all been designed in compliance with the Equality Act 2010, with gentle gradients and suitable surfacing. Low level lighting will be incorporated into the structure for users while reducing the visual impact on residents and disturbance to fauna.

6.1.9 A range of mitigation measures will be adopted during construction to protect nearby communities from the disruption, discomfort and safety associated with the construction of a major scheme. These will be described in detail in the CoCP which will be included in the Environmental Statement and submitted with the DCO application. Measures include good housekeeping to keep construction sites tidy, temporary lighting for security, and noise and dust control. Where appropriate, the construction compounds will be well lit and monitored with CCTV for safety and security.

6.1.10 The Outline Construction Traffic Management Plan (“CTMP”) will identify proposed construction haulage routes to minimise disruption to traffic on local roads and as far as possible avoid predominately residential streets and local schools. Special traffic management measures will be required in Pill to reduce potential conflict between construction traffic, local

vehicular traffic, and non-motorised users (pedestrians, cyclists, and equestrians). Further discussion is provided in the Transport Assessment in the PEI Report Appendix 16.

6.1.11 No further mitigation measures are proposed during operation over and above those described above.

SECTION 7

Assessment of Effects

7.1 Introduction

7.1.1 This chapter presents an assessment of the effects of the DCO Scheme during the construction and operation phases with the mitigation measures in place on key affected groups. Tables 7-1 and 7-2 summarise the impact of components of the DCO Scheme on these key affected groups using the colour coding described in Chapter 3 to highlight the significance of the effect.

7.1.2 For details of the construction and operation activities, the reader is directed to the PEI Report Chapter 4 Description of the Proposed Works. Further discussion of the mitigation measures to be put in place to control construction-related impacts is presented in the PEI Report Appendix 4.1 Code of Construction Practice.

7.1.3 A description of the impacts from construction traffic accessing the construction compounds and along potential haulage routes and the effects on highway movements on the local road network in particular around the new stations, together with proposals for mitigation, is provided in the PEI Report, Appendix 16, Transport Assessment. During the construction phase, it is assumed that rail haulage will be used as much as possible, to reduce the need for HGVs to bring in materials and remove waste ballast from the DCO Scheme. This is a particular issue through the Avon Gorge, due to the lack of road access and the environmental sensitivity of the woodlands, but will be adopted elsewhere.

7.2 Construction Phase

7.2.1 The key groups most likely to be affected by the construction works are those in the age and disability groups. All along the route, where school children, the elderly and the disabled come into contact with the construction works, encompassing the construction sites, compounds, and haulage routes, members of these groups are likely to face disruption due to temporary severance, diversions, changes in the quality of ambience along the route and potential risks associated with construction activities, plant and vehicles.

7.2.2 While appropriate traffic, rerouting and hoarding design interventions will be covered in the CoCP and in the Transport Assessment and that they are likely to mitigate any minor negative differential impact on the age protected characteristic group, opportunities to raise awareness with school children on traffic safety should be explored (particularly those along the route who will be affected, for example near Trinity Primary School footbridge and near the Ashton Gate Level Crossing). Where possible groups of the elderly should be consulted.

7.2.3 In Portishead, the highway modifications, construction of the station and new car parks are located in a mixed residential and commercial area. Key affected groups include the elderly and infirm around the Marina Health Centre and the Haven Lodge opposite the proposed Portishead Station, the Trinity Primary School on the north side of the railway, and the Busy Bees Nursery on Serbert Way.

7.2.4 There is potential for a disproportionate negative impact on the Haven Lodge residents and a differential impact on all elderly and disabled people who use Harbour Road and Quays Avenue during the construction phase due to the diversions and changes on these local highways. Similarly parents and children attending the Busy Bees Nursery on Serbert Way may find their daily routes affected by the highway modification works. Even with mitigation measures such as traffic management, temporary car parking, the use of safety barriers, and

diversions for pedestrians, there may be a **short term negative effect** on the age and disability protected characteristic groups.

7.2.5 Construction noise may disproportionately affect the children and the elderly due to disturbance, annoyance, difficulty with orientation and sleep disturbance, at some locations along the route near the Portishead Station. Receptors include children at the Busy Bees Nursery on Serbert Way and at the Trinity Primary School, patients and users at the Marina Health Centre, and residents of the Haven Lodge Care Centre. Recent developments should have been built to modern noise insulation standards, protecting occupiers from external noise pollution. During the construction of the DCO Scheme, the contractors will be required to implement a noise control plan, which will include restrictions on construction noise levels through various means and constraints on working hours. As a worst case there may be a **short term minor negative (disproportionate and differential) effect** on the age and disability protected characteristic groups resident in the vicinity.

7.2.6 The temporary closure of the permissive pathway between Galingale Road and Tansy Lane and associated crossing over the disused railway line while the new pedestrian and cycle bridge is built, may lead to longer walking / cycling routes on the local highway. This may affect the age group, particularly school children, as well as the disabled group. This is assessed to have a **short term minor negative (differential) effect** for the age protected characteristic group.

7.2.7 The construction works along the disused section of the railway corridor between Portishead and Pill include minor works to narrow the National Cycle Network (“NCN26”) path under three bridges - Royal Portbury Dock, Marsh Lane and the M5. The works may result in temporary severance and the reduction in amenity quality along the route (dust, noise, and narrowed sections of the cycle path). These works could result in a **short term minor negative (differential) effect** on children and the visually disabled, although most users of the NCN 26 would be expected to enjoy a reasonable level of fitness.

7.2.8 Extensive construction works are required through Pill. These include earthworks on Avon Road embankment and the demolition and reconstruction of Avon Road underbridge; extensive earthworks off Hardwick Road and the construction of Pill Station; and earthworks along Mount Pleasant embankment on the east side of Pill Viaduct. The movement of construction traffic is highly constrained due to the dense network of narrow streets and steep gradients. If it is decided to mobilise a crane to build the Avon Road underbridge this could require the demolition of a small section of garden wall of one property and several garages. The movement of HGVs through the village to access the proposed construction compound at Lodway and the station access site will affect traffic circulation generally through Pill as well as the safe movement of cyclists and pedestrians.

7.2.9 The proposed construction works may cause difficulty in accessing amenities and services such as the Co-op near Station Road, Pill Health Clinic or Pill library on Underbanks. Similarly, the construction traffic plying around Pill is likely to result in temporary, road diversions, closures, traffic congestion and loss of parking, potentially causing discomfort for the elderly, people with disability and those with children who may take a walk to the shops or along Marine Parade. The disturbance from construction works may limit some groups from accessing facilities and services. A **short term minor negative (differential) effect** is assumed for the age and disability protected characteristic groups.

7.2.10 The construction works in Ham Green comprises improvements along Macrae Road and a new temporary compound and permanent maintenance access and power supply point building near the eastern Pill Tunnel portal. The modifications along Macrae Road are minor, and required to facilitate the movement of a low loader to the construction site. The construction site itself is located in a rural setting. No impacts on key affected groups have been identified for these works.

7.2.11 The works through the Avon Gorge will largely be undertaken along the existing railway corridor, with rail haulage to remove the spoil and ballast and bring in new ballast, rails, sleepers and other materials. Much of the construction works are likely to occur at night during weekdays and continuous working during weekend possessions to minimise the impact on the freight train operations. There will be six micro-compounds along this route to provide welfare facilities for the construction workforce and a construction compound off Clanage Road at the southern end of the gorge.

7.2.12 Much of this section lies parallel with the River Avon Tow Path, a popular leisure and commuting route for cyclists and pedestrians. Construction works are likely to reduce the amenity value of the River Avon Tow Path for the duration of the works, due to construction dust, noise, loss of vegetation, visual impacts, etc, although this impact would be more noticeable at the weekends than during the week. The users of the River Avon Tow Path are likely to be relatively fit individuals, but may include members of key affected groups, such as families with children and disabled people walking or cycling with family and friends. Mitigation measures will include temporary fencing for security and good housekeeping measures to keep the River Avon Tow Path free of construction materials, dust and dirt. A **short term, minor negative effect** on the age and disability protected characteristic groups is assumed.

7.2.13 The Clanage Road temporary construction compound and permanent access lies to the south of the Avon gorge next to the Bedminster cricket grounds. There is a nursery and pre-school building within 30m. Particular consideration should be given to vehicle movements in and out of the site to avoid affecting children and disabled groups moving along the pavement near the site entrance. A **short term minor negative (differential) effect** on the age and disability protected characteristic group is assumed.

7.2.14 The Ashton Gate level crossing will remain open as part of the DCO Scheme, with modifications to Winterstoke Road and the traffic lights to reduce congestion when the level crossing barriers are lowered to allow trains to pass. Barons Close pedestrian crossing has already been closed temporarily during the construction of the Ashton Vale to Temple Meads Bus Rapid Transit (MetroBus) scheme, and The DCO Scheme will propose the Barons Close crossing is closed permanently. A new pedestrian and cycle ramp will be built from Ashton Vale Road to Ashton Road and connect to footpath along the MetroBus route from Baron's Close and to Winterstoke Road via Avon Road. These arrangements will have little effect on journey times for people walking from the Long Ashton Park and Ride to the industrial estate and facilities off Winterstoke Road, such as the football stadium. However, the closure of Barons Close pedestrian crossing would increase journey times for walkers and cyclists from residential areas around Silbury Road who would have to continue to the Ashton Vale level crossing, and when that is closed either wait for the level crossing to open, or continue walking up the ramp to Ashton Road to reach Winterstoke Road. New MetroBus stops are proposed in the area, which when operational, will provide access to the wider transport network to Bristol.

7.2.15 Pedestrians and cyclists in this area are likely to be reasonably fit people of working age going to the Ashton Vale industrial estate for work. There may also be school children walking to the Ashton Park School to the north of the A370. On match days, walkers are likely to include a wider age group, including children and reasonably fit adults and members of disability groups going to the football stadium. The new ramp would provide a safer, albeit potentially longer route for pedestrians, by segregating pedestrians and cyclists from vehicular traffic. Overall, a **permanent minor positive (differential) effect** on the age and disability protected characteristic group is assumed.

7.2.16 Throughout the DCO Scheme, relocation of footpaths at various locations will result in sharing space between various non-motor road users, including children and those with disabilities.

Whilst this may be common in a non-construction scenario, the construction activities are likely to cause stress and may affect orientation, particularly of the elderly and cause additional effort for those with disability. Sufficient width, clear signage and appropriate gradient / surfacing of temporary footpaths, would limit the negative effect, thus enable people with disability (including wheelchair users) to be able to navigate the alternate routes. Overall a **neutral effect** is assumed as a result of adopting the proposed mitigation solution on the age and disability protected characteristic group.

- 7.2.17 The only adverse effect on people of religion or belief relates to the potential disturbance to church goers during construction. This is potentially a particular issue in Pill, where there are a number of religious buildings and activities within 300 m of the railway works. The construction works through Pill are likely to include weekend possessions with continuous 24 hour working over several days. Consequently, there is potential for disruption due to construction noise, movement of workers and construction traffic and general activity during religious services and other uses of religious buildings.
- 7.2.18 Women and people from homosexual and transgender protected characteristic groups experience more fear of crime (perceived and actual) than male members of the population. Construction sites and compounds may appear dangerous places, especially at night and those located in remote rural areas. Fear of these sites will be mitigated through design by providing suitable fencing or hoardings around the sites to prohibit unauthorised entry, night-time lighting, and where appropriate installing CCTV. These site management and layout requirements will be incorporated into the CoCP. With good siting of construction compounds and suitable mitigation, the effect of construction on gender and homosexual / transgender groups is assumed to be **neutral**.
- 7.2.19 No specific effects on the race key affected group have been identified, although members of this group could be affected by also being in another group (such as age, and disability), or as with the gender and sex group may be disproportionately concerned about the fear of crime around construction sites.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/ sexual orientation
Portishead Station	The highway works to relocate Quays Avenue, the location of a construction compound in front of the proposed station, HGV traffic along Quays Avenue and Harbour Road, and the relocation of shared footpaths may affect the patients (including the elderly and disabled) who access the Marina Health Centre (differential impact) and all the above may disproportionately affect residents of the Haven Lodge Centre.	Relocation of shared footpath / cycleways may affect current arrangements for people with disability who may regularly use facilities near the proposed Portishead station site. Consideration will be given to the location, width and clear signage and appropriate gradient / surfacing of temporary footpaths to enable people with disability (including wheelchair users) to navigate alternate routes with ease.	No significant effect.	No significant effect.	No significant effect.
	Construction noise may affect the elderly who live in the vicinity (differential impact) and visitors to the Marina Health Centre, Haven Lodge Care Centre and Busy Bees Nursery on Serbert Way (disproportionate impact).	Construction noise from various activities and from movement of construction vehicles may affect residents in the vicinity causing disruption, annoyance, sleep disturbance, etc. A differential minor negative impact is predicted.	No significant effect.	No significant effect.	No significant effect.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Trinity Primary School Footbridge	Temporary closure of the existing permissive footpath between Galingale Way and Tansy Lane over the disused railway line during construction of the new pedestrian/cycle bridge will require diversions including via the local highway network. This may particularly affect school children attending the Trinity Primary School. The works may result in some discomfort, increased journey times, and road safety issues. NSDC and the contractors will liaise with the school before and during the construction works. School children should be informed about the construction proposals and taught about the risks and measures they should take to keep safe.	People with disability, including those on wheelchairs/mobility cars would also experience severance between the north and south side of the railway line during the construction of the new bridge. This could also lead to longer journey times via diversions on the highway network and increased exposure to traffic. Some less able people may choose not to go out rather than take diversionary routes, which may limit their daily activities, including social visits.	No significant effect.	No significant effect.	No significant effect.
Works on the NCN 26 under Royal Portbury Dock Road, Marsh Lane and M5.	The elderly and children (with parents) who access the NCN 26 route for leisure and exercise may find the construction works disrupt their activity - differential negative impact in the short term.	People with disability including visual disability (with support from other cyclists on tandem bikes) who access the NCN 26 route may find the construction works disrupt their activity - differential negative impact in the short term.	No significant effect.	No significant effect.	No significant effect.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Lodway bridge / Avon bridge	The underpass may be used by elderly or disabled pedestrians living on either side of the railway to access the other side of the town and to access the NCN 26. The construction traffic (particularly to access Lodway Farm Construction compound) may deter non-motorised users (including the elderly, children and those with disability) from using the roads during the construction period.	The underpass may be used by elderly or disabled pedestrians living on either side of Pill Tunnel to access other side of the town and to access the NCN 26. The construction traffic (particularly to access Lodway Farm Construction compound) may deter non-motorised users (including the elderly, children and those with disability) from using the roads during the construction period	No significant effect.	No significant effect.	No significant effect.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Pill Station	Baseline population data indicate higher percentage of people over the age of 65 reside in the LSOAs along the proposed route. A combination of factors i.e., HGV traffic near the station construction compound, narrow roads with restrictive parking and traffic movement, need to access amenities near the proposed site, such the Post office, Library, Pill Community Centre, Churches and GP (Heywood Family Practice) may all contribute to difficulty in navigating the area, particularly for the elderly who may choose to limit their movement in such circumstances. The effect is assumed to be differential and minor negative. Ongoing consultation with local community groups, including key groups such as the elderly will be required during construction to help address these effects.	The construction works, including HGV movements, diversions and closures, alterations to pedestrian routes (on already narrow streets), construction noise and dust, will all contribute to discomfort for people with disability wishing to access amenities and services. A short term minor negative differential impact is assumed on people with disability.	No significant effect.	Christ Church, Pill Baptist Church, Pill Methodist Church and the Salvation Army-Pill Corps are located within a 300 m buffer of the railway through Pill. In addition to Sunday services, these churches also host events such as coffee mornings, toddler groups, kids club, women's group meetings at various times on weekdays. These activities may be affected by access constraints as a result of construction traffic movements and diversions along the narrow roads in Pill, and activities at construction compounds. Ongoing consultation with the local community will be important. The effect is evaluated to be minor negative.	No significant effect.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Avon Gorge	Users of the River Avon Tow Path along the Avon, including children with adults, may experience a reduction in the ambience of the route during the construction phase. Short term, minor negative (differential) effect.	Users of the River Avon Tow Path along the Avon, including disabled people, may experience a reduction in the ambience of the route during the construction phase. Short term, minor negative (differential) effect.	No significant effect.	No significant effect.	No significant effect.
Clanage Road Construction Compound	Teddies Nursery and Pre-school building, play area are located 30 m south of the construction compound. The use of the compound during construction may alter the setting of the compound, introduce vehicle turning movements in and out of the site, and introduce noise. Construction noise is unlikely to be significant given the proximity of Clanage Road. A minor negative (differential) effect on the routine of the children at the nursery is predicted.	Although the footpath along Clanage Road may be shared by mobility scooters or by wheelchair users, the proposed compound is unlikely to affect this path. However appropriate driving practice is expected from users of the construction compound.	No significant impact	No significant impact	No significant impact

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Ashton Gate Level Crossing, pedestrian and cycle ramp, and Barons Close Pedestrian Crossing	The Ashton Gate level crossing will close more often with the hourly plus service. This may result in slightly longer vehicle journeys into the industrial estate and potentially longer walking / cycling routes between the Long Ashton park and ride and Silbury Road area, employment in the industrial estate, facilities such as the football stadium off Winterstoke Road and Ashton Park School to the north of the A370 and Ashton Road. The effects would be felt differentially by school children and elderly or disabled groups.	<p>Longer walking routes would potentially be felt by people with disability (such as visual or hearing difficulty) who may use the route.</p> <p>Closure of the Barons Close pedestrian crossing would improve safety, given the increase in the number of train passes to two an hour with the DCO Scheme.</p> <p>When MetroBus becomes operational, access to the wider transport network will be possible from the Ashton Vale area near Baron's Close where a MetroBus stop will be located.</p> <p>The improvements in safety may outweigh the negative impact of longer journey times.</p>	No significant effect.	No significant effect.	No significant effect.

Table 7-1: Initial Assessment of the Construction Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Gender reassignment/sexual orientation
Construction compounds	No significant effect.	No significant effect.	Females experience more safety (perceived) issues when travelling alone than males. Construction sites and compounds may seem intimidating places. Appropriate safety and security measures will be incorporated into the layout and design of construction sites and compounds, eg use of fencing and, hoardings, lighting, security guards, and CCTV as appropriate. These measures may mitigate negative effect of perception of these sites - therefore neutral effect.	No significant effect.	People with gender reassignment and those with homosexual orientation are more likely (actual and perceived) to be targets of hate crime. The construction compounds may be seen as potential locations for assault or bullying to occur, especially at night and at isolated sites. Measures to improve the layout and design of construction compounds may reduce fears - therefore neutral effect.

7.3 Operations Phase

7.3.1 The effects of the operations phase on each protected characteristic group, at various locations along the DCO Scheme are discussed below and summarised in Table 7-2.

7.3.2 Reinstatement of the rail service is likely to benefit many protected characteristic groups, such as the elderly (age), race, disabled, gender, transgender and sexual orientation, by improving accessibility to Bristol, Bath and further away, which may help their social interaction with a wider network or to meet families and friends or to access services such as medical consultations. This is a **positive (differential) effect**.

7.3.3 The proposed stations at Portishead and Pill and the Trinity Footbridge are designed to disability compliant standards, therefore making them accessible for the elderly and those with physical disability. A **positive (differential) effect** on the age and disability protected characteristic groups is assumed. However, the revised highway layout and crossings at Portishead station may still pose a challenge for the disabled group which is a **minor negative effect**.

7.3.4 Elderly residents living near the proposed Portishead Station may be encouraged to travel to Bristol and Bath to visit family, friends or for leisure. The new development may also be a source of greater interest to housebound residents than existing views of this under-developed area. This is a **positive (disproportionate) effect** on age and disability protected characteristic groups.

7.3.5 Faith groups may benefit from access to Bristol and Bath to reach a wider network of their faith group, and vice versa. For example, people of Bahai faith from around Bristol and Bath may now be able to attend events at their Portishead branch. Likewise residents from Portishead could attend events at Bristol and Bath more easily via public transport. A **positive (differential) effect** is predicted for faith groups and the religion protected characteristic group.

7.3.6 Closure of private accommodation and occupation crossings will not have a significant impact on any of the protected characteristic groups, as it is a private property. The slight modifications of the width of NCN 26 underbridges will not significantly affect pedestrians or cyclists. The new bridleway under the M5 will provide a safer route than the current alignment under the M5 which will benefit equestrians, but not necessarily any of the protected characteristic groups.

7.3.7 The new passenger service in Pill will provide an opportunity for elderly people to travel further afield to visit friends and relatives and for leisure. This is a **positive effect** for the age protected characteristic group. The service will also provide an opportunity for unemployed people to seek work further afield.

7.3.8 Provision of the ramp along western side of the Ashton Gate underpass will provide a safe route for pedestrians (including children and the elderly) to travel between Barons Close and Ashton Road. A **minor positive (differential) effect** is assumed.

7.3.9 Although the closure of Barons Close Crossing may result in increased travel times to access either side of the crossing, it is likely to improve safety of the pedestrians, including for the elderly, children and people with disability. A MetroBus stop on the Ashton Vale to Temple Meads bus rapid transit route is planned here, which would provide wider access to the public transport network. A **minor positive (differential) effect** on the age and disability groups is predicted.

7.3.10 No significant effects are identified for the race and gender protected characteristic groups.

Table 7-2: Initial Assessment of the Operational Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Pregnancy/ maternity	Sexual orientation/ transgender
Portishead Station	Proposals for improvement on Quays Avenue (near Serbert Way) for a pedestrian island and increased shared space for pedestrians near the area, may help parents and children accessing the Busy Bees Nursery on Serbert's Way. Likewise it may benefit the elderly who will now have a formal and safe pathway along Quays Avenue and along other routes leading to the station.	At the existing junction with Phoenix Way and Harbour Road, dropped kerbs and tactile paving are currently provided. The flow of traffic at the junction is relatively constant reducing the opportunities to cross. This is a particular issue for specific users (e.g. those with disabilities and the elderly - differential impact) and may be an issue for the residents at the Haven Lodge Care Centre (disproportionate effect).	No significant effect.	No significant effect.	No significant effect.	No significant effect.
	The provision of a passenger service could encourage elderly residents in Portishead to travel more to Bristol, Bath and elsewhere. A positive disproportionate effect.	The proposed station design includes disabled car parking. The station includes an ambulant disabled WC cubicle. The Station has step-free access. The passenger service may encourage disabled people to travel to Bristol, Bath and elsewhere. A positive disproportionate effect.	No significant effect.	No significant effect.	The Station premises include a baby change and parent room. A positive effect.	Although the proportion of homosexual and transgender population in Portishead is not known, the new train service could help people from this group access similar groups in Bristol and Bath, and thus may feel less isolated. A positive effect.

Table 7-2: Initial Assessment of the Operational Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Pregnancy/maternity	Sexual orientation/transgender
Trinity Primary School Footbridge	The new pedestrian and cycle bridge is disabled compliant. It will provide a safe and accessible path for travel, although the route along the ramps is longer than the existing crossing at grade. A positive effect.	The new pedestrian and cycle bridge is disabled compliant. It will provide a safe and accessible path for travel, although the route along the ramps is longer than the existing crossing at grade. A positive effect.	No significant effect.	No significant effect.	The footbridge crossing will be designed with appropriate surfaces, suitable for parents travelling with buggies and pushchairs.	No significant effect.
Sheepway Farm Permissive crossing closure	This is a privately owned farm. No significant effect.	This is a privately owned farm. No significant effect.	This is a privately owned farm. No significant effect.	This is a privately owned farm. No significant effect.	This is a privately owned farm. No significant effect.	This is a privately owned farm. No significant effect.
NCN 26	No significant effect.	No significant effect.	No significant effect.	No significant effect.	No significant effect.	No significant effect.

Table 7-2: Initial Assessment of the Operational Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Pregnancy/ maternity	Sexual orientation/ transgender
Pill Station	<p>North Somerset 004A (within the DCO boundary, south-east of Pill) is one of the 10% most deprived LSOA in England. The new train connection will improve connectivity for economically active people who are unemployed.</p> <p>The new connection could enable the elderly (higher percentage in Pill LSOAs), to travel further to Bristol, Bath and elsewhere.</p>	<p>The station premises include disabled parking in the station forecourt and a disability compliant access ramp from the station entrance to the platform.</p>	No significant effect.	<p>A number of faith groups (four churches) are located within walking distance from the station. The new service could help faith users from other areas to join services at Pill or enable these church users to access wider network at Bristol or Bath.</p> <p>Likewise train services could also serve other faith groups, such as Bahai and Sikhs (whose centres are located at Portishead and Bristol).</p>	<p>The disability compliant ramp from the station entrance to the station platform would ease access for mothers with prams and young children.</p>	<p>Although the proportion of homosexual and transgender population at Pill is not known, the new train service could help people from this group access similar groups in Bristol and Bath, and thus may feel less isolated.</p>
Clanage Road Permanent Access	<p>Teddies Nursery Pre-school building and play area are located 30 m south of the permanent compound. The compound would be used intermittently, with no permanent buildings or storage.</p> <p>The compound will also be surrounded by planting, given the site is located within the Bower Ashton Conservation Area.</p> <p>Operation of the Network Rail Compound is unlikely to affect the setting of the nursery.</p>	<p>Although the footpath along Clanage Road (the A369) this road may be shared by mobility scooters or by wheelchair users, turning movements into and out of the proposed compound is unlikely to affect users of this path. No significant effect.</p>	No significant effect.	<p>No significant effect.</p>	<p>No significant effect.</p>	<p>No significant effect.</p>

Table 7-2: Initial Assessment of the Operational Impacts on the Protected Characteristic Group

Project component	Age	Disability	Gender	Religion/belief	Pregnancy/maternity	Sexual orientation/transgender
Ashton Gate Level Crossing, cycle and pedestrian ramp, and Barons Close pedestrian crossing	<p>The Ashton Gate Level Crossing will be closed more frequently given the higher number of train passes, which may differentially affect children and the elderly.</p> <p>Provision of the ramp along the western side of the railway line (linking Barons Close and Ashton Road) will provide safe access for pedestrians (who may include the elderly and children, including those walking or cycling to Ashton Gate School).</p>	<p>A differential impact is likely to be felt on people with disabilities, who currently use the crossing, as closure may increase detour travelling distance should they require access from the eastern side of the railway line into the industrial estate.</p>	No significant effect.	No significant effect.	No significant effect.	No significant effect.
	<p>Closure of the Barons Close pedestrian crossing may increase travel time for users, including the elderly and small children but will improve safety; for this reason the closure is considered to have a minor positive impact (differential) on this group.</p>	<p>Closure of the pedestrian access may increase travel time for users, including people with disability, but will improve safety; for this reason the closure is considered to have a minor positive impact (differential) on this group.</p>	No significant effect.	No significant effect.	No significant effect.	No significant effect.

7.4 Cumulative Effects

Other Projects along the Portishead Branch Line DCO Scheme

7.4.1 This EqIA considers the potential for cumulative effects on access for vulnerable groups. Other proposed developments along the DCO route have the potential to cause cumulative effects in conjunction with the Portishead Branch Line (MetroWest Phase 1) DCO Scheme. The PEI Report Appendix 18.2 contains details of other project which may have a cumulative effect on the DCO Scheme, consisting of NSIPs within 10 km and developments proposed through NSDC and BCC within 0.5 km of the Portishead Branch Line.

7.4.2 Mixed-use, residential and employment developments have been proposed along the DCO Scheme. None of the proposed developments are expected to have significant impacts on equality. However, as the number of people living, working and visiting Portishead and Pill is likely to increase over the coming years, beneficial cumulative effects relating to enhanced access between these development sites and the wider West of England region may occur once the DCO Scheme is completed. In particular, an assisted living development consisting of 118 apartments for the over 60s has been proposed for a site near the marina and in close proximity to the proposed Portishead Station. Once these apartments are occupied and the Portishead Branch Line is operating, residents would be able to travel easily to Bristol, for example, to visit the Bristol Arena and Bristol Temple Quarter proposed developments near Bristol Temple Meads Station.

7.4.3 In addition to the proposed developments above, further beneficial cumulative effects relating to increased access and connectivity across the wider Bristol area may occur between the DCO Scheme and MetroBus schemes, Network Rail infrastructure improvements and Highways England proposed new M49 junction near Avonmouth.

7.4.4 Overall, no significant adverse cumulative effects are likely to occur as a result of the interaction between the DCO Scheme and these proposed developments. The effect is therefore neutral.

Other Works for MetroWest Phase 1

7.4.5 Other elements of MetroWest Phase 1, namely the Parson Street Junction modifications including Liberty Sidings, 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.

7.4.6 Network Rail undertakes their own environmental appraisals and action plans and environmental risk registers of permitted development works as part of the reporting for their internal 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 3/4 phase into the detailed design phase (GRIP 5) and construction (GRIP 6).

7.4.7 Given the small scale nature of these works and the fact that they do not involve changes to station layout or reductions in train service frequency, there are unlikely to be any significant cumulative effects arising from these schemes and the Portishead Branch Line (MetroWest Phase 1) DCO Scheme, during the construction and operation phases. This will therefore be a neutral effect.

Other Stations in the Local Network

7.4.8 In order for seamless and easily accessible travel to be experienced by travellers, other stations in the local network must also cater for vulnerable groups. For example by having step free access and by adopting disability standards in the design of all the stations.

7.5 Limitations in Conducting the Assessment

7.5.1 At this stage it has not been possible to estimate the number of construction vehicles required to build the DCO Scheme, although it is anticipated that as much use will be made of rail haulage as possible. Consequently, the prediction of traffic impacts along the likely haulage routes has not been possible. The assessment of construction-related transport effects will be considered in more detail as the construction strategy is developed.

7.5.2 As it is not possible to identify the location of each protected characteristic group member in the residential properties along the DCO Scheme route, a high level prediction has been made. Individual circumstances will be different for the residents and for road users who belong to the protected characteristic groups. Further stage consultation responses may highlight issues relevant to specific groups at specific locations. The EqIA will be updated as and when such information becomes available.

SECTION 8

Conclusions

- 8.1.1 This equality impact assessment has identified the construction and operation stage impacts across the protected characteristic groups, after taking into account the proposed mitigation measures. Most impacts predicted for the operations phase are positive in nature.
- 8.1.2 Some negative construction impacts predicted may be addressed through the implementation of the CoCP.
- 8.1.3 This document is now presented for consultation with members of the public and with specific protected characteristic groups in the study area. Comments and recommendations from this consultation will be considered to revise the next stage EqIA.

SECTION 9

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Figures

