



MetroWest+

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council

6.17, Environmental Statement, Volume 2, Chapter 14 Socio-economics and Economic Regeneration

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, Regulation 5(2)(a)
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CHAPTER 14

Socio-economics and Economic Regeneration

14.1 Introduction

14.1.1 The Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme ("the DCO Scheme") has the potential to give rise to significant impacts on socio-economics and economic regeneration. This Chapter:

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

14.1.2 The MetroWest Programme comprises

- MetroWest Phase 1,
- MetroWest Phase 2,
- a range of station re-opening and new station projects, and
- smaller scale enhancement projects for the West of England local rail network.

14.1.3 MetroWest Phase 1 comprises the delivery of infrastructure and passenger train operations to provide:

- i) a half hourly service for the Severn Beach line (hourly for St. Andrews Road station and Severn Beach station);
- ii) a half hourly service for Keynsham and Oldfield Park stations on the Bath Spa to Bristol line; and

- iii) an hourly service (or an hourly service plus) for a reopened Portishead Branch Line with stations at Portishead and Pill, for which the Development Consent Order ("DCO") is required.
- 14.1.4 This chapter scopes the impact of the works required for MetroWest Phase 1 as a whole and for the DCO Scheme on the socio-economic profile of the region and economic regeneration in the study areas for the DCO Application.
- 14.1.5 The socio-economics and economic regeneration assessment considers the impacts of the wider MetroWest Phase 1 project and the DCO Scheme in relation to the following topics:
- demography;
 - travel patterns;
 - labour market participation;
 - socio-economic classification;
 - employment profile; and,
 - deprivation.
- 14.1.6 This Chapter should be read in conjunction with Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7), the Equality Impact Assessment in the ES Appendix 14.1 (DCO Document Reference 6.25), and the Health Impact Assessment in the ES Appendix 14.2 (DCO Document Reference 6.25). Further information on MetroWest Phase 1 is presented in the Outline Business Case 2017 ("OBC 2017") (DCO Document Reference 8.4).

14.2 Legislation and Policy Framework

National Policy

National Policy Statement for National Networks

- 14.2.1 The Planning Act 2008 Section 104(3) requires the Secretary of State to determine the application for the DCO Scheme in accordance with the National Policy Statement for National Networks ("NPSNN"), unless specified factors provide otherwise. The NPSNN advises on the delivery of transport infrastructure as a key mechanism for achieving sustainable economic growth. Improving the transport network is highlighted as integral to improving accessibility to jobs and markets for employees, businesses and consumers alike. In particular, the NPSNN sets out the Government's vision 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". (See NPSNN Summary of Need, page 9).*

14.2.2 Table 14.1 below identifies those policies of direct relevance to this assessment and the location where they are considered in this ES.

Table 14.1: Summary of relevant NPSNN advice regarding socio-economics and regeneration

Summary of NPSNN provision	Consideration within the ES
Para. 2.6. There is a need for development on national networks to support national and local economic growth and regeneration, particularly in the most disadvantaged areas. Improved and new transport links can facilitate economic growth by bringing businesses closer to their workers, their markets and each other. This can help rebalance the economy.	Section 14.4 profiles the baseline characteristics of affected communities. In particular, the assessment considers the impacts on the towns of Portishead and Pill, as well as the wider West of England area, including opportunities to improve accessibility across the region.

National Planning Policy Framework

14.2.3 The National Planning Policy Framework ("NPPF") does not contain specific policies for Nationally Significant Infrastructure Projects ("NSIP"). However, NPPF paragraph 5 notes that applications for NSIPs are to be determined in accordance with the decision-making framework set out in the Planning Act 2008 and relevant National Policy Statements "*as well as any other matters that are considered both important and relevant (which may include the National Planning Policy Framework)*". The NPPF advises on promoting sustainable transport in Chapter 9. It recognises that planning policy should support large scale transport facilities and supporting infrastructure to maximise the wider economic contribution of such investments.

Regional Strategies and Plans

West of England Joint Spatial Plan and Joint Transport Study

14.2.4 The four West of England Councils - North Somerset District Council ("NSDC"), Bath and North East Somerset Council ("B&NES"), Bristol City Council ("BCC") and South Gloucestershire Council ("SGC") - have prepared the West of England Joint Spatial Plan ("JSP"). This emerging plan will be a statutory Development Plan Document ("DPD") once adopted, providing the strategic overarching development framework for the West of England to 2036. "*In tandem with the JSP, a Joint Transport Study ("JTS") was undertaken to recommend how to address both current transport challenges, including carbon reduction, and forecast growth. The JTS, developed in partnership with Highways England, identified potential future strategic transport proposals for delivery up to 2036, that address current challenges and inform future development proposals in the JSP. The JTS set out the following approach for transport: Transport in the West of England will be transformed over the next 20 years through a programme of*

complementary measures designed to address underlying challenges and to enable the sustainable delivery of new housing and employment growth.”

West of England LEP Strategic Economic Plan 2015-2030

- 14.2.5 The Strategic Economic Plan (the "SEP") prepared by West of England Local Enterprise Partnership ("LEP") outlines how the region will achieve sustainable economic growth over the plan period. The SEP highlights that expansion of these sectors will be driven by a number of levers of growth, including investment and promotion and places and infrastructure. In particular, infrastructure is presented as a key enabler of growth in the region, with MetroWest rail improvements Phase 1 and Phase 2 emphasised as key cross-boundary infrastructure interventions in the SEP.

Local Strategies and Plans

West of England Joint Local Transport Plans 3 and 4

- 14.2.6 The West of England Local Transport Plan 3, last refreshed in 2013, will be superseded by the emerging Joint Local Transport Plan 4 2019 – 2036 ("JLTP4"), which has been developed to progress the JTS. Building on Unlocking Our Potential: The Economic Benefits of Transport Investment in the West of England (2012), the JLTP4 identifies road congestion and other transport issues as key constraints on economic growth. At the same time, the policy documents explicitly emphasise the prominent role that rail investment can play in driving economic development. In accordance with national planning policy, local policy emphasises transport infrastructure investment as an enabler of economic development. The MetroWest Phases, which are identified as early investment schemes to ensure a programme of works can be delivered in the short, medium and longer term of the JLTP4 period, are identified as schemes to significantly improve local and suburban rail travel and services across the area.

Local Policy

- 14.2.7 Although the majority of the DCO Scheme is within the NSDC boundary, a small section falls within the BCC boundary. Therefore, local planning policy from both local authorities is considered. An overview of the local planning policies in the study area is presented in Chapter 6 Planning Framework (DCO Document Reference 6.9). The following key policies pertaining to socio-economic development and regeneration – within the context of MetroWest Phase 1 and the DCO Scheme specifically – have been identified within NSDC's and BCC's Core Strategies / Local Plans / Development Plans:

- Policy CS1 – Addressing climate change and carbon reduction (NSDC);
- Policy CS10 – Transportation and movement (NSDC);
- Policy CS20 – Supporting a successful economy (NSDC);
- Policy CS26 – Supporting healthy living and the provision of health care facilities (NSDC);
- Policy CS31 – Clevedon, Nailsea and Portishead (NSDC);
- Policy CS32 – Service villages (NSDC);
- Policy DM68 – Protection of sporting, recreation, cultural and community facilities (NSDC);

- Policy BCS1 – South Bristol Delivery Strategy (BCC);
- Policy BCS8 – Delivering a Thriving Economy (BCC);
- Policy BCS10 – Transport and Access Improvements (BCC);
- Policy BCS13 – Climate Change (BCC); and
- Policy DM14 – The Health Impacts of Development (BCC).

14.2.8 Further, NSDC has prepared *An Economic Plan - 2017-2036* to refresh the Council's position on economic development and growth. Instead of explicitly listing statutory policies that must be adhered to from an economic development perspective, the Plan provides a framework to guide and influence activity, resources and investment. This framework specifies four key investment themes which will contribute to five strategic objectives to achieve the overarching ambition to create “a vibrant and successful place to live, work and study, with a distinct identity and quality of life that attracts and retains enterprise, investment, young people and visitors”.

14.2.9 The key strategic objectives and themes pertaining to socio-economic development and regeneration are:

- Strategic Objective 1: To create the conditions for higher value local employment;
- Strategic Objective 2: To grow and enhance the competitiveness of our business base;
- Strategic Objective 3: To foster a culture of enterprise, innovation and aspiration;
- Theme 1: Facilities and infrastructure. The theme includes improving transport, accessibility and connectivity, and specifically mentions Portishead Rail; and
- Theme 3: Competitive businesses and enterprise. This theme aims to develop niche clusters and supply chains; encourage innovation and collaboration; support business start-ups, self-employment, small and medium sized enterprises; and attract high profile, high value businesses to the area.

14.3 Methodology

Guidance and Best Practice

14.3.1 Although there is no standard guidance for undertaking the socio-economic element of an environmental impact assessment (“EIA”), the methodology employed for this assessment will follow the wider guidance frameworks set by the following documentation:

- *The Green Book: Appraisal and Evaluation in Central Government* (HM Treasury, 2003);
- *Evaluation Group on Regional and Urban Programmes* (“EGRUP”) and subsequent *The 3R's Guidance* (Office of the Deputy Prime Minister, 2004);
- *Measuring the Economic Impact of an Intervention or Investment* (Office for National Statistics, 2010);
- *Guidance for Using Additionality Benchmarks in Appraisal* (Department for Business, Innovation and Skills (“BIS”), 2009);

- *Statutory Guidance on Local Economic Assessments* (Department for Communities and Local Government ("DCLG") 2010).

Consultations

14.3.2 A summary of consultations undertaken to date is presented in Table 14.2 below. Further information on the consultation process is presented in Chapter 5 Approach to the Environmental Statement (DCO Document Reference 6.8). The Consultation Reports on the informal stakeholder consultations undertaken in 2015 and subsequent micro-consultation reports are available on the document store, linked from the MetroWest Programme website at <https://travelwest.info/metrowest>. The Consultation Report on the statutory consultation undertaken in autumn 2017 is presented in the DCO application as DCO Document Reference 5.1.

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
Scoping Opinion Responses (August 2015)		
Planning Inspectorate	Paragraph 3.82. The assessment methodology should be agreed with relevant consultees and fully described and justified.	The assessment methodology is fully described in Section 14.3. It adopts the source-pathway-receptor approach recommended by The Planning Inspectorate.
	Potential impacts should be quantified where possible. Where a qualitative judgement is relied upon, this should be supported with robust evidence, including potential indirect impacts. The likely significance of potential effects should be considered in a local and regional context.	The impact assessment is presented in Section 14.6. This includes a robust assessment in accordance with the Scoping Opinion.
	Paragraph 3.84. MetroWest Phase 1 will route through the West of England sub-region and is likely to have impacts in this region. Describe the source-pathway-receptor chain for each potential impact and the criteria used to determine significance.	The source-pathway-receptor approach has been adopted in Section 14.6.
	Paragraph 3.85. The potential positive cumulative impacts of the scheme with other major transport schemes in the West	The positive impacts are included in the assessment in Section 14.6 and Table 14.22.

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
	of England should be quantified where possible.	
NSDC	Provision of socio-economic datasets.	Used to validate/verify socio-economic datasets are sourced from the Office of National Statistics "ONS" and presented in Section 14.4.
West of England LEP/ NSDC	Request for consistency with recently submitted MetroWest Phase 1 Business Cases.	The assessment of construction stage and wider impacts is consistent with the findings of the MetroWest Phase 1 OBC 2017, DCO Document Reference 8.4.
<i>Informal Micro-consultation on DCO Scheme Boundary (22 June to 3 August 2015)</i>		
North Somerset Local Access Forum	A bridge between Galingale Way and Trinity Primary School preferred over footpath only option. The length of diversion required for the footpath (c. 600 m) only option unacceptable for young children. The bridge should also be suitable for cyclists.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out the proposals for the bridge which will be suitable for pedestrians and cyclists.
Pill and Easton-in-Gordano Parish Council	Concern over impact of parking charges on availability of street parking for residents and on parking restrictions on Sambourne Lane on local businesses, with suggestions for mitigation.	The impacts on parking provision are discussed within Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19), section 16.6. There will be post-implementation monitoring of parking provision within Portishead and Pill (discussed in Table 16.8). Section 7 of the Transport Assessment in the ES Appendix 16.1 ("TA") (DCO Document Reference 6.25) also discusses the impact of the scheme on local roads and parking.
Bristol Port Company	Concern regarding potential impact of rail link to Portishead on number or timings of	This has been assessed within Section 16.6 of Chapter 16 Transport, Access and Non-

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
	movements on existing freight rail line.	Motorised Users (DCO Document Reference 6.19), which considers the transport effects during the construction stage. Further discussion of the impacts on rail freight is discussed in section 6.5 of the TA (DCO Document Reference 6.25).
Formal Stage 1 Consultation (22 June to 3 August 2015)		
Transport Focus	Portishead Station: As the station will be located east of Quays Avenue and some distance from the town centre, accessibility of Portishead station should be inclusive to overcome any problems associated with its location.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out the proposals for Portishead station and pedestrian and cyclist connections to the town centre.
Transport Focus	Trinity Primary School Bridge: The proposals to replace the current unofficial footpath over the disused track may concern some in the local community and careful consideration of this proposal is essential.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out proposals for Trinity Primary School Bridge. The bridge has been designed with low gradient ramps for accessibility and connects into the existing network of paths.
Transport Focus	Concerns over impacts on the National Cycle Network ("NCN").	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) outlines the proposals as they affect the NCN. Section 16.7 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outlines the impacts on cyclists and pedestrians from the DCO Scheme and mitigation measures. Non-Motorised User ("NMU") diversion routes and closures are outlined within the TA (DCO Document Reference

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
		6.25), including links near to Trinity Primary School and to the NCN.
Harbourside Family Practice	Concern regarding impact on availability of parking near Harbourside Family Practice for elderly patients and those with small children.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out car parking arrangements at Portishead Station. Impacts on parking provision are discussed within section 16.6 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19). There will be post-implementation monitoring of parking provision within Portishead and Pill (discussed in table 16.8).
British Horse Society	A bridge between Galingale Way and Trinity Primary School preferred over footpath only option. The length of diversion required for the footpath (c. 600 m) only option unacceptable for young children. The bridge should also be suitable for cyclists.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out the proposals for the bridge which will be suitable for pedestrians and cyclists.
Sustrans	The alignment of the ramps on the proposed bridge between Marjoram Way and Galingale Way adds significantly to the distance for walkers and cyclists. Ramp alignments which run north / south would avoid this. As considerable spoil could be generated by the development, perhaps this could be used to build earthwork ramps.	Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out proposals for Trinity Primary School Bridge. The bridge has been designed with a ramp as well as stairs to prevent discrimination against people with a disability and is compliant with the Equality Act 2010. Ramps perpendicular to the bridge would require more land and be visually more prominent. A photomontage of the proposed design is presented in Appendix 11.4 (DCO Document Reference 6.25).

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
Sustrans	Opportunities to enhance existing approaches to road bridges at Portbury Docks on NCN Route 26 and existing cycle and pedestrian access to Portishead Station, and provide cycle/pedestrian access to Portishead Station from Tansy Way should be considered.	<p>Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) sets out the proposals for Portishead station and pedestrian and cyclist connections.</p> <p>Section 16.7 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outlines the mitigation measures for the DCO Scheme, including the impacts on cyclists and pedestrians.</p> <p>NMU diversion routes and closures are outlined within the TA (DCO Document Reference 6.25).</p>
Business West	There should be no disruption to rail freight movements to and from Portbury Docks during construction process.	<p>Section 16.6 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) considers the transport effects of the DCO Scheme, including rail freight.</p> <p>Further discussion of the impacts on rail freight can be found in section 6.5 of the TA (DCO Document Reference 6.25).</p>
Public	<p>General concerns about the connectivity of transport within the area and opportunities for enhancement of existing infrastructure is highlighted.</p> <p>There is also concern over how any new developments within the area can be connected to the scheme.</p>	<p>Sections 16.4 and 16.6 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outline the existing capacity of public transport and the potential effect of the DCO Scheme.</p> <p>Table 16.8 in Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outlines the infrastructure measures to be provided as</p>

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
		part of the DCO Scheme in order to improve transport and section 16.7 outlines the mitigation measures for the DCO Scheme, including the impacts on cyclists and pedestrians.
Public	Concerns regarding pedestrian cycling infrastructure within the wider area and opportunities to enhance infrastructure within the general areas, Quays Avenue, Tansy Lane, Galingale Way, Conference Avenue and on routes to Pill.	<p>Chapter 4 Description of the Proposed Works (DCO Document Reference 6.7) outlines changes to pedestrian and cycling infrastructure, including minor improvements (widening) of NCN Route 26, improved crossing on Royal Portbury Dock Road, and new pedestrian / cycle bridges.</p> <p>Sections 16.4 and 16.6 of Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outlines the existing transport situation and the impacts of the DCO Scheme on the area surrounding the stations.</p> <p>Table 16.8 in Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) outlines the infrastructure measures to be provided as part of the DCO Scheme including provisions for cyclists and pedestrians. Provision of bicycle parking facilities at the stations is discussed in section 16.7 and a new foot and cycle bridge will connect Tansy Lane to Galingale Way (Section 3.6 of the TA, DCO Document Reference 6.25).</p>
Stage 2 Formal Consultation (23 October to 4 December 2017)		
Bristol Port Company	Concern about impacts on business and permanent loss of land in Bristol Port Company	There remains a compelling case for intervention to implement the DCO Scheme.

Table 14.2: Summary of consultation responses

Organisation and date	Summary of response	Consideration within ES
	ownership and whether the benefits of the scheme outweigh this.	Further information is set out in the OBC 2017 (DCO Document Reference 8.4), which is available from www.travelwest.info/MetroWest
Local Business owner/occupier	Concern over impact on business due to construction compound on Clanage Road.	Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19) and the TA (DCO Document Reference 6.25) assesses the potential effects of the DCO Scheme on traffic, transport and access and identifies mitigation measures required.
Owners and businesses at Ashton Vale Industrial Estate	Concern that the increased number of closures of Ashton Vale Road level crossing will affect businesses on the Ashton Vale Industrial Estate.	Chapter 16 Transport, Access and Non-Motorised Users and the Transport Assessment (DCO Document Reference 6.19) assesses the potential effects of the DCO Scheme on traffic, transport and access and identifies mitigation measures required.
Public	Concerns about parking charges and ticket costs.	The affordability of the DCO Scheme is assessed in Section 14.6 of this chapter.
Public	Concerns about parking restrictions in Portishead and Pill.	The impacts on parking provision are discussed within Chapter 16 Transport, Access and Non-Motorised Users (DCO Document Reference 6.19), section 16.6. There will be post-implementation monitoring of parking provision within Portishead and Pill (discussed in Table 16.8). Section 7 of the TA (DCO Document Reference 6.25) also discusses the impact of the DCO Scheme on local roads and parking.

14.3.3 This assessment has been influenced by a range of responses sourced from stakeholders as part of the scoping and baseline study responses and separately from these processes. The key advice and guidance provided during the consultation process includes:

- Potential impacts should be quantified where possible;
- Potential effects should be considered at regional and local context where appropriate;
- Adoption of the source-pathway-receptor chain impact identification framework;
- Expansion of the local study area for Pill to encompass the wards of Pill and Easton-in-Gordano, on the basis that these two villages (and Ham Green) are effectively the same settlement; and
- Recognition of the DCO Scheme's impact on deprived communities located in proximity to the DCO Scheme and elsewhere across the West of England (e.g. Lawrence Hill, Bedminster, and Windmill Hill in Bristol).

Definition of the Study Area

14.3.4 This assessment encompasses a number of local and wider study areas to ensure that the full range of potential socio-economic effects are captured and considered within local and regional contexts. In terms of the local study areas, the assessment primarily focuses on the towns of Portishead and Pill. For the purpose of the baseline analysis, the town of Portishead is defined as the Portishead built-up-area or the six wards which make up the town (Central, Coast, East, Redcliffe Bay, South and North Weston and West). The town of Pill is defined as the wards of Pill and Easton-in-Gordano, given that these wards cover the three settlements of Pill, Easton-in-Gordano and Ham Green which are contiguous and share similar characteristics. Presenting data for Portishead is appropriate because the DCO Scheme will provide a new link between the town and the rest of the sub-region, via delivery of Portishead station. Socio-economic conditions in Pill and Easton-in-Gordano are also presented, as the Portbury Freight Line forms a key part of the proposals, linking Pill junction and Parson Street Junction and encompassing redevelopment of the station at Pill.

14.3.5 The wider study area for the assessment is defined as the West of England sub-region, comprising the four local authorities of NSDC, BCC, B&NES and SGC. This sub-regional spatial coverage is deemed appropriate given the routing of the wider MetroWest Phase 1 programme throughout all of the West of England authorities and the likelihood that the DCO Scheme could impact on socio-economic conditions across the entire sub-region. In addition, this wider coverage ensures that deprived communities in the West of England (e.g. Lawrence Hill) are also considered within the assessment.

14.3.6 Within this context, Figure 14.1 below presents the study area for the assessment.

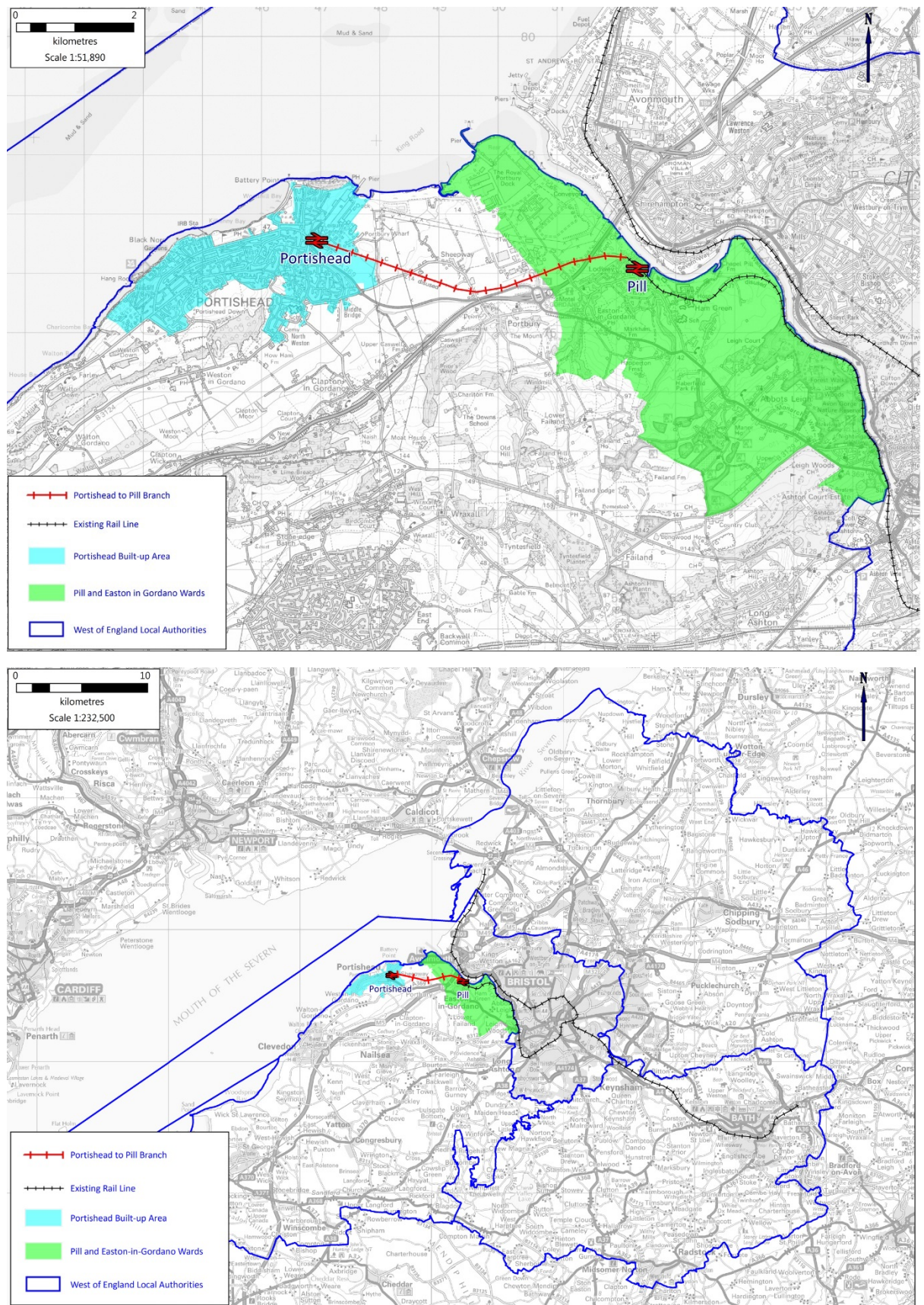


Figure 14.1: Portishead Branch Line DCO Scheme Study Area
(Source: ONS, OpenData, 2015)

Key Receptors

14.3.7 The DCO Scheme could impact on various socio-economic receptors:

- Local residents: the existing populace of the study area;
- Local labour market: the working age population of the study area that are economically active;
- Local employees: the working age population of the study area that are economically active and currently employed; and
- Local businesses in the defined context areas:
 - directly affected businesses that must relocate or close in response to the DCO Scheme (e.g. those currently accommodated at 7 Station Road in Pill); and
 - indirectly affected businesses that may be impacted by changes to accessibility/connectivity as a result of the DCO Scheme.

14.3.8 The route through which the DCO Scheme will impact on these receptors is identified via utilisation of the source-pathway-receptor framework (as per the Secretary of State's advice contained in the Scoping Opinion). This framework provides a mechanism for identifying socio-economic receptors and recognising the potential impacts on these receptors that may arise as a result of the DCO Scheme. The source-pathway-receptor chain can be understood in the following terms:

- Source: an activity from which a potential impact may originate. In the context of the DCO Scheme, the actual construction, delivery and operation of the transport infrastructure scheme is the source of potential impacts.
- Pathway: the route through which a source activity may impact on a receptor. This outlines the potential impact of a source activity on a receptor (e.g. creation of new construction jobs to fulfil construction activity).
- Receptor: the socio-economic element or feature which is impacted (e.g. the local labour market).
- Consequence: this is the subsequent effect of the impact of the socio-economic receptor (e.g. reduced unemployment or increased economic activity).

Defining the Baseline

14.3.9 This section is based on data available in the public domain from a range of sources comprising:

- Census 2011 and 2001 statistics;
- The Business Register and Employment Survey ("BRES") (2015);
- The Annual Survey of Hours and Earnings ("ASHE") (2015);
- The Claimant Count Register ("CCR") (2015);
- Indices of Multiple Deprivation ("IMD") (2015); and
- NOMIS (previously referred to as the National Online Manpower Information System).

- 14.3.10 The data available from these sources are reasonably up-to-date, typically providing estimates for a range of years between 2011 and 2015. Datasets relating to BRES, ASHE, CCR and IMD have all been superseded since the baseline study was originally prepared in 2014. To present a current analysis of baseline conditions, these datasets have been updated in the ES. Demographic information has also been obtained through consultation with the Senior Research and Monitoring Officer at NSDC (also based on the Census 2011). It is considered that these datasets provide sufficient information on the key indicators that shape the prevailing socioeconomic profile of the study area.

Assessment of Construction Impacts

- 14.3.11 The West of England LEP's *Impact Guidance Note on Infrastructure Projects* has been used to forecast construction stage impacts. This Note provides guidance on best practice benchmarks that convert construction expenditure or turnover into direct and indirect construction jobs, as well as direct and indirect Gross Value Added ("GVA") uplift.

Assessment of Operational Impacts

- 14.3.12 The OBC 2017 (DCO Document Reference 8.4) for the MetroWest Phase 1 project was used to assess the direct employment creation, transport economic outcomes and wider economic impacts (wider job creation and GVA uplift) resulting from the operational stage.

Assessment of Decommissioning Impacts

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

Assessment of Cumulative Effects

- 14.3.14 The socio-economic and regeneration effects of the DCO Scheme, in combination with other projects, were considered. The other projects were identified following the guidance provided by The Planning Inspectorate's advice note 17 *Cumulative Effects Assessment*. This approach is explained in Chapter 18 In-combination and Cumulative Effects Assessment (DCO Document Reference 6.21) and a long list of possible projects to be considered is provided in Appendix 18.1 in the ES Volume 4 Technical Appendices (DCO Document Reference 6.25). A short list of other projects considered in the cumulative effects assessment is provided in Appendix 18.2 (DCO Document Reference 6.25). Potential impacts are identified and measured based on professional judgement.
- 14.3.15 Cumulative effects arising from the DCO Scheme with other works required for MetroWest Phase 1 are also considered. These works are Parson Street Junction including Liberty Lane Sidings, improvements to Parson Street Station, the Bedminster Down Relief Line, the Severn Beach / Avonmouth

Signalling works and Bathampton Turnback. The works required to improve services on the Severn Beach / Avonmouth line have been implemented by Network Rail under their permitted development rights as part of the Filton Four Track Project, but the new timetable is not expected to come into operation until late 2021.

Use of Significance Criteria

Value or Sensitivity of the Resource

- 14.3.16 There is no formal or standardised methodology established for assessing the significance of socio-economic impacts. Therefore, the standard approach in the Department of Transport's Design Manual for Roads and Bridges ("DMRB") to assessment has been used to inform this assessment. Although DMRB was developed for highways, the Department for Transport considers it is suitable for other linear schemes (Department for Transport, 2015).
- 14.3.17 The assessment of impacts resulting from the DCO Scheme are underpinned by an evaluation of the value or importance of a resource and the sensitivity of the receptors to change. The range of qualitative rankings associated with sensitivity are indicated in Table 14.3.

Table 14.3: Definition of sensitivity

Sensitivity	Typical Descriptors
High	High importance and rarity, highly sensitive to change, limited potential for substitution.
Medium	High or medium importance and rarity, high or medium sensitivity to change, limited potential for substitution.
Low	Low or medium importance and rarity, low or medium sensitivity to change.
Negligible	Very low importance and rarity, very low sensitivity to change.

Magnitude of Impact

- 14.3.18 Assessment of the magnitude of the impact of the proposals on the socio-economic receptor considers scale and size of impacts, as well as whether impacts are likely to be adverse or beneficial. The magnitude of impacts resulting from the DCO Scheme is assessed using a qualitative scale as illustrated below in Table 14.4.

Table 14.4: Definition of magnitude

Magnitude	Typical Descriptors
High	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse).
	Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Medium	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (Adverse).
	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Low	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements (Adverse).
	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse).
	Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).

Significance of Effect

14.3.19 Effect is the term used to express the consequence of an impact and is expressed in terms of significance of effect. The significance of effect is determined by correlating the sensitivity of the receptor (Table 14.3) with the magnitude of the impact (Table 14.4). This is achieved using the matrix presented below in Table 14.5.

Table 14.5: Significance of effect assessment matrix

Sensitivity	Magnitude			
	Negligible	Low	Medium	High
Negligible	Neutral	Neutral or minor	Neutral or minor	Minor
Low	Neutral or minor	Neutral or minor	Minor	Minor or moderate
Medium	Neutral or minor	Minor	Moderate	Moderate or major
High	Minor	Minor or moderate	Moderate or major	Major

14.3.20 Both sensitivity and magnitude are taken into account in determining the significance of effect. The different significance levels are described in Table

14.6 below, and are derived from the best practice guidance contained within the DMRB Volume 11, Section 2, Part 5: HA 205/08 Assessment and Management of Environmental Effect.

Table 14.6: Definition of significance

Significance Category	Typical criteria descriptors
Major	These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process.
Moderate	These beneficial or adverse effects may be important, but are not likely to be key decision-making factors. The cumulative effects of such issues may become a decision-making issue if leading to an increase in the overall adverse effect on a particular resource or receptor.
Minor	These beneficial or adverse effects may be raised as local issues. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the DCO Scheme.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

14.3.21 For the purpose of this assessment, socio-economic effects that are categorised as moderate or above are considered significant in terms of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the “EIA Regulations 2017”). Effects may be adverse or beneficial. Where these significant effects are expected to be negative in nature as well, this would trigger design changes or mitigation measures to be implemented.

14.4 Baseline, Future Conditions and Value of Resource

14.4.1 This section provides commentary on the socio-economic indicators for the towns of Portishead and Pill, which are at the heart of the DCO Scheme. Further, the main routes for MetroWest Phase 1 (Portishead-Bristol, Bristol-Severn Beach, and Bristol-Bath) will link to other areas in the West of England sub-region. As such, the key socio-economic indicators for the West of England are presented with some comparison against equivalent indicators in the towns of Portishead and Pill and national averages.

Socio-Economic, Equality and Health Indicators

Demography

14.4.2 The 2011 Census reveals that there were 24,000 residents in the town of Portishead and 6,200 in Pill in 2011. Since 2001, the population of Portishead grew by 6,500, reflecting an annual growth rate of 3.30%. Rapid population growth in Portishead is attributed to development of the former docks into a vibrant community, combined with residential development

elsewhere. This level of growth has continued more recently, with around 25% of all residential units delivered in North Somerset being located in Portishead according to NSDC's Annual Monitoring Report (2015). In contrast, the population of Pill marginally declined at an annual growth rate of -0.2% between the Census periods.

- 14.4.3 The 2011 Census reveals that there were 1.1 million residents across the West of England in 2011 (see Table 14.7). Since 2001, the annual growth rate of population was around 0.84% for the West of England; above the national (0.76%) and Pill (-0.2%) benchmarks, but below the equivalent rate for Portishead (3.3%). The Census data reveal a large and growing market for rail transport (particularly in Portishead), measured purely in terms of population.

Table 14.7: Population and annual growth rates

Geography	Population 2001	Population 2011	Overall Growth	Annual Growth Rate
Pill	6,324	6,180	-2.3%	-0.2%
Portishead	17,121	23,699	38%	3.30%
West of England	983,856	1,069,583	9%	0.84%
England	49,138,831	53,012,456	8%	0.76%

Source: 2001 and 2011 Census

Age Structure

- 14.4.4 In Portishead, the age structure is skewed towards certain vulnerable groups (in particular, young people and elderly, both forming 19% of the total population). Elderly residents are particularly over-represented in Pill, forming 24% of the population. In Portishead, the future working age population is likely to increase considerably given the current high proportion of young people.
- 14.4.5 The 2011 Census also indicates that the modal age bands differ between the West of England and nationally (see Table 14.8). For example, the West of England has a marginally higher proportion of residents concentrated in the 'working-age' bands (i.e. 66% aged 16-64) relative to England as a whole (65%). These findings suggest that a considerable proportion of residents in the West of England are currently at working age, and are therefore likely to be economically active and commute to work.

Table 14.8: Population age structure

Age Group	Pill	Portishead	West of England	England
0-15	16.7%	19.4%	18.2%	18.9%
16-64	59.4%	61.4%	65.5%	64.8%
64+	23.9%	19.2%	16.3%	16.3%

Source: 2011 Census

Ethnicity

- 14.4.6 The vast majority of residents in Portishead and Pill belong to the white ethnic group (97%) according to the latest Census. Around 1% belong to Asian or mixed ethnic groups and less than 1% belong to black or other ethnic groups. The West of England is more ethnically diverse than these towns, but less ethnically diverse than England as a whole (see Table 14.9), with around 9% of residents belonging to ethnic minority groups compared to a national average of 15%.

Table 14.9: Ethnicity

Ethnic Group	Pill	Portishead	West of England	England
White	97.3%	97.4%	90.9%	85.4%
Mixed/multiple ethnic groups	1.1%	1.1%	2.2%	2.3%
Asian/Asian British	1.1%	1.1%	3.5%	7.8%
Black/African/Caribbean/Black British	0.2%	0.2%	2.8%	3.5%
Other ethnic group	0.3%	0.3%	0.5%	1.0%

Source: 2011 Census

- 14.4.7 Although minority ethnic groups form a relatively small proportion of the population in the West of England, members of ethnic minority groups are considerably less likely to own a private car relative to the white population. The 2011 Census shows that 14% of white residents in the West of England do not have access to a car, rising to 26% for mixed ethnic group residents and 39% for black residents. This implies that minority ethnic groups must be more reliant on public transport provision to access jobs and services. At present, these minority groups are disadvantaged in terms of transport options, as the main transportation out of Pill and Portishead is currently by car. As these groups do not have access to a car, this limits their employment opportunities, leading to reliance on bus services.

Disability

- 14.4.8 In terms of disability, Portishead has a low proportion of residents for whom day to day activities are limited a lot (6.1%) or to some extent (8.6%), relative to England (8.3% and 9.3% respectively). Nevertheless, these figures still mean that around 15% of the Portishead population experience some degree of difficulty in their day to day activities. Residents in Pill are more likely than the national average to suffer from long term health problems or disabilities (with one-fifth of residents limited to some extent). This could relate to the age structure of the town, which is skewed towards elderly residents.
- 14.4.9 Residents in the West of England are less likely to suffer long term health problems or disabilities relative to the national average, and their day-to-day activities are less limited than in England overall, as shown in Table 14.10 (although only by approximately 1% of the population).

Table 14.10: Long term health problems or disability

Geography	Day-to-day activities limited a lot	Day-to-day activities limited a little	Day-to-day activities not limited
Pill	8.4%	10.2%	81.4%
Portishead	6.1%	8.6%	85.3%
West of England	7.7%	9.1%	83.2%
England	8.3%	9.3%	82.4%

Source: 2011 Census

14.4.10 At the sub-regional level, these findings are supported by analysis of benefit claimants in the context area relative to the national average. Department for Work and Pensions data (May 2013) indicate that 4.7% of the West of England's population is entitled to disability living allowance. This is marginally below the England average at 5.1%. Nevertheless, the local level data for Pill demonstrates that there are pockets of vulnerable residents located in proximity to MetroWest Phase 1.

Summary

14.4.11 The synergies between demographic profile and MetroWest Phase 1 are emphasised in the key findings outlined below:

- The study area is home to a growing population in general, increasing the potential market catchment for any transport infrastructure;
- Across the context area, there are regions with an estimated high proportion of working age residents both currently and in the future - these residents will benefit from an alternative mode of travel for commuting;
- At the same time, residents in Pill are typically more elderly than in comparator areas and the DCO Scheme will reduce severance for this vulnerable group;
- The study area is generally home to a lower than average proportion of residents with long term health problems and disabilities. However, this trend does not apply to all communities (e.g. Pill), whose residents are less mobile and might benefit from greater accessibility offered by MetroWest Phase 1; and
- The ethnic minorities who reside in the study area will not be discriminated against for not having access to a car.

Travel Patterns

Car Ownership

14.4.12 The 2011 Census data show that there are high levels of car ownership in the West of England with around eight out of ten households owning a private car or van (Table 14.11). A very high rate of car ownership is also reported in Portishead and Pill, with nearly nine out of ten households owning a private car or van. In contrast, around a quarter of households across England do not own a car or van. This suggests an over-reliance on

private car ownership in the wider context area, which could be reduced through the provision of an improved public transport network, leading to socio-economic, health, equality and environmental benefits.

Table 14.11: Proportion of households with no cars or vans, (2011 Census)

Cars	Pill	Portishead	West of England	England
% of households with no car	11.9%	11.6%	21.7%	25.8%

Source: 2011 Census

Method of Travel to Work

- 14.4.13 The West of England is a relatively self-contained travel to work area, with 90% of residents also working within the sub-region. Further, two-thirds of all residents who both live and work in the West of England travel to work using motor vehicles. This suggests a high reliance on private car ownership despite a high rate of containment within the sub-region. This points towards a lack of attractive alternative transport modes for commuting trips.
- 14.4.14 That said, considering work journeys to all destinations, the proportion of commuters travelling to work via private car in the West of England (69%) is higher than the nationwide average (66%) but lower than for Portishead and Pill (81% and 86% respectively) (Table 14.12). Therefore alternative modes of commuting must be available across parts of the West of England, which are not available in Portishead and Pill. For example, 2.3% of commuters in the West of England travel to work by train; in the absence of rail infrastructure this proportion falls to less than 1% for commuters in Portishead and Pill (reflecting residents travelling to other rail stations before commuting by rail). In comparison, the mode share for buses is between 3% and 4% in these towns.

Table 14.12: Method of travel to work

Method of Travel to Work	Pill	Portishead	West of England	England
Train	0.8%	0.8%	2.3%	5.6%
Motor Vehicle	80.5%	85.5%	69.2%	66.4%

Source: 2011 Census

Labour Market Participation

Economic Activity and Unemployment

- 14.4.15 Economic activity rates provide a proxy for the labour market participation of the working age population in an area. Economic activity in the study area is at least in line with the national average of 70% (e.g. Pill), with rates in Portishead being particularly high (75%) – see Figure 14.2 below. This implies that the study area is home to a high proportion of residents who are in employment or actively seeking employment.
- 14.4.16 However, the relatively high rates of economic activity are not achieved by all social groups in the West of England. For example, most ethnic minority groups are less likely to be economically active relative to the total population of the West of England, as highlighted in Table 14.13. In addition,

the data suggest that ethnic minority groups in the West of England tend to be less economically active compared to ethnic minority groups nationally as well. This trend is not specific to the West of England; it reflects a national trend which results from a lower rate of female labour market participation amongst some ethnic minority communities.

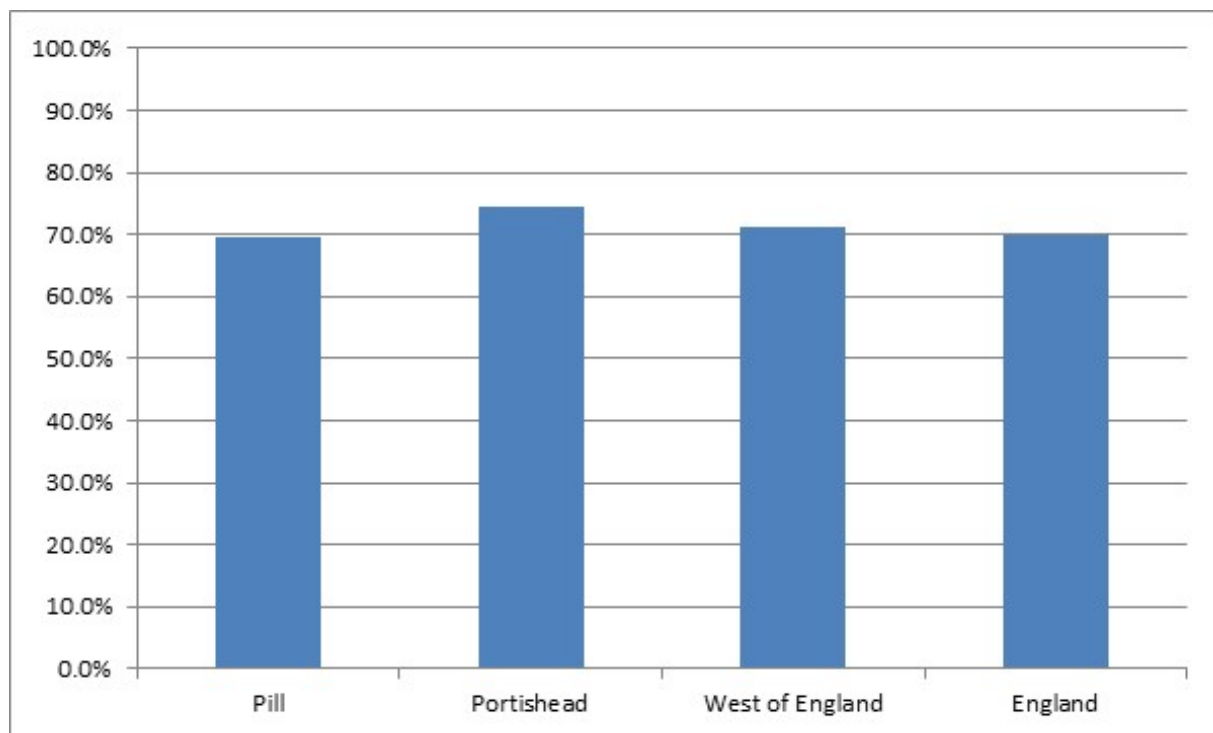


Figure 14.2: Economic activity rates as a proportion of all usual residents aged 16-74

Source: 2011 Census

Table 14.13: Economic activity by social group

Social Group	Economic Activity Rate	
	West of England	England
Total population	65%	64%
White ethnic group	65%	63%
Mixed/multiple ethnic group	66%	68%
Asian/Asian British	62%	63%
Black/African/Caribbean/Black British	64%	69%
Other ethnic group	59%	59%
Disabled – day-to-day activities limited to some extent	24%	23%

*NB: the economic activity rates outlined in Table 14.13 cover the entire population aged 16 plus, rather than just 16-74 population as per the rates outlined in Figure 14.2 above.

Source: 2011 Census

- 14.4.17 Unemployment rates are also particularly low in Portishead, Pill and across the West of England in general. At 2.4% and 2.8%, the unemployment rates in Portishead and Pill are 2% lower than the national average. At the same time, youth and long-term unemployment is also significantly lower than the national average in Portishead especially, at 22% and 32% against 27% and 37% respectively (2011 Census). Unemployment rates are also lower in the wider study area relative to across England as a whole (Figure 14.3 below). Furthermore, unemployment affecting vulnerable groups including youth and the long-term unemployment is less severe in the wider study area.
- 14.4.18 Despite these positive trends in comparison to the national average, there is a continued need to provide employment opportunities for residents looking for work.

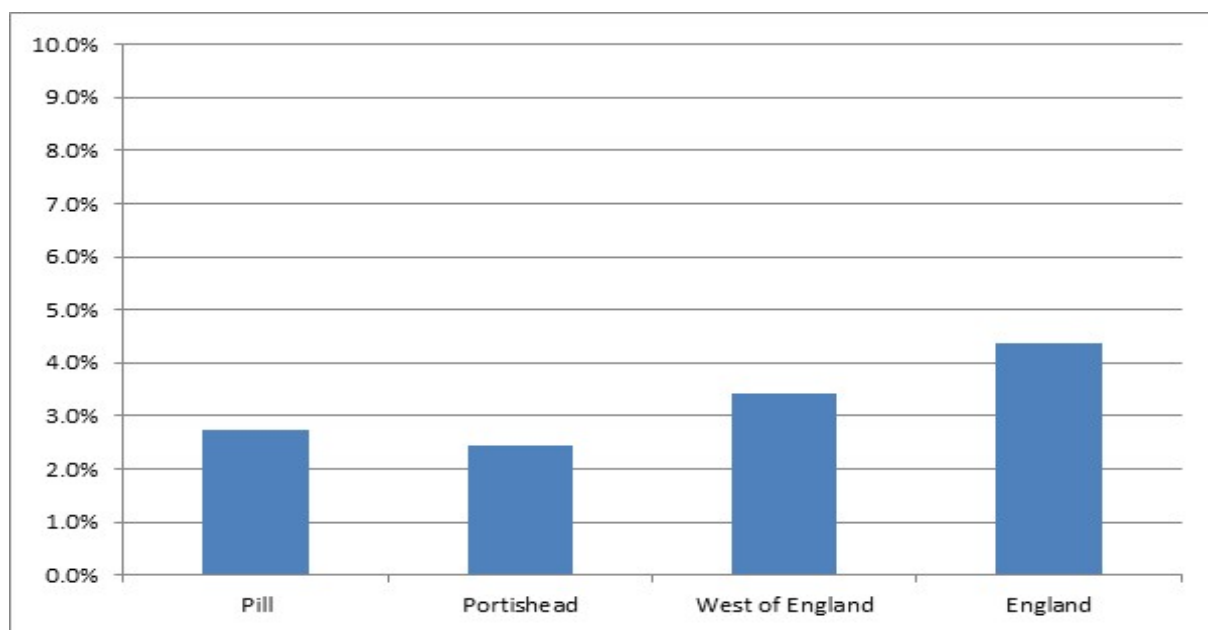


Figure 14.3: Unemployment rate as a proportion of all usual residents aged 16-74

Source: 2011 Census

- 14.4.19 In addition to geographical variances across the West of England, patterns of unemployment vary across social groups too. For example, all ethnic minority groups have higher unemployment rates than the local average (Table 14.14). The unemployment rate for disabled residents is low; however, this may result from the low levels of economic activity for disabled residents, as highlighted in Table 14.13.

Table 14.14: Unemployment rate by social group

Social Group	Unemployment Rate	
	West of England	England
Total population	4%	5%
White ethnic group	4%	4%
Mixed/multiple ethnic group	9%	10%
Asian/Asian British	5%	7%
Black/African/Caribbean/Black British	12%	12%
Other ethnic group	8%	8%
Disabled – day-to-day activities limited to some extent	2%	3%

*NB: the economic activity rates outlined in the table above cover total population aged 16 plus, rather than just 16-74 population as per the rates outlined in Figure 14.3 above.

Source: 2011 Census

Unemployment Benefit Claimants

14.4.20 These geographical trends in unemployment are further confirmed by claimant count rate data (Figure 14.4), which measures the proportion of the resident working age population claiming job-seekers allowance (“JSA”). The proportion of JSA claimants is lower in Portishead and Pill than for sub-regional or national averages. Following the financial crisis of 2008/9, the JSA claimant rate peaked across all geographies. Although, the rate has subsequently declined to pre-recession levels in Portishead, Pill and across the West of England, the spike in Pill persisted for longer than across other geographies, with the claimant count rate reaching its maximum extent in 2012. This could be indicative of a lack of economic resilience in Pill to deal with economic shocks, thus highlighting the ongoing need to improve employment opportunities for residents in the town.

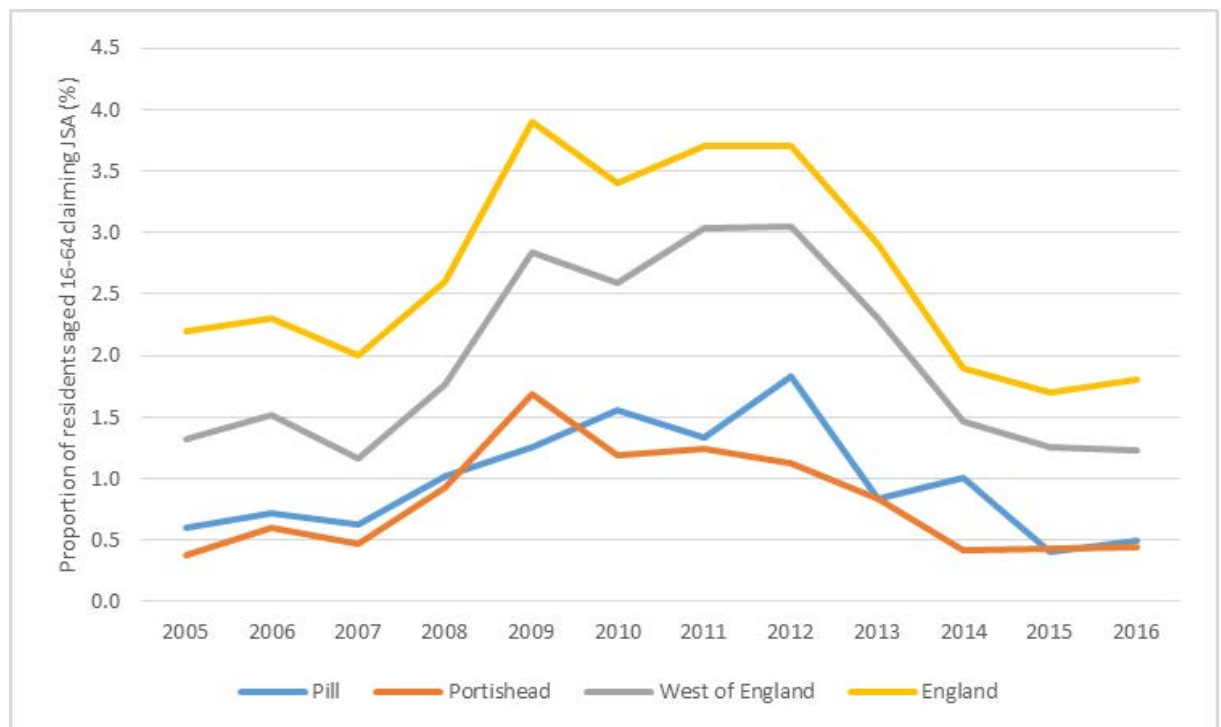


Figure 14.4. Claimant count rate: 2004-16

Source: Claimant Count Register

Summary

14.4.21 The labour market in the wider study area can be characterised by the following key findings:

- High levels of labour market participation, measured in terms of economic activity, necessitating well-developed, multi-modal transport networks to facilitate access to jobs;
- Generally low levels of unemployment, including some vulnerable groups (with the town of Pill being the exception for the youth and long-term unemployed); and
- Low levels of JSA claimants, albeit the proportion of claimants has risen disproportionately in Pill since 2005.

14.4.22 Given these findings, it is understandable that much of the West of England is subject to relatively low levels of employment deprivation, particularly around Portishead and Pill. However, as shown in Figure 14.5 below, some extreme pockets of deprivation persist elsewhere across the West of England.

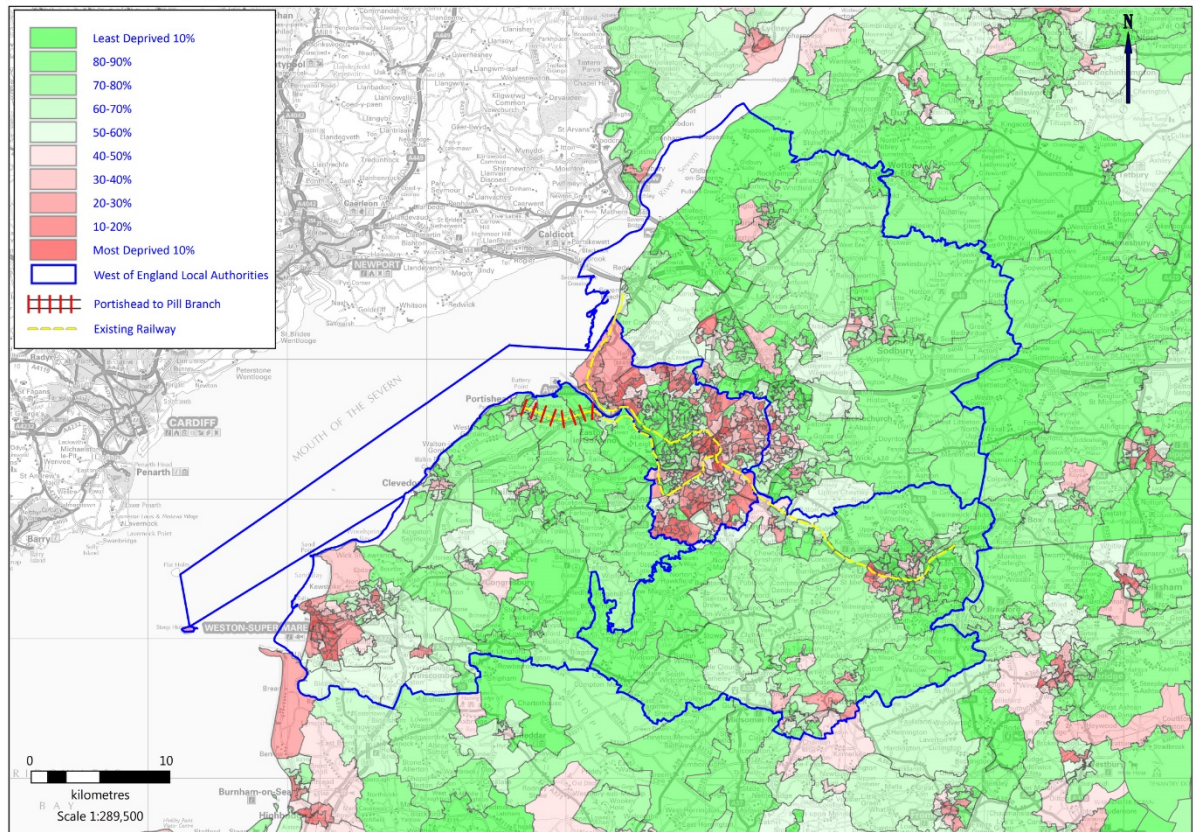


Figure 14.5: Employment deprivation
Source: IMD, 2015

Socio-Economic Classification

Skills and Education

- 14.4.23 Portishead and Pill have a particularly high proportion of its population with National Vocational Qualification ("NVQ") Level 4+ (35%-36%), significantly above the equivalent proportion for England as a whole (27%) (Table 14.15). These towns are also home to a lower proportion of residents with no qualifications (15% in Portishead and 18% in Pill versus 23% nationally).
- 14.4.24 The 2011 Census also reveals that residents in some parts of the wider study area have achieved high levels of educational attainment. Similarly, a low proportion of residents in the West of England have no formal qualification relative to the national average (19% for West of England versus 23% nationally). This implies that the working age population of the study areas is generally well-skilled, an assertion that is reflected by the skills, education and training deprivation indicator illustrated in Figure 14.6 below.

14.4.25 That said, Figure 14.6 also demonstrates that there are some locations within the West of England where the skills base is relatively weak.

Table 14.15: Qualification levels

Qualifications	Pill	Portishead	West of England	England
No Qualifications	18.0%	14.5%	19.2%	22.5%
NVQ Level 4+ Qualifications	35.3%	36.2%	30.6%	27.4%

Source: 2011 Census

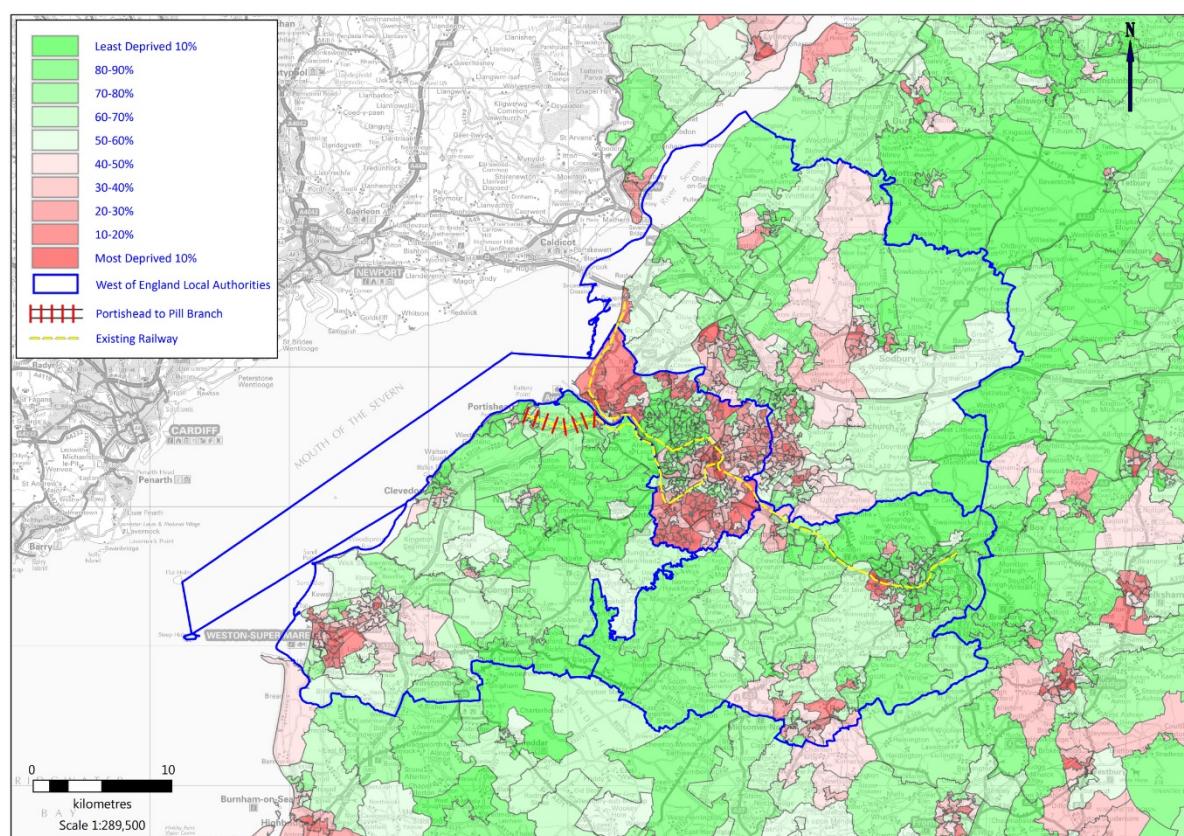


Figure 14.6: Skills, education and training deprivation

Source: IMD, 2015

Occupational Structure

14.4.26 Skills and qualifications are often reflected in occupational structure and average earnings. This general trend holds for Pill and Portishead, as well as the wider study area, given that a well-educated population is over-represented in higher level occupations (e.g. managers, directors and senior officials, professional occupations and associate, professional and technical occupations). More than half of Portishead's residents and 50% of Pill's residents are concentrated in occupations at the top-end of the occupational structure, in high-value occupations (Table 14.16). Further, only 23% of residents in Portishead and 24% in Pill occupy positions at the low-value end of the occupational structure spectrum compared to 29% nationwide (where the low end of the spectrum comprises caring, leisure and other

service occupations, sales and customer service occupations and elementary occupations).

- 14.4.27 At a sub-regional level, 43% per cent of residents across the West of England are concentrated in higher level occupations, compared to only 41% of the population nationally. Similarly, West of England residents are generally under-represented in lower level occupations compared to nationally. These trends are less pronounced for the West of England compared to Portishead and Pill though.

Table 14.16: Occupational structure

Occupation	Pill	Portishead	West of England	England
1. Managers, directors and senior officials	14.0%	13.3%	10.2%	10.9%
2. Professional occupations	21.1%	21.6%	20.2%	17.5%
3. Associate professional and technical occupations	13.5%	17.0%	13.0%	12.8%
4. Administrative and secretarial occupations	11.4%	12.3%	11.9%	11.5%
5. Skilled trades occupations	11.1%	8.5%	10.8%	11.4%
6. Caring, leisure and other service occupations	8.2%	7.4%	8.8%	9.3%
7. Sales and customer service occupations	5.8%	8.5%	8.7%	8.4%
8. Process plant and machine operatives	5.1%	4.5%	5.9%	7.2%
9. Elementary occupations	9.8%	7.0%	10.5%	11.1%

Source: 2011 Census

Income Earnings

- 14.4.28 The ASHE (2015) provides data on median gross weekly pay at local authority scale geographies and above only. It is not available at smaller scale geographies such as ward level or LSOA¹ level. The most recent data suggest that residents in the West of England earn similar gross weekly wages to the national average (around £530) (Table 14.17). However, with gross weekly earnings of more than £550, residents in North Somerset local authority earn significantly above the national average. This reflects the higher qualifications and occupational structure characteristic of some of the key towns in North Somerset (e.g. Portishead) and is illustrated in Figure 14-7 below.

- 14.4.29 It should also be noted that wages for residents in North Somerset are much higher than wages for workers who are employed in the local authority area

¹ Lower Super Output Areas ("LSOA") 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.

(£552 and £501 respectively). The implication of this finding is that a significant proportion of North Somerset residents must be commuting out of the district for work, possibly to higher income employment located in South Gloucestershire (average gross weekly workplace earnings of £551) or Bristol (£529).

Table 14.17: Gross Weekly Earnings (£) Comparison

Occupation	Bath and North East Somerset	Bristol	North Somerset	South Gloucestershire	West of England	England
Workplace (Median)	490.5	528.5	501.0	551.4	517.9	532.4
Resident (Median)	522.3	508.0	551.8	540.5	530.7	532.6

Source: ASHE, 2015

- 14.4.30 The relative wealth of residents in North Somerset is reflected by patterns of income deprivation across the West of England (Figure 14.7). Analysis of neighbourhoods in Portishead reveals that only one area of the town features in the most income-deprived 50% of neighbourhoods nationally; more than 80% feature in the least income deprived 30%. At a wider level, 30% of neighbourhoods in the West of England feature in the 20% least income-deprived areas whilst only 11% feature in the 20% most income-deprived neighbourhoods nationally. Combined with the ASHE data outlined above, these trends suggest that vulnerable, low income groups are not commonly found in the wider study area for the DCO Scheme.
- 14.4.31 However, pockets of income deprivation do exist (for example around Bedminster, Windmill Hill and Lawrence Hill in particular).

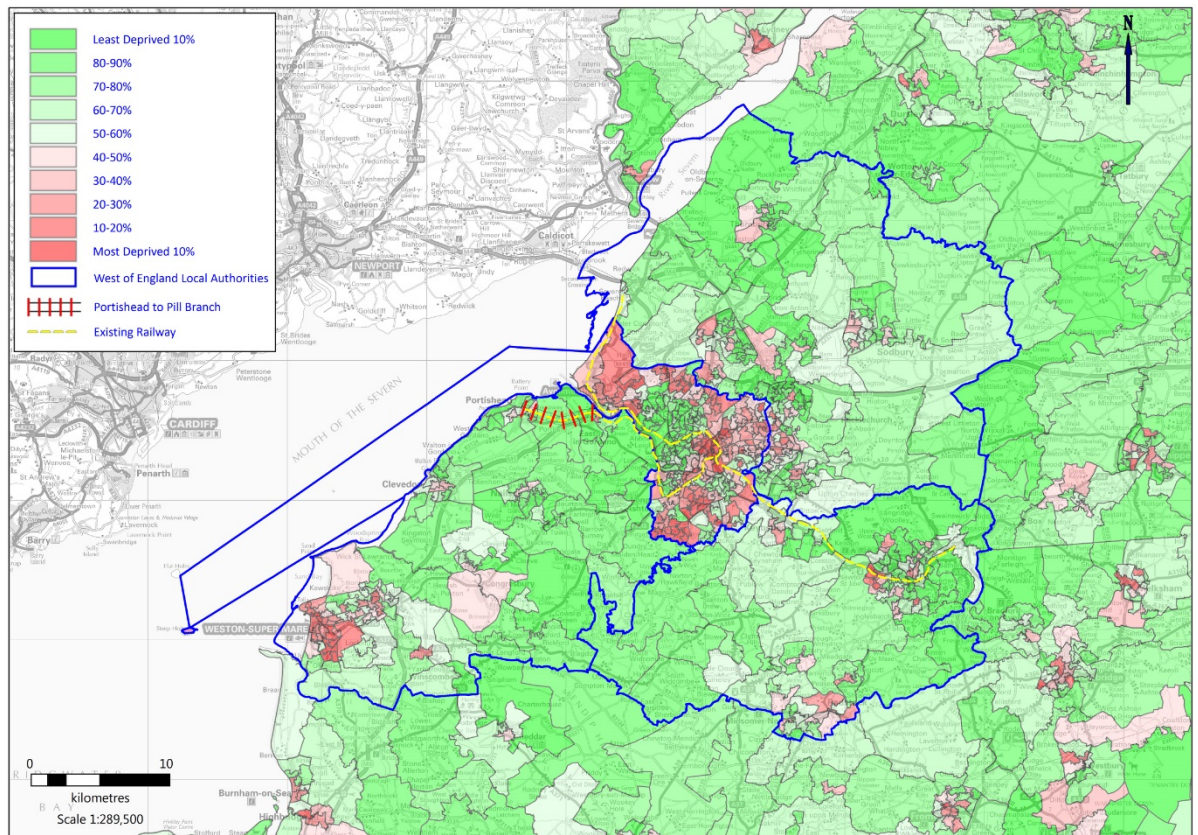


Figure 14.7: Income deprivation

Source: IMD, 2015

Social Grade

14.4.32 The socio-economic classification analyses above (covering skills, occupational status, and income/wages) are consolidated into one socio-economic indicator via the approximated social grade. This indicator considers an individual's occupation, employment status, qualification status, tenure and whether they are working full-time, part-time or not working. Based on these factors, households are classified into one of the following categories of social grading:

- AB: Higher and intermediate, managerial/administrative/professional occupations;
- C1: Supervisory, clerical and junior managerial/administrative/professional occupations;
- C2: Skilled manual occupations; and
- DE: Semi-skilled and unskilled manual occupations, unemployed and lowest grade occupations.

14.4.33 Consolidation of these trends results in a high proportion of Portishead residents featuring in the top levels of the approximated social grading system (i.e. A/B/C1) (2011 Census).

14.4.34 Based on 2011 Census data, the towns of Portishead and Pill, as well as the West of England in general, is home to a much higher proportion of residents in the top socio-economic grades (i.e. A/B and C1) relative to the national average. As a result, residents in these towns and the wider study

area are far less likely to be concentrated in the bottom socio-economic grades (i.e. C2 and D/E) (Table 14.18).

Table 14.18: Approximated social grade

Geography	AB	C1	C2	DE
Pill	33%	29%	21%	18%
Portishead	34%	35%	17%	14%
West of England	26%	32%	20%	22%
England	23%	31%	21%	25%

Source: Census, 2011

Summary

14.4.35 The review of the socio-economic classification indicators for the towns of Portishead and Pill, as well as the West of England in general highlights a number of key characteristics of the local population that are pertinent to the delivery of the DCO Scheme, including:

- A skilled population with considerable educational attainment levels;
- Well-developed occupational structure skewed towards higher-end occupations;
- Higher residential than workplace wages, implying a significant level of out-commuting from the wider study area; and
- High proportion of residents at the upper-end of the social grading system.

Employment Profile

14.4.36 There are two elements to analysing the employment profile of the immediate and wider study areas. Firstly, the distribution of residents across economic sectors provides an indication of the types of jobs people are employed in, irrespective of where their place of employment is located. Secondly, the sectorial profile of employees gives an insight into the types of businesses that are located in Portishead, Pill and the West of England as a whole, irrespective of where the employees reside. This analysis allows any discrepancies between the types of jobs available in the area and the types of jobs sought by residents to be highlighted.

14.4.37 The residential employment profile for Portishead and Pill shows a high proportion of residents work in the banking, finance and insurance sector (2011 Census). Combined with the transport and communications sector, circa one-third of residents are employed in these typically high-value industries. This implies a well-developed labour force in both towns.

14.4.38 The sectorial profile of residents in the wider study area is broadly similar to the national average (Table 14.19). However, the 2011 Census data suggest that the population of the wider study area is over-represented in high-value industries such as banking, finance and insurance. Similarly, fewer residents are employed in traditionally lower-value industries such as distribution, hotels and restaurants and other services. This evidence

suggests that the wider study area, like Portishead and Pill, is home to a strong and buoyant labour force.

Table 14.19: Residential employment profile

Industry	Pill	Portishead	West of England	England
1: Agriculture and fishing (SIC A)	0.6%	0.1%	0.5%	0.8%
2: Energy and water (SIC B, D, E)	1.4%	1.3%	1.4%	1.4%
3: Manufacturing (SIC C)	6.5%	8.2%	7.7%	8.8%
4: Construction (SIC F)	8.1%	7.1%	7.5%	7.7%
5: Distribution, hotels and restaurants (SIC G, I)	18.7%	19.6%	20.9%	21.5%
6: Transport and communications (SIC H, J)	10.5%	9.4%	9.1%	9.1%
7: Banking, finance and insurance, etc. (SIC K, L, M, N)	20.3%	20.9%	18.9%	17.5%
8: Public administration, education & health (SIC O, P, Q)	29.6%	29.1%	29.7%	28.2%
9: Other services (SIC R, S, T, U)	4.3%	4.2%	4.5%	5.0%
Total	100.0%	100.0%	100.0%	100.0%

Source: Census, 2011

14.4.39 The sector profile for the workforce employed in the wider study area is based on BRES (2015). The data, presented in Table 14.20, indicate that the sectorial profile for the workforce is distinct from the residential profile. For example, there is a disproportionately high level of public administration employment in Portishead. This sector has experienced a period of significant contraction following the financial crisis of 2008/9. As such, a higher proportion of the context area's workforce is located in industries that remain at risk of job losses, relative to the national average. At the same time, the proportion of the workforce employed in high-value industries (i.e. transport and communications and banking, finance and insurance) is lower for Portishead than for England. This is the opposite of the trend for the residential employment profile, implying a high degree of out-commuting from the area as suitable jobs are not available for residents locally.

14.4.40 In Pill and across the West of England in general, higher levels of employment in the banking, finance and insurance sector are noticeable. However, it should be noted that the vast majority of such 'business services' jobs in Pill in particular, are administrative or support roles. Further, in the West of England the manufacturing and construction industries, which typically generate high levels of economic output are under-represented in the workplace employment profile compared to the residential employment profile.

14.4.41 Given the high proportion of business services employment in the West of England and Pill in particular, a labour market imbalance may exist in these locations. This could result in disparity between workforce skills and employment opportunities, especially for those residents with a skillset more suited to blue collar employment.

Table 14.20: Workforce employment profile

Industry	Pill ²	Portishead	West of England	England
1: Agriculture and fishing (SIC A)	0.2%	0.1%	0.1%	1.3%
2: Energy and water (SIC B, D, E)	0.0%	0.1%	1.1%	1.1%
3: Manufacturing (SIC C)	3.7%	3.9%	6.3%	8.0%
4: Construction (SIC F)	1.8%	3.7%	4.9%	4.6%
5: Distribution, hotels and restaurants (SIC G, I)	9.7%	25.9%	22.2%	22.8%
6: Transport and communications (SIC H, J)	32.9%	4.1%	9.2%	9.0%
7: Banking, finance and insurance, etc. (SIC K, L, M, N)	36.2%	22.1%	25.4%	23.2%
8: Public administration, education & health (SIC O, P, Q)	12.9%	35.1%	27.0%	25.5%
9: Other services (SIC R, S, T, U)	2.7%	4.9%	3.7%	4.5%
Total	100.0%	100.0%	100.0%	100.0%

Source: BRES, 2015

14.4.42 The property at 7 Station Road at Pill currently accommodates two businesses. One of them is listed as an architectural firm specialising in building consultancy and the other is a Building Services firm. Given the relatively small size of the commercial premises at this property and the nature of the businesses, it is not believed that the businesses support a high level of employment. The annual accounts for both firms (published December 2017) reveal that the two businesses support four employees in total.

14.4.43 Going forward, the SEP outlines the ambition to develop the sub-regional economy by prioritising growth in the following sectors: Advanced Engineering & Aerospace, Professional Services, Creative and Digital, High Tech and Low Carbon. These key growth sectors will be focussed on the Enterprise Zone and Enterprise Areas earmarked within the SEP, and broadly fit within the Manufacturing, Energy and Water and Banking, Finance and Insurance broad sectors listed in Tables 14.19 and 14.20.

² Note that in the case of the workplace employment profile, Pill refers only to Pill Ward and not Pill and Easton-in-Gordano Wards combined, due to data availability

Deprivation

- 14.4.44 Deprivation is typically measured across a range of dimensions, including employment, education, skills and training and income. The various dimensions are combined and consolidated to create an aggregate measure of deprivation, which represents total deprivation in an area. The extent of aggregate deprivation across the wider study area is illustrated in Figure 14.8 below, which suggests that with the exception of parts of South Bristol (Hartcliffe and Withywood and Filwood in particular), neighbourhoods north-east of Bristol city centre (e.g. Lawrence Hill) and parts of Avonmouth and Weston-super-Mare, the West of England does not suffer from extreme deprivation.
- 14.4.45 The towns of Portishead, Pill and their surrounding areas appear to be relatively affluent and free from significant disadvantage. In fact, in Portishead and Pill, more than 50% of households are not deprived in terms of any of the dimensions of deprivation, meaning aggregate deprivation in these towns is low.
- 14.4.46 The relatively low levels of acute deprivation across the wider study area are also reflected in the findings of the 2011 Census, which classifies household deprivation according to the number of dimensions of deprivation each household suffers from. The Census data indicate that fewer homes suffer from multiple dimensions of deprivation in the West of England, relative to England as a whole (Table 14.21). This emphasises the relatively prosperous socio-economic position of the DCO Scheme study area.

Table 14.21: Household aggregate deprivation

Household Deprivation	Pill	Portishead	West of England	England
Household is not deprived in any dimension	50%	56%	46%	43%
Household is deprived in 1 dimension	33%	30%	32%	33%
Household is deprived in 2 dimensions	14%	12%	17%	19%
Household is deprived in 3 dimensions	2%	2%	4%	5%
Household is deprived in 4 dimensions	0%	0%	0%	1%

Source: Census, 2011

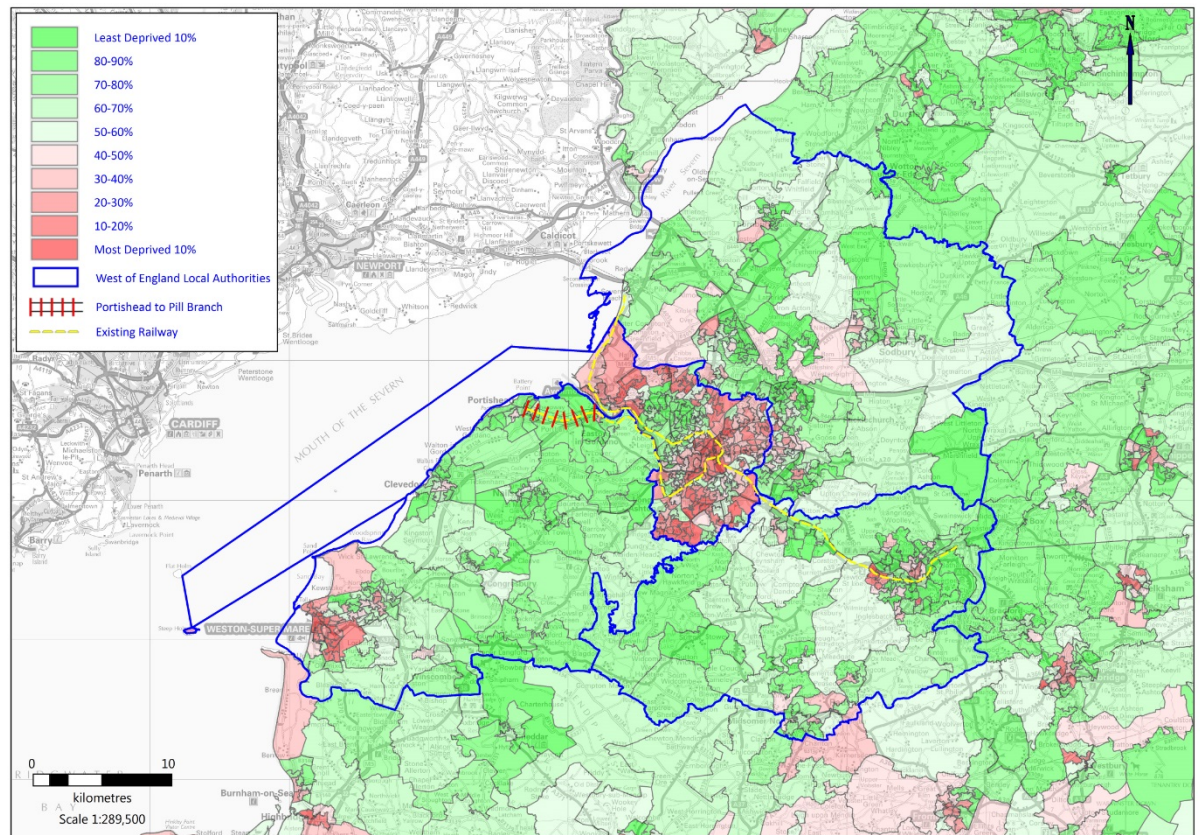


Figure 14.8: Aggregate deprivation
Source: IMD, 2015

Summary and Conclusions

- 14.4.47 The above section outlines the current socio-economic profile for the DCO Scheme's immediate and wider study areas, defined as the towns of Portishead and Pill and the West of England as a whole respectively. The socio-economic profile of the study area at present and in the future is framed within its economic and planning policy context. The policy documents portray the context area as a relatively prosperous, open economy with high levels of out-commuting within the sub-region and little evidence of self-containment within individual towns. At the same time, a higher level of containment is reported at sub-regional level.
- 14.4.48 Policy documents at the national and local level also support the drive towards sustainable economic growth and highlight the role that investment in transport infrastructure can play in achieving economic development. The two themes of transport and economy are related in the sense that improving transport provision can act as a driver for economic growth by increasing connectivity and accessibility to employment markets for businesses and employment opportunities for workers. Transport infrastructure can also make locations more attractive for inward investment and business start-up.
- 14.4.49 The socio-economic analysis and consultation with NSDC has identified a number of vulnerable or disadvantaged groups in the context area. These include: disabled, ethnic minorities, young people and elderly, low income groups. However, the analysis suggests that these groups tend to form a smaller than average proportion of the local population in the study areas.

The exception is Pill, which is home to an above average proportion of elderly and disabled residents.

- 14.4.50 Trends for skills and qualifications, social grading, wages and occupational structure are more mixed. The general trend for Portishead, Pill and the West of England as a whole are positive, resulting in high levels of employment in high-value industries (including financial and business services) where residents are employed in higher end occupations (including senior and managerial professions). This is reflected in the absence of considerable levels of aggregate deprivation in the towns and across the wider context area in general.

14.5 Measures Adopted as Part of the DCO Scheme

- 14.5.1 A number of measures have been included as part of the DCO Scheme design in order to minimise certain environmental effects. These include:

- Careful designing of the DCO Scheme to ensure key receptors are avoided where possible;
- Construction adopting best practices techniques, which are introduced in the Code of Construction Practice ("CoCP") (DCO Document Reference 8.15) and presented in more detail in the Master Construction Environmental Management Plan ("CEMP") (DCO Document Reference 8.14); and
- compliance with regulatory and legislative regimes as required by law.

- 14.5.2 Chapter 4 sets out the description of the DCO Scheme (DCO Document Reference 6.7) and Chapter 3 (DCO Document Reference 6.6) describes the iterative process of the design and the consideration of different alternatives in the process of the design of the DCO Scheme. The DCO Scheme is itself the product of a process designed to deliver socio-economic benefits. No specific measures have been incorporated within the physical design of the DCO Scheme in order to avoid or reduce any adverse socio-economic perspective. The following measures relating to socio-economic receptors are included within the design of the DCO Scheme:

- Key pedestrian and cyclist desire lines, including Public Rights of Way, National Cycle Routes and overbridges will all be realigned to ensure ongoing access across the Portishead Branch Line;
- New access off the Portbury Hundred and improved field access off Sheepway to allow agricultural activity to continue west of Station Road in Portbury; and
- Option for a new pedestrian and cycle ramp access to Ashton Vale Road to mitigate more frequent barrier closures on the Ashton Vale Level Crossing and the removal of pedestrian access from Barons Close.

14.6 Assessment of Effects

Construction Phase

- 14.6.1 MetroWest Phase 1 and the DCO Scheme are expected to result in positive socio-economic effects during the construction phase (see Table 14.22).

Note that there are some temporary road closures and traffic management being implemented as part of the DCO Scheme (see Chapter 16 Transport, Access and Non-Motorised Users, DCO Document Reference 6.19, for detailed consideration). More detail on the identification of receptors, the source-pathway-receptor framework and discussion around significance of effects is contained for each construction phase impact in the paragraphs below.

Direct Impacts

- 14.6.2 **Source-Pathway-Receptor-Effect Summary:** The source activity necessary to implement the DCO Scheme will be construction works. The impact or pathway through which this activity may affect socio-economic conditions in the local and wider study areas is via the creation of a large number of temporary construction jobs. This will impact on the local labour market receptor in the study areas. In turn, the consequence or effect of this impact on the local labour market will be reduced unemployment and increased economic activity for residents.
- 14.6.3 **Detailed Analysis:** The West of England LEP's *Impact Guidance Note on Infrastructure Projects* (2015) provides benchmarks for estimating construction stage employment creation. The Note suggests that £90,000 (2014 prices) of construction expenditure can support one direct full-time equivalent ("FTE") employee in the construction industry. The DCO Scheme could result in creation of 720 direct FTE jobs during the construction stage.
- 14.6.4 The Note also indicates that investment during the preparatory and construction stages of an infrastructure project can result in uplift in GVA. The scale of uplift is estimated at around 40% of construction turnover and 50% of non-construction (i.e. preparation) turnover. On this basis, MetroWest Phase 1 could generate direct GVA uplift of £32.9m.
- 14.6.5 Section 14.4 outlines the generally positive trends in the West of England and Portishead in particular, relating to unemployment, economic activity and other key socio-economic indicators. Further, it is evident from the sectoral profiles of employment that the construction industry is performing broadly in line with national trends based on both the residential and workplace analysis. Further, the review of regulatory/policy documents reveals the high national importance of the construction sector as a driver for economic growth and development. That said, the specialised nature of the construction industry means that it is not always possible to guarantee jobs will be sourced from the local labour market. Further, investment in the preparatory and construction stages will also facilitate considerable GVA uplift in the construction stage. Taking these various issues into consideration, the sensitivity of the construction-related local labour market as a socio-economic receptor can be described as Medium.
- 14.6.6 The estimate of 720 direct FTE construction jobs represents 83% and 2% of residents in construction jobs in Portishead and the West of England as a whole respectively. The estimate is also more than five times larger than the total number of residents in Pill currently employed in construction. This implies that labour demand in the construction stage would need to be sought from the wider West of England area as well as in Portishead and Pill. Nevertheless, this level of employment creation represents an important increase in construction-related jobs, and would enhance the construction

sector as a key employer across the local and wider study areas. Therefore, despite the short-term, temporary nature of construction jobs, the magnitude of the impact of construction of the DCO Scheme can be described as Medium.

- 14.6.7 Combining the Medium sensitivity of the local labour market and the Medium magnitude of the impact of construction, the significance of the availability of new construction-related employment opportunities and subsequent effects on the local labour market can be described as **Moderate Beneficial**.

Indirect Impacts

- 14.6.8 **Source-Pathway-Receptor-Effect Summary:** Construction-related activity associated with delivering the DCO Scheme may be the source of indirect impacts during this stage as well. For example, expenditure by firms undertaking the construction works will lead to increased activity in the construction industry's supply chain, leading to additional employment creation and GVA uplift. Further, increased expenditure by employees directly employed in undertaking the construction works could lead to increased turnover for local firms, which again could result in additional employment creation and GVA uplift.
- 14.6.9 **Detailed Analysis:** The West of England's *Guidance Note on Infrastructure Projects* (2015) states that the multiplier factor for indirect output (GVA) and employment is in the range 1.8-1.9 and 1.7-2.0 respectively. Based on the assumption that construction works result in largely local supply chain and employment effects within the West of England, the high-end multipliers of 1.9 (output) and 2.0 (employment) have been adopted.
- 14.6.10 This means that for each unit of direct GVA uplift or employment creation, the indirect impact is valued at 0.9 and 1.0 respectively. This relationship exists as a result of increased expenditure by businesses in their supply chain (leading to increased employment demand and output within the supply chain) and increased expenditure by employees on consumer goods and services (leading to increased employment demand and output within the consumer industry).
- 14.6.11 Within this context, direct employment creation of 720 jobs could generate indirect employment creation of 720 jobs, and direct GVA uplift of £32.9 million could translate to £29.6 million of indirect GVA.
- 14.6.12 The supply chain and consumer services business receptors that will benefit from the boost could be local, in light of the need to establish a local supply chain to reduce transportation costs. Similarly, expenditure impacts are also likely to be local, given that construction stage employees are likely to be local and consume goods and services from nearby businesses. Therefore, the sensitivity of local business receptors can be described as Medium.
- 14.6.13 The magnitude of the impact of increased expenditure is also likely to be Medium. This judgement is based on a combination of the quantity of new indirect jobs created as a result of increased expenditure and the subsequent considerable uplift in GVA locally, tempered by the fact that the impacts will only persist over the short-term.

- 14.6.14 Combining the Medium sensitivity of local businesses and the Medium magnitude of expenditure and GVA uplift anticipated from indirect employment generated by the construction activity, the significance of indirect impacts on local businesses can be described as **Moderate Beneficial**.

Operation Phase

- 14.6.15 MetroWest Phase 1 and the Portishead Branch Line DCO Scheme are expected to result in largely positive socio-economic effects during the operational phase, as explained below (see Table 14.22). More detail on the identification of receptors, the source-pathway-receptor framework and discussion around significance of effects is contained for each operational phase impact in the paragraphs below.
- 14.6.16 Note that this analysis is largely based on the OBC 2017 (DCO Document Reference 8.4) for MetroWest Phase 1 (December 2017). Therefore the OBC 2017 (DCO Document Reference 8.4) considers the wider MetroWest Phase 1 project, rather than the DCO Scheme alone. At this stage, it is not possible to separate out the impacts of the DCO Scheme from the wider MetroWest Phase 1 project.

Direct (Operational) Employment Impacts

- 14.6.17 **Source-Pathway-Receptor-Effect Summary:** Once implemented, the operation and management of MetroWest Phase 1 has the potential to generate operational phase employment related to the functioning of the reopened rail line. Employment creation could be realised through the pathway of new and redeveloped stations at Portishead and Pill respectively. These facilities will necessitate ticket office, passenger welfare support and other staff in cleaning, maintenance and other roles on a day-to-day or regular basis. Although no explicit space has been made available for concessions at this point, there is future potential for some retail employment associated with the provision of concessions at Portishead.
- 14.6.18 Within this context, the direct (operational) employment impact at Portishead and Pill Stations is expected to be positive. The requirement for operational stage employment will impact on the local labour market socio-economic receptor, and may have the effect of reducing unemployment and improving labour participation rates in the study areas.
- 14.6.19 **Detailed Analysis:** The OBC 2017 (DCO Document Reference 8.4) for the MetroWest Phase 1 project states that 47 FTE staff would be required to ensure day-to-day operation of the rail services and stations, encompassing new train drivers, new train managers, station and facilities management and infrastructure maintenance. This estimate is based on the assumed service pattern for journeys between Portishead and Bristol (i.e. one train per hour with an additional AM and PM peak service), combined with benchmark data for staffing patterns at local rail stations in the West Midlands (which suggests that between 2 and 25 staff could be required to fill station and facilities management positions alone).
- 14.6.20 Despite the generally positive performance of the local and wider study areas' labour market, job creation remains a key objective underpinning local as well as national planning policy. Therefore the labour market is considered as a Medium sensitivity receptor.

14.6.21 As stated, MetroWest Phase 1 will only directly create a small number of full-time equivalent jobs during the operational stage (less than 50 in total). This is considered a Low magnitude impact.

14.6.22 Combining the Medium sensitivity of the local labour market and the Low magnitude net employment impact as a result of MetroWest Phase 1, the significance of the increased availability of employment opportunities and subsequent effects on the local labour market can be described as **Minor Beneficial**.

Direct (Existing) Employment Impacts

14.6.23 **Source-Pathway-Receptor-Effect Summary:** The DCO Scheme will result in the demolition of 7 Station Road, Pill, which currently houses two businesses. The DCO Scheme will therefore result in the closure or relocation of these affected businesses, affecting four employees currently accommodated at this property.

14.6.24 However, in light of the positive direct (operational) employment impacts discussed above, the net employment impact at Portishead and Pill Stations is expected to be positive. The requirement for operational stage employment will impact on the local labour market socio-economic receptor, and may have the effect of reducing unemployment and improving labour participation rates in the study areas.

14.6.25 **Detailed Analysis:** The redevelopment of Pill Station will lead to the demolition of an existing commercial property, resulting in the loss or relocation of associated business and employment. However, as outlined in the baseline section, these businesses are believed to support a low number of employees (four employees across two businesses). In addition, given the prevailing commercial vacancy rates in the area (7.5%³), it is understood that the affected businesses could relocate to alternative premises elsewhere in the sub-region, meaning jobs could be safeguarded and retained within the West of England.

14.6.26 For the same reasons outlined above, the labour market is considered as a Medium sensitivity receptor.

14.6.27 In light of the level of employment estimated at 7 Station Road currently, potential employment impacts are expected to be low in the context of the local study areas (Portishead and Pill) and negligible in the context of the wider West of England labour market. As a result, the potential for business closure/relocation and subsequent loss of jobs as a result of the DCO Scheme is considered a Low magnitude impact.

14.6.28 Combining the Medium sensitivity of the local labour market and the Low magnitude employment impact as a result of the DCO Scheme, the significance of the fewer employment opportunities and subsequent effects on the local labour market can be described as **Minor Adverse**. Further, the net impact on the labour market (taking into account the job creation opportunities unlocked as direct [operational] employment impacts) is expected to be beneficial overall.

³ High Street vacancy rate, April 2015 (<https://www.bristol.gov.uk/business-support-advice/high-streets>)

Transport economic outcomes

- 14.6.29 **Source-Pathway-Receptor-Effect Summary:** Once implemented, the DCO Scheme will support the MetroWest Phase 1 service in reducing journey times and congestion across the West of England's transport network. The pathway for this potential impact could relate to modal shift from highway to public transport systems, and will likely affect a range of socio-economic receptors including commuters, businesses and leisure/recreation and retail consumers. The effect of reduced journey times and congestion on these receptors could include widened labour supply and demand catchments leading to higher labour participation and employment rates, improved productivity boosting local economic output and increased business attraction to the local and wider study areas, leading to increased investment and further job creation.
- 14.6.30 As noted above, the analysis is based on the OBC 2017 (DCO Document Reference 8.4) for MetroWest Phase 1 (December 2017).
- 14.6.31 **Detailed Analysis:** The OBC 2017 (DCO Document Reference 8.4) presents the economic appraisal results for MetroWest Phase 1 project. The appraisal attempts to monetise the economy impacts on business users and transport providers. In particular, it monetises the travel time saving and vehicle operating costs benefits associated with MetroWest Phase 1, as well as accidents/air quality/noise/greenhouse gas, reliability improvements, wider impacts and option values. The values presented below are net present values calculated using Network Rail's Discounted Cash Flow model over a 60 year appraisal period. The breakdown of economic impacts across various categories of transport users and economic themes is demonstrated below:
- Transport Economic Efficiency – Consumer Users (Commuting): £144 million,
 - Transport Economic Efficiency – Consumer Users (Other): £54 million,
 - Transport Economic Efficiency – Business Users and Providers: £46 million,
 - Wider Public Finances: -£13 million,
 - Accidents, air quality, noise and greenhouse gases: £6 million,
 - Reliability: £2 million,
 - Wider Impacts: £74 million,
 - Option Values: £25 million.
- 14.6.32 Combining the transport economic efficiency benefits streams alone results in a present value estimate of £239 million (once the downside impact on wider public finances is acknowledged). By including the additional benefit streams, the present value of benefits increases to £338 million.
- 14.6.33 It should be noted that the majority of journey time savings benefits accrue to rail passengers rather than road users, accounting for around 85% of all commuting benefits. However, around 50% of business benefits accrue to road users.

- 14.6.34 The journey time savings may be partly attributable to modal shift enabled by the DCO Scheme. The TA (DCO Document Reference 6.25) for the DCO Scheme indicates that by 2029, passenger demand at Portishead and Pill Stations will amount to around 1,200 and 200 respectively. Of these trips, around 650 will use car-based modes to access the stations, and could therefore represent mode shift from private vehicles. This will unlock some highway capacity (albeit temporarily in light of suppressed highway demand), which will contribute to the general improvement in network wide statistics for delay, queues and travel times that helps generate the transport economic benefits reported above.
- 14.6.35 In addition to benefits accruing to business users and transport providers, the appraisal also monetises wider economy impacts, captured due to agglomeration, output change in perfectly competitive markets and labour supply impacts. The total value of wider impacts is estimated at £74 million (over a 60 year appraisal period), with the vast majority of benefits (92%) associated with agglomeration impacts.
- 14.6.36 The need to reduce journey times and congestion across the West of England is a recurring theme throughout the planning policy documents. Improvements in these measures of transport economic efficiency are highlighted as important to improving economic performance in the area. As a result, the transport network can be described as a High sensitivity receptor.
- 14.6.37 The scale of monetised transport economic benefits associated with MetroWest Phase 1, estimated at up to £338 million over a 60 year appraisal period, represents a High magnitude impact.
- 14.6.38 Taken together, the High sensitivity of the transport network as a receptor and the High magnitude impact of reducing journey times and congestion on the transport network combine to create a **Major Beneficial** significant effect resulting from MetroWest Phase 1.
- 14.6.39 In terms of affordability, the MetroWest Phase 1 OBC 2017 (DCO Document Reference 8.4) suggests that the likely fare structure adopted for the DCO Scheme will have a neutral impact. This is because the assessment indicates there will be beneficial affordability impacts from reduced fuel costs, shorter journeys and reduced congestion. However, these beneficial impacts will be set against the additional costs of rail fares and car parking charges (if travelling to the stations by car). Improved frequencies are expected to increase the numbers travelling by rail, but there may be some extraction from existing public transport provision which could impact on affordability. Hence, it is concluded that MetroWest Phase 1 will result in a neutral impact.

Wider Regeneration

14.6.40 The DCO Scheme could lead to wider regeneration throughout Portishead, Pill and the West of England as a whole, via a range of potential routes.

Contribution to Enhancing Baseline Socioeconomic Conditions

14.6.41 **Source-Pathway-Receptor-Effect Summary:** The source activity, i.e. the provision and operation of the DCO Scheme, could transform the prevailing socioeconomic profile of the study area established throughout Section 14.4. This could lead to a range of impacts on socio-economic receptors including local residents, firms, the sub-region's labour market, vulnerable demographic groups and others. The effect of transforming the socioeconomic profile of the study area include economic growth and development, a more equal society, enhanced connectivity and accessibility.

14.6.42 **Detailed Analysis:** With reference to the baseline socioeconomic conditions highlighted in Section 14.4, the DCO Scheme could have the following implications for the study area:

- The area has a youthful population, with many people about to enter the labour market. These young people are likely to be economically active and the DCO Scheme could provide a viable mode of transport for future commuters in Portishead. This could persuade young people to reside in Portishead rather than migrate elsewhere, as better employment opportunities are made available through the DCO Scheme (see Section on 'Enabling and Unlocking of Development Land' paragraphs 14.6.47 to 49 and 'Other Works for MetroWest Phase 1' paragraphs 14.8.2 to 6). This could help to create a relatively youthful population in the town. The enhanced attractiveness of Portishead to its resident youthful population will be further enhanced by the development of Bristol University's new hub next door to Temple Meads station. Direct access to this facility will reinforce the ability of the DCO Scheme to link Portishead's young people to education and employment destinations.
- The DCO Scheme provides a viable mode of transport for journeys to work for commuters. The rail service could benefit those that are economically active, but are unable to use road based transport to commute for employment. The rail service could enable travel in a mode previously unavailable for commuting in Portishead and Pill. The additional option for commuting could improve some people's provision of a steady income while providing health benefits if commuting involves a walk to/from the railway station. The DCO Scheme will support commuting patterns by providing an attractive service that is well integrated within a wider multi-modal transport network, making commuting easier and quicker (linked to other rail investment in the region including the wider MetroWest programme and electrification of the London-Bristol Parkway-Cardiff main line). The DCO Scheme will provide an alternative, affordable and convenient transport option that will help reduce these inequalities and reliance on the bus network.
- Vulnerable demographic groups such as the elderly, disabled and some ethnic minorities will be amongst the biggest beneficiaries of the

increased accessibility and connectivity afforded by the DCO Scheme. The elderly and disabled may benefit greatly from increased mobility options presented by DCO Scheme, which will provide enhanced opportunities for travel throughout the West of England. Further, better accessibility to employment opportunities afforded by the DCO Scheme could improve economic activity rates amongst ethnic minority groups in particular.

- The DCO Scheme will increase public transport mode share in an area with low rates of rail users but higher rates of bus users. This gives a good indication of the potential market for an increase in rail-based passenger transport in these towns if the DCO Scheme is delivered, not least because the DCO Scheme will provide a new route and multi-modal opportunities not offered by the existing public transport network. This would also provide a transport method for commuters who do not own a car, which will improve the economic, social and health inequality in these areas.
- The local labour market could become increasingly fluid, with more opportunities for the unemployed as it improves accessibility to employment opportunities. The DCO Scheme, in combination with MetroWest Phase 1 and the wider MetroWest programme could widen the catchment area in which members of the labour force can access jobs. This would improve access to employment for those unable to travel to work by road. The DCO Scheme has the potential to make employment opportunities more accessible to residents in Pill in particular, thereby improving economic resilience in the area.
- Deprivation levels, as measured by IMD, suggest a generally prosperous study area, implying that residents are well positioned to harness the connectivity benefits that the DCO Scheme will deliver. However, IMD also indicate there are some pockets of severe deprivation in the area. As some of these pockets are located in proximity to existing railway lines, the enhanced provision of rail services could alleviate employment deprivation. In particular, the increased accessibility to job opportunities offered by the DCO Scheme could offer a clear benefit to the labour market in the context area. By providing better accessibility to and from these pockets of deprivation, the DCO Scheme could open up these communities to inward investment and allowing residents to travel elsewhere in the sub-region. Pockets of income deprivation could be addressed by linking residents in such communities to education and employment destinations.
- The DCO Scheme could help to address this issue by providing better linkages to education and training destinations. At the same time, the DCO Scheme could improve accessibility between Portishead and Pill and major university and higher education institutions across the West of England, further strengthening the well-developed skills base in these towns. In particular, the recent purchase of the vacant Parcel Force site next to Temple Meads station by Bristol University means that a new university campus, alongside associated student housing will be located adjacent to the railway. The DCO Scheme will therefore

provide a direct rail link between Portishead, Pill, Parson Street and Bedminster to the emerging university hub.

- By contributing to an integrated transport network that enhances accessibility throughout the region, the DCO Scheme could help rationalise the occupational structure by increasing the opportunity for residents to find employment that is commensurate with their occupational status.
- The DCO Scheme would improve the range of options for out-commuting from North Somerset and provide better links to high income employment opportunities at destinations across the West of England.
- DCO Scheme could ease the process of out-commuting. This is pertinent given the high proportion of banking, finance and insurance workers residing in Portishead and the fact that the DCO Scheme will provide a direct link into Temple Quarter Enterprise Zone, which is a hub for professional services (including banking, finance and insurance). Conversely, the DCO Scheme could make Portishead more attractive to high-value industries meaning transport and communications and banking, finance and insurance businesses increasingly locate in the town, thereby reducing the need for out-commuting from Portishead.
- The DCO Scheme will provide a direct link between Portishead, Pill and Temple Quarter Enterprise Zone in particular (as well as enhancing connectivity to the other growth areas). Therefore, the DCO Scheme will help boost residents' employment opportunities in the creative, technology, communications, financial and professional services and software industries that are set to be established in the Enterprise Zone. This could lead to the residential employment profile in Table 14-19 being increasingly skewed towards these high value sectors.

14.6.43 Taken together, the DCO Scheme could have far-reaching implications for the socio-economic profile of the immediate and wider study area. For example, the generally positive socio-economic trends for residents in Portishead, Pill and the West of England imply that residents are likely to be employed across a wide catchment area and would therefore benefit from the introduction of new transport networks to options for commuting across the wider region. Further, where pockets of deprivation do exist, residents may benefit from increased accessibility to wider job markets, education facilities and other services offered by the DCO Scheme, in combination with MetroWest Phase 1 and the wider MetroWest Programme.

14.6.44 In summary, the DCO Scheme could transform the study area's socioeconomic profile, by on the one hand providing a viable alternative mode of transport to private car use for commuters, but on the other hand, providing incentives for investment and business relocation to Portishead and Pill to support self-containment of the economy. This could assist residents in the study area to secure local employment that is commensurate to their relatively high levels of skills, qualifications and social grading, as well as providing an opportunity to rebalance the residential and workforce sectoral profile of employment.

Contribution to Planning Policy

- 14.6.45 Source-Pathway-Receptor-Effect Summary:** Delivering the DCO Scheme will assist the West of England in realising some of the strategic economic objectives outlined in local and national planning policy documents. The source activity, i.e. the provision and operation of the DCO Scheme, is explicitly recommended within the local planning documents and is therefore strategically aligned to assisting the drive towards achieving local economic aspirations. By aligning with the local and national planning framework, the DCO Scheme will help policy objectives to be realised, leading to a range of impacts on socio-economic receptors including local residents, firms and the sub-region's labour market. The effect of achieving the policy objectives will include economic growth and development in line with the targets set out in the NSDC's Core Strategy and elsewhere (see Section 14.2).
- 14.6.46 Detailed Analysis:** A key message at the national level of planning policy relates to the integrated relationship between economic performance and transport infrastructure, with transport infrastructure presented as a key enabler of economic development and sustainable development objectives (e.g. NPSNN, Chapter 2). In particular, investment in transport infrastructure is prioritized as a key method to ensuring sustainable economic growth. Further, local and national policy outlines an obligation to improve accessibility to jobs to benefit employees and employers alike. At the local level, planning policy highlights road congestion and other transport issues as a key constraint on connectivity in the West of England which restricts economic growth (JSP, Strategic Priority Three). Consequently the suite of local planning policy documents is unequivocal in support of reopening the Portishead line to passenger services and the wider MetroWest Phase 1 in general (e.g. Policy BCS10 within the Bristol Core Strategy), not least due to the ability of the DCO Scheme to assist with economic development and improving accessibility in the area.

Enabling and Unlocking of Development Land

- 14.6.47 Source-Pathway-Receptor-Effect Summary:** As well as the general, qualitative linkages between transport infrastructure and economic performance that the DCO Scheme could facilitate, the DCO Scheme's operations could help unlock or accelerate specific development projects in the sub-region. Via the pathway of improving transport links to development parcels and generally enhancing public transport provision, the DCO Scheme could impact on a range of receptors, including land owners, developers, businesses, labour markets and consumer markets. The subsequent effects of enabling development for these receptors are many and varied. For example, land values and development viability could increase for land owners and developers due to enhanced transport linkages. Numerous station and rail investment programmes have resulted in regeneration, as measured by land value uplift and unlocked development land, including:
- Jubilee Line Extension and Docklands Light Railway (Gibbons and Machin, 2005), reported a 9.3% uplift in residential property prices in proximity to and attributable to new rail line;

- DART heavy rail in Dublin (Mayor et al, 2005), identified between 7% and 8% uplift in land values in proximity to new rail stations in the city;
- Heavy rail in West Yorkshire (Blainey and Preston, 2010), reported between 7% and 10% growth in house prices following the opening of new rail stations;
- Manchester Piccadilly (Steer Davies Gleave, 2011), where station investment unlocked development or refurbishment of 670,000 sq ft of office space and more than 500 hotel bedrooms (inward investment totalling £130 million);
- Sheffield Station Gateway (Steer Davies Gleave, 2011), reported land value uplift of 68% measured in terms of rateable value changes. It also enabled £74 million of inward investment, resulting in development of a Digital Campus in proximity to the station; and
- Croydon Tramlink (TfL, 2002), where evidence suggests that increased land values along the route corridor and increased attractiveness to commercial and residential developers are a by-product of enhanced public transport provision.

14.6.48 Similarly, these transport linkages could make labour supply and labour demand markets more interconnected, thus reducing unemployment, increasing economic activity and increasing the pool of skilled labour within a firm's catchment area. Firms may also benefit from widened consumer markets which could prompt an expansion of the business base.

14.6.49 **Detailed Analysis:** Within this context, the DCO Scheme is considered to be critical infrastructure for helping to unlock a number of strategic developments in the West of England, including the Temple Quarter Enterprise Zone as well as Enterprise Areas at Bath City Riverside, Filton, and Avonmouth Severnside. The Regeneration Assessment prepared as part of the OBC 2017 (DCO Document Reference 8.4) submission for suggests that MetroWest Phase 1 could support 207 wider employment opportunities and £11 million in annual GVA uplift at the strategic developments located throughout the sub-region.

Increased Accessibility and Connectivity

14.6.50 **Source-Pathway-Receptor-Effects Summary:** As alluded to throughout the wider regeneration section, the source activity of the DCO Scheme will lead to improved connectivity between Portishead, Pill and the rest of the West of England. Increased accessibility across the sub-region is a key potential impact and pathway for the DCO Scheme, and will be characterised by improved connectivity, reduced journey times and congestion. These potential impacts and pathways could influence a range of receptors including developers, businesses, labour markets and investors. The subsequent effects on the listed receptors could include reduced severance in Pill, Portishead and disadvantaged communities along the wider MetroWest Phase 1 route (e.g. Lawrence Hill), alongside modal shift and increased inward investment and business attractiveness for the sub-region as the West of England's image improves.

- 14.6.51 Detailed Analysis:** The positive ramifications of improved connectivity are many and varied. For instance, the DCO Scheme will provide direct access to employment opportunities available in Portishead, Bristol City Centre and other locations in the West of England. Increased connectivity to key locations of labour demand will allow residents to better access jobs that are more commensurate with their typically high levels of skills and qualifications. This could facilitate an increase in average earnings for residents, which according to Figure 14.7 are considerably lower than regional and national benchmarks for some communities along the route (e.g. Bedminster, Windmill Hill and Lawrence Hill). The DCO Scheme could also contribute to more sustainable transport choices by encouraging a greater proportion of commuters from North Somerset and Bristol to use rail services rather than the private car (currently only around 2% of commuters from both locations travel by train).
- 14.6.52** In addition to expanding the Portishead and Pill resident labour market's reach by improving connectivity to key employment destinations, the DCO Scheme could also have the seemingly opposite impact of promoting commuting to these local study areas and promoting economic containment. As well as improving accessibility from the local study areas to other economic centres, the DCO Scheme will also make Portishead and Pill more porous to the labour force located elsewhere in the West of England and further afield. This could open up the towns to a wider labour supply, with local businesses able to attract staff from further afield than previously.
- 14.6.53** Widening the labour supply catchment could improve the attractiveness and reputation of the business environment in both the local and wider study areas, potentially influencing the locational choices for firms in key economic sectors such as the professional services industry. As a result, increased inward investment and business relocation to the West of England may follow as the area is regenerated and becomes a community where people want to live, work and visit. This would increase the number and range of jobs available in the sub-region, which could encourage a greater proportion of local university graduates and other talented workers to take-up employment opportunities in the area. A dual effect may arise: increased commuting to the West of England (i.e. reflecting an opening of the economy) and increased retention of the resident workforce (i.e. containment).
- 14.6.54** Other transport users are also likely to benefit from the connectivity boost caused by the DCO Scheme too. For example, leisure and recreational users will also benefit from increased access to key destinations in the sub-region facilitated by the DCO Scheme, potentially resulting in increased expenditure in the West of England. An increase in internal tourism within the region (e.g. from Bristol to Portishead) could take place, as well as attracting additional external tourists through the provision of more seamless connectivity throughout the sub-region.
- 14.6.55** Further, the DCO Scheme is likely to boost freight transport throughout the sub-region, providing businesses with a faster, more reliable route to factor inputs and output markets. This will be achieved through the partial reinstatement of the down relief line at Bedminster to provide additional capacity for recessing freight trains on the Bristol to Exeter main line.

14.6.56 Combined, these wider economic effects resulting from the DCO Scheme could assist with improving the West of England's performance in terms of the IMD. Data contained within the Section 14.4 and illustrated in Figure 14.8 demonstrates that although the sub-region as a whole generally performs well against overall deprivation, some pockets of acute deprivation remain. Increased access to jobs and the potential for increased investment by businesses in the West of England could help to address areas of concern. Similarly, much of the West of England outside the major cities and towns are acutely disadvantaged based on the geographical barriers definition of deprivation. The DCO Scheme will directly improve performance against this measure. In particular, and in conjunction with schemes such as electrification of the Great Western Mainline between Bristol Parkway and London, the DCO Scheme will improve journey times between London and towns like Portishead and Pill considerably.

Summary and Significance of Wider Regeneration Effects

- 14.6.57 In summary, the DCO Scheme could deliver wider regeneration associated with accessibility and connectivity improvements that widen labour demand and supply catchments. These effects would benefit West of England residents and businesses respectively. Improving connectivity could also facilitate business location and expansion in the sub-region, further widening labour supply catchments and increasing the potential for retaining skilled members of the local workforce within the sub-region. These potential impacts are aligned with the aspirations of local and national planning policy.
- 14.6.58 Wider regeneration and economic growth is a key theme permeating through the planning policy literature. The desire for on-going job creation is a recurring message as well. On this basis, wider regeneration efforts can be described as a High sensitivity socio-economic receptor.
- 14.6.59 The magnitude of the impact on wider regeneration resulting from the DCO Scheme can be described as High as well. This relates to the contribution that the DCO Scheme could make in terms of facilitating job creation and land development in Portishead and at a number of key growth areas across the West of England.
- 14.6.60 Combining the High sensitivity of wider regeneration efforts and the high impact magnitude of delivering the DCO Scheme, the significance of the DCO Scheme to wider regeneration efforts can be described as **Major Beneficial**.

14.7 Mitigation and Residual Effects

- 14.7.1 In the absence of any significant adverse socioeconomic effects, no mitigation measures are proposed as part of the ES. The residual socio-economic and regeneration effects are as reported in Section 14.6.

14.8 Cumulative Effects

Other Projects along the Portishead Branch Line

- 14.8.1 Appendix 18.1 (DCO Document Reference 6.25) provides a list of major planning applications within 0.5 km of the DCO Scheme between Portishead and Pill. The range of applications covers major mixed-use developments, a number of residential schemes (including around 126 dwellings targeted at elderly residents), a hotel, food store and non-food retail units. This mix of employment, residential, leisure and retail-led development schemes could all benefit from the provision of the DCO Scheme, which will provide enhanced accessibility to these development sites. This will mean that the eventual residents at the housing schemes will have improved access to major centres in the West of England such as Bristol. At the same time, the enhanced accessibility will expand the catchment areas of the leisure and retail developments proposed, as well as allowing employers to source labour from a wider pool of employees from greater distances. The DCO Scheme can therefore contribute towards major beneficial effects for other projects along the Portishead Branch Line during the operational phase.

Other Works for MetroWest Phase 1

- 14.8.2 In addition to the DCO Scheme, the other works required as part of MetroWest Phase 1 (Parson Street Junction (including Liberty Lane Depot Sidings), improvements to Parson Street Station, Bedminster Down Relief Line Severn Beach, Avonmouth Signalling and Bathampton Turnback) are part of a wider set of major transport initiatives proposed for the West of England sub-region. These are intended to facilitate economic growth and regeneration by boosting accessibility and connectivity to key employment destinations. Indeed, the DCO Scheme is only the first phase of the wider MetroWest Programme which is eventually proposed to extend into South Gloucestershire.
- 14.8.3 The other major transport infrastructure schemes under construction or recently completed in the West of England are new and improved highway, cycling, pedestrian, rail and Bus Rapid Transit ("BRT") routes:
- Ashton Vale to Temple Meads BRT (MetroBus route),
 - North Fringe to Hengrove Package (new and improved highway links with MetroBus route), and
 - South Bristol Link.
- 14.8.4 The SEP indicates that combined, the transport package is expected to unlock more than 9,000 net jobs and £570 million in GVA uplift. The majority of these jobs are expected to be located at the West of England's key growth areas, located at:
- Temple Quarter Enterprise Zone,
 - Filton Enterprise Area,
 - Emerson's Green Enterprise Area,
 - Bath City Riverside Enterprise Area,
 - J21 Enterprise Area,

- Avonmouth Severnside Enterprise Area,
 - South Bristol (Major Employment Site).
- 14.8.5 The MetroWest Phase 1 project routes in close proximity to Temple Quarter Enterprise Zone and South Bristol. MetroWest Phase 1 is therefore expected to play a key role in generating positive economic impacts at these sites. The Regeneration Assessment prepared for the OBC 2017 (DCO Document Reference 8.4) submission suggests that 467 jobs and £28 million in annual GVA could be facilitated by MetroWest Phase 1. That said, the entire package of transport schemes is key to delivering the accessibility and connectivity enhancements necessary to benefit all of the growth areas, irrespective of specific location.
- 14.8.6 It should also be noted that MetroWest Phase 1, as part of the wider suite of transport infrastructure schemes, could support or improve development viability at an additional nineteen residential and nineteen employment-led or mixed-use developments proposed in proximity to the DCO Scheme. By supporting this scale of economic outcomes in the West of England, the cumulative impacts of the various transport initiatives will represent a major beneficial effect. No residual negative socio-economic effects are anticipated due to the transport schemes, individually or cumulatively.

14.9 Limitations Encountered in Compiling the ES

- 14.9.1 Undertaking a socio-economic assessment as part of an EIA is hindered by the lack of standard guidance or universally accepted methodology. However, extensive experience of preparing socio-economic assessments for a range of rail and other transport EIAs over recent years meant that knowledge of appropriate guidance documents was already established.
- 14.9.2 Much of the analysis around operational phase and transport economic efficiency impacts are predicated on MetroWest Phase 1's OBC 2017 (DCO Document Reference 8.4), prepared in December 2017. The analysis considers the economic impacts for MetroWest Phase 1 as a whole rather than the DCO Scheme in isolation.
- 14.9.3 The nature and scale of wider economic impacts may also be subject to change, particularly in light of the emerging Department for Transport ("DfT") Guidance on the treatment of wider economic impacts. Therefore, the wider economic impacts presented in this chapter may be superseded as the Business Case for MetroWest Phase 1 progresses.
- 14.9.4 It should also be noted that quantification of wider regeneration and cumulative effects reflect the increased accessibility and connectivity enabled by delivery of the DCO Scheme and related transport infrastructure schemes. Unlike other types of investment (e.g. in specific land development or employment land provision), it is not possible to say with certainty that specific development sites and their associated employment and GVA outputs will definitely come forward and be realised via investment in the DCO Scheme. Instead, these impacts are inferred from the increased ability to travel and greater linkages between areas of labour supply and employment destinations that result from the DCO Scheme's delivery. In summary, the DCO Scheme will primarily facilitate job creation and increased GVA indirectly through increasing accessibility and connectivity rather than by directly generating new jobs and economic output.

14.10 Summary

- 14.10.1 This chapter provides a socio-economic impact assessment of the Portishead Branch Line DCO Scheme, set in the context of a planning policy environment that recognises the important role transport infrastructure can play in driving regeneration and economic growth and development. The planning policy context also acknowledges the strategic importance that MetroWest Phase 1 project, as part of the wider MetroWest Programme, could play in supporting the economy of the West of England sub-region.
- 14.10.2 The assessment is also framed by the baseline review of prevailing socio-economic conditions along the Portishead Branch Line DCO Scheme as well as across the West of England in general. The review indicates that whilst the West of England is generally an affluent area, there are pockets of severe deprivation centred around Bristol's inner city and South Bristol, some of which are located in proximity to the DCO Scheme.
- 14.10.3 In light of the DCO Scheme's strong alignment with planning policy and the presence of some disadvantaged communities in close proximity to the DCO Scheme's routing, it is unsurprising that the DCO Scheme is anticipated to result in positive effects on a range of socio-economic receptors. In fact, the assessment demonstrates that the DCO Scheme will result in positive effects for the following receptors: local residents (via their role as commuters, labour market participants, retail and leisure consumers), local businesses (via expanded labour supply and consumer markets), land owners and developers (via increased land values and development viability) and investors (via increased attractiveness to business relocation). In the absence of negative and significant effects, no mitigation measures were incorporated into the DCO Scheme design (beyond those put forward within Chapter 16 Transport, Access and Non-Motorised Users, DCO Document Reference 6.19).
- 14.10.4 Within this context, the key potential residual effects arising from the DCO Scheme are listed below and presented in Table 14.22:
- Moderate beneficial effect of direct job creation and direct GVA uplift in the construction stage,
 - Moderate beneficial effect of indirect job creation and indirect GVA uplift for local businesses in the construction stage,
 - Minor beneficial effect of direct job creation in the operational stage,
 - Major beneficial effect of improved journey time savings in the operational stage,
 - Major beneficial effect of wider regeneration during the operational stage, specifically relating to contributions to planning policy, enabling and unlocking of development land, increasing accessibility and connectivity and potential transformation of the study area's socioeconomic profile.

Table 14.22: Summary of the assessment of the DCO Scheme on Socio-economics

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
Construction activities				
Direct Employment	Labour market Value/Sensitivity: Medium	Large number of jobs created via construction of the DCO Scheme; subsequent GVA uplift. Magnitude: Medium positive Significance of Effect: Moderate beneficial	N/A	<ul style="list-style-type: none"> • Temporary, positive impact • Magnitude: Medium • Significance of Effect: Moderate beneficial • Significant for EIA legislation: Yes
Indirect Employment	Local businesses Value/Sensitivity: Medium	Supply chain and consumer expenditure effects lead to additional job creation and GVA uplift in supply chain and consumer industries. Magnitude: Medium positive Significance of Effect: Moderate beneficial	N/A	<ul style="list-style-type: none"> • Temporary, positive impact • Magnitude: Medium • Significance of Effect: Moderate beneficial • Significant for EIA legislation: Yes
Operation activities				
Employment NSDC to exercise their rights as landlord to end the lease.	Small number of direct job creation at station. Potential relocation of two businesses at 7 Station Road, Pill.	Labour market Value/Sensitivity: Medium Significance of Effect: Minor beneficial	N/A	<ul style="list-style-type: none"> • Permanent, positive impact • Magnitude: Low • Significance of Effect: (Net) Minor • Significant for EIA legislation: No (Net Minor Beneficial)

Table 14.22: Summary of the assessment of the DCO Scheme on Socio-economics

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
New railway service 23 mins Portishead to Bristol Temple Meads	The transport network and its users, including commuters, businesses, leisure and recreational consumers Value/Sensitivity: High	Large journey time savings for road and rail users. Magnitude: High positive Significance of Effect: Major beneficial	N/A	<ul style="list-style-type: none"> • Permanent, positive impact • Magnitude: High • Significance of Effect: Major beneficial • Significant for EIA legislation: Yes
Wider Regeneration	Local residents, firms, labour markets Value/Sensitivity: High	Strong contribution to local and national planning policy. Magnitude: High positive Significance of Effect: Major beneficial	N/A	<ul style="list-style-type: none"> • Permanent, positive impact • Magnitude: High • Significance of Effect: Major beneficial • Significant for EIA legislation: Yes
	Land owners, developers, investors Value/Sensitivity: High	Small role in enabling/unlocking development land Magnitude: High positive Significance of Effect: major beneficial	N/A	<ul style="list-style-type: none"> • Long-term, positive impact • Magnitude: High • Significance of Effect: Major beneficial • Significant for EIA legislation: Yes
	Local residents, firms, labour markets, land owners, developers, investors	Large increase in accessibility and connectivity Magnitude: High positive	N/A	<ul style="list-style-type: none"> • Long-term, positive impact • Magnitude: High • Significance of Effect: Major beneficial

Table 14.22: Summary of the assessment of the DCO Scheme on Socio-economics

Aspect and control measures embedded in the DCO Scheme	Receptors	Impact	Environmental Mitigation	Residual Effects
	Value/Sensitivity: High	Significance of Effect: Major beneficial		• Significant for EIA legislation: Yes
	Local residents, firms, the sub-region's labour market, vulnerable demographic groups Value/Sensitivity: High	Transformation of prevailing socioeconomic conditions. Magnitude: High positive Significance of Effect: Major beneficial	N/A	<ul style="list-style-type: none"> • Long-term, positive impact • Magnitude: High • Significance of Effect: Major beneficial • Significant for EIA legislation: Yes

14.11 References

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14.12 Abbreviations

ASHE	Annual Survey of Hours and Earnings
B&NES	Bath and North East Somerset Council
BCC	Bristol City Council
BIS	Department for Business, Innovation and Skills
BRES	Business Register and Employment Survey
BRT	Bus Rapid Transit
CCR	Claimant Count Register
CEMP	Construction Environmental Management Plan
CoCP	Code of Construction Practice
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DPD	Development Plan Document
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
EIA	Environmental impact assessment
EGRUP	Evaluation Group on Regional and Urban Programmes
ES	Environmental Statement
FTE	Full time equivalent
GVA	Gross Value Added
IMD	Indices of Multiple Deprivation
JSP	West of England Joint Spatial Plan
JTS	Joint Transport Study
JTLP4	Joint Local Transport Plan 4 2019 – 2036
LEP	Local Enterprise Partnership
LSOA	Lower Super Output Areas
NOMIS	National Online Manpower Information Systems
NCN	National Cycle Network
NMU	Non-Motorised User
NPPF	National Planning Policy Framework

NPSNN	National Policy Statement for National Networks
NSDC	North Somerset District Council
NSIP	Nationally Significant Infrastructure Project
NVQ	National Vocational Qualifications
OBC 2017	MetroWest Phase 1 Outline Business Case 2017
ONS	Office of National Statistics
SEP	West of England Local Enterprise Partnership Strategic Economic Plan
SGC	South Gloucestershire Council
TA	Transport Assessment

