A303 Sparkford to Ilchester Dualling Scheme TR010036

6.1 Environmental Statement

Chapter 12 People and Communities

APFP Regulation 5(2)(a)
Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
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Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A303 Sparkford to Ilchester Dualling Scheme

Development Consent Order 201[X]

6.1 Environmental Statement
Chapter 12 People and Communities

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12 People and Communities

12.1 Introduction

12.1.1 This chapter considers the likely significant effects of the proposed A303 Sparkford to Ilchester Dualling scheme (hereafter referred to as 'the scheme') on a range of People and Communities (Population) sub topics, including motorised travellers' (MT's) view from the road, driver stress, non-motorised users (NMU), amenity, demolition of private property and associated land take, community land and community facilities, severance, development land, local economy, and agricultural land.

12.1.2 Effects of the scheme on human health arising from impacts on people and communities receptors during the construction and operation phases have also been assessed as part of this chapter. These are included alongside health effects arising from impacts on noise and air quality which are reported in Chapter 14 Combined and Cumulative Effects chapter (Volume 6.1).

12.1.3 People and Communities is identified as a *Design Manual for Roads and Bridges* (DMRB) aspect within Interim Advice Note (IAN) 125/15[1]. However, the guidance contained within the DMRB Volume 11 Section 3 has not yet been updated to take human health into account. As a result, and pending new guidance, the assessment of People and Communities for this report has been prepared in accordance with the DMRB Volume 11, Section 3, Parts 6[2], 8[3] and 9[4] and professional judgement where necessary.

12.1.4 Chapter 2 The Scheme, contained in Volume 6.1 of this ES, provides a detailed description of the scheme. The drawings referenced in this chapter can be found in Volume 6.2, while the technical appendices are presented in Volume 6.3.

12.2 Competent expert evidence

12.2.1 The competent expert of this chapter has over 10 years of professional experience specialising in socio-economic and community assessment within

[1] Highways England (2015) Interim Advice Note 125/15 *Environmental Assessment Update* [online] available at: http://www.dmrb.net/ha/standards/ians/pdfs/ian125r2.pdf (last accessed February 2018).
[2] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *Land use* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed February 2018)
[3] Highways Agency (1993) Design Manual for Roads and Bridges Volume 11, Section 3, Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)
[4] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)

the transport sector, and is a full member of the International Association of Impact Assessment (IAIA). The competent expert also holds a social science PhD and has extensive experience in delivering social and community impact assessment as part of the EIA process, including for Major Highways schemes and Nationally Significant Infrastructure Projects (NSIPs).

12.3 Legislative and policy framework

National legislation

The Equalities Act

12.3.1 The *Equalities Act 2010*[5] requires decision making to have due regard to the need to remove discrimination and support equality of opportunity for a range of 'protected characteristic' groups.

National policy

National Policy Statement for National Networks

12.3.2 The *National Policy Statement for National Networks* (NPSNN)[6] confirms its commitment to providing people the opportunity to choose sustainable transport modes. It expects applications to identify opportunities to invest in infrastructure where communities (including pedestrians and cyclists) appear to be severed by the road network. It also expects applications to address historic problems, by designing and delivering schemes taking into account accessibility requirements for all, including disabled users.

12.3.3 Paragraph 4.8.1 '*As described in the relevant sections of this NPS, where the proposed project has likely significant environmental impacts that would have an effect on human beings, any environmental statement should identify and set out the assessment of any likely significant adverse health impacts.'*

12.3.4 Paragraph 4.82 *'The applicant should identify measures to avoid, reduce or compensate for adverse health impacts as appropriate. These impacts may affect people simultaneously, so the applicant, and the Secretary of State (in determining an application for development consent) should consider the cumulative impact on health.'*

12.3.5 Paragraph 5.165 *'The applicant should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the*

[5] *Equalities Act (2010)* [online] available at: http://www.legislation.gov.uk/ukpga/2010/15/contents (last accessed February 2018).
[6] Department for Transport (2015) *National Policy Statement for National Networks* [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387223/NNNPS-web.pdf (last accessed February 2018).

site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate.'

12.3.6 Paragraph 5.166 *'Existing open space, sports and recreational buildings and land should not be developed unless the land is surplus to requirements or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. Applicants considering proposals which would involve developing such land should have regard to any local authority's assessment of need for such types of land and buildings.'*

12.3.7 Paragraph 5.168 *'Applicants should take into account the economic and other benefits of the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification). Where significant development of agricultural land is demonstrated to be necessary, applicants should seek to use areas of poorer quality land in preference to that of a higher quality. Applicants should also identify any effects, and seek to minimise impacts, on soil quality, taking into account any mitigation measures proposed. Where possible, developments should be on previously developed (brownfield) sites provided that it is not of high environmental value. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination and how it is proposed to address this.'*

National Planning Policy Framework

12.3.8 In March 2012, the government set out changes to the NPPF[7] promoting sustainable development. Twelve Core Planning principles (paragraph 17) were stated, which all developments and schemes should consider. The NPPF sets out a number of objectives relevant to people and communities:

- Building a strong and competitive economy (Chapter 1)
- Supporting a prosperous rural economy (Chapter 3)
- Promoting sustainable transport (Chapter 4)
- Promoting healthy communities (Chapter 8)
- Protecting green belt land (Chapter 9)
- Conserving and enhancing the natural environment (Chapter 11)
- Plan-making

[7] Communities and Local Government (2012) *National Planning Policy Framework* [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf (last accessed February 2018).

Additional national policy

12.3.9 Planning Practice Guidance[8] 'Open space, sports and recreation facilities, public rights of way (PRoW) and local green space' is also of relevance in promoting community health.

12.3.10 In addition, *Safeguarding our Soils: A Strategy for England*[9] provides the national policy context for soils.

Local policy

Somerset County Council's Future Transport Plan

12.3.11 Somerset County Council's *Future Transport Plan*[10] sets out the council's transport policy for the next 15 years. The *Future Transport Plan* identifies how it proposes to improve PRoW provisions and service delivery in Somerset for walkers, cyclists, equestrians and those with visual or mobility impairments. The *Future Transport Plan* also describes the challenges the council face and polices and investments that will help tackle these potential difficulties.

South Somerset District Council's Local Plan

12.3.12 The South Somerset District Council's *Local Plan*[11] was adopted in March 2015 and sets out the long-term planning framework for South Somerset up to 2028. Relevant policies to the People and Communities assessment include:

- Policy SS6: Infrastructure Delivery
- Policy EP5: Farm Diversification
- Policy EP15: Protection and Provision of Local Shops, Community Facilities and Services
- Policy HW1: Provision of Open Space, Outdoor Playing Space, Sports, Cultural and Community Facilities in New Development
- Policy HW3: Protection of Play Spaces and Youth Provision
- Policy EQ5: Green Infrastructure

[8] Department for Communities and Local Government (2012) *Planning Practice Guidance*.
[9] Department for Environment Food and Rural Affairs (2009) *Safeguarding our Soils: A Strategy for England* [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soil-strategy-090910.pdf (last accessed February 2018)
[10] Somerset County Council (2011) Somerset's *Future Transport Plan* 2011 – 2026 [online] available at: http://www.somerset.gov.uk/policies-and-plans/plans/future-transport-plan/ (last accessed April 2018)
[11] South Somerset District Council (2015) *South Somerset Local Plan* (2006 – 2028)

Highways England policy

12.3.13 The Highways England *Strategic Business Plan 2015-2020*[12] sets out how it aims to improve facilities for those walking or cycling alongside the network, ensuring provisions for safer and easier access for cyclists and pedestrians crossing the network. This includes the provisions outlined in the Road Investment scheme.

12.3.14 Highways England's *Delivery Plan*[13] sets out how it aims to improve its understanding of the use of their network by vulnerable users and outlines an annual cycling programme which implements cycling schemes and improvements as part of major projects.

12.4 Assessment methodology

12.4.1 This section describes the methodology which has been used for the assessment of people and communities which may affect, or be affected by, the construction and operation of the scheme.

12.4.2 The scope of the assessment was presented in Chapter 13 People and Communities of the ***Environmental Impact Assessment (EIA) Scoping Report (Document Reference: HE551507-MMSJV-EGN-000-RP-LP-0014)*** submitted to the Planning Inspectorate in November 2017. The Scoping Opinion is contained within appendix 4.1 of Volume 6.3. A schedule of responses detailing how each of the Scoping Opinion comments have been considered as part of this chapter is contained within appendix 4.2 of Volume 6.3. To address these comments, the study area has been extended to include Queen Camel as part of the baseline, for the chapter, and also community facilities within West Camel as requested in the Scoping Opinion. No other amendments have been made to the methodology.

12.4.3 The assessment has been undertaken in accordance with the principles set out in Chapter 4 Environmental Assessment Methodology in Volume 6.1. The assessment methodology and the associated guidance used for each of the sub-factors within this chapter are described below.

Non-motorised users

12.4.4 The assessment of effects on NMU has been undertaken using the guidance contained within the DMRB Volume 11, Section 3, Part 8 Pedestrians, Cyclists,

[12] Highways England (2014) *Highways England: Strategic Business Plan 2015 to 2020* [online] available at: https://www.gov.uk/government/publications/highways-england-strategic-business-plan-2015-to-2020 (last accessed February 2018)
[13] Highways England (2015) *Highways England Delivery Plan* 2015 – 2020 [online] available at: https://www.gov.uk/government/publications/highways-england-delivery-plan-2015-2020 (last accessed February 2018)

Equestrians[14], and by applying professional judgement. The assessment examines the likely detriment or improvement to NMU journeys, including changes to journey length and quality along the length and within the wider vicinity of each NMU facility and considers NMU survey data as described in appendix 12.1 of Volume 6.3.

12.4.5 All NMUs are highly sensitive to change and are considered to be highly valued (refer to Table 12.2). Therefore, the descriptors included in the magnitude of change table (refer to Table 12.4) also correspond to the overall significance of effects for NMUs.

Driver stress

12.4.6 The assessment of effects of driver stress has been undertaken using the guidance contained within DMRB Volume 11 Section 3 Part 9[15]. The DMRB considers that driver stress has 3 components: frustration, fear of potential accidents and route uncertainty. A qualitative overview has been provided for construction and operation periods applying the 3-point descriptive scale (low, moderate or high) in line with the DMRB Volume 11 Section 3 Part 9[16] Chapter 4. The construction driver stress assessment considers the likely scope of works and potential changes to traffic flows, speeds and congestion for roads within the study area, when compared with the baseline. The operational driver stress assessment uses traffic forecast flow outputs from the traffic model applied for the scheme. Refer to the Traffic Modelling Statement Volume 7.3 for further information on the traffic model. The assessment analyses changes to traffic flows per lane and journey speeds (kilometres per hour) for the design year (2038), during morning (AM) and afternoon (PM) peak hours. It utilises average annual weekly traffic (AAWT) data and comparing traffic data for the without scheme (Do Minimum) and with scheme (Do Something) scenarios.

12.4.7 A low, moderate and high descriptive scale is used to provide a qualitative description on driver stress changes from the baseline for motorised travellers. No magnitude criteria are provided for the driver stress topic, although vehicle travellers are considered to be of low sensitivity (refer to Table 12.2), as they are able to absorb changes. Therefore, the magnitude of impacts is based on where there would be changes in driver stress, using professional judgement.

[14] Highways Agency (2008) DMRB Volume 11 Section 3 Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018).
[15] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)
[16] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)

Motorised travellers view from the road

12.4.8 The DMRB Volume 11 Section 3 Part 9[17] considers that the existence of a new road may enable more people to see the surrounding landscape than before or require people to pass through visually unattractive areas. Route selection has potential to allow travellers to appreciate the wider area and their location in relation to distinctive landscape features through new appropriate views, although characteristics of the new road may also intrude on views. The view from the road assessment provides a qualitative overview of the views afforded by the scheme however, consideration has not been given to the existing conditions experienced by motorised travellers or construction stage effects, as the DMRB considers only impacts for the new road. A description has also been provided for traveller's exposure to different types of scenery through which the routes pass, using the 4 categories below:

- no view: road in deep cutting or contained by earth bunds, environmental barriers or adjacent structures
- restricted view: frequent cuttings or structures blocking the view
- intermittent view: road generally at ground level but with shallow cuttings or barriers at intervals
- open view: view extending over many miles, or only restricted by existing landscape features

12.4.9 This view from the road chapter assesses views from the new road during operation, and considers where any change in views are beneficial (where there would be a shift in category from no view to restricted, intermittent or open view), adverse (where there would be a shift in category from open view towards intermittent, restricted or no view) or neutral (no change in view category) at different sections along the route based on where views have potential to change form the road. No magnitude criteria are provided for the view from the road topic, although vehicle travellers are considered to be of low sensitivity (refer to Table 12.2), as they are able to absorb changes. Therefore, the magnitude of impacts is based on where there would be a shift in category for views from the road, using professional judgement.

12.4.10 Effects of the scheme on MT's view from the road during construction, have been scoped out of this chapter, as detailed in the ***Environmental Scoping Report (Document Reference: HE551507-MMSJV-EGN-000-RP-LP-0014).*** This is because vehicle travellers are considered to be of low sensitivity and any effects during construction would be temporary in nature at a local scale. Therefore, the magnitude of impact on view from the road is likely to be minor along the A303. In line with Table 4.3 of Chapter 4 Environmental Assessment

[17] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)

Methodology, Volume 6.1 effects on MT's views from the road during construction would not be significant and have not been considered further within the chapter.

Amenity

12.4.11 Amenity is described as the "*relative attractiveness or pleasantness of a route or place"* in DMRB Volume 11 Section 3 Part 8[18] and as such, the assessment considers all relevant assets, routes, communities, community facilities and recreational facilities within the study area. Changes to the degree and duration of people's exposure to traffic, fear or safety for people or existing barriers between pedestrians and vehicle traffic, footpath width, distance from traffic and any crossing facilities are also considered in this assessment. Exposure to noise and dirt, poor air quality and effects relating to visual intrusion are relevant to amenity, specifically in relation to changes in journey experience. The scheme is not likely to significantly affect air quality during construction or operation (refer to section 5.10.13 and 5.12.3 Chapter 5 Air Quality (Volume 6.1) and with consideration to the transient nature of NMUs, changes in air quality would not affect journey experience or amenity along NMU routes within the study area.

12.4.12 The criteria in Table 12.1, along with the criteria in the magnitude of change (Table 12.5) have been used to assess the significance of effects for amenity by applying professional judgement and guidance within the DMRB Volume 11 Section 3 Part 8[19]. This requires a descriptive approach to be employed indicating the change in amenity and providing a reference to forecast flows. The operational assessment of analyses traffic forecasts for the opening year (2023) where NMUs are adjacent to / or continuously exposed to traffic with no barrier, and considers changes in average annual daily traffic (AADT) values for the without scheme (Do Minimum) and with scheme (Do Something) scenarios.

Table 12.1: Categories used to describe amenity

Category	Description
Very Poor	NMUs required to cross or travel along a major road (that is, an A-road or motorway) with no facilities specifically for NMUs.
Poor	NMUs required to either cross or travel along a minor road (that is, a B-road or local road) in an urban area without any designated NMU facilities; or, cyclists required to travel along minor roads without any designated facilities.
Acceptable	NMUs required to cross or travel along a minor road in a rural area without any designated NMU facilities; or, NMUs are segregated from traffic, but are situated adjacent

[18] Highways Agency (2008) DMRB Volume 11 Section 3 Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)

[19] Highways Agency (2008) DMRB Volume 11 Section 3 Part 8 'Pedestrians, Cyclists, Equestrians and Community Effects' [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)

Category	Description
	to a major or minor road; or, NMUs required to cross a major or minor road using a signalised crossing.
Good	NMUs completely separated from traffic.

12.4.13 All NMUs are highly sensitive to change and are considered to be highly valued (refer to Table 12.2). Therefore, the descriptors included in the magnitude of change table also correspond to the overall significance of effects for amenity (refer Table 12.15).

12.4.14 Effects of the scheme on amenity during construction have been assessed in full as part of the NMU assessment. To avoid double counting of effects, construction stage effects upon amenity is not considered further in this chapter. Effects during operation have been identified separately.

Demolition of private property and associated land take

12.4.15 The assessment of effects of the scheme on private property and associated land take has been undertaken using the guidance contained within DMRB Volume 11, Section 3, Part 6 Land Use and by applying professional judgement. The assessment identified the type and number of properties (residential, commercial, industrial and farm) which might be at risk of demolition or land take as a result of the scheme. The assessment also considered the effects of land-take from private properties such as the loss of gardens, garages and other parking space in part or in whole. In addition, the effects to businesses in relation to employment implications and loss of facilities or amenities arising from the loss of all or part of a business has been assessed.

12.4.16 Effects of the scheme on demolition of private property and associated land take during operation have not been considered separately in this chapter. This is because this ES chapter presents all information for demolition of private property and associated land take within the construction stage assessment (i.e. both temporary and permanent effects, which arise due to construction activities), which is when any impacts would occur.

12.4.17 The significance of effects has been determined according to the value criteria within paragraph 12.4.31 and the magnitude criteria within paragraphs 12.4.33 to 12.4.35.

Community land and community facilities, development land, and local economy

12.4.18 The assessment has been undertaken in accordance with DMRB Volume 11 Section 3 Parts 6[20] and 9[21], and considers both direct and indirect effects arising as a result of the construction and operation of the scheme. The assessment identifies social and community resources in the study area, as well as receptors relevant to the topic, and identifies the activities relating to the scheme that could have an effect on those receptors and resources.

12.4.19 No development land has been identified within the study area for the scheme as identified in paragraph 12.7.25. Therefore, construction effects on development land have been scoped out of this assessment. There is potential for developments to come forward in the future, and these potential developments would have to take account of the scheme. This people and communities assessment does consider potential effects on development land during operation, as South Somerset District Council *Local Plan* (2006-2028)[22] does outline a target of at least 141 homes and 1.02 hectares of employment land in Ilchester between 2006 and 2028[23]. The significance of effects has been determined according to the value criteria within paragraph 12.4.31 and the magnitude criteria within paragraphs 12.4.33 to 12.4.35.

Severance

12.4.20 Changes in journey times and amenity for pedestrians and others may be such that they affect adversely or beneficially, the degree to which a locality is subject to 'community severance'. The DMRB outlines community severance as the separation of residents from facilities and services they use within their community caused by new or improved roads or by changes in traffic flows. In addition to changes in community severance caused by changes in pedestrians' and others' ability to travel in the locality of a scheme, severance may sometimes be caused by the demolition of a community facility or the loss of land used by members of the public.

12.4.21 The severance assessment considered the effect of the scheme on key community facilities (as defined in section 12.6), primarily through assessing the

[20] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *Land use* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed February 2018)
[21] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)
[22] South Somerset District Council (2015) *South Somerset Local Plan (2006 – 2028)*
[23] South Somerset District Council (2015): *South Somerset Local Plan 2006 – 2028*. [online] available at: https://www.southsomerset.gov.uk/media/707200/south_somerset_local_plan_2006-2028_adoption_version_march_2015.pdf (last accessed March 2018)

effects on NMU routes connecting to these facilities, as described in the DMRB Volume 11 Section 3 Part 8 Chapter 2[24], using guidance in the DMRB Volume 11 Section 3 Part 8[25] Chapters 6 and 9.

12.4.22 For the basis of this assessment, community facilities include those outlined in the DMRB Volume 11 Section 3 Part 8 Chapter 2, such as doctor's surgeries, hospitals and medical facilities, schools, churches, leisure facilities (for example cinemas) and formal recreation facilities (for example parks, sports and recreation grounds, children's play areas and outdoor sports facilities). Shops include large shops such as supermarkets.

12.4.23 The significance of effects has been determined according to the value criteria within paragraph 12.4.31 and the magnitude criteria within paragraphs 12.4.33 to 12.4.35.

12.4.24 Any long-term severance impacts would occur during construction of the scheme, and as such, the significance of effect has been considered at the construction stage only.

Human health effects

12.4.25 The assessment of human health effects has been undertaken in line with DMRB Volume 11, Section 3, Part 8[26] and by applying professional judgment. It has drawn on the conclusions of the People and Communities sub-topics of NMUs, amenity, severance, agricultural land and demolition of private property and associated land take.

12.4.26 The significance of effects has been determined according to the value criteria within paragraph 12.4.31 and the magnitude criteria within paragraphs 12.4.33 to 12.4.35.

Agricultural land

12.4.27 The assessment of agricultural land and individual farm businesses has been undertaken in line with DMRB Volume 11, Section 3, Part 6[27] and by applying

[24] Highways Agency (2008) DMRB Volume 11 Section 3 Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)

[25] Highways Agency (1993) Design Manual for Roads and Bridges Volume 11, Section 3, Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)

[26] Highways Agency (2008) DMRB Volume 11 Section 3 Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)

[27] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *Land use* [online] available at:

professional judgement. Questionnaires were issued to landowners and tenant farmers in relation to agricultural land to inform the full ES. The questionnaires sought information regarding:

- land use information for example, the total area of land owned, agricultural land classification.
- the nature of activities associated with the property for example, Arable, Livestock, Equestrian, Commercial and Fishing.
- farm building and infrastructure for example, Field access points and farm tracks, irrigation.
- the nature and status of the land ownership or tenancy.

12.4.28 The assessment in this ES chapter is presented differently to that outlined in the EIA Scoping Report, which included an assessment of agricultural land and individual farm businesses during construction (temporary effects during construction) and operation (temporary and permanent effects during operation). This ES chapter presents all information within the construction stage assessment (i.e. both temporary and permanent effects, which arise due to construction activities). Whilst the scope of the assessment has not changed from that included in the Scoping Report, considered a structural change to the ES chapter rather than a content change.

12.4.29 For agricultural land, the value assigned is based on the agricultural land classification (ALC) grade and the magnitude of change is dependent on the area of land take (refer to Table 12.2). The significance of individual farm businesses, derived from professional judgement and interpreting the DMRB Volume 11 Section 3 Part 8 Chapters 6-10, is based on the area of land take and proportion of land lost (refer to Tables 12.6 and 12.7 below). Effects on severance of the land, husbandry, access and drainage for individual farm businesses will also be considered using Google Maps[28] and questionnaire responses as outlined in paragraph 12.5.3.

Value (sensitivity) of receptors

Non-motorised users, amenity, view from the road and driver stress

12.4.30 Interpreting the guidance from the DMRB, the effect categories in Table 12.2 for non-motorised users, amenity, view from the road and driver stress have been allocated the following value (sensitivity). These are based on professional judgement.

http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed February 2018)

[28] Google (2018) Google Maps [online] available at: https://www.google.co.uk/maps/@50.9522389,-1.3819346,14z (last accessed July 2018).

Table 12.2: Value (sensitivity) for non-motorised users, amenity, view from the road and driver stress

Effect category	Value (sensitivity)
Non-motorised Users	High
Amenity	High
View from the road	Low
Driver stress	Low
Agricultural land	Dependent on ALC (refer to Table 12.6)
Individual Farm Businesses	Dependent on area of land-take (refer to Table 12.7)

Source: Derived by professional judgement and based on DMRB 11.3. 6[29], 11.3.8[30], and 11.3.9[31]

Community receptors and resources

12.4.31 The sensitivity of receptors and resources is governed by their capacity to absorb proposed changes arising from the scheme. It ultimately reflects their vulnerability to the impacts of the proposed activities and their access to additional or alternative resources of a similar nature. If a resource is frequently used, if few alternatives exist, or if receptors have limited capacity to absorb the changes arising from the scheme, that receptor is considered to be sensitive to the changes. Criteria describing the sensitivity of receptors are identified in Table 12.3 below.

Table 12.3: Sensitivity for community receptors and resources

Sensitivity	Criteria guidance
High	• an already vulnerable receptor with very little capacity and means to absorb changes • no alternative facilities, access arrangements or opportunities are available within an easily accessible distance • a highly or frequently accessed resource
Medium	• a non-vulnerable receptor with limited capacity and means to absorb changes • a limited range of alternative facilities, access arrangements or opportunities are available within an easily accessible distance • a moderately, or-semi-frequently accessed resource
Low	• a non-vulnerable receptor with sufficient capacity and means to absorb changes • a wide range of alternative facilities, access arrangements or opportunities are available within an easily accessible distance • an infrequently accessed resource

Source: Derived by professional judgement and based on DMRB 11.2.5[32]

[29] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *'Land use'* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed April 2018)

[30] Highways Agency (1993) Design Manual for Roads and Bridges Volume 11, Section 3, Part 8 *'Pedestrians, Cyclists, Equestrians and Community Effects'* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed April 2018)

[31] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed April 2018)

[32] Design Manual for Roads and Bridges Volume 11, Section 2, Part 5 Assessment and Management of environmental effects [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20508.pdf (last accessed June 2018)

Magnitude of impact

Non-motorised users, amenity, and agricultural land

12.4.32 Interpreting the guidance from the DMRB, the following criteria have been used to assess the magnitude of impact for non-motorised users, amenity, agricultural land and individual farm businesses (Table 12.4, Table 12.5, Table 12.6 and Table 12.7) for both temporary and permanent effects.

Table 12.4: Impacts and magnitude of change on NMUs

Description of impacts on NMUs	Magnitude
• Substantially improve NMU network through the provision of new amenities for NMUs where none existed previously. • Length of journeys decreased by over 500m.	Major Beneficial
• Improve existing NMU network through the provision of new amenities for pedestrians and cyclists where few or none existed previously. • Length of journeys decreased by 250-500m.	Moderate Beneficial
• Improve existing NMU network through the upgrading of existing amenities or provision of new amenities for NMUs where some already exist. • Length of journeys decreased by up to 250m.	Minor Beneficial
• Length of journeys not materially changed.	Negligible Beneficial
• No change to journey length.	No Change
• Length of journeys not materially changed.	Negligible Adverse
• Improvements to existing NMU amenities are not provided. • Length of journeys increased by up to 250m.	Minor Adverse
• Existing NMU facilities are degraded. • Length of journeys increased by 250-500m.	Moderate Adverse
• Closure/ removal of NMU amenities where they previously existed. • Length of journey journeys increased by over 500m.	Major Adverse

Source: Derived by professional judgement and based on DMRB 11.3.8 Chapter 6[33]

Table 12.5: Impacts and magnitude of change on amenity

Description of impacts on Amenity	Magnitude
• Substantial improvement to NMU network through the provision of new amenities for pedestrians and cyclists where none existed previously.	Major Beneficial
• Improvement to a greater degree than Minor (determined through professional judgement) for the existing NMU network through the provision of new amenities for pedestrians and cyclists where few or none existed previously.	Moderate Beneficial
• Improve existing NMU network through the provision of new amenities for pedestrians and cyclists where few or none existed previously.	Minor Beneficial
• No change in facilities	No Change
• Pedestrian at grade crossing of a new road carrying below 8000 vehicles per day (AADT) • A new bridge would need to be climbed or a subway traversed	Minor Adverse
• Pedestrian at grade crossing of a new road carrying between 8000- 16000 vehicles per day (AADT) in the opening year	Moderate Adverse
• Pedestrian at grade crossing of a new road more than 16000 vehicles per day (AADT) in the opening year	Major Adverse

Source: Derived by professional judgement and based on DMRB 11.3.8 Chapter 6

Table 12.6: Arriving at significance of effect for the assessment of agricultural land as a national resource

[33] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *'Land use'* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed April 2018)

Grade	Value	Magnitude Land take >50ha Major Adverse	20-50ha Moderate Adverse	<20ha Minor Adverse	No loss Negligible / Neutral
1 and 2	High	Large or Very Large Adverse	Moderate or Large Adverse	Slight or Moderate Adverse	Slight Adverse or Neutral
3a	Medium	Moderate or Large Adverse	Moderate Adverse	Slight Adverse	Slight Adverse or Neutral
3b and 4	Low	Slight or Moderate Adverse	Slight Adverse	Slight Adverse or Neutral	Slight Adverse or Neutral

Source: Derived by professional judgement and based on DMRB Volume 11 Section 3 Part 6

Table 12.7: Arriving at significance of effect for individual farm businesses

Receptor	Value	Magnitude 25% permanent land lost and / or access severely severed Major Adverse	10-24% permanent land lost and / or access partially severed Moderate Adverse	1-9% permanent land lost and / or minor access severed Minor Adverse	<1% permanent land lost Negligible
Total area <20ha and / or limited or highly specific range of high-value crops/livestock and low operational flexibility	**High**	Large or very Large Adverse	Moderate or Large Adverse	Slight or Moderate Adverse	Slight Adverse
Total area 20-50 ha and / or some diversification or range of crop/livestock types	**Medium**	Large or Moderate Adverse	Moderate Adverse	Slight Adverse	Neutral or Slight Adverse
Total area >50ha and / or highly diversified income and flexible management	**Low**	Slight or Moderate Adverse	Slight Adverse	Neutral or Slight Adverse	Neutral or Slight Adverse

Source: Derived by professional judgement[34] and based on DMRB 11.3.6 Chapters 6-10

Community receptors and resources

12.4.33 To assess the magnitude of an impact on these receptors and resources, each impact identified has been assessed in terms of the following indicators:

- **spatial scope –** whether impacts are likely to be felt within the scheme site, within the Local Impact Area (LIA) or more widely
- **extent** – how many people and community receptors are likely to be impacted
- **duration** – whether the impacts would be short or long-term

[34] To be determined using professional judgement and considering other potential effects on severance of the land, husbandry, access and drainage.

- **reversibility** – whether the impact is permanent or temporary

12.4.34 Taking these indicators into consideration, and also mitigation measures that can be applied; the criteria are used as guidelines to assess the magnitude of each impact. This is described in more detail in Table 12.8.

Table 12.8: Magnitude for demolition of private property and associated land take, community land and community facilities, development land, and local economy, severance and human health

Magnitude	Criteria guidance
Major	• affects receptors within the study area and beyond • affects the well-being of many receptors (or the well-being of a few receptors in an acute way for an extended period) • affects receptors for an extended period (for example, the majority of the construction period or is permanent) • requires considerable intervention to return to the baseline
Moderate	• affects either the well-being of receptors beyond the scheme site into the LIA • affects the well-being of a moderate number of receptors • continues over a number of years, but the baseline is re-established quickly • may require some intervention to return to the baseline conditions
Minor	• affects the well-being of a small number of receptors • occurs exceptionally, mostly within the scheme site • does not extend beyond the life of the scheme (the end of the construction period or first year of operation) • baseline returns naturally or with limited intervention within a short timescale
Negligible	• localised to a specific location within the site • temporary or unlikely to result in detectable impact on the well-being of people or a community resource • considered to be a risk that is manageable with intervention • baseline remains consistent
No change	• no change is expected

12.4.35 Potential impacts do not have to satisfy all of the criteria guidelines within a particular category.

Significance of effect

Non-motorised users, amenity, view from the road, driver stress and agricultural land

12.4.36 Criteria defining significance of effects are not outlined within DMRB Volume 11 Section 3 Part 6 or Part 8. However, DMRB Volume 11 Section 2 Part 5 provides an approach to determining significance of effects as outlined in Table 4.3 of Chapter 4 Environmental Assessment Methodology, Volume 6.1; relying on reasoned argument, professional judgement and the views of appropriate organisations. This also takes into account the value (sensitivity) of the receptor and the magnitude of impact.

Community receptors and resources

12.4.37 Significance is a product of the magnitude of an impact and the sensitivity of the receptor or resource that is experiencing the impact. Each type of effect is then

determined to be either significant or not significant, as shown in Table 12.9 below. The significant effects that arise are highlighted in grey.

Table 12.9 Significance of effects

Sensitivity of Receptor	Magnitude of Impact				
	No Change	Negligible	Minor	Moderate	Major
High	Neutral	Slight	Moderate	Large	Large
Medium	Neutral	Slight	Slight	Moderate	Moderate
Low	Neutral	Neutral	Slight	Slight	Moderate

12.4.38 The assessment of likely significant effects section of the chapter (section 12.10) presents any likely significant effects for people and communities that have been identified through the assessment, and also provides an overview of any effects that are likely to be not significant. Appendix 12.3, Volume 6.3 provides additional supporting information.

Consultation

12.4.39 Statutory and non-statutory consultation for the scheme has been undertaken for more than 200 landholders in total as outlined in the ***Consultation Report* (*document reference TR010036/APP/5.1 to 5.5*)**. As required by s42(1)(d) of the Planning Act (2008), this has included consultation with landowners, those with an interest in the land and those who would or might be entitled to make a relevant claim under the same section of the Planning Act.

12.4.40 In addition to writing to land interests to notify them of the consultation, Highways England invited these consultees to 2 appointment-only consultation events on the 30 and 31 January 2018. Site visits were conducted by the design team after the consultation, to discuss accommodation works with landholders.

12.5 Assessment assumptions and limitations

12.5.1 The People and Communities assessment has been based on the description of the scheme detailed in Section 2.5 of Chapter 2 (Volume 6.1), including the horizontal and vertical limits of deviation.

12.5.2 Whilst assumptions have been made in part and there are several limitations to this assessment, the People and Communities chapter draws on reliable known information as identified below and follows guidance contained within the DMRB Volume 11 Section 3 Parts 6, 8 and 9 as closely as possible, relying on professional judgement where necessary. Therefore, the assessment is considered to be robust.

- Information on community facilities is primarily based on available comprehensive desk based research using online mapping tools,

directories of community facilities, OS Address Base Plus data and stakeholder engagement.

- Data used to define the baseline social and community conditions has been compiled from existing published sources. Assessments are based on the most recent data available.
- The traffic model for the scheme includes a number of confirmed or near certain developments within the local area, which would generate additional traffic on the existing network. The inclusion of these developments means that some traffic increases or decreases may not be a direct result of the implementation of the scheme. Therefore, for some locations where driver stress and NMU effects have been identified as a result of changes to traffic flows in operation, the effects (Beneficial or Adverse) may not be fully attributable to the scheme.
- Traffic data for the construction period has not been considered within this assessment. Rather, professional judgement, and known traffic management measures as set out in Annex B.5 Traffic Management Plan of the Outline Environmental Management Plan **(OEMP) (*document reference TR010036/APP/6.7*)**, and the Construction Strategy (section 2.6, Chapter 2 The Scheme, Volume 6.1) have been used to inform the driver stress assessment for construction. A worst-case assessment has been made based on potential changes to traffic flows, speeds and congestion for roads within the study area.
- At the time of writing this assessment, details regarding the phasing of NMU facility closures and diversions are not known. The assessment of effects during construction is based on information included within the Construction Strategy (section 2.6, Chapter 2 The Scheme, Volume 6.1) and professional judgement. The assessment for NMUs has been taken on a precautionary basis and therefore considers all journeys likely to be made by NMUs within the study area, assuming closure for the duration of the construction period.
- Footpath Y 27/21 would be permanently extinguished by the scheme. However, this PRoW has no clear origin or destination so is unlikely to be used by NMUs. This PRoW is therefore not considered as part of the assessment for NMUs and amenity.

12.5.3 As described in section 12.7, representatives for 10 out of the 27 farms within the study area for the scheme retuned completed agricultural questionnaires. The following assumptions have been made regarding baseline conditions for individual farms and agricultural land:

- The total area of land under production was assumed to be limited to the known extents for each farm using data from land registry and previous correspondence with landowners.
- Husbandry was based on field observations and interpretation of freely available satellite imagery, where this information was not provided through the questionnaires.
- An individual farm was defined as “an area of land that consists of 1 or more land parcels or group of fields that are owned by a named person or named business entity and is managed for the commercial production of food, forage or fibre”. Impacts on tenant farmers and occupants have

been assessed where this information is known. Two landowners who do own land under agricultural use within the study area, Highways England and Church Commissioners for England, are not considered as farm businesses in this assessment as it has been assumed that they do not farm this land. Tenants or occupants of agricultural land owned by these 2 corporations have been considered as farms within this assessment.

- Baseline conditions for individual farm businesses and the condition of the agricultural land is likely to vary on a seasonal basis, and yearly depending on the rotation of crops. Therefore, a worst-case assessment has been completed based on the land being of the highest quality.
- Information regarding existing private access arrangements was requested for each farm through the agricultural questionnaires. For non-responders, only those known access points which would be removed by the scheme have been considered within this chapter.
- Regional ALC maps[35] have been used to inform the agricultural assessment.

12.6 Study area

12.6.1 No study areas for People and Communities are specified in the DMRB Volume 11 Section 2 Part 4[36], and the DMRB Volume 11 Section 3 Parts 6[37], 8[38] and 9[39], and therefore the study areas used for this chapter have been defined through professional judgement, based on the type and scale of the scheme, likely pathways and the context of the surrounding area, as listed in the below bullet points.

- **Non-motorised users:** The study area comprises all non-motorised user (NMU) facilities including PRoW, footways, long distance walks and cycle routes within 250 metres of the scheme.
- **Driver stress:** The study area consists the A303 and all local roads connecting to it within 250 metres of the scheme. However the study area for the construction assessment is extended to also include all roads directly affected by traffic management measures.

[35] Natural England (2010) Agricultural Land Classification Map South West Region (ALC006) [online] available at: http://publications.naturalengland.org.uk/publication/144017?category=5954148537204736 (last accessed April 2018).
[36] Highways Agency (2008) Design Manual for Roads and Bridges Volume 11, Section 3, Part 4 *Scoping of Environmental Impact Assessments* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20408.pdf (last accessed February 2018)
[37] Highways Agency (2001) Design Manual for Roads and Bridges Volume 11, Section 3, Part 6 *Land use* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf (last accessed February 2018)
[38] Highways Agency (1993) Design Manual for Roads and Bridges Volume 11, Section 3, Part 8 *Pedestrians, Cyclists, Equestrians and Community Effects* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p08.pdf (last accessed February 2018)
[39] Design Manual for Roads and Bridges Volume 11, Section 3, Part 9 *Vehicle Travellers* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p09.pdf (last accessed February 2018)

- **Motorised travellers view from the road:** The study area considers views from the scheme.
- **Amenity:** The study area comprises all NMU facilities identified within 250 metres of the scheme.
- **Demolition of private property and associated land take**: The assessment applies to direct effects of the scheme on residential, industrial and commercial properties, including businesses such as independent shops. The assessment considers an area within 250 metres of the scheme boundary.
- **Community land and community facilities:** The study area is defined as the area within 250 metres of the scheme boundary. However, where community land and facilities fall outside of this study area but would still be impacted, this is referred to.
- **Severance:** The study area includes community facilities and connecting NMU routes within 250 metres of the scheme.
- **Development land:** The study area is defined as the area within 250 metres of the scheme boundary.
- **Local economy:** The study area for the local economy is the District of South Somerset. This is referred to as the Wider Impact Area (WIA).
- **Human health:** The study area for human health is defined by the impacts being experienced. Impacts associated with people and communities are assessed according to the 250 metres study area. Health impacts associated with noise and air quality are assessed within the study area set out in Chapter 5 Air Quality and Chapter 11 Noise and Vibration (Volume 6.1).
- **Agricultural land:** The study area for agricultural land as a National resource encompasses the ALC grade of land that would be directly within the red line boundary (RLB). The effects on individual farm businesses encompasses farms that would be within the RLB.

12.6.2 The 250 metres study area is referred to as the Local Impact Area (LIA). Figure 12.1 (Volume 6.2) illustrates the LIA.

12.7 Baseline conditions

12.7.1 Baseline information relating to this chapter has been obtained from South Somerset District Council's interactive map[40]. NMU survey counts have also been undertaken at 29 locations within the vicinity of the scheme which has informed this assessment and can be found in appendix 12.1 (Volume 6.3). The NMU surveys were for a 10-hour period (0800 to 1800) on Wednesday 31 August and Thursday 1 September 2016 to capture summer holiday flows and on Wednesday 14 September, Thursday 15 September and Friday 16 September 2016 to capture term time flows.

12.7.2 It should be noted that severance and amenity have not been considered independently in the following baseline section. As severance and amenity are

[40] South Somerset District Council (2017) 'Your Area' Interactive Map [online] available at: https://www.southsomerset.gov.uk/generic-map/ (last accessed February 2018).

linked to accessing private property, community land and facilities, and NMU routes, the relevant baseline information is covered within these sections.

Non-motorised users

12.7.3 There are a number of PRoW to the north and south of the scheme comprising 30 footpaths, 2 bridleways and 3 restricted byways. There is also 1 national cycle route, a long-distance path and 4 footways within the study area. Figure 12.2 (Volume 6.2) shows the location of each NMU route in relation to the scheme.

12.7.4 Table 12.10 below provides a description of the NMUs facilities within the study area for the scheme and also amenity for individual routes. Table 12.11 identifies the journeys potentially made by NMUs within the study area, provides details of NMU routes and / or local roads used for each journey, existing amenity as defined in Table 12.1 and NMU flows identified during the 2016 surveys (refer to appendix 12.1 (Volume 6.3).

12.7.5 Additional NMU routes are located in Queen Camel, including the Leland Trail, a long-distance footpath which runs between King Alfred's Tower in Penselwood and west towards Bruton and Castle Cary in Somerset.

Table 12.10: Description of NMU facilities and amenity within the study area for the scheme

Category	Description	Amenity	Location
Footpath WN 23/10	Footpath intersects the A303 to the south, between the west of Gason Lane and Blackwell Road.	Very Poor: NMUs required to cross A303 at-grade to the north of this route.	Within RLB
Footpath WN 23/11	Footpath intersects the A303 to the south, east of Ridge Copse before reaching Gason Lane.	Very Poor: NMUs required to cross A303 at-grade to the north of this route and travel along a rural local road.	50m south
Footpath WN 23/12	Footpath intersects the A303 to the north, between Hazlegrove Park and the school access road.	Very Poor: NMUs required to cross A303 at-grade to the south of this route.	Within RLB
Footpath WN 23/14	Footpath intersects the A303 to the south, running through Ridge Copse.	Very Poor: NMUs required to cross A303 at-grade to the north of this route and travel along a rural local road.	30m south
Footpath WN 23/15	Footpath west of Gason Lane past the southern fringes of Ridge Copse and connecting to path WN 27/4 to the east.	Acceptable: NMUs required to travel along a rural local road.	130m south
Footpath WN 23/32	Footpath intersects the A303 to the north, between Camel Hill and Steart Hill.	Very Poor: NMUs required to cross A303 at-grade to the south of this route.	Within RLB
Footpath WN 23/33	Footpath intersects the A303 to the north, running between Camel Hill to Newlands Lane in the north.	Very Poor: NMUs required to cross A303 at-grade to the south of this route.	Within RLB
Footpath WN 23/37	Connects PRoW WN 23/32 and WN 23/33 at Camel Hill.	Good: NMUs completely separated from traffic.	50m north
Footpath WN 23/38	West of the existing A303 dual carriageway at Sparkford, between Sparkford Hall and PRoW WN 23/12 in the west.	Good: NMUs completely separated from traffic.	Within RLB
Footpath WN 23/40	Between Sparkford Hall and a lane to the south of South Barrow.	Good: NMUs completely separated from traffic.	140m north
Footpath WN 25/14	Between Sparkford Hall and Sparkford Road	Good: NMUs completely separated from traffic.	140m north
Footpath WN 27/14	Runs between High Street and the railway in Sparkford.	Acceptable: NMUs meet a footway adjacent to a major road.	150m east
Footpath WN 27/16	Path between High Street Sparkford and Sparkford Hall, severed by the existing A303.	Very Poor: NMUs required to cross A303 dual carriageway at-grade to the north of this route.	Within RLB
Footpath WN 27/4	Path between Ridge Copse and the A359.	Acceptable: NMUs meet a footway adjacent to a major road.	150m south
Footpath WN 27/6	Path between Wolfester Terrace, crossing the railway at Sparkford before reaching Church Road.	Acceptable: NMUs meet a footway adjacent to a major road.	70m south
Footpath Y 27/10	Footpath intersecting the A303 to the north, along Downhead Lane before reaching Glebe Farm.	Very Poor: NMUs required to cross A303 at-grade to the south of this route.	Within RLB
Footpath Y 27/11	Between the B3151 and Urgashay in the south.	Poor: NMUs required to cross the B3151.	Adjacent
Footpath Y 27/17	Between Downhead and Newclose Farm	Acceptable: NMUs required to travel along a local road to the south.	60m west

Category	Description	Amenity	Location
Footpath Y 27/18	Along Mead Lane between Downhead and Steart Lane.	Acceptable: NMUs required to travel along a local road to the south.	20m west
Restricted byway Y 27/20	Slate lane passes between Steart Hill and Downhead Lane, passing West Camel Hill.	Acceptable: NMUs required to travel along a local road to the east and west.	Within RLB
Footpath Y 27/21	Footpath intersects the A303 to the south, connecting to the B3151.	Very Poor: NMUs required to traverse a B road and to also cross the A303 at-grade to the north of this route.	Within RLB
Footpath Y 27/22	To the west of Slow Court Lane	Acceptable: NMUs required to travel along a local road to the north.	230m south
Restricted byway Y 27/26	Between Newclose House and Downhead Lane	Good: NMUs completely separated from traffic.	190m north
Restricted byway Y 27/27	Cottis Lane, between Plowage Lane and West Camel.	Poor: NMUs required to cross a minor road	10m south
Footpath Y 27/29	Between Plowage and Downhead Lane.	Acceptable: NMUs required to travel along a local road to the west	Within RLB
Footpath Y 27/6	Footpath intersects A303 to the south, between the church adjacent to the A303 and West Camel.	Acceptable: NMUs meet a footway adjacent to the A303.	Within RLB
Footpath Y 27/7	Footpath intersects the A303 to the south, between the A303 to the east of Plowage and Cottis Lane.	Acceptable: NMUs meet a footway adjacent to the A303.	Within RLB
Footpath Y 27/9	Footpath intersects the A303 to the north, between Plowage and Slate Lane, before reaching Steart Hill.	Very Poor: NMUs required to cross A303 at-grade to the south of this route.	Within RLB
Footpath Y 27/UN	Footpath severed by the existing A303 to the west of Wayne's before connecting to Downhead.	Very Poor: NMUs required to cross A303 at-grade.	Within RLB
Footpath Y 30/24	Starting 100m east of Podimore Inn, moving south towards the Royal Naval Air Station (RNAS) Yeovilton.	Poor: NMUs required to cross a minor road	170m south
Bridleway Y 30/28	Bridleway intersects the A303 to the north, along Eastmead Lane until Downhead Lane.	Very Poor: NMUs required to cross A303 at-grade to the very south.	Within RLB
Bridleway Y 30/29	Between Higher Farm Lane and Eastmead Lane.	Good: NMUs completely separated from traffic.	Adjacent
Footpath Y 30/UN	Between Podimore and Higher Farm Lane, running over the A303.	Acceptable: NMUs required to cross a minor road at Podimore.	20m west
Footway	Along Church Street, Podimore, starting at the main road through Podimore before heading southward.	Acceptable: NMUs required to cross a minor road to the north.	150m south
Footway	Runs adjacent to the south of the A303 between Howell Hill until Camel Cross.	Acceptable: footway adjacent to the A303.	Within RLB
Footway	Footway starting in Sparkford along Wolfester Terrace between the A359 (north of services) and Queen Camel.	Acceptable: footway adjacent to A359.	Within RLB
Footway	Footway between Wolfester Terrace and High Street Sparkford, either side of the road.	Acceptable: footway adjacent to A359 in Sparkford.	Adjacent

Category	Description	Amenity	Location
Cycle Route 26	Runs from Portishead on the Somerset coast to Portland Bill on the Dorset coast via Wells, Castle Cary, Yeovil and Dorchester.	Poor: no designated facilities along Sparkford Road.	240m east
Celtic Way	The route visits more than 100 pre-historic sites through South Wales and the South West.	Very Poor: NMUs required to cross A303 at-grade.	Within RLB

Table 12.11: Journeys potentially made by NMUs within the study area

Potential NMU journeys	Relevant NMU routes / local roads	Description of potential NMUs journeys within study area	Baseline amenity	NMU survey results[41]
Podimore to East Mead Lane	Footway: Podimore and Higher Farm Lane	NMUs can travel along a footway to the western extents of Church Street and are separated from vehicles until the crossroads to the north in Podimore. NMUs can then cross at-grade to Higher Farm Lane which is separated from traffic (Footpath Y 30/UN), and crosses the A303 using the only overbridge in the study area. NMUs then divert east along Bridleway Y 30/29, before heading northward along Eastmead Lane (Bridleway Y 30/28) towards Cary Fitzpaine and Babcary, and are completely separated from traffic in a rural landscape.	Acceptable: NMUs can travel along a footway to the south of Podimore. They then have to cross a minor road at-grade before crossing the A303 using the only overbridge in the study area at Higher Farm Lane. Amenity is good along the 1-kilometre length of PRoW east and north of this.	No counts undertaken
	Footpath Y 30/ UN			1 pedestrian, 3 cyclists
	Bridleway Y 30/29			11 pedestrians 3 pedestrians with dogs
	Bridleway Y 30/28			4 pedestrians
Slow Court Lane to Downhead	Slow Court Lane	Slow Court Lane connects several nearby settlements such as Urgashay, Bridgehampton and West Camel. Starting along Slow Court Lane, which has no designated NMU facilities, NMUs travel along Footpath Y 27/22, before reaching a dead-end track which is likely to have low vehicle flows, primarily being used by agricultural vehicles. NMUs then travel along PRoW Y 27/UN, which was severed by the original construction of the A303. NMUs are required to cross at-grade using an uncontrolled crossing to reach Downhead.	Very Poor: NMUs required to cross the A303 at-grade. Amenity is considered poor for the 250m length remainder of the route with NMUs travelling along local roads.	No counts undertaken
	Footpath Y 27/22			No counts undertaken
	Track: Slow Court Lane and Hawk House			No counts undertaken
	Footpath Y 27/UN			0
Downhead to West Camel	Plowage Lane	NMUs travelling from West Camel or Orchard Park Mobile Home Site can travel down either Cottis Lane (Restricted byway Y 27/27) where they are separated from traffic or Keep Street and Plowage Lane local roads where there are no designated NMU facilities. NMUs then cross the A303 at-grade using an uncontrolled crossing, before diverting down a local road to the east of Downhead and heading west along Footpath Y 27/10.	Very Poor: NMUs required to cross the A303 at-grade. Amenity is good for the 800m length of PRoW north and south of the A303.	1 pedestrian 1 pedestrian with a dog
	Keep Street			No counts undertaken
	Restricted byway Y 27/27			No counts undertaken

[41] Figure 12.2 (Volume 6.2) illustrates the locations where the 2016 NMU surveys were undertaken

Potential NMU journeys	Relevant NMU routes / local roads	Description of potential NMUs journeys within study area	Baseline amenity	NMU survey results[41]
	Footpath Y 27/10			0
Steart Hill to southern extents of Downhead	Steart Hill	Starting along Steart Hill to the east at which no NMU facilities exist, NMUs are able to travel along Slate Lane (Restricted byway Y 27/20) and are separated from traffic here. For those travelling to the southern extents of Downhead, at West Camel Hill users can head southwards down Footpath Y 27/9 before diverting east along Y 27/29 to the south of The Spinney. NMUs would then cross an unnamed local road before travelling along Footpath Y 27/10.	Acceptable: NMUs are required to travel along three local roads at Steart Hill and two at Downhead. Amenity along the three PRoW is considered good.	3 pedestrians 2 pedestrians with dogs 19 cyclists
	Restricted byway Y 27/20			5 pedestrians 1 pedestrian with dog 1 equestrian
	Footpath Y 27/9			
	Footpath Y 27/29			No counts undertaken
	Unnamed local road - Downhead			No counts undertaken
	Footpath Y 27/10			0
Steart Hill to northern extents of Downhead	Steart Hill	Starting along Steart Lane local road to the east at which no NMU facilities exist, NMUs are able to travel along Slate Lane for its length (Restricted byway Y 27/20) and are separated from traffic here.	Acceptable: NMUs are required to travel along two local roads at Steart Hill and at Downhead. Amenity along the three PRoW is considered good.	3 pedestrians 2 pedestrians with dogs 19 cyclists
	Restricted byway Y 27/20			5 pedestrians 1 pedestrian with dog 1 equestrian
West Camel to A303	Restricted byway Y 27/27	NMUs can travel between the footway running to the southern extents of the A303 and West Camel along two routes. Starting at Cottis Lane (Restricted byway Y 27/27) just to the north of West Camel where NMUs are separated from traffic, users can either travel along Footpath Y 27/7 or Footpath Y 27/6.	Acceptable: NMUs would travel along a footway adjacent to the A303 to the north. Amenity is good along the 400m length of PRoW to the south.	No counts undertaken
	Footpath Y 27/7			1 pedestrian
	Footway adjacent to A303			
	Footpath Y 27/6			0
Steart Hill to Howell Hill	Howell Hill	No NMU facilities are present for the length of this journey. NMUs can travel between West Camel and settlements to the north of the A303 such as at Conegore Corner, starting at Howell Hill to the south, before crossing the A303 at-grade using an uncontrolled crossing and then along Steart Hill.	Very Poor: NMUs required to cross the A303 at-grade and travel along two minor roads.	0
	Steart Hill			3 pedestrians 2 pedestrians with dogs 19 cyclists

Potential NMU journeys	Relevant NMU routes / local roads	Description of potential NMUs journeys within study area	Baseline amenity	NMU survey results[41]
Camel Hill to Traits Lane	Footpath WN 23/32	NMUs travelling from Wales or Queen Camel can travel along Traits Lane, which has no NMU facilities, before crossing the A303 at-grade using an uncontrolled crossing. NMUs then divert along Footpath WN 23/32 where they are separated from traffic.	Very Poor: NMUs required to cross the A303 at-grade. Amenity is considered poor along Traits Lane, but good to the north of the A303 at Camel Hill.	No counts undertaken[42]
	Traits Lane			3 pedestrians with dogs 1 cyclist
Celtic Way	Footpath WN 23/10	NMUs travelling along this long-distance route are currently separated from traffic for the majority of the route, with the exception of an uncontrolled crossing of the A303 at Camel Hill.	Very Poor: NMUs required to cross the A303 at-grade. For the remainder of the route amenity is considered good.	0
	Footpath WN 23/33			1 cyclist 2 equestrians
Sparkford to Camel Hill	Footway adjacent to A359	NMUs can travel along footways adjacent to the A359, before crossing the A359 at-grade using an uncontrolled crossing. Heading westward NMUs travel along Footpath WN 27/4 and Footpath WN 23/15. NMUs can then travel along Gason Lane where there are no NMU facilities, before crossing the A303 at-grade using an uncontrolled crossing. Users can then divert along Footpath WN 23/33 where they are separated from traffic.	Very Poor: NMUs required to cross the A303 and the A359 at-grade. Amenity is good for the route across Sparkford Hill and to the north of the A303 at Camel Hill.	No counts undertaken
	Footpath WN 27/4			No counts undertaken
	Footpath WN 23/15			0
	Gason Lane			0
	Footpath WN 23/33			1 cyclist 2 equestrians
Hazlegrove House/ Sparkford Hall to Queen Camel	Footpath WN 23/38	NMUs from Queen Camel to Hazlegrove House or Sparkford Hall can travel just to the east of Gason Lane along Footpath WN 23/11 where they are separated from traffic, passing through Ridge Copse. NMUs then have to cross the A303 at -grade using an uncontrolled crossing before travelling along Footpath WN 23/12 and WN 23/38 where they are separated from traffic.	Very Poor: NMUs required to cross the A303 at-grade, although for the remainder of the route amenity is considered to be good.	8 pedestrians 17 pedestrians with dogs **3 joggers**
	Footpath WN 23/12			No counts undertaken[42]
	Footpath WN 23/11			No counts undertaken[42]
Howell Hill to Camel Cross	Footway adjacent to A303	NMUs can travel from east to west along a footway to the southern extents of the A303 and are separated from traffic.	Acceptable: NMUs travelling adjacent to the A303 for the length of this journey.	2 pedestrians 1 pedestrian with dog 4 cyclists
Sparkford to Hazlegrove House / Sparkford	Footway adjacent to A359	NMUs can travel between Sparkford and Hazlegrove House or Sparkford Hall. However, to do so NMUs currently have to travel along Footpath WN 27/16 which was severed by the original	Very Poor: An unsafe uncontrolled crossing of the A303 dual carriageway northwest of Sparkford.	No counts undertaken
	Footpath WN 27/16			0
	Footpath WN 23/38			8 pedestrians

[42] NMU survey counts could not be undertaken at several locations due to the access points for the site being overgrown

Potential NMU journeys	Relevant NMU routes / local roads	Description of potential NMUs journeys within study area	Baseline amenity	NMU survey results[41]
Hall via WN 27/16		construction of the A303. Therefore, NMUs are unable to safely cross this dual carriageway.		17 pedestrians with dogs 3 joggers
Sparkford to Hazlegrove House / Sparkford Hall via Sparkford Hill	Footways adjacent to A359	NMUs can travel along footways adjacent to the A359, before crossing the A359 at-grade using an uncontrolled crossing. Heading westward NMUs can travel along Footpath WN 27/4, before diverting north through Ridge Copse along Footpath WN 23/11. NMUs then have to cross the A303 at-grade using an uncontrolled crossing before travelling along Footpath WN 23/12 and WN 23/38 where they are separated from traffic.	Very Poor: NMUs required to cross the A303 and the A359 at-grade, although for the remainder of the route amenity is considered to be good.	No counts undertaken
	Footpath WN 27/4			No counts undertaken
	Footpath WN 23/11			No counts undertaken[42]
	Footpath WN 23/12			No counts undertaken[42]
	Footpath WN 23/38			8 pedestrians 17 pedestrians with dogs 3 joggers
Route 26	National cycle route 26	NMUs start along Sparkford Road, before briefly travelling along the A359 for approximately 100m, before heading eastward towards Sparkford Bridge.	Poor: NMUs alongside traffic for a minor road, briefly travelling along the A359.	No counts undertaken

Driver stress

12.7.6 The A303 / A30 forms part of the Strategic Road Network and is a strategic link between the south-west peninsula and the rest of the south, south-east and London. The route comprises multiple road standards including dual 2-lane all purpose, single-carriageway 2 lane and single-carriageway sections with overtaking lanes together with associated varying speed limits (from 40 mph to 70mph). The single-carriageway section runs between the Podimore Bypass (a dual-carriageway) and Hazlegrove Roundabout. There are a number of local roads which tie in to the A303 and provide access to the local community.

12.7.7 At present, significant congestion occurs between Sparkford and Ilchester on the A303, particularly during peak periods such as holidays, the summer and weekends, leading to delays for drivers. The inability for vehicles to travel at a speed with which they are comfortable with in relation to the general standard of the road leads to driver frustration, and as such driver frustration is perceived to be high on the A303 between Sparkford and Ilchester. Congestion on the A303 may also lead to delays in public transport movements, community service vehicles and emergency services, further exacerbating driver frustration. Driver stress is considered to be high along the A303 between Sparkford and Ilchester during peak periods as a result of flow increases and inconsistent speeds.

12.7.8 Route uncertainty is considered to be low along the A303, given the presence of existing signage. The accident rate on this section of the A303 is also higher than the national rate for A-class trunk roads, with 162 accidents per billion vehicle kilometres travelled[43], compared to the national rate for all A-road of 113 accidents per billion vehicle kilometres travelled. There is 1 NMU crossing over the A303, 1 footway alongside the A303 between Camel Cross and Howell Hill and approximately 16 points at which PRoW intersect the A303 at-grade between Higher Farm Lane and Sparkford Hall, which NMUs do use, although in fairly low numbers (refer to Table 12.11). As such, the fear of potential accidents amongst vehicle travellers is considered to be moderate.

12.7.9 Frustration amongst drivers on the A359, B3151, local roads situated within the study area and also roads within Queen Camel is likely to be low, with congestion largely marginalised to the A303 and therefore, vehicles can drive at speeds consistent with their own wishes and speed limits.

[43] The accident rate for the scheme has been calculated using the *Strategic Road Network Traffic Report TRA41* - Table TRA4112 and *Reported Road Casualties on the Strategic Network 2013 Report PR67/4* Table B.1

Motorised travellers view from the road

12.7.10 Vehicle travellers presently experience views from the A303 to a varying degree between Podimore and Sparkford. Table 12.12 below summarises these existing views along the A303 road corridor.

Table 12.12: Views from the A303 (west to east)

Location	View from the A303
A303 Podimore to the west of Howell Hill	**Restricted view to intermittent view:** between Podimore and the west of Howell Hill, views are generally contained within the road corridor for this section of the A303, with open short to middle distance views for a short stretch towards neighbouring agricultural land north and south and heavily restricted and filtered short distance views of dense road side vegetation. To the north of Podimore, the A303 road is at the same level as the surrounding landscape, with the overbridge at Higher Farm Lane and nearby settlements such as Podimore and RNAS Yeovilton visible to drivers. Moving to the east of Podimore, where the A303 forms a single carriageway, views are heavily restricted, with hedgerows, shrubs and broadleaved woodland either side of the road screening views of the wider area. Views remain restricted as far east as Plowage Lane, although vehicles may afford glimpsed views of agricultural land to the north and south of the A303. Between the west of Howell Hill and Plowage Lane, particularly as the A303 rises to the east of West Camel Hill views become more open as screening vegetation predominantly comprises hedgerows along field boundaries, which reduces the sense of enclosure. A footway and several residential properties are present alongside the road, between the B3151 and to the west of Howell Hill.
A303 – East of Howell Hill to Camel Hill	**Intermittent view to open view:** between Howell Hill and Traits Lane, views to the south are open and extend into the far distance as the A303 passes over Camel Hill. Vehicles currently experience views of the surrounding rural landscape, which is dominated by farmland. There are also some glimpsed views to nearby settlements including Queen Camel and West Camel. Views to the north of the A303 are intermittent, due to the rising landform of Camel Hill and screening vegetation alongside the road limiting views to a short distance only. The radio masts at Camel Hill 40m south of the A303, are notable features for road users along this section.
A303 – Camel Hill to Sparkford	**Restricted view:** views south from this section of the A303 are generally enclosed by rising landform, screening vegetation comprising hedgerows, scrub and broadleaved woodland. To the north, intermittent glimpsed long-distance views are afforded of Hazlegrove House Registered Park and Garden and agricultural land between Traits Lane and the services at Camel Hill. Views to the south are predominantly bound by screening vegetation, with the radio station structures and service station buildings notable features alongside the road. Lighting is present alongside the A303 on the follow up to Hazlegrove Roundabout and at the roundabout.

Demolition of private property and associated land take

12.7.11 The assessment applies to direct effects of the scheme on residential, industrial and commercial properties, including businesses such as independent shops.

Residential properties

12.7.12 The local area encompassing the scheme is predominantly rural, used for agriculture, with a small number of residential dwellings and businesses within 250 meters of the scheme, in the settlements of Sparkford, Queen Camel, West Camel and Podimore.

12.7.13 Table 12.13 provides details of residential properties located within the LIA.

Table 12.13: Summary of residential properties in the LIA

Location of residential properties	Housing description	Current means of access from A303	Figure reference number
Podimore (main road)	Low density terraced, semi-detached and detached houses	No direct access	1
Podimore (Church Street)	Low density houses, largely detached with a collection of terraced	No direct access	
Podimore (Willow Tree Close)	Low density, 6 detached bungalows	No direct access	
Downhead, road north of A303 (opposite Hawk House)	Low density detached, semi-detached and terraced houses	No direct access	2
Next door to Hawk House, West Camel	Low density, 1 detached bungalow	Direct access	3
Downhead, road north of the A303 (opposite Plowage Lane)	Low density, detached houses	No direct access	4
Plowage Lane	Low density, detached and semi-detached houses	No direct access	5
Orchard Park mobile home park (Plowage Lane)	Medium density, over 30 detached mobile homes	No direct access	6
Keep Street	Low density, 2 semi-detached houses	No direct access	7
West Camel, next door to The Bakery	Low density, 2 detached houses	Direct access	8
Steart Hill	Low density detached and semi-detached houses	No direct access	9
Howell Hill	Low density semi-detached and detached houses	No direct access	10
North of the A303 (in between Howell Hill and Traits Lane)	Low density, 1 detached house	Direct access	11
Camel Hill. road to the north of the A303 (opposite Gason Lane)	Low density detached houses	No direct access	12
Traits Lane	Low density, 1 detached house	No direct access	13
Queen Camel (east)	Medium density terraced, semi-detached and detached houses	No direct access	14
Queen Camel (west)	Low density semi-detached and detached houses	No direct access	
A359 (south of the A303)	Low density, 2 detached houses	No direct access	15
Sparkford, slip road connecting A359 and A359 High Street	Low density detached and terraced houses	No direct access	
A359 (High Street)	Medium density bungalows, detached, semi-detached and terraced houses	No direct access	16
North of A303 Sparkford Bypass, in the grounds of Sparkford Hall	Low density, 1 detached house	No direct access	17
Brains Lane	Low density, 3 detached houses	No direct access	18

12.7.14 Figure 12.3 (Volume 6.2) illustrates residential properties within the LIA. The figure reference number in Table 12.13 above corresponds to the location of residential properties in the figure.

Businesses

12.7.15 In Podimore, south of the A303, there is The Podymore Inn public house.

12.7.16 A small number of businesses are located adjacent to the A303:

- Hawk House bed and breakfast and Wayne's Bar and Bistro are situated approximately 80 meters east of the A303 / B3151 intersection. The Bistro is open from 07:00 to 21:00 every day.
- approximately 600 metres east of the Plowage Lane / A303 intersection, and located on the A303 itself, is The Bakery West Camel and located on the A303 itself. The facility is open from 06:00 to 17:00 Monday to Saturday and closed on Sunday.
- to the south of the A303, just north of Gastons Lane, is a Shell garage (Sparkford service station, open from 06:00 to 22:00 every day) and Mattia diner (open from 08:00 to 22:00 every day).

12.7.17 Steart Road Garage is located on Steart Hill, 80 meters north of the Howell Hill / A303 junction. South of this is the village of West Camel. The village includes a number of businesses, but falls outside of the study area for the scheme.

12.7.18 At Hazlegrove Roundabout there is a service station with convenience shop, garage and a McDonalds fast food chain. Just south of the service station is FJ Reeves and Sons building contractors and just north of the roundabout along the east of the A303 is Long Hazel Park Campsite. The campsite includes touring pitches, holiday lodge rentals and a small development of residential lodges available to purchase for people over the age of 50.

12.7.19 In Sparkford, to the east of the current A303, there are a number of businesses. These include the Sparkford Inn public house and hotel, Piper L a & R W upholstery shop, Sparkford Storage, Haynes Publishing and The Cosplay Forge art supply shop. To the north of both Sparkford and the current A303 is Sparkford Hall event venue and Bed and Breakfast.

12.7.20 Figure 12.4 (Volume 6.2) illustrates businesses within the LIA.

Community land and community facilities

12.7.21 West Camel Methodist Church is adjacent to the A303, approximately 600 metres east of the Plowage Lane / A303 intersection. It should be noted that congregants of this Church now meet at All Saints' Church in the village of West Camel, approximately 770 meters south of the Methodist Church. The Davis Hall community Centre and All Saints' Church are situated in West Camel approximately 570 meters south of the A303. These community facilities fall outside of the LIA.

12.7.22 Hazlegrove Preparatory School is located approximately 465 metres north of the current A303, however the sole private access to the school is currently via the Hazlegrove Roundabout. Additionally, the school grounds and playing fields border the existing A303 and are therefore located within the LIA.

12.7.23 Sparkford Cricket Club pitch is located in the LIA. It is located to the north of The Avenue and west of Brains Lane. No other community land is present in the LIA, based on a review of Google Maps[44]. As there are not anticipated to be any impacts on this land during the construction period or once the scheme is open to traffic since there are no direct or indirect impacts on community land, this has been scoped out of assessment during construction. There are however, several PRoW within the LIA that are available to be used recreationally by members of the public, which can be seen in Figure 12.2 (Volume 6.2).

12.7.24 Figure 12.5 (Volume 6.2) illustrates community facilities within the LIA.

Development land

12.7.25 The South Somerset District Council *Local Plan* (2006-2028)[45] does not identify any development sites within the LIA. Construction stage effects are therefore not anticipated for development land, and have not been considered further in this assessment. However, the *Local Plan* outlines a target for the construction of at least 141 homes and 1.02 hectares of employment land in Ilchester between 2006 and 2028[46], which has been considered for the operational scheme. The cumulative effects of the scheme in combination with confirmed developments are considered within the Chapter 14 Combined and Cumulative Effects (Volume 6.3).

Local economy

12.7.26 The study area for the local economy is the WIA, which is the District of South Somerset. A detailed demographic profile is set out in appendix 12.2 (Volume 6.3).

12.7.27 Table 12.14 shows employment and unemployment rates. It shows that unemployment in South Somerset (3%) is in line with the South West region (4%). Both areas are slightly lower than the national unemployment figure of 5%. The proportion of the South Somerset population in employment is 77%

[44] Google Maps (2017) [online] available at: https://www.google.co.uk/maps/@52.8382004,-2.3278149,6z (last accessed March 2018).
[45] South Somerset District Council (2015) *South Somerset Local Plan (2006 – 2028)*
[46] South Somerset District Council (2015): *South Somerset Local Plan 2006 – 2028*. [online] available at: https://www.southsomerset.gov.uk/media/707200/south_somerset_local_plan_2006-2028_adoption_version_march_2015.pdf (last accessed March 2018)

and is therefore in line with the South West (78%) figure, and slightly higher than the national figure (75%).

Table 12.14: Employment and unemployment rates of the working age population

All people	LIA (%)	South Somerset (%)	South West (%)	Great Britain (%)
In employment	n/a	77%	78%	75%
Unemployed (Model-based)	n/a	3%	4%	5%

Source: ONS annual population survey, employment and unemployment (Oct 2016-Sep 2017)

12.7.28 Table 12.15 shows the economically active population. The table shows that the proportion of economically active people in South Somerset (is 84%). Both of these figures are slightly higher than the South West (82%) and national (79%) averages.

Table 12.15: Economically active population

Area	Working age population (16-64), 2011	Economically active (number)	Economically active (%)
South Somerset	97,800	82,390	84%
South West	3,323,813	2,710,787	82%
England	34,329,091	27,183,134	79%

Source: Census, 2011

12.7.29 Table 12.16 shows the working age population and, amongst them, those who claim Jobseeker's Allowance (JSA). The proportion of JSA claimants in South Somerset stands at 0.7% and in the South West stands at 0.9%. These areas all have lower proportions of claimants when compared to the national average of 1.3%.

Table 12.16 Job seekers

Location	Working age population (16-64)	JSA claimants	JSA claimants as a proportion of working age population (%)
South Somerset	95,884	640	0.7%
South West	3,357,259	29,196	0.9%
Great Britain	40,267,491	541,699	1.3%

Source: Jobseeker's Allowance 2016 average

Human health

12.7.30 There are no healthcare facilities located within the LIA. Queen Camel Medical Centre is located in Queen Camel, approximately 850 metres south of the scheme.

12.7.31 There are several PRoW providing access to green space for NMUs. These are detailed in Table A.4 of appendix 12.3, Volume 6.3. Such green space provides space for physical activity for people located both within the LIA and further afield.

12.7.32 The below table provides an overview of the health of the population at district level.[47] Consideration has been given to conditions and impairments that may

[47] It should be noted that ward level data is currently unavailable for the area that the scheme falls within.

be exacerbated by the scheme due to an increase in air pollution or removal of public open space.

12.7.33 As shown in Table 12.17 the estimated prevalence of Chronic Obstructive Pulmonary Disease (COPD) and the percentage of physically active adults in South Somerset are in line with the national averages. However, both the under 75 mortality rate (cardiovascular) and proportion of obese children (Year 6) are lower than the national average.

Table 12.17 Human health by district

Health profile category	South Somerset	England
Estimated prevalence of COPD (all ages)	3%	3%
Under 75 mortality rate (cardiovascular)	62.1 per 100,000 population	73.5 per 100,000 population
Percentage of physically active adults	58%	57%
Obese children (Year 6)	16%	20%

Source: Public Health England (2017): 'Health profiles'.

12.7.34 A full demographic profile including children (aged under 16 years) and older people (65+ years) can be found in appendix 12.2, Volume 6.3.

12.7.35 The English Indices of Multiple Deprivation (IMD) from 2015[48] are commonly used for the measurement and comparison of deprivation between neighbourhoods in England. In terms of deprivation, the LIA contains 3 Lower Super Output Area[49] (LSOA) neighbourhoods. These are ranked 22,979, 20,669 and 16,939 out of 32,844 LSOAs in England, with 1 being the most deprived LSOA. This indicates that the scheme is located within the 50% least deprived neighbourhoods in the country. Table 12.18 provides further analysis on IMD.

Table 12.18 Population by IMD quintiles

Area	Most deprived quintile	Second most deprived quintile	Third most deprived quintile	Fourth most deprived quintile	Least deprived quintile
LIA	0%	0%	27%	73%	0%
South Somerset District	7%	15%	34%	31%	13%
Somerset	11%	20%	26%	24%	20%
England	20%	21%	20%	20%	19%

Source: Index of Multiple Deprivation (2015)

12.7.36 Table 12.19 below provides an overview of income deprivation at LIA, district, regional and national level. Income deprivation concerns those on low incomes who are in receipt of benefits and tax credits.[50] The population is divided into

[48] *Indices of Deprivation 2015 explorer (2015) Accessed March 2018*. [online] available at: http://dclgapps.communities.gov.uk/imd/idmap.html (last accessed March 2018)
[49] LSOAs are spatial areas that have an approximate resident population of 1,500.
[50] Department for Communities and Local Government (2015): 'The Index of Multiple Deprivation (IMD) 2015 – Guidance'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/464430/English_Index_of_Multiple_Deprivation_2015_-_Guidance.pdf

five quintiles, with one being the most deprived and five being the least deprived.

Table 12.19 Population by income deprivation

Location	1 (most deprived)	2	3	4	5 (least deprived)
LIA	0%	0%	0%	81%	19%
South Somerset	6%	17%	22%	33%	22%
South West	10%	18%	25%	26%	20%
England	20%	20%	20%	20%	19%

Sources: 2015 Indices of Deprivation, DCLG and 2016 Mid-year population estimate, ONS

12.7.37 The above table shows that the LIA has a considerably higher proportion of population that fall within the fourth most deprived quintile when compared to other areas. None of the population in the LIA fall within the top three most deprived quintiles. This suggests that levels of income deprivation in the LIA are considerably low.

Agricultural land

12.7.38 Approximately 99 hectares of land within the 117-hectare RLB is believed to be used for arable production, with an area of parkland to the eastern most extents of the scheme and smaller parcels of permanent pasture.

Individual farm businesses

12.7.39 The study area comprises numerous field parcels, predominantly separated by hedgerows and woodland. Altogether, there 23 individual farms within the study area, which comprise landowners, tenants and occupants of land. The individual farm drawings show the extent of the farms in relation to the RLB for the scheme. These are included as part of the Agricultural Impact Assessment Baseline Report, appendix 12.4 (Volume 6.3).

12.7.40 Table 12.20 below provides a summary of the baseline conditions of each farm based on information from the returned questionnaires (refer to paragraph 12.4.25 to 12.4.27). Ten of the 23 questionnaires were returned. Farms 02, 10, 16 and 21 have been removed from the baseline following iterative changes to the RLB, with each of these farms no longer within the RLB.

Table 12.20: Individual farm businesses within the study area for the scheme

Farm ID	Tenure	Husbandry	ALC Grade	Returned questionnaire	Sensitivity (value)
01	Leasehold	Arable	3	No	High <20ha and low diversity
03	Tenant	Grass keep	3	Yes	Medium 20-50ha and low diversity
04	Freehold	Arable: cereals, oilseed rape and beans	2 and 3	Yes	Medium 20-50ha and some diversity
05	Tenant	Arable: wheats and oats; Pasture: cattle	3	Yes	Low >50ha and flexible management
06	Freehold and occupant	Pasture & Arable	3	No	Low >50ha

Farm ID	Tenure	Husbandry	ALC Grade	Returned questionnaire	Sensitivity (value)
07	Occupant	Pasture	3	No	High <20ha and low diversity
08	Freehold, leasehold and occupant	Pasture: cows, cattle and sheep	3	Yes	Medium 20-50ha and some diversity
09	Freehold	Pasture	3	No	High <20ha and low diversity
11	Freehold	Pasture: sheep	3	Yes	High <20ha and low diversity
12	Freehold and occupant	Arable and Pasture	2 and 3	No	Medium 20 – 50 ha
13	Freehold	Arable and Pasture	3 and 4	No	Low >50ha
14	Tenant	Pasture	3	No	High <20ha and low diversity
15	Freehold and occupant	Arable: Cereals, oilseeds, bird seed, protein crops, root crops; Pasture: sheep, goats, chickens, ducks, geese, alpacas, rhea	3 and 4	Yes	Low >50ha and flexible management
17	Freehold	None: land used by neighbouring farmers.	3	Yes	Low >50ha and farm is not a commercial priority
18	Freehold and tenant	Pasture and Arable	3	No	Low >50ha
19	Freehold and tenant	Pasture and Arable	3	No	Medium 20 – 50 ha
20	Freehold	Pasture and Arable	3	No	Medium 20 – 50 ha
22	Leasehold	Pasture and Arable	2 and 3	No	Low >50ha
23	Freehold	Pasture: equestrian	3	Yes	High <20ha and low diversity
24	Freehold and occupant	Pasture: cattle and equestrian	2 and 3	Yes	Low >50ha
25	Freehold	Pasture	3	No	High <20ha and low diversity
26	Tenant and occupant	Pasture	3	No	Low >50ha
27	Freehold and occupant	Pasture and Arable	3 and 4	No	Low >50ha

12.8 Potential impacts

Construction

12.8.1 The following impacts are predicted for the scheme during construction.

- Direct impacts are anticipated upon NMU journeys and facilities and it may be necessary to temporarily close or divert NMU facilities, which would result in increases in journey times and lengths for NMUs.
- Exposure to noise and dirt and visual intrusion could temporarily alter journey experience for NMUs.
- Driver stress increases for motorised travellers are predicted, with some overnight working and traffic management likely to result in temporary

closures and diversions along the A303 and adjoining local roads, changes in speed limits and the employment of average speed cameras.

- No residential properties would be demolished as a result of the scheme. However, land required for the scheme would include the parking area, access road and / or garden space of five residential properties. Here, land acquisition includes both temporary and permanent land acquisition. With the exception of access roads, the permanent loss of these outdoor spaces would not affect the ability of the residents to use or access their properties.
- The sole access route to Hazlegrove Preparatory School is via the Hazlegrove Roundabout (which falls within the study area). Throughout construction, journeys to the school may be disrupted and there may be an increase in journey length. However, as access to the school would be re-routed under the scheme, access to this community facility would be retained throughout the construction period.
- Several PRoW would be impacted, both temporarily and permanently, by the scheme during construction. Temporarily or permanently closing and / or diverting PRoW would change the journey length and / or the ability to use these facilities by NMUs. This would result in an increase in severance.
- During construction, the scheme would result in traffic management measures including a series of temporary road closures (refer to Table A.4 appendix 12.3, Volume 6.3). Road closures would create severance for those relying on such roads to access residential properties and / or community facilities in settlements along the A303.
- The scheme would require a new construction workforce to deliver it which would be sourced locally where practicable. The presence of construction workers would impact the local economy.
- Several PRoW would be impacted both temporarily and permanently by the scheme. As these PRoW currently provide access to green space and an environment for physical exercise for NMUs, any changes made to access have the potential to impact the health of NMUs who rely on this green space.
- The temporary and permanent acquisition of agricultural land is anticipated during construction which could include the BMV land.
- Direct impacts to individual farm businesses are anticipated, with some temporary and permanent changes to business practices required as a result of land loss, severance and changes to access.

Operation

12.8.2 The following impacts are predicted for the scheme during operation.

- Direct impacts are anticipated upon a number of NMU facilities and journeys, resulting in some journey length increases for NMUs.
- It is anticipated that there would be a reduction in congestion on the A303 as a result of the scheme, resulting in reduced driver stress.
- A reduction in fear of potential accidents is anticipated with new safer facilities provided for NMUs.

- Changes to views from the existing road are anticipated with the introduction of new highways infrastructure.
- An improvement in amenity is anticipated for NMUs with unsafe crossings of the A303 permanently closed and alternative diversions provided across the A303, removing barriers between people and traffic
- Changes to traffic flows are anticipated at locations where there are no barriers between people and traffic.
- Permanent changes to journey experience for NMUs could be experienced with changes relating to exposure to noise and dirt and visual intrusions.
- The scheme would alleviate congestion on the local road network, which would improve journey time to access community facilities in the study area.
- A new access route to Hazlegrove Preparatory School (featuring a new slip road stemming from a new grade separated junction) would separate local and through traffic. This has the potential to ease congestion around the school entrance, ultimately improving access.
- The scheme would alleviate congestion on the local road network, which would improve journey time to access proposed future developments in the study area. This includes the proposed construction of at least 141 homes and 1.02 hectares of employment land in Ilchester between 2006 and 2028[51].
- Direct operational employment would not be created as a result of the scheme. However, there would be increased indirect employment opportunities related to reduced congestion and improved journey times.
- Provision of new and improved routes and separation NMUs and traffic has the potential to indirectly improve the physical activity and human health of NMUs during operation.
- Agricultural land as a national resource and used by individual farm businesses temporarily acquired during the construction phase returned to agricultural production as assessed in paragraph 12.8.1 above.

12.9 Design, mitigation and enhancement measures

Mitigation

Construction

12.9.1 An **Outline Environmental Management Plan (OEMP)** ***(document reference TR010036/APP/6.7)*** has been prepared which covers mitigation requirements for the construction period, which will be implemented in the DCO. A Construction Environmental Management Plan (CEMP) is to be prepared for the scheme. This would be prepared during the construction planning phase by the appointed Contractor. The CEMP would ensure that the construction of the

[51] South Somerset District Council (2015): *South Somerset Local Plan 2006 – 2028*. [online] available at: https://www.southsomerset.gov.uk/media/707200/south_somerset_local_plan_2006-2028_adoption_version_march_2015.pdf (last accessed March 2018).

scheme is undertaken in as sensitive a manner as possible, with regards to people within the local community.

12.9.2 A Traffic Management Plan (TMP) (Annex B.5 of the OEMP) would be implemented during the construction phase of the scheme to ensure there is a safe environment for those travelling along the route, and for those delivering the construction works. The TMP outlines how traffic management will minimise effects for vehicle travellers during construction.

12.9.3 Prior to construction, the appointed Contractor will register with the National Considerate Constructor's Scheme and a forum would be established to disseminate construction information to landowners, parish councils, local interest groups and the general public. The Construction Strategy (section 2.6, Chapter 2 The Scheme, Volume 6.1) for the scheme states that construction work would take place between 07.00 and 18.00 on weekdays and from 07.30 to 13.00 on Saturdays, with no working on Sundays, Bank and Public Holidays. Where more sensitive works (such as night time works at pinch points in the 2 locations where the new dual carriageway interfaces with the A303) take place, this would be agreed with an Environmental Health Officer at South Somerset District Council. Such measures would ensure works are carried out in accordance with best practice to minimise the impact of works on local inhabitants, the travelling public and provide a safe working environment.

12.9.4 Works on the A303 and associated local roads would be phased to minimise effects on all travellers during construction as described in the construction driver stress assessment (refer to Table A.1, appendix 12.3, Volume 6.3). All temporary diversions for NMUs around the work site would be clearly signed, with alternative access arrangements maintained throughout the construction period, as required. The majority of existing crossings would only be closed once diversions are in place or the new arrangement has been established.

Design measures

Operation

12.9.5 The following design measures would be implemented for NMUs during operation, (refer to the Right of Way Strategy drawings (Figure 2.5, Volume 6.2) which identifies diversions and new routes that would be provided as part of the scheme):

- A new right of way is proposed between Bridleway Y 30/28 and Footpath Y 27/10 at Downhead, to allow for NMUs to safely travel between Podimore and Downhead
- Footpaths Y 27/UN, Y 27/9 and Y 27/10 would be diverted. The diversion route would be 2.5m to 4m wide and use the footway alongside the existing A303 between Camel Cross and the new roundabout, with

footway facilities provided in the road verge for the new A303 Steart Hill overbridge. A new PRoW diversion would be provided between the new overbridge and Downhead to the north of the A303, with a new NMU route in the verge for the local road connecting to Steart Hill

- A new right of way is proposed between Footpath Y 27/UN and Footpath Y 27/11 to allow NMUs to safely travel to RNAS Yeovilton
- A new right of way is proposed between the new overbridge to the east of Downhead and the diversion for Footpaths WN 23/10, WN 23/32 and WN 23/33. A new PRoW diversion between Traits Lane and Gason Lane would be provided, with all three PRoW diverted along Gason Lane and alongside the existing A303 as far as Hazlegrove roundabout. A diversion would then be provided alongside the new local road between Hazlegrove roundabout and Camel Hill Farm. A new route would be provided between Hazlegrove roundabout and the footways in Sparkford
- Footpath WN 23/12 would be diverted to the north of the private access road for Hazlegrove Preparatory School
- Potential modifications would be made to Footpaths WN 23/11 and WN 27/4

Compensation

Construction and operation

12.9.6 Landholders affected by private property land acquisition and individual farm business that would experience land acquisition will be compensated for their losses in accordance with the compulsory purchase compensation code.

12.10 Assessment of likely significant effects

12.10.1 This section details likely significant effects after design, mitigation and enhancement measures as detailed within section 12.9 above. Additional supporting information can be found in appendix 12.3, Volume 6.3.

Construction

Non-motorised users

12.10.2 Temporary closures and diversions whilst works are undertaken for the scheme, would result in journey length and time increases for NMUs, until the permanent solution is open to users (note that the permanent solution for NMUs is shown in the Right of Way and Access Plans (Figure 2.4, Volume 6.2). The only designated A303 crossing for NMUs in the study area, Higher Farm Lane bridge, would remain open during construction. All diversion routes would be clearly signposted, which would minimise effects to NMU journeys. Temporary construction works could also result in changes with respect to noise and dirt exposure and visual intrusions for NMUs, potentially reducing journey experience along NMU routes. However, with the implementation of mitigation as mentioned in Section 12.9, these changes would result in a Slight Adverse

effect at worst during construction for NMUs making journeys within the study area.

12.10.3 During construction, adverse effects are predicted for 13 of the 15 journeys (refer to Table 12.11 of this chapter for a description of journeys potentially made by NMUs within the study area. No impact is predicted for National Cycle Route 26, and Sparkford to Hazlegrove House / Sparkford Hall via Sparkford Hill via WN 27/16. The 13 journeys where temporary adverse effects are predicted due to NMU facilities associated with the below journeys lying within the scheme footprint include:

- Podimore to East Mead Lane (footway between Podimore and Higher Farm Lane and PRoW Footpath Y 30/ UN, Bridleway Y 30/29 and Bridleway Y 30/28)
- Slow Court Lane to Downhead (PRoW Footpath Y 27/22 and Footpath Y 27/UN, Slow Court Lane and a track between Slow Court Lane and Hawk House)
- Downhead to West Camel (PRoW Restricted byway Y 27/27 and Footpath Y 27/10, Plowage Lane and Keep Street)
- Steart Hill to southern extents of Downhead (PRoW Restricted byway Y 27/20, Footpath Y 27/9, Footpath Y 27/29 and Footpath Y 27/10, Steart Hill and unnamed local road at Downhead)
- Steart Hill to northern extents of Downhead (PRoW Restricted byway Y 27/20 and Steart Hill)
- West Camel to A303 (PRoW Restricted byway Y 27/27, Footpath Y 27/7, Footpath Y 27/6 and a footway adjacent to A303)
- Steart Hill to Howell Hill (Steart Hill and Howell Hill)
- Camel Hill to Traits Lane (PRoW Footpath WN 23/32 and Traits Lane)
- Celtic Way (PRoW Footpath WN 23/10 and Footpath WN 23/33)
- Sparkford to Camel Hill (footway adjacent to A359, PRoW Footpath WN 27/4, Footpath WN 23/15 and Footpath WN 23/33 and Gason Lane)
- Hazlegrove House/ Sparkford Hall to Queen Camel (PRoW Footpath WN 23/38, Footpath WN 23/12 and Footpath WN 23/11)
- Howell Hill to Camel Cross (footway adjacent to A303)
- Sparkford to Hazlegrove House / Sparkford Hall via Sparkford Hill (footways adjacent to A359 and PRoW Footpath WN 27/4, Footpath WN 23/11, Footpath WN 23/12 and Footpath WN 23/38)

12.10.4 Although temporary closures and diversions could result in journey length increases, and construction works could result in a slight deterioration in journey experience, given consideration for the low number of NMUs counted in the 2016 NMU surveys (refer to appendix 12.1, Volume 6.3) a **Slight Adverse** effect is predicted during construction for NMUs, with mitigation in place. This is not considered to be significant.

Driver stress

12.10.5 During construction, traffic management measures would be employed for a 7.5-kilometre length of A303, extending beyond the length of the scheme, as described in section 12.9. This could result in delays to journey time and lead to increased driver frustration. The presence of construction plant, road closures and diversions would also temporarily increase driver stress experienced by vehicle travellers.

12.10.6 The presence of construction site personnel within close proximity of the A303 would be likely to contribute to an increased fear of potential accidents for the duration of the construction period. However, mitigation measures would be put in place, including the phasing of works, the strict implementation of the CEMP and TMP.

12.10.7 Several site compounds would be required for the scheme, with the main compound proposed on an area of land between the A303 and B3151 and auxiliary compounds at Steart Hill, along the southern verge of the A303 and west of Traits Lane and at Hazlegrove Roundabout (refer to the Construction Strategy in section 2.6, Chapter 2 The Scheme, Volume 6.1). The presence of construction plant, stock piles and construction infrastructure within these compounds would result in a reduction in visual amenity for vehicle travellers on adjacent roads including the A303 and local roads which could increase driver stress for vehicle travellers. Construction plant would access the compounds from the A303 or B3151 for the main compound which could cause additional driver frustration for vehicle travellers due to the presence of slow moving Heavy Goods Vehicles (HGVs). The presence of personnel walking to and from the compounds for these locations, which are within close proximity of the works site, may also contribute to an increased fear of potential accidents.

12.10.8 Table A.1 of appendix 12.3, Volume 6.3 presents the full assessment of Driver Stress for the 13 roads located in the study area during construction. The assessment demonstrates that vehicles travelling along 10 of the 13 roads located in the study area are predicted to experience temporary increases in driver stress. With mitigation in place, a temporary worst-case **Slight Adverse** effect is predicted during construction. This is not considered to be significant.

Demolition of private property and associated land take

12.10.9 Construction of the scheme would require land on a permanent basis from a number of private residential receptors, resulting in localised significant adverse effects as a result of the scheme, relating to land take from private property. Overall effects relating to land take from private property as a result of the scheme would be **Moderate Adverse** on balance. Table 12.21 shows the locations of land take from private property where adverse effects are predicted

to occur and an approximation of how much land take would occur. The residents of these properties would be adversely affected.

Table 12.21 Significant adverse effects for private property land take

Location of land take	Type of land take	Approximate amount of land take (m^3)	Significance of effect
Pepper Hill Cottage, north of the A303, opposite Gason Lane	Permanent acquisition of outside space to the south of the property as part of the engineering footprint.	1,570 of the property's 3,620 total plot	Land take would be required during the construction stage. Land take would be permanent for the engineering footprint, and for accommodation works. Both areas of land take would be from outside space to the south of the cottage. There would also be impacts on the current access route to the property. In this instance the sensitivity of the receptor is considered to be medium, as the access route to the property is likely to be frequently used by residents of the property. The magnitude of the permanent land take impact is considered to be moderate because the land would be taken permanently and affects the property's access route. Even though accommodation works would provide a new access route to the property, the total land take for the property (excluding the new access route) is approximately 43% of the property's total plot. The effect is therefore **Moderate Adverse** and significant, even with compensation provided to the receptor.
	Land acquisition of outside space to the south of the property for accommodation works.	90 of the property's 3,620 total plot	
The Spinney, north of the A303, opposite Plowage Lane	Permanent land acquisition for engineering footprint of outside space to the south of the property.	6,920 of the property's 10,260 total plot	Construction of the scheme would require land to be taken from The Spinney. Land would be taken permanently (for the engineering footprint and for landscape planting area) and for accommodation works. Permanent land take for the engineering footprint would be required from the garden to the south of the property including the current access route. As access to the property is frequently required and would be impacted by land take, the sensitivity of receptors is considered to be medium. Even though accommodation works would provide a new access route to the property, the total land take for the property (excluding the new access route) is approximately 76% of the property's total plot. The effect is therefore **Moderate Adverse** and significant, even with compensation provided to the receptor. The magnitude of the impact for permanent land take for the landscape planting area would be minor. The land presently appears to be used as outside, field space, and land take is only likely to affect one receptor. This area of land take would also only be approximately 3% of the property's total plot. As the sensitivity of the residential receptors is medium, the overall
	Permanent land acquisition for landscape planting area of outside space to the south of the property.	910 of the property's 10,260 total plot	
	Land acquisition for accommodation works of outside space to the south of the property.	334 of the property's 10,260 total plot	

Location of land take	Type of land take	Approximate amount of land take (m^3)	Significance of effect
			effect for this impact is therefore **Slight Adverse** and not significant**.**
Hill View, private property to the south of the A303 approximately 180m west of Steart Hill	Permanent land acquisition of part of the outside space to the east of the property for engineering footprint.	2,000 of the property's 2,790 total plot	During the construction stage, the scheme would require land to be taken from Hill View, a private residential property. Land would be required permanently for the engineering footprint, and temporarily with permanent rights to accommodate utility way leaves. Land would also be taken for accommodation works. All land take is to the east of the property and includes an access route to the property and green space. As access to the property is frequently required and would be impacted by land take, the sensitivity of receptors is considered to be medium. Even though accommodation works would provide a new access route to the property, the total land take for the property (excluding the new access route but including land taken for utility way leaves) is approximately 83% of the property's total plot. The effect is therefore **Moderate Adverse** and significant, even with compensation provided to the receptor.
	Temporary land acquisition with permanent rights of part of the outside space to the east of the property for utility way leaves.	360 of the property's 2,790 total plot	
	Land acquisition of part of the outside space to the east of the property for accommodation works.	77 of the property's 2,790 total plot	

Community facilities

12.10.10 Although Hazlegrove Preparatory School is located outside of the LIA, sole private access to the school is currently via the Hazlegrove Roundabout, which falls within the study area. The access route to Hazlegrove Preparatory School would be permanently changed because of the scheme. Sole, private access to the school would be maintained, but disruption to access of the facility would be apparent throughout the construction period. In this instance, the sensitivity of receptors is medium. This is because receptors are children (the users of the facility) and are therefore vulnerable to any disruption that would occur throughout construction. Access arrangements would be provided at all times throughout construction, however, the magnitude of the impact is minor as such disruption could affect the well-being of a small number of receptors. The baseline conditions (sole, private access to the school) would remain with provision of an alternate access route. Overall, the impact is **Slight Adverse** and therefore not significant.

Severance

12.10.11 Table A.2 of appendix 12.3, Volume 6.3, shows PRoW in the LIA which would be impacted by the scheme, and may therefore result in severance effects for pedestrians and NMUs. Impacts have been separated to show where

land take would impact the PRoW and where, more specifically, the new carriageway would physically sever an existing PRoW.

12.10.12 A total of 14 PRoW would be affected by the scheme. However, due to the low number of community facilities likely to be accessed by these PRoW, and because of the low levels of usage highlighted in the NMU survey, significant effects relating to severance would not arise and an overall **Slight Adverse** effect is predicted.

12.10.13 Construction of the scheme would also require several temporary road closures, potentially resulting in severance for those who rely on those roads to access residential properties, businesses or community resources. There would be alternative access arrangements (diversion routes) made available in all instances. The sensitivity of receptors is considered to be low as alternative routes are available. The disruption would be temporary in all instances, and because the baseline case (roads being open) would return once the construction phase has ended, the magnitude of the impact is considered to be minor. Overall, the impact is **Slight Adverse** and therefore not significant.

12.10.14 The scheme would also require traffic management measures on the surrounding road network during construction which may also result in temporary severance. A full list of road closures, proposed diversion routes and severance impacts are found in Table A.3 of appendix 12.3, Volume 6.3. The construction phase is due to begin in Spring 2020 and is expected to take up to three years to complete.

12.10.15 During construction, the proposed speed limit for throughout the works is 40mph, and it has been recommended that Average Speed Cameras are installed to enforce this speed limit. Local roads would also be subject to reduced speed limits. Traits Lane, Vale Lane, Downhead Lane and the B3151 are all referred to in the Outline TMP (Annex B.5 of the ***OEMP***, ***document reference TR010036/APP/6.7)*** as requiring a reduced limit of between 20mph and 40mph.

12.10.16 There would be alternative access arrangements (diversion routes) made available in all instances, as detailed in the Outline TMP (Annex B.5 of the ***OEMP***, ***document reference TR010036/APP/6.7)***. The sensitivity of receptors is considered to be low as alternative routes are available. The disruption would be temporary in all instances, and because the baseline case (roads being open) would return once the construction phase has ended, the magnitude of the impact is considered to be minor. Overall, the impact is **Slight Adverse** and therefore not significant.

Local economy

12.10.17 The construction strategy (section 2.6, Chapter 2 The Scheme, Volume 6.1) states that, where possible, labour, plant and materials would be sourced locally to support the local economy (see section 12.9, Chapter 12, Volume 6.1).

12.10.18 As the scheme would require new construction workforce, this could have a beneficial effect on employment rates in the local area. However, because of the size of the scheme, the number of workers required is likely to be relatively small. Employment data also indicates that the economically active population in the LIA is higher when compared to the district, regional and national averages (see Tables 12.14 to 12.16). The addition of new construction jobs locally would therefore result in a **Slight Beneficial** effect, which is not significant.

12.10.19 In addition, for the duration of the construction phase, there would be construction workers on-site. It is anticipated that there would be a slight and indirect temporary beneficial effect on the local economy as a result of these workers using local facilities, for example hospitality and catering establishments. This temporary economic activity would result in a **Slight Beneficial** effect, which is not significant.

Human health

12.10.20 A total of 14 PRoW would be affected by the scheme by either land take or by being severed by new roads built as part of the scheme. PRoW provide access to green space and an environment for physical exercise for NMUs. According to TAG Unit A4.1[52] guidance, physical inactivity is a primary contributor to a wide range of chronic diseases including coronary heart disease, stroke, diabetes and some cancers. Physical activity, however, plays an important role in improving mental health and preventing obesity. Temporary or permanent changes to PRoW therefore has the potential to impact the health of NMUs.

12.10.21 As the majority of PRoW in the LIA are used infrequently and diversion routes would be put in place as appropriate, the magnitude of the impact is minor and the sensitivity of receptors in this instance is low. The scheme would not impact access to healthcare facilities in the study areas. Overall, the effect of the scheme on human health and wellbeing as a result of changes to PRoW is **Slight Adverse** and not significant.

[52] Department for Transport (2014): 'TAG Unit A4.1: Social Impact Appraisal'. See: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/670363/TAG_Unit_A4.1_-_Social_Impact_Appraisal_November2014.pdf (last accessed March 2018).

12.10.22 Other health effects, associated with changes in air quality and noise and vibration, are considered in Chapter 5 Air Quality and Chapter 11 Noise and Vibration, Volume 6.1, respectively.

Agricultural land

12.10.23 Agricultural land would be temporarily and permanently acquired during construction to facilitate works for the scheme. Land required for temporary use only would be restored following construction. Table 12.22 below identifies potential adverse effects on agricultural land as a national resource. The area of temporary land acquisition would include 21.57 hectares of agricultural land, and provisional regional ALC maps indicate that all of this land is Grade 3 land. 76.99 hectares of agricultural land would also permanently be acquired during construction, and provisional regional ALC maps indicate that 75.17 hectares of this land is Grade 3 and 1.83 hectares Grade 2 quality land.

12.10.24 In accordance with Table 12.6, construction effects for the scheme represent a worst case major adverse impact on medium value Grade 3 agricultural land and a minor adverse magnitude of impact on High value Grade 2 agricultural land. This represents both a temporary and permanent worst-case **Moderate Adverse** and significant effect on agricultural land.

12.10.25 Although a significant amount of agricultural land would be affected temporarily and permanently during construction, only a small proportion of this would be Grade 2 land, and therefore agricultural land of the highest quality locally has for the most part been avoided. At this stage it is not possible to distinguish between the different sub-grades of the Grade 3 land that would be temporarily acquired, and therefore there is the potential for Grade 3a and BMV land to be temporarily, but unavoidably affected. This represents the worst-case scenario when taking into account the assumptions made for this assessment, which note that that the condition of agricultural land varies on a seasonal basis and yearly depending on rotation of crops. It is also worth noting that not all the land considered in Table 12.22 below is necessarily used for agricultural production.

Table 12.22 Effects on agricultural land as a national resource

ALC land grade	Loss of land	Value (sensitivity)	Magnitude of impact	Significance of effect
Grade 2	1.83 hectares permanent land-take	High	Minor Adverse	**Slight Adverse**
Grade 3	21.57 hectares temporary land-take 75.16 hectares permanent land-take (96.7 hectares of land-take during construction)	Medium	Major Adverse	**Moderate Adverse**

Individual farm businesses

12.10.26 Table A.4 of appendix 12.3 (Volume 6.3) provides the full assessment of impacts for the individual farm businesses identified within the study area during the construction phase. The individual farms map (appendix A of appendix 12.3 Volume 6.3) highlights the areas where land take would be required for the scheme during construction, including land temporarily and permanently acquired. Permanent land take is also considered as part of this assessment, as potential impacts associated with this would arise during the construction phase.

12.10.27 Several ecological mitigation areas have also been proposed, which would result in additional permanent land take for 3 farms. However, it is worth noting that the majority of land affected by the ecological mitigation areas would still be available for agricultural production during the construction and operation phases of the scheme, and therefore a worst case assessment is provided in Table A.4 of appendix 12.3 (Volume 6.3). Two of the ecological mitigation areas would be sited on Grade 3 land according to Regional ALC maps, which has potential to include BMV land, whilst the other would be situated on Grade 2 land. As highlighted in section 8.9 of Chapter 8 Biodiversity, Volume 6.1, the ecological mitigation areas are essential to reduce adverse effects on biodiversity and are suitably sited to justify the loss of this agricultural land. Refer to the Environmental Masterplan drawings contained in Figure 2.8, Volume 6.2.

12.10.28 For any individual farms where temporary land take would be required, a Soil Handling and Management Plan would be implemented which would include the restoration of soils, subject to an agreement with the landowner.

12.10.29 The assessment presented in Table A.4 of appendix 12.3 (Volume 6.3) identifies Neutral temporary and permanent effects as a result of the scheme for 1 of the 23 farms within the study area, a Slight Adverse effect for 14 farms with 2 reducing to Neutral permanently, a Moderate Adverse effect for 4 farms with 1 reducing to Neutral and another to Slight Adverse permanently and Large Adverse effect for 4 farms. Therefore, an overall **Moderate Adverse** effect is anticipated for individual farms during construction. This considered to be significant.

Operation

Non-Motorised Users

12.10.30 The predicted permanent effects of the scheme on NMU journeys and facilities are outlined in Table 12.23 below. The Rights of Way Strategy also shows changes required to NMU facilities as a result of the scheme.

12.10.31 The scheme would require the permanent diversion of all at-grade crossings of the A303 between Hazlegrove and Podimore, to separate NMUs from traffic, and the diversion of several routes. This would result in major increases of greater than 500 metres for 6 journeys, minor increases of 0 – 250 metres for 1 journey and minor decreases of 0 – 250 metres for 3 journeys. A new overbridge to the east of Downhead over the A303 with adjoining NMU facilities, and a new underbridge of the A303, primarily for vehicle travellers, but with NMU facilities alongside this road would be provided as part, which would substantially improve safety for NMUs locally and largely mitigate for any adverse effects relating to journey length increases.

12.10.32 The scheme would provide a new non-motorised user route between Eastmead Lane just to the east of Podimore and Sparkford, which would also connect to Downhead. The provision of this route is considered to be a significant improvement to the NMU network and could result in increased usage of NMU routes.

12.10.33 On balance, the scheme is predicted to result in a **Slight Beneficial** effect on NMUs, weighing up new facilities to be provided as part of the scheme and permanent changes in journey length. Large Beneficial effects are predicted for the new journey between Podimore, Downhead and Sparkford (described in Table 12.23 below), Moderate Beneficial effects for 2 journeys, Slight Beneficial effects for 3 journeys, a Neutral effect for 5 journeys, Slight Adverse effects for 2 journeys and no change for 3 journeys. Overall effects on NMUs are considered to be not significant.

Table 12.23: Effects for NMUs during operation

Potential NMU journeys	Change to journey length	Changes to NMU facilities	Commentary including magnitude of change	Significance
Podimore to East Mead Lane	No change.	A 10m section of Eastmead Lane between Bridleway Y 30/29 and A303 extinguished.	No change to journey times. The permanent closure of the short section of Eastmead Lane (Bridleway Y 30/28) is not considered to result in adverse effects for NMUs, with consideration given for the existing safety issues with crossing and then travelling along the A303 and the low number of NMUs (4) counted in 2016.	**Neutral**
Slow Court Lane to Downhead	2100m increase	A 70m section of Footpath Y 27/UN permanently closed. Diversion alongside the existing A303, with NMU facilities provided as part of the new overbridge. Footpaths Y 27/29, Y 27/10 and Y 27/UN diverted, with a new route for NMUs along the local road at Downhead. A new right of way is proposed between Footpaths Y 27/UN and Y 27/11.	The majority of PRoW Footpath Y 27/UN would be permanently closed, resulting in journey length increases for NMUs and a Major Adverse impact. However, the existing uncontrolled crossing of the A303 is unsafe and not expected to be widely used by NMUs, with no NMUs counted in the 2016 surveys. Although the proposed diversion route would increase journey lengths and times, the new route would be far safer for NMUs and has the potential to increase usage for NMUs, particularly with a new route provided between Footpaths Y 27/UN and Y 27/11, which would also allow for NMU journeys to RNAS Yeovilton. The new facilities are considered to result in a Major Beneficial impact.	**Neutral**
Downhead to West Camel	1200m increase	Diversion alongside the existing A303, with NMU facilities provided as part of the new overbridge. Footpaths Y 27/29, Y 27/10 and Y 27/UN diverted, with a new route for NMUs along the local road at Downhead before connecting to Footpath Y 27/10.	NMUs would no longer be able to cross the A303 at-grade using the uncontrolled crossing, resulting in journey length increases for NMUs and a Major Adverse impact. However, the existing uncontrolled crossing of the A303 is unsafe and not expected to be widely used by NMUs, with 2 NMUs counted in the 2016 surveys. Although the proposed diversion route would increase journey lengths and times, the new route would be far safer for NMUs and has the potential to increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact.	**Neutral**
Steart Hill to southern extents of Downhead	110m decrease	Footpaths Y 27/29, Y 27/10 and Y 27/UN diverted, with a new route for	Footpaths Y 27/29, Y 27/10 and Y 27/UN would be diverted resulting in journey length decreases and a Minor Beneficial impact for NMUs. The proposed	**Slight Beneficial**

Potential NMU journeys	Change to journey length	Changes to NMU facilities	Commentary including magnitude of change	Significance
		NMUs between Steart Hill and Footpath Y 27/10.	diversion route would upgrade existing facilities for NMUs and result in a Minor Beneficial impact. 31 NMUs were counted using Steart Hill.	
Steart Hill to northern extents of Downhead	No change	No change.	No change to journey times or facilities for NMUs.	**No change**
West Camel to A303	No change	Footway alongside existing A303 upgraded. Diversion alongside the existing A303, with NMU facilities provided as part of the new overbridge.	No change to journey times. The footway alongside the A303 would be upgraded, with NMU facilities provided for the new overbridge. The provision of new facilities has potential to increase usage for NMUs and is considered to result in a Minor Beneficial impact.	**Slight Beneficial**
Steart Hill to Howell Hill	1200m increase	Diversion alongside the existing A303, with NMU facilities provided as part of the new overbridge.	NMUs would no longer be able to cross the A303 at-grade using the uncontrolled crossing, resulting in journey length increases for NMUs and a Major Adverse impact. Between Howell Hill and the new A303 overbridge, the existing footway would be realigned resulting in a Minor Adverse impact for NMUs. Although the proposed diversion route would increase journey lengths and times, the new route would be far safer for NMUs and has the potential to increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact. 24 NMUs were counted along Steart Hill in 2016, so this local road is relatively well used by NMUs, and therefore adverse effects relating to journey length and times for NMUs are of greater importance.	**Slight Adverse**
Camel Hill to Traits Lane	1950m increase	New PRoW between Traits Lane and Gason Lane. Footpaths WN 23/33, WN 23/32, WN 23/10 and WN 23/12 diverted along Gason Lane, with NMU facilities provided as part of the new underbridge and also alongside new road to Camel Hill.	A 130m section of Footpath WN 23/32 would be permanently closed between the A303 and Camel Hill, which would result in NMUs no longer being able to cross the A303 at-grade using the uncontrolled crossing. This would amount to journey length increases for NMUs and a Major Adverse impact. The new PRoW and diversions along Gason Lane, NMU facilities adjacent to the Camel Hill access road and also as part of the new underbridge would be far safer for NMUs when compared to the existing uncontrolled	**Neutral**

Potential NMU journeys	Change to journey length	Changes to NMU facilities	Commentary including magnitude of change	Significance
			crossing of the A303, and could increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact. Only 4 NMUs were counted along Traits Lane in the 2016 surveys.	
Celtic Way	1620m increase	New PRoW between Traits Lane and Gason Lane. Footpaths WN 23/33, WN 23/32, WN 23/10 and WN 23/12 diverted along Gason Lane, with NMU facilities provided as part of the new underbridge and alongside the new road to Camel Hill.	A 140m section of this long-distance route would be permanently closed, no longer allowing NMUs to cross the A303 at-grade using an uncontrolled crossing. This would amount to journey length increases for NMUs and a Major Adverse impact. The new PRoW and diversions along Gason Lane, NMU facilities adjacent to the Camel Hill access road and also as part of the new underbridge would be far safer for NMUs when compared to the existing uncontrolled crossing of the A303, and could increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact. Only 3 NMUs were counted using the Celtic Way in the 2016 surveys, however given that this is known to be a long-distance walk, adverse effects relating to journey length and time are considered to be of greater importance.	**Slight Adverse**
Sparkford to Camel Hill	170m decrease	New PRoW between Traits Lane and Gason Lane. Footpaths WN 23/33, WN 23/32, WN 23/10 and WN 23/12 diverted along Gason Lane, with NMU facilities provided as part of the new underbridge and alongside the new road to Camel Hill, and also a connection provided between the diversion and the footways along High Street, Sparkford.	NMUs would no longer be able to cross the A303 at-grade between Gason Lane and Footpath WN 23/33, however a diversion would be provided between Camel Hill and Hazlegrove roundabout which would result in journey length decreases and a Minor Beneficial impact. The diversion adjacent to the Camel Hill access road would also be safer for NMUs would be considered an upgrade to NMU facilities, whilst the NMU facilities provided as part of the new local road A303 underbridge would be far safer for NMUs when compared to the existing uncontrolled crossing of the A303, and could increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact. No NMUs were counted using the Gason Lane / Footpath WN 23/33 crossing the 2016 surveys.	**Moderate Beneficial**
	1130m increase		A 430m section of Footpath WN 23/12 would be permanently closed, no longer allowing NMUs to cross	**Neutral**

Potential NMU journeys	Change to journey length	Changes to NMU facilities	Commentary including magnitude of change	Significance
Hazlegrove House / Sparkford Hall to Queen Camel		Footpath WN 23/12 diverted with NMU facilities installed as part of the underbridge at Hazlegrove.	the A303 at- grade using an uncontrolled crossing. This would amount to journey length increases for NMUs and a Major Adverse impact. The provision of NMU facilities as part of the new local road A303 underbridge would be far safer for NMUs when compared to the existing uncontrolled crossing of the A303, and could increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact on NMUs. 28 NMUs were counted using Footpath WN 23/38 between Hazlegrove House and Sparkford Hall.	
Howell Hill to Camel Cross	30m decrease	Footway between Howell Hill and Camel Cross would be upgraded.	NMUs would be diverted around the new roundabout connecting to the overbridge over the A303 which would result in journey length decreases for NMUs and a Minor Beneficial impact. However, an 850m length of footway between Plowage Lane and Howell Hill would be upgraded which would result in a Minor Beneficial impact for NMUs with improvements to existing facilities for NMUs. 7 NMUs were counted using this footway in the 2016 surveys.	**Slight Beneficial**
Sparkford to Hazlegrove House / Sparkford Hall via WN 27/16	No change	No change.	No change to journey times or facilities for NMUs.	**No change**
Sparkford to Hazlegrove House / Sparkford Hall via Sparkford Hill	120m increase	Footpath WN 23/12 diverted with NMU facilities installed as part of the underbridge at Hazlegrove and also a connection provided between the diversion and the footways along High Street, Sparkford.	A 430m section of Footpath WN 23/12 would be permanently closed, no longer allowing NMUs to cross the A303 at- grade using an uncontrolled crossing. This would amount to journey length increases for NMUs and a Minor Adverse impact. The provision of NMU facilities as part of the new local road A303 underbridge would be far safer for NMUs when compared to the existing uncontrolled crossing of the A303, and could increase usage for NMUs. The new facilities are considered to result in a Major Beneficial impact on NMUs. 28 NMUs were counted using Footpath WN 23/38 between Hazlegrove House and Sparkford Hall.	**Moderate Beneficial**

Potential NMU journeys	Change to journey length	Changes to NMU facilities	Commentary including magnitude of change	Significance
Route 26	No change	No change.	No change to journey times or facilities for NMUs.	**No change**
Sparkford to Podimore	Not applicable (new route provided as part of the scheme)	Starting in the west, a new right of way would be provided just to the north of the scheme, which would connect to Footpath Y 27/10 at Downhead. NMUs could then cross the new overbridge to the east of Downhead passing to the south of the new road. NMUs would then be able to travel along a new right of way, in the verge a\long several sections until Hazlegrove roundabout, before the route would connect to the existing footway alongside High Street, Sparkford.	The scheme would allow for a new journey to be made for NMUs between Sparkford, Downhead and Podimore. This is considered to be a significant benefit for NMUs and could increase usage of the NMU network.	**Large Beneficial**

Driver stress

12.10.34 Appendix 12.5 Volume 6.3 identifies the key routes within the study area that would be affected by changes to traffic flows as a result of the scheme.

12.10.35 Overall, effects resulting from the scheme on driver stress experienced by vehicle travellers in the design year (2038) are assessed as being **Moderate Beneficial**. This overall significant beneficial effect considers the Large Beneficial effects on driver stress along the A303, with the scheme providing a high quality free flowing dual carriageway along its length, the Slight Beneficial effects on driver stress likely to be experienced on the A359 and local roads in the study areas, and overall Moderate Beneficial effects on fear of potential accidents with a new road surface provided and also safer facilities for NMUs.

Driver stress along the A303

12.10.36 Starting in the west between Podimore Roundabout and to the north of RNAS Yeovilton, driver stress is predicted to be moderate for westbound traffic and low for eastbound traffic with or without the scheme in place along this section of dual carriageway in 2038. Driver frustration would be similar with or without the scheme, with average peak speeds balancing out for eastbound and westbound traffic along this A303 section. The fear of potential accidents would slightly improve with the scheme, as a new road surface would be provided and NMUs would no longer able to travel onto the A303 from Eastmead Lane.

12.10.37 Heading eastward, for the section of A303 between Podimore and Hazlegrove Roundabout, driver stress would improve from high without the scheme to low with the scheme. Without the scheme, vehicles would be required to traverse along a single carriageway section of road, and therefore flows are higher per lane than for the with scheme scenario, where a high quality free flowing dual carriageway would be provided. A section of the existing A303 would be retained with the scheme, between Camel Cross and Howell Hill and also between Ridge Copse and a new local road connecting to Hazlegrove Roundabout, allowing for access to the local road network. For these sections driver stress would vary between low, moderate and high. In addition, without the scheme, the speed limit for this section of A303 would be 50 miles per hour, whereas with the scheme, vehicles would be able to travel at the national speed limit. The fear of potential accidents would improve with the scheme, as NMUs would be separated from traffic, a central reservation and steel barrier would be installed and the road surface would be improved.

12.10.38 For the section of A303 between Hazlegrove and Sparkford, driver stress would be low with the scheme in place, with the provision of a free-flowing dual carriageway. Without the scheme vehicles would still have to traverse Hazlegrove Roundabout, at which driver stress would predominantly be high, although 2 links in the traffic model predict driver stress to be Moderate in 2038.

For the section of dual carriageway to the east of Hazlegrove Roundabout, driver stress would be low without the scheme. For the section of road between the dual carriageway and Hazlegrove Roundabout, driver stress would be moderate with the scheme, and either high or low at Hazlegrove Roundabout. Vehicle travellers would no longer be required to traverse Hazlegrove Roundabout with the scheme in place, so for vehicles wishing to travel along the strategic road network between the South West, London and the southeast, driver frustration would majorly improve with the scheme. Access to the local road network would be maintained at Hazlegrove Roundabout with the scheme. Driver stress at Hazlegrove Roundabout would be lower for 5 different traffic flow links with the scheme, reducing from high to low on 3 occasions, and moderate to low on 2 occasions. The fear of potential accidents would slightly reduce with the scheme, due to a new road surface.

12.10.39 A **Large Beneficial** effect is anticipated on driver stress along the A303 as a result of the scheme, with the provision of a high quality free flowing dual carriageway between Sparkford and Podimore and permanent speed limit increase significantly reducing driver frustration, and the removal of at-grade NMU crossings reducing the fear of potential accidents.

Driver stress along the A359

12.10.40 Driver stress would vary between moderate or high with or without the scheme in place along the A359, with the exception of a section of the road between Hazlegrove Roundabout and Queen Camel, where driver stress would be low with the scheme rather than moderate without. Driver frustration would be similar with or without the scheme, with little difference in average speeds travelled. The fear of potential accidents would be the same with or without the scheme.

12.10.41 A **Slight Beneficial** effect is anticipated on driver stress along the A359 as a result of the scheme, with an overall slight reduction in driver frustration.

Driver stress for local roads within the study area

12.10.42 To the south of the A303, driver stress for the unnamed road through Podimore would vary between low and high along different flow links without the Scheme and moderate or low with the scheme, with an increase in average peak speeds. For the unnamed road between Podimore and the B3151 driver stress would improve from high to moderate with the scheme. Driver stress along Church Lane would be moderate with or without the scheme. The fear of potential accidents would be the same with or without the scheme along these roads.

12.10.43 Moving to the east, driver stress along the B3151 would vary between low and high with or without the scheme. A slight deterioration in driver stress is

predicted with the scheme along a section of the B3151 between Camel Cross and the unnamed local road providing access to Urgashay, with an increase in driver stress from low to moderate, due to a decrease in average peak speeds. Moderate levels of driver stress are predicted along Plowage Lane or Keep Lane with or without the scheme. Driver stress along Howell Hill would reduce from high to moderate with the scheme, with vehicles no longer able to join the A303 at-grade. The fear of potential accidents would be the same with or without the scheme along these roads.

12.10.44 Driver stress along the new overbridge near Downhead would be high with the scheme, and vary between moderate and high for the new local road connections to Downhead and Steart Hill. For the section of new road between Hazlegrove Roundabout and Camel Hill, driver stress is predicted to vary between moderate and high with the scheme. The provision of NMU facilities alongside these 2 new roads would minimise effects relating to the fear of potential accidents.

12.10.45 On the whole, a **Slight Beneficial** effect is predicted on driver stress along local roads within the study area, weighing up adverse effects to driver frustration along the B3151 and beneficial effects along two local roads in Podimore and also Howell Hill.

Motorised travellers view from the road

12.10.46 The predicted long-term impacts of the scheme on views from the road for vehicle travellers are summarised in Table 12.24 below.

12.10.47 The scheme would introduce a new overbridge of the A303 to the east of Downhead, which would form part of vehicle travellers view from the road during operation. Vegetated earth bunds and false cuttings would be provided to the north of the scheme at Downhead and to the west of Steart Hill, with the scheme in false cutting between Traits Lane and Howell Hill and in part at Hazlegrove. In these sections there would be restricted views to the wider area for vehicle travellers.

12.10.48 Mitigation planting would be provided along the length of the scheme (refer to the Environmental Masterplan drawings contained in Figure 2.8, Volume 6.2 which once established would restrict views along the scheme to the wider area. Lighting would be provided as part of the scheme at the realigned B3151 / A303 junction, alongside the new road protruding from Hazlegrove Roundabout to Camel Hill and the new access road to Hazlegrove Preparatory School. This infrastructure would be visible to vehicle travellers, particularly at night (refer to the Lighting drawings contained within Figure 2.11, Volume 6.2).

12.10.49 On opening in 2023, the effect of the scheme on views from the road for vehicle travellers is anticipated to be **Slight Adverse at worst**, taking into account the 'low' value of vehicle travellers as per Table 12.2 of this chapter and the significance of effect in Table 12.24 below. Screening vegetation would take some time to mature, and therefore vehicle travellers may experience views of the wider area to a greater degree in part, resulting in a beneficial effect. Conversely, sections in false cutting or at which earth bunds would be provided would result in no view for vehicle travellers and an adverse effect. By the design year (2038), planting along the route is anticipated to have matured, which would restrict views to the wider area for vehicle travellers, and with consideration for the sections of false cutting and earth bunds, an overall not significant **Slight Adverse** effect is anticipated on views from the road, 15 years after opening taking into account the 'low' value of vehicle travellers as per Table 12.2, in this chapter and the significance of effect in Table 12.24.

Table 12.24: View from the A303 during operation

Location	Existing view from the road	View from the road with scheme	Commentary	Significance
A303 Podimore to the west of Howell Hill	Intermittent view to restricted view	Restricted view	The first notable change during operation for this section of the scheme would be the introduction of new highways infrastructure comprising a new overbridge to the east of Downhead, which would form a dominant feature in the line of sight of vehicle travellers. A bund would be provided to the north of the scheme at Downhead, which would restrict views to the north from the new road. Mitigation planting would also be provided alongside the new road, which would gradually establish over time, eventually restricting views to the wider area. This would comprise planting of native trees and shrubs, pockets of woodland and native hedgerows with trees between Howell Hill and the B3151, and native hedgerows with trees in places between the B3151 and Podimore. The section between the B3151 and Howell Hill would predominantly appear in cutting which would limit the views available. Eight-metre high lighting columns are proposed to be installed alongside the realigned B3151 on the lead up to the A303, which would be visible to vehicle travellers, particularly at night. Vehicle travellers may experience some views of the wider area whilst screening vegetation matures however, in the design year views are anticipated to become more restricted with a large portion of this section of road in cutting and a Minor Adverse impact is anticipated on a low value receptor.	Year 1 – Slight Adverse at worst Year 15 – Slight Adverse at worst
A303 – East of Howell Hill to	Intermittent view to open view	No view	This section of the scheme would comprise online widening to the east, with the new road built alongside the existing A303 at Canegore Corner. Part of the southern aspect would be in false cutting. In this section there would be no	Year 1 – Slight Adverse

Location	Existing view from the road	View from the road with scheme	Commentary	Significance
Camel Hill			view to the wider southern area. Mitigation planting comprising native trees, shrubs and hedgerows would also be provided alongside the road, which would gradually establish over time, further restricting any views to the wider area. Views to the north would remain similar to the baseline view with the addition of intermittent linear belts of shrubs and trees propose as part of the scheme. For this section, a **Moderate Adverse** impact is anticipated on a low value receptor, with vehicles no longer able to experience views to a rural landscape.	Year 15 - Slight Adverse
A303 – Camel Hill to Sparkford	Restricted view	Restricted view	The scheme would bypass Hazlegrove Roundabout approximately 100m to the north and would be grade separated at Hazlegrove, with an underbridge installed underneath the new road. The northern aspect of the scheme around the Hazlegrove Junction would appear predominantly in false cutting, which would restrict views of the wider landscape. Mitigation planting comprising woodland, native trees and shrubs and native hedgerows with trees would be provided alongside the new road, which would gradually establish over time, eventually restricting views to the wider area, although vehicle travellers may experience some views to the wider area as screening vegetation matures. Views to the south of the road would appear similar to the existing baseline view. Eight-metre high lighting would be installed on the new road between Hazlegrove Roundabout and Camel Hill and the realigned access road to Hazlegrove Preparatory School, which would be visible to vehicle travellers, particularly at night. Existing 6 to 10m high lighting columns at Hazlegrove Roundabout and alongside the A303 to the east of the roundabout would be retained. On balance, in the design year restricted views to the wider area are anticipated for this section of the scheme, as per the baseline and a Neutral impact is anticipated.	Year 1 – Neutral Year 15 – Neutral

Amenity

12.10.50 The predicted permanent effects of the scheme on NMU journeys and facilities are outline in Table 12.25 below.

12.10.51 The scheme would require the permanent diversion of all at-grade crossings of the A303 between Hazlegrove and Podimore, to separate NMUs from traffic, and also require the diversion of several routes. A new overbridge to the east of Downhead over the A303 with adjoining NMU facilities, and a new underbridge of the A303, primarily for vehicle travellers, but with NMU facilities alongside this road would be provided as part of the scheme, which would allow

for NMUs to travel between Podimore, Downhead and Sparkford. The provision of these A303 crossings would be substantially safer than for the current baseline for NMUs, where NMUs are required to cross the A303 at-grade with flows in the opening year along most A303 links in the traffic model greater than 14000 AADT. This would increase the pleasantness of journey for NMUs. Traffic flows are also predicted to change at other existing at-grade crossings in the study area, including at Podimore and along the A359.

12.10.52 The scheme also has the potential to permanently affect journey experience for NMUs along routes within the study area through changes in exposure to noise, dirt, as well visual changes. The environmental design (refer to the Environmental Masterplan drawings contained in Figure 2.8, Volume 6.2) incorporates mitigation measures identified as part of the environmental assessment, including use of cuttings and embankments, noise barriers and low-noise running surfaces with respect for noise (also refer to Section 11.9 of Chapter 11 Noise and Vibration (Volume 6.1) and reinstatement planting for landscape (refer to section 7.9 Chapter 7 Landscape (Volume 6.1). Together these measures would reduce any potential long term adverse effects on journey experience for users of NMU routes within the study area.

12.10.53 Based on the assessment in Table 12.25 below, an overall **Moderate Beneficial** and significant effect is anticipated on amenity as a result of the scheme.

Table 12.25: Significant effects on amenity for NMU journeys during operation

Potential NMU journeys	Change in AADT traffic flows along NMU journey in 2023 (Opening Year)				Commentary	Significance
	Traffic link ID	Link location	2023 without scheme	2023 with Scheme		
Podimore to East Mead Lane	66475-68710	At-grade crossing of Podimore High Street	629	667	Amenity would slightly deteriorate for this journey but remain acceptable. This is due to increases in traffic at the at-grade crossing between Church Lane and Higher Farm Lane, resulting in a Minor Adverse impact at worst. A 10m section of Bridleway Y 30/28 would be permanently extinguished and a fence line provided to prevent NMUs attempting to cross the A303 at-grade, which would result in no impacts on amenity.	**Slight Adverse at worst**
	68710-68713		371	409		
	68709-68710	Footway adjacent to traffic along Church Street	179	178		
Slow Court Lane to Downhead	61130-61131	A303 crossing at Camel Cross	14801	0	Improvement in amenity with the scheme from very poor to poor with Footpath Y 27/UN diverted and a new overbridge of the A303 installed. Provisions for NMUs adjacent to traffic would improve safety and result in a Moderate Beneficial impact. Traffic along the existing A303 would decrease, resulting in a Minor Beneficial impact on amenity for users of the footway between Camel Cross and the new roundabout. NMUs would have to cross roads at-grade on 2 occasions, at the roundabout to the south of the A303 and junction to the north of the A303 where traffic flows are 306 and 603 AADT. This is lower than for the existing at-grade crossing with flows above 14000 AADT without the scheme.	**Moderate Beneficial**
	61131-68722	A303 between Camel Cross and the new roundabout	14801	695		
	68722-68724		14373	0		
	61130-61131		14801	0		
	68322-68722		0	41		
	61131-68721		0	573		
	68307-68322	New overbridge of scheme	0	306		
	68307-68311	North of A303 between new overbridge and The Spinney	0	603		
Downhead to West Camel	68722-68723	Plowage Lane	428	212	Impacts on amenity would be the same as for the 'Slow Court Lane to Downhead' journey with a new overbridge of the A303 installed, including provisions for NMUs adjacent to traffic and access to Downhead. In addition, amenity would improve with the scheme for NMUs travelling along Plowage Lane.	**Moderate Beneficial**
	61131-68722	Existing A303 between Camel Cross and the new roundabout	14801	695		
	68722-68724		14373	0		
	68322-68722		0	41		
	68307-68322	New overbridge of scheme	0	306		
	68307-68311	North of A303 between new overbridge and The Spinney	0	603		
Steart Hill to southern extents of Downhead	N/A	N/A	N/A	N/A	Barriers between traffic and people would not change with the scheme, with NMU still able to travel along Slate Lane. However, a new route would be provided alongside the new local road between Steart Hill and Downhead, for which amenity would be acceptable.	**No change**

Potential NMU journeys	Change in AADT traffic flows along NMU journey in 2023 (Opening Year)				Commentary	Significance
	Traffic link ID	Link location	2023 without scheme	2023 with Scheme		
Steart Hill to northern extents of Downhead	N/A	N/A	N/A	N/A	Impacts on amenity would be the same as for the 'Steart Hill to southern extents' of Downhead journey.	**No change**
West Camel to A303	68722-68724	A303 between Camel Cross and the new roundabout	14373	0	Traffic flows along the existing A303 would decrease, resulting in a Minor Beneficial impact on amenity for users of the adjacent footway between Camel Cross and the new roundabout.	**Slight Beneficial**
	68322-68722		0	41		
Steart Hill to Howell Hill	68725-68727	Howell Hill	175	0	Improvement in amenity from very poor to acceptable, with a new overbridge of the A303 installed, including provisions for NMUs adjacent to traffic, resulting in a Moderate Beneficial impact for NMUs, and a far safer crossing of the A303. There are currently no provisions for NMUs along Howell Lane and flows would increase with the scheme resulting in a Minor Adverse impact on amenity.	**Slight Beneficial**
	68193-68727		0	265		
	68724-68725	Existing A303 Crossing at Howell Hill / Steart Hill	14373	0		
	68725-68728		14459	0		
	68307-68322	New overbridge of scheme	0	306		
Camel Hill to Traits Lane	68728-68729	Existing A303 between Camel Hill and Ridge Copse	14459	0	Improvement in amenity, with a new underbridge of the A303 installed, including provisions for NMUs adjacent to traffic and access between Traits Lane and Footpath WN 23/32. This would result in a Moderate Beneficial impact for NMUs, with a safer crossing of the A303. NMUs would be required to cross the underbridge on two occasions where AADT flows would be 252 with the scheme. This is lower than for the existing at-grade crossing with flows above 14000 AADT without the scheme.	**Moderate Beneficial**
	68729-68730		14459	0		
	68301-68303	New underbridge of the scheme and local road to Camel Hill	0	252		
	68300-68301		0	252		
Celtic Way	68728-68729	Existing A303 between Camel Hill and Ridge Copse	14459	0	Impacts on amenity would be the same as for the 'Camel Hill to Traits Lane' journey with a new underbridge of the A303 installed, including provisions for NMUs adjacent to traffic and access to Camel Hill.	**Moderate Beneficial**
	68729-68730		14459	0		
	68301-68303	New underbridge of the scheme and local road to Camel Hill	0	252		
	68300-68301		0	252		
	66384-68734		6813	4040		

Potential NMU journeys	Change in AADT traffic flows along NMU journey in 2023 (Opening Year)				Commentary	Significance
	Traffic link ID	Link location	2023 without scheme	2023 with Scheme		
Sparkford to Camel Hill	68732-68733	A359 between Sparkford and Footpath WN 27/4	4283	4030	Impacts on amenity would be the same as for the 'Camel Hill to Traits Lane' journey with a new underbridge of the A303 installed, including provisions for NMUs adjacent to traffic and access to Camel Hill. A new route would also be provided between Traits Lane, Hazlegrove roundabout and the existing footway alongside High Street, Sparkford which would improve amenity.	**Moderate Beneficial**
	68728-68729	Existing A303 between Camel Hill and Ridge Copse	14459	0		
	68729-68730		14459	0		
	68301-68303	New underbridge of the scheme and local road to Camel Hill	0	252		
	68300-68301		0	252		
Hazlegrove House to Queen Camel	68729-68730	Existing A303 between Camel Hill and Ridge Copse	14459	0	Improvement in amenity, with a new underbridge of the A303 installed, including provisions for NMUs adjacent to traffic and access between Footpath WN 23/11 and WN 23/12. NMUs would be required to cross the underbridge and also travel alongside the new road between Hazlegrove and Camel Hill before travelling along the new route to Hazlegrove Preparatory School.	**Moderate Beneficial**
	68301-68302	New access road to Hazlegrove Preparatory School	0	1751		
	68301-68303	New underbridge and local road to Camel Hill	0	252		
Howell Hill to Camel Cross	61131-68722	A303: Camel Cross and the new roundabout	14801	695	Impacts on amenity would be the same as for the 'West Camel to A303' journey.	**Slight Beneficial**
	68722-68724		14373	0		
	61130-61131		14801	0		
	68322-68722		0	41		
	61131-68721		0	573		
Sparkford to Hazlegrove House via WN 27/16	N/A	N/A	N/A	N/A	Barriers between traffic and people would not change with the scheme.	**No change**
Sparkford to Hazlegrove House via Sparkford Hill	68729-68730	Existing A303: Camel Hill and Ridge Copse	14459	0	Impacts would be the same as for the 'Hazlegrove House / Sparkford Hall to Queen Camel' journey. In addition, amenity would improve along the A359 with the scheme.	**Moderate Beneficial**
	68301-68302	New access road to Hazlegrove Preparatory School	0	1751		
	68301-68303	New underbridge and local road to Camel Hill	0	252		

Potential NMU journeys	Change in AADT traffic flows along NMU journey in 2023 (Opening Year)				Commentary	Significance
	Traffic link ID	Link location	2023 without scheme	2023 with Scheme		
	68732-68733	A359: Hazlegrove roundabout to Queen Camel	4283	4030		
Route 26	N/A	N/A	N/A	N/A	Barriers between traffic and people would not change with the scheme.	**No change**
Sparkford to Podimore	N/A	N/A	N/A	N/A	Without the scheme, there would be no safe, continuous route between Sparkford and Podimore, with NMUs required to traverse alongside the A303. The scheme would provide a continuous route designated for NMUs allowing NMUs staring at Footpath Y 30/UN in the west, before travelling along Bridleway Y 30/ 28 and along a new PRoW to Downhead. NMUs would then be able to cross the new A303 road using an overbridge with adjoining NNMU facilities, before travelling to the south of the A303 as far as Hazlegrove roundabout, and the footway alongside High Street in Sparkford. This would see an increase in amenity from very poor to acceptable and is considered a Major Beneficial impact for NMUs.	**Large Beneficial**

Community facilities

12.10.54 No effects on community land are anticipated during operation. However, with regards to community facilities, the aim of the scheme is to create relief from congestion on the local road network[53]. Such improvements would lead to improved access to community facilities within and just outside of, the study area, in terms of journey time. These facilities include three churches, a community centre, 2 schools, a medical centre, 2 sports clubs, a cricket club, a museum and a RNAS base. A **Moderate Beneficial** and significant effect is anticipated.

12.10.55 Although Hazlegrove Preparatory School is located outside of the LIA boundary, the sole private access to the school is currently via the Hazlegrove Roundabout, which falls within the study area. The scheme would re-route access to the school, with a new slip road provided from a new grade-separated junction. During operation, access to Hazlegrove Preparatory School to be permanently improved due to a new slip road being provided from a new grade-separated junction. The improved accessed would ease congestions for those accessing the school, and would most likely benefit children who attend and are considered to be of medium sensitivity. The improved access would lead to a **Moderate Beneficial** and significant effect.

Development land

12.10.56 With regards to development land, improved journey times and reduced levels of congestion would improve access to possible future developments in the local area. This includes supporting the delivery of the target of at least 141 homes and 1.02 hectares of employment land in Ilchester between 2006 and 2028[54]. As there are currently only limited future plans in the LIA, this effect is considered to be **Slight Beneficial**, and therefore not significant.

Local economy

12.10.57 Direct operational employment is not expected to be created as a result of the scheme. However, there are likely to be increased indirect employment opportunities related to reduced congestion and improved journey times. This would be beneficial to those within the WIA. The potential increase in indirect employment would therefore result in a **Slight Beneficial** effect.

Human health

12.10.58 During operation, the provision of the scheme is anticipated to result in an overall improvement for NMUs, as although journey lengths may increase for

[53] Highways England (no date): 'A303 Sparkford to Ilchester – Overview – About this scheme'. See: https://highwaysengland.citizenspace.com/he/a303-sparkford-to-ilchester/

some NMU routes (refer to paragraphs 12.10.30 to 12.10.33), new and improved routes would be provided for NMUs. The scheme would also improve amenity, by separating NMUs and traffic (refer to paragraphs 12.10.50 to 12.10.53). Improvements to facilities and amenity for NMUs as a result of the scheme have the potential to increase usage of NMU facilities within the local area and therefore the physical activity of NMUs. This could have a positive role in preventing obesity and improving the health and wellbeing of NMUs. Therefore, an on balance **Slight Beneficial** effect is predicted for human health in operation. Operational effects of noise and air quality are assessed in Chapter 5 Air Quality and Chapter 11 Noise and Vibration, Volume 6.1.

12.11 Monitoring

12.11.1 Significant adverse effects have been predicted with regard to land take from Pepper Hill Cottage, The Spinney and Camel Hill Cottages during construction, for the land take of agricultural land, taking a worst-case approach, during construction and also on balance for individual farm businesses during construction. As described in paragraph 12.9.6, landholders will be compensated for their losses in accordance with the compulsory purchase compensation code

12.12 Conclusions

12.12.1 This chapter has assessed the potential effects of the scheme for People and Communities and has focused on NMUs, amenity, driver stress, view from the road land use, community and development land, community facilities, local economy and agricultural land.

12.12.2 The assessment has drawn upon guidance presented within DMRB Volume 11, Section 3 Part 6 *Land Use*, DMRB Volume 11, Section 3 Part 8, *Pedestrians, Cyclists, Equestrians and Community Effects*, DMRB Volume 11, Section 3 Part 9 *Vehicle Travellers*, Highways England's IAN 125/15, on environmental assessment, policies contained within the NPSNN and professional judgement.

12.12.3 In summary, during construction a Moderate Adverse and significant effect is predicted due to permanent land take from Pepper Hill Cottage and the Spinney. A Moderate Adverse and significant effect is anticipated due to temporary land take from Camel Hill Cottage, with a not significant Slight Adverse effect predicted for permanent land take effects in relation to this receptor. A Moderate Adverse and significant effect is also predicted due to temporary and permanent land take requirements of agricultural land as a national resource, potentially including BMV agricultural land. A Moderate Adverse and significant effect is also anticipated on individual farm businesses during construction with temporary and permanent impacts with respect to land take, severance, access and husbandry for individual farms.

12.12.4 The provision of a new construction workforce locally and construction workforce benefitting the economy would result in a Slight Beneficial not significant effect. A Slight Adverse not significant effect is also anticipated for NMUs during construction due potential diversions and closures of NMU routes and presence of construction material, machinery and vehicles and also for driver stress with temporary road closures and diversions increasing stress for vehicle travellers. Slight Adverse not significant effects are also predicted for severance and health with 14 PRoW impacted by the scheme and also due to road closures. Permanent land take from private property to the east of Steart Hill where it meets the A303 and from Hill view would result in a Slight Adverse not significant effect with respect for private property and associated land take, and there would also be A Slight Adverse not significant effect with the access route to Hazlegrove Preparatory school permanently altered.

12.12.5 Once in operation, a Moderate Beneficial and significant effect is anticipated for driver stress with the provision of a high quality free flowing dual carriageway along the A303's length, resulting in improved flows and speeds during peak periods both on the A303 and local road network. Taking into account any permanent changes in journey experience, a Moderate Beneficial and significant effect is also anticipated for amenity, through provision of safer crossings of the A303 and change in traffic flows for journeys where NMUs cross or are alongside the road network. Relief from congestion on the local road network and improved access to Hazlegrove Preparatory School would result in a Moderate Beneficial and significant effect.

12.12.6 A Slight Beneficial and not significant effect is also anticipated on NMUs during operation with permanent changes to journey length and times and facilities for NMUs, with some existing facilities degraded but others improved, and also for human health as new NMU facilities could have a positive role in preventing obesity and improve the physical activity of NMUs. An increase in indirect employment opportunities would also result in a Slight Beneficial and not significant effect for the local economy.

12.12.7 The provision of false cuttings and earth bunds would restrict views to the wider area, particularly to the south of the A303 would result in a Slight Adverse and not significant effect with respect for view from the road.

12.12.8 The evidence provided in the ES supports the accordance statement provided in the ***Case for the Scheme*** **(*document reference TR010036/APP/7.1*)**.