A303 Amesbury to Berwick Down

TR010025

7.1 Case for the Scheme and NPS Accordance

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A303 Amesbury to Berwick Down

Development Consent Order 20[xx]

CASE FOR THE SCHEME AND NPS ACCORDANCE

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Foreword

The A303 Amesbury to Berwick Down scheme ("the Scheme") forms part of a programme of improvements for upgrading the A303/A358 corridor, improving this vital connection between the South West and London and the South East and including the upgrade of remaining single carriageway sections on the route to dual carriageway. This investment is stated as a priority project in the National Infrastructure Plan and Government's commitment is confirmed in the Road Investment Strategy (2015-2020). Subject to achieving an approved Development Consent Order ("DCO"), preliminary works are planned to start in 2020 with the main construction works following in 2021, and the Scheme is due to open to traffic in 2026.

Objectives for the Scheme have been formulated both to address identified problems and to take advantage of the opportunities that new infrastructure would provide. The objectives are defined by the Department for Transport ("DfT"):

- **Transport** - To create a high quality reliable route between the South East and the South West that meets the future needs of traffic;
- **Economic Growth** - to enable growth in jobs and housing by providing a free flowing and reliable connection between the South East and the South West.
- **Cultural Heritage** - To help conserve and enhance the World Heritage Site and to make it easier to reach and explore; and
- **Environment and Community** - To improve biodiversity and provide a positive legacy for nearby communities.

The objectives would be achieved by providing a high quality, two-lane dual carriageway on the A303 trunk road between Amesbury and Berwick Down in Wiltshire. The Scheme would resolve traffic problems and, at the same time, protect and enhance the Stonehenge component of the Stonehenge, Avebury and Associated Sites World Heritage Site, hereafter referred to as the "WHS". The Scheme would be approximately 8 miles (13km) long and comprise the following key components:

a) A northern bypass of Winterbourne Stoke with a viaduct over the River Till valley;
b) A new junction between the A303 and A360 to the west of and outside the WHS, replacing the existing Longbarrow roundabout;
c) A twin-bore tunnel approximately 2 miles (3.3km) long, past Stonehenge; and
d) A new junction between the A303 and A345 at the existing Countess roundabout.

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Executive Summary

Introduction

This document articulates the case for the A303 Amesbury to Berwick Down scheme (the Scheme). It demonstrates that there is a clear and compelling need to address long standing traffic problems, as well as an opportunity to enhance the Stonehenge, Avebury and Associated Sites World Heritage Site ("WHS"). It explains how these have been articulated in the Scheme objectives. It goes on to explain how potential solutions to the need have been given careful consideration over many years. It sets out how the identification, selection and design process has responded to the Scheme objectives, and how a collaborative engagement process has been used to reach the proposed Scheme.

The Scheme offers a uniquely effective solution to the two key challenges – congestion on the A303 and the impacts of the road and traffic on the WHS. It will remove a long-standing bottleneck for road users, helping to create a high performing dual carriageway route to the South West, supporting the local and regional economy. With part of the road in a tunnel, the Scheme will also remove a large section of the A303 from the most sensitive part of the WHS, allowing the two parts of the site to be reconnected. The tunnel, deep cuttings and related mitigation measures will reduce visual intrusion and the sound from traffic within the WHS, enhancing its enjoyment and important views within the prehistoric landscape. The Scheme will reduce traffic impacts on Winterbourne Stoke, reduce rat-running in other local settlements, and improve the resilience and safety of this part of the strategic road network.

The nature of the Scheme, which is defined as a nationally significant infrastructure project, requires Highways England (the Applicant) to make an application for a Development Consent Order. In setting out the planning balance of the Scheme, any adverse impacts which have been identified are weighed with the benefits and opportunities which the Scheme would provide. A Planning Statement is incorporated within this document which describes the policy framework for the assessment of this Scheme by the Secretary of State, using the Planning Act 2008 (as amended) requirements and the conformity with the National Policy Statement for National Networks primary policy document.

The need for the Scheme

The A303/A358 corridor provides a strategic link between the M3 in the South East and the M5 in the South West and, as a key part of the Strategic Road Network, is critically important to the economy of the South West peninsula. It is a dual carriageway for most of its length, but is interrupted by sections of single carriageway and at-grade junctions which cause traffic bottlenecks.

The A303 between Amesbury and Berwick Down includes the longest remaining single carriageway section on the A303 and carries traffic levels which are often twice its design flow capacity. Lack of capacity means that road users suffer from severe congestion, queuing and long delays, especially during summer months when delays can be an hour or more.

Congestion, delay and poor journey time reliability on the A303 is a major impediment to economic growth in the South West region, which performs poorly

compared to the rest of the UK. Businesses in the South West have identified disruption to business travel and unreliable journey times due to congestion as major barriers to the growth of the region. In a survey[1] of over 650 businesses, 89% felt that the current unreliability of the A303 was harming their business.

Local communities suffer from the effects of through traffic and rat-running as drivers try to avoid congestion on the A303. The extra traffic on unsuitable routes causes frustration for local people who rely on these roads for day to day journeys and raises safety concerns. The A303 passes directly through the village of Winterbourne Stoke, much of which is within a Conservation Area. Heavy traffic leads to community severance, noise and poor air quality.

The A303 also runs through the Stonehenge, Avebury and Associated Sites World Heritage Site, which with its unique and dense concentration of prehistoric monuments and sites and their settings, forms a landscape without parallel. At its closest point, the road is 165 metres from Stonehenge. This creates incongruous sights and sounds of traffic within an otherwise tranquil rural setting that seriously diminish people's enjoyment of the unique prehistoric landscape and degrade the setting of the iconic stone circle.

The A303 splits the southern Stonehenge WHS component in two, making it difficult for visitors to access and enjoy the wider landscape. Removing the road from part of the WHS would reconnect Stonehenge with other ancient monuments, improving access to the WHS and greatly enhance the visitor experience.

Highways England has worked closely with the heritage stakeholders (Historic England, English Heritage, the National Trust and Wiltshire Council) to develop a scheme which will conserve and enhance the WHS and maintain its Outstanding Universal Value for future generations. The Department for Transport has set Client Scheme Requirements which reflect the cultural heritage importance of the Scheme, as well as the need to deliver economic, transport, environment and community objectives. These are summarised in Table 0-1.

The Government, in its Road Investment Strategy, has committed to convert the A303/A358 corridor into a high quality dual carriageway over successive road investment periods. The Scheme is essential to delivering this long-term commitment.

Table 0-1: Client Scheme Requirements

Transport	To create a high quality and reliable route between the South East and the South West that meets the future needs of traffic.
Economic growth	To enable growth in jobs and housing by providing a free-flowing and reliable connection between the South East and the South West.
Cultural heritage	To help conserve and enhance the World Heritage Site and make it easier to reach and explore.
Environment and community	To improve biodiversity and provide a positive legacy for nearby communities.

1 Parsons Brinkerhoff (February 2013). A303/A30/A358 Corridor Improvement Programme – Economic Impact Study..

Scheme development and options considered

Over the past 25 years more than 60 potential routes have been identified for a scheme to improve the A303 and reduce its impact on the WHS. A number of these were examined at a planning conference in 1995 and at a Public Inquiry in 2004. A fresh review was undertaken in 2016 of all previous work, together with new options that emerged, as part of a rigorous search for the best route.

Following extensive consideration of alternative options and consultation with technical stakeholders including heritage bodies, local communities and the wider public, a preferred route for the Scheme was announced by the Secretary of State for Transport in September 2017. It comprised a dual carriageway with a tunnel under part of the WHS and a bypass to the north of Winterbourne Stoke.

After further design development, a statutory consultation was held between February and April 2018, and a supplementary consultation exercise between July and August 2018. The feedback received was considered and, together with ongoing stakeholder engagement, informed the Scheme as presented within the application documents. Full details of engagement and consultation are set out in the Consultation Report (document reference 5.1).

The Scheme

The Scheme as presented within this Development Consent Order application best delivers the Scheme objectives; it resolves existing traffic problems, supports future growth, helps to conserve and enhance the WHS, improves biodiversity and provides a positive legacy for local communities.

The Scheme would be approximately 8 miles (13km) long and would comprise the construction of a new two lane dual carriageway between Amesbury and Berwick Down. The proposed solution incorporates a 2 mile (3.3km) tunnel under the WHS, a bypass for Winterbourne Stoke, provides a new junction with the A360 and improves the junction with the A345. A key component of the Scheme is the conversion of the existing A303 through the WHS into a restricted byway for walking, cycling and horse riding. New 'green bridges' are also proposed to allow the movement of wildlife and to maintain existing agricultural access, as well as to provide enhanced connectivity for walkers, cyclists, and horse riders.

The benefits and opportunities of the Scheme

The Scheme represents a unique solution to deliver a holistic range of benefits and opportunities across a number of topics. The key benefits are summarised below.

Transport

- Journey times will be reduced as a result of increased capacity, higher speed limits and grade separated junctions. Benefits will be greatest in the summer months and other times of high demand.
- The A303 will become a more efficient and more attractive route, reducing the incentive for traffic to rat run through local communities.
- The road will be designed to modern standards and perform as part of a high capacity dual carriageway route, reducing risk of accidents.

- The Scheme will include improved provision for NMUs, helping encourage use of more sustainable modes of transport for local journeys.
- The improved road will be safer, helping reduce collisions and casualties.
- As a dual carriageway, the improved road will be better able to cope with incidents and unexpected demands, leading to improved network resilience.
- Journey times will be more reliable, making it easier to plan journeys and reducing road user frustration.

Economic Growth

- The capacity of the A303 will be increased to accommodate foreseeable traffic growth, including that related to housing and employment growth.
- Transport costs for users and businesses will be reduced as a result of freer flowing journeys, effectively bringing people closer together.
- Junctions will be grade-separated to allow traffic to flow freely, meaning that journeys will be faster and more reliable.
- The road will be upgraded to form part of a high performing dual carriageway route, assisting the flow of traffic and giving productivity benefits.
- Local journeys will be easier and more reliable, helping to stimulate and support local economic activity.
- Tourism will benefit from easier journeys to the South West, and from the greatly enhanced setting of the Stonehenge WHS.

Cultural Heritage

- The removal of the A303 and its traffic will greatly improve the setting of Stonehenge. Visitors will be able see the stone circle and appreciate its connection to the rest of the WHS without the sight and sound of traffic intruding on their experience. This will help to protect and enhance the WHS and maintain its Outstanding Universal Value.
- The removal of the A303 will allow the reconnection of The Avenue, which is currently severed by the existing road.
- The existing road as it passes through the WHS will be altered for use by primarily NMUs.
- The Scheme will improve access to and within the WHS.
- Knowledge gained from any archaeological excavation within the WHS will be made publically available through close collaboration with key heritage stakeholders.

Communities and Environment

- By putting part of the A303 in a tunnel, the Scheme will allow landscape reconnection and habitat restoration on the redundant section, helping to increase biodiversity.
- By offering a better direct route, the Scheme will reduce rat-running through villages, including Shrewton and Larkhill, improving noise and air quality.

- The Winterbourne Stoke bypass and de-trunking of the existing road will improve quality of life for residents e.g. in terms of noise, air quality and accessibility.
- Learning and finds during the development of the Scheme will be presented to local schools and communities.
- The Scheme will be designed to seek a CEEQUAL rating of 'excellent' (an evidence-based sustainability assessment, rating and awards scheme for infrastructure which celebrates high environmental and social performance).

To ensure that the identified benefits are delivered, and to create a collaborative vision for the legacy of the Scheme, a Benefits Steering Group has been established, attended by a wide range of stakeholders. This group will look beyond the DCO process and construction of the Scheme, to secure lasting and positive change for the benefit of local communities as well as people and businesses that make use of the road corridor to the South West.

The Order land and context

In relation to the application for a DCO, the extent of the land required for the construction, operation and maintenance of the Scheme is identified on the Land Plans (document reference 2.2). The natural landscape is a key characteristic of the Order land. It consists of a complex pattern of rolling landform, resulting in a series of ridge lines, valleys and downland. There are watercourses (the River Till and the River Wylye in the west, and the River Avon in the east), and valley systems, affording a range of views within the valleys and from elevated ridges.

The land is largely agricultural in use, with highways crossing the landscape. There are also a number of Public Rights of Way, some of which are themselves severed by the existing A303.

The Order land limits are within close proximity to a number of statutory designated sites for biodiversity. Furthermore, there are a number of heritage designations affecting the Order, the most prominent of which is the WHS. There are scheduled monuments, listed buildings, a Registered Park and Garden, three conservation areas and a significant number of archaeological non-designated assets. There are also nationally recognised landscape designations (the Cranborne Chase Area of Outstanding Natural Beauty and the Special Landscape area near Winterbourne Stoke).

Policy and legislative considerations

The Planning Act 2008 (as amended) requires that the DCO is determined in accordance with the relevant National Policy Statement. In this case the National Policy Statement for National Networks (the NPSNN) is the primary basis for decision making. The Applicant has also carefully considered the legal obligations set out in the NPSNN, including the Habitats Regulations and Water Framework Directive. The international obligations of the United Kingdom are also examined as part of this Case for the Scheme.

Through the preparation of a comprehensive NPSNN Compliance Table (Appendix A), an analysis of the effects and wide-ranging benefits of the Scheme are detailed. The Scheme demonstrates compliance with the NPSNN. The table, taken as a

whole, demonstrates how the careful selection of the Scheme from an assessment of feasible alternatives, and the design work undertaken, will minimise adverse impacts such that the benefits of the Scheme outweigh likely adverse impacts.

Conclusion

This Case for the Scheme presents a narrative of the need for the Scheme; the alternatives considered; and how the chosen Scheme meets the stated objectives. It illustrates how the problems identified will be addressed by the Scheme and sets out the wide ranging benefits and opportunities which can be expected. The positive legacy to the WHS, the local area and the South West region are the tangible benefits which will be delivered through this Scheme; through the provision of a high performing dual carriageway which addresses transport concerns. Any adverse impacts caused by the Scheme will be outweighed by these benefits. The Scheme conforms with the NPSNN. There is no policy or legislative reason that precludes the acceptability of the Scheme. There is a clear and justified case for the Development Consent Order for the Scheme to be made.

1 Introduction

1.1 Purpose of this Case for the Scheme document

1.1.1 The A303 Amesbury to Berwick Down (the "Scheme") would create a high performing dual carriageway between Amesbury and Berwick Down in Wiltshire, solving the key challenges of congestion on the A303 and the impacts of the road on the WHS. The purpose of this document is to articulate the case for the Scheme, including the need for the Scheme and its benefits, which must be weighed against the harm done by the Scheme, in order to demonstrate compliance with the NPSNN.

1.1.2 This document has been prepared to support an application for development consent submitted to the SoS through The Planning Inspectorate by the Applicant, Highways England.

1.1.3 The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended) ("APFP Regulations") do not specifically require a 'Case for the Scheme' to accompany an application for development consent. However, Highways England considers that this document provides an effective mechanism for summarising the overall justification for the Scheme and consolidating certain planning information into a single location, to assist the Examining Authority and the Secretary of State for Transport (the "SoS") in their consideration of the application.

1.1.4 Subject to certain provisions, the Planning Act 2008 (as amended) (the "Act") requires that an application for development consent should be decided in accordance with the relevant NPS, which in this case is the NPSNN. The NPSNN sets out government policy on the delivery of nationally significant road infrastructure, including the assessment of the impacts of such schemes. This document describes the planning policy context for the Scheme and reviews the relevant NPSNN planning issues and other relevant national and local planning policy, drawing on evidence from other supporting application documents including the Environmental Statement (the "ES").

1.1.5 In preparing this document the applicant has followed Regulation 5(2) (q) of the APFP Regulations and the MHCLG guidance, Planning Act 2008: Application Form Guidance and the Planning Inspectorate Advice Note 6: Preparation and Submission of Application Documents, Version 7, February 2016.

1.1.6 This Case for the Scheme document is structured as follows.

Chapter 2: Sets out the need for the Scheme.

Chapter 3: Discusses the development of the Scheme and the options considered.

Chapter 4: Summarises the proposed Scheme.

Chapter 5: Discusses the benefits of and opportunities presented by the Scheme.

Chapter 6: Describes the Order land and surrounding context.

Chapter 7: Explains how the Scheme complies with planning policy and legislative considerations.

Chapter 8: Presents the conclusions of the Case for the Scheme.

1.1.7 Chapters two to eight rely on information and evidence which is contained in other application documents, including the ES (document reference 6.1), Design and Access Statement (document reference 7.2) and Funding Statement (document reference 4.2). Where possible, cross-references are made to these other documents, rather than repeating information in this document.

1.2 The Applicant

1.2.1 The Applicant is Highways England, which is the Strategic Highway Authority as defined in the Infrastructure Act 2015. Formerly the Highways Agency, the Applicant became a government owned company on 1 April 2015.

1.2.2 Highways England is responsible for modernising and maintaining England's strategic road network, as well as running the network and keeping traffic moving.

2 The Need for the Scheme

2.1 Introduction

2.1.1 The A303 is a strategic route linking the South West of England to London and the South East and is critical to the local and regional economy. It also plays a big part in the everyday lives of tens of thousands of people as they travel to work and school, and for business and leisure purposes.

2.1.2 At busy times, such as summer weekends and other holiday periods, the A303 suffers from acute congestion. The single carriageway Amesbury to Berwick Down section carries traffic levels which are often double its design flow capacity; a journey that should take 10 minutes can sometimes take an hour. Lack of capacity constrains local economic growth and contributes to the under-performing economy of the South West.

2.1.3 The Amesbury to Berwick Down section of the A303 runs through the Stonehenge component of the Stonehenge, Avebury and Associated Sites World Heritage Site ("WHS"), passing 165 metres from the iconic stone circle. The sight and sound of traffic has a profound adverse impact on this uniquely significant site. The WHS includes a large number of related prehistoric monuments within the wider landscape and the road physically and visually interrupts the relationships between them.

2.1.4 Table 2-1 summarises the particular problems which the Scheme aims to address and identifies who is affected.

Table 2-1: Current problems

Category	Description of problem	Who is affected or concerned?
Economic growth	Productivity in the South West is restricted by poor connectivity.	Businesses and people in the South West of England.
	Economic growth is constrained by traffic congestion, delay and unreliable journey times.	Local area, SW England, UK generally.
	Tourism and the visitor economy are harmed by congestion and unreliable journey times.	Local area, SW England, UK generally.
Transport	Lack of capacity on the single carriageway section leads to congestion and delay, single level junctions lead to increased journey times.	Users of the A303.
	Poor journey time reliability makes it difficult to plan journeys.	Users of the A303.
	On average, there are 15 collisions involving personal injury every year on the Scheme section of the A303	Safety of users of the A303.

Category	Description of problem	Who is affected or concerned?
	Lack of network resilience, as the A303 is one of only a limited number of major transport routes into the South West.	Users of the A303 and the wider transport network.
Cultural heritage	The A303 severs the WHS, and detracts from the enjoyment and appreciation of the site. The road's proximity to the stone circle detracts from its setting. The A303 impacts adversely on the Outstanding Universal Value of the WHS	Local, national and international visitors.
Communities and environment	Traffic causes severance, visual intrusion and noise in the village of Winterbourne Stoke.	Local community, visitors.
	Villages near the A303 suffer from rat-running traffic.	Local communities, visitors.
	Tourist traffic has an adverse impact on local communities.	Local communities.
	A303 traffic has a negative impact on the countryside.	Local area, visitors.

2.1.5 These problems with the existing road between Amesbury and Berwick Down have been recognised for many years and there is a body of strategic government policy which either (i) explicitly describes the need for improvement of the A303 and the A303/ A358 corridor, including:

a. the Government's Road Investment Strategy 2015 - 2020 (2014);

a. Highways England's Strategic Business Plan 2015 - 2020 (2014);

b. Highways England's Delivery Plan 2015 – 2020 (2015); and

c. The Government's National Infrastructure Delivery Plan 2016 – 2021 (2016),

Or (ii) is contained in more general policy promoting economic growth which an improvement of the A303 would support, including:

d. the Government's Industrial Strategy (2017);

e. The Government's Transport Investment Strategy (2017);

f. Highways England's Strategic Economic Growth Plan (2017); and

g. The Government's Rebalancing toolkit (2017).

2.1.6 Appendix A of the Funding Statement (document reference 4.2) provides more details of the content of these government policy documents which frame the need for the Scheme.

2.1.7 The following sections of this chapter address the transport, economic, cultural heritage and community and environmental problems currently experienced and establish the main objectives of the Scheme resulting from these problems.

2.2 Transport – the problems

2.2.1 Transport problems, especially those related to the single carriageway section, are at the root of other issues associated with the A303. The main transport problems are considered below.

Lack of capacity on single carriageway section and single level junctions leads to congestion and delay

2.2.2 Daily traffic flows in 2017 ranged from 28,000 to over 30,000 vehicles Average Daily Traffic (ADT). These are considerably in excess of the congestion reference flow of 22,000 for a single carriageway. The congestion reference flow is an estimate of annual average daily traffic flow at which the carriageway is likely to be congested.

2.2.3 The worst congestion problems are in the summer when there is additional leisure and tourist traffic. It is significant that between 2013 and 2017 traffic increased more outside of the summer holiday months than in summer holiday months, suggesting that growth in summer holiday months is now being constrained by congestion.

2.2.4 Traffic congestion leads to daily and seasonal variation in journey times, making it difficult for road users to plan their journeys.

2.2.5 Table 2-2 and Table 2-3 show the traffic flows on the single carriageway sections of the A303 either side of the A360 Longbarrow roundabout, measured as Average Daily Traffic (ADT) in 2013 and 2017 respectively.

Table 2-2: Traffic flows on A303 (scheme section) in 2013

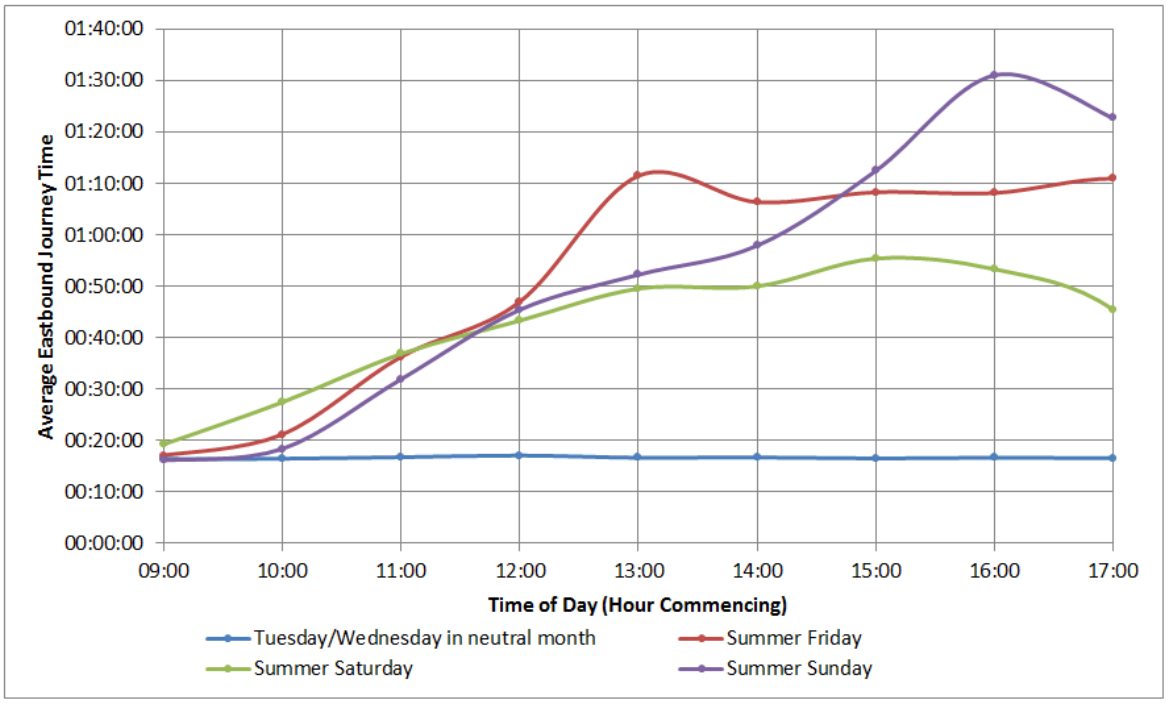
A303 Scheme Section:	Neutral Month ADT (October 2013)			Summer Month ADT (August 2013)			Total
	East-bound	West-bound	Two-Way	East-bound	West-bound	Two-Way	Summer Extra
East of A360 Longbarrow roundabout	12,100	11,900	24,000	14,600	14,100	28,800	20%

Table 2-3: Traffic flows on A303 (scheme section) in 2017[2]

A303 Scheme Section:	Neutral Month ADT (October 2017)			Summer Month ADT (August 2017)			Total
	East-bound	West-bound	Two-Way	East-bound	West-bound	Two-Way	Summer Extra
East of A360 Longbarrow roundabout	14,600	14,000	28,600	15,600	14,700	30,300	6%

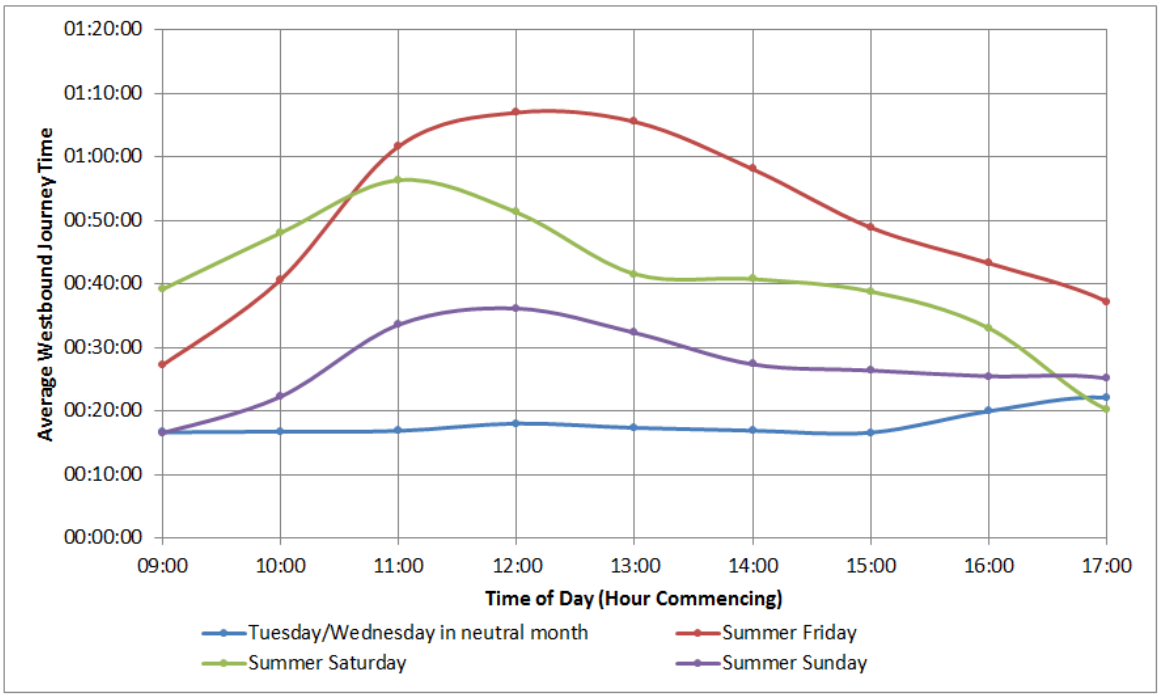
2.2.6 Acute problems of congestion and delay occur on Fridays and at weekends in the summer months. This is illustrated in Figure 2-1 and Figure 2-2, which show the hourly variation in journey times for traffic on different days of the week in October (the neutral month) and August 2017.

Figure 2-1: Daily profiles of east-bound journey times on A303



2 Highways England (no date). WebTRIS [online]. Available at: http://webtris.highwaysengland.co.uk/ [Accessed 21 September 2018].

Figure 2-2: Daily profiles of west-bound journey times on A303



2.2.7 Travel times are based on automatic number plate surveys undertaken in August and October 2017 on the 14 mile section of the A303 between the A338 in the east and the A36 in the west, including the scheme section.

2.2.8 The graphs show that journeys which might typically take less than 20 minutes on a normal mid-week day can take more than an hour on a summer Friday and nearly an hour on a summer Saturday.

2.2.9 A study in August and October 2013[3] looked at journey time reliability on the A303/A30/A358 corridor in the south west peninsula. It assessed the percentage of journeys completed within a set reference time[4]. The westbound section of the A303 between the A360 (Longbarrow roundabout) and the A344 (now removed road passing Stonehenge) was found to be the worst performing section of the route, with reliability as low as 55%. This compared badly with the route as a whole, where the majority of sections operated at between 70% and 80% reliability. The study reported a particular problem in summer periods when passing drivers on the A303 slow down to look at the monument. Recent site observations confirmed that this behaviour occurs.

2.2.10 Table 2-4 presents reliability data for the Scheme section in 2013 for different periods of the day, estimated for the whole year. It shows that the

3 CH2MHill (2015). A303/A30/A358 Corridor Feasibility Study Stage 1 Report, including Technical Appendix H, The Highways Agency.

4 Reference times are based on historic data, including a fixed tolerance, and reflect the typical 'journey' time for that time and day, on that part of the network. As a result, reference times will not always relate to free-flow conditions as they will reflect the impact of historical levels of congestion at different times of the day. Reference times for each junction to junction link are updated on an annual basis, in order to reflect the latest conditions experienced on each part of the network).

Scheme section to the east of Longbarrow roundabout suffers most from unreliability. At most times of the day fewer than 70% of journeys are 'on time'. In the evening peak, reliability for westbound traffic is only 55%. This makes it difficult for drivers to predict the time needed for their journey. For business journeys and freight transport, this reduces efficiency and increases overall costs.

Table 2-4: Reliability

A303 Section	% of eastbound journeys on time					% of westbound journeys on time				
	AM Peak	Inter-peak	PM Peak	Off Peak	Overall	AM Peak	Inter-peak	PM Peak	Off Peak	Overall
West of A360 Longbarrow Roundabout	82%	79%	80%	81%	80%	88%	87%	84%	81%	85%
East of A360 Longbarrow Roundabout	72%	64%	64%	72%	67%	69%	55%	55%	63%	59%

2.2.11 This unpredictability of journey times, over and above the general expectation that journeys will be slow and subject to delay, adds to driver frustration. With 3.9 million annual journeys in each direction, it is a significant problem.

2.2.12 Traffic on the A303 has generally increased between 2013 and 2017 and therefore the findings of this survey are even more relevant now than they were then.

On average, there are 17 collisions with personal injury every year on the scheme section

2.2.13 In the period from January 2014 to December 2017, a total of 68 collisions involving personal injury were recorded[5] (Table 2-5 and Figure 2-3). These included two fatal accidents.

5 CrashMap (no date). crashmap.co.uk [online]. Available at: www.crashmap.co.uk [Accessed 21 September 2018].

Table 2-5: Personal injury collisions on A303 scheme section (2014 – 2017)

Year	Fatal	Serious	Slight	Total
2014	1	0	21	22
2015	0	2	12	14
2016	1	2	13	16
2017	0	2	14	16
Total	2	6	60	68

Figure 2-3: Personal injury collisions on A303 scheme section (2014 – 2017)[6]

2.2.14 Three pedestrian casualties are included in these figures:

i. one pedestrian fatality in 2014 directly south of the Stonehenge site;

ii. one pedestrian seriously injured in 2016, 0.8 miles (1.3km) west of Countess roundabout; and

iii. one pedestrian slightly injured in 2017 in Winterbourne Stoke.

2.2.15 As well as driver error, a number of features of the existing road may have contributed to collisions, including queuing traffic at the transition between dual and single carriageway sections, poor sight lines and limited overtaking opportunities, the mix of traffic including slow moving vehicles, and local access points onto the highway. For vehicles travelling westbound, the slower single carriageway section comes after lengthy sections of dual carriageway.

2.2.16 A quarter of all the recorded collisions, including both fatalities, and two thirds of the serious incidents, occurred within view of the stone circle, as illustrated in Figure 2-4.

6 CrashMap (no date). Crashmap.co.uk [online]. Available at: www.crashmap.co.uk [Accessed 21 September 2018].

Figure 2-4: Collisions on A303 within views of the stone circle (from crashmap.co.uk)

A limited number of major transport routes to the South West means a lack of network resilience

2.2.17 Resilience is defined as the ability of a transport network to cope with disruptive events, such as surges in demand, collisions, extreme weather conditions or roadworks. The more common the event, the more important it is for the network to recover quickly to restore an acceptable level of service and avoid compounding the problem.

2.2.18 Lack of resilience on the A303 is a problem for the South West as it is one of only a limited number of transport routes into the peninsula. The disruption caused by collisions or roadworks will usually be far greater on a single carriageway than on a dual carriageway, where traffic management utilising the second carriageway can often provide a means of keeping traffic moving. This extra capacity means that it is easier for a dual carriageway to recover quickly from incidents. The proposed dual carriageway will also be better able to accommodate unexpected peaks in demand than a single carriageway.

2.2.19 Highways England's Drainage Data Management System ("HADDMS") contains information on seventeen events where flooding affected the current A303 between Winterbourne Stoke and Amesbury[7]. These occurred in 2006, 2007, 2010, 2013, 2014 and 2015. Alternative routes into the region – including the main Great Western and West of England rail lines – have also been found to be vulnerable to flooding, reducing the resilience of the regional economy to environmental events. Such events can have significant impacts on local economies.

7 Highways England (2018). A303 Stonehenge Amesbury to Berwick Down, Preliminary Environmental Information Report.

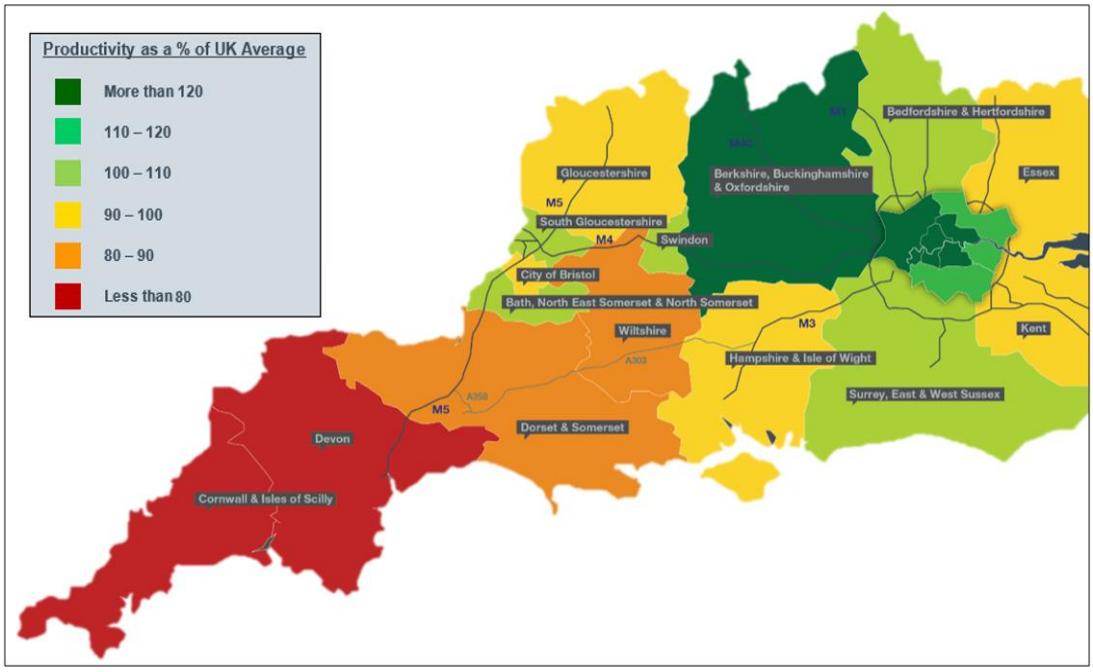
2.3 Economic growth – the problems

Productivity in the South West is restricted by poor connectivity

2.3.1 The Government is concerned that the UK economy is not functioning efficiently due to 'market distortions' or 'failures'[8]. The economy of the South West performs poorly compared to other regions of the UK, with a lower than average economic performance[9]. This is largely due to its location but is made worse by the congestion, delays and unreliable journey times caused by inefficient transport infrastructure.

2.3.2 There are well-established links between productivity, distance from markets, and the effectiveness of transport links. Peripheral regions of the UK exhibit lower levels of productivity[10]. Research by the Universities of Bath and the West of England found that productivity decreases by 6% for every 100 minutes journey time from London[11], resulting in a significant 'productivity gap' between the South East and more distant regions. By reducing journey times to the South West, the proposed corridor improvements are expected to improve productivity.

Figure 2-5: Productivity



8 Department for Transport (2018). TAG Unit A2.1 Wider Economic Impacts Appraisal.

9 EU Regional Innovation Monitor, base profile, south west England

10 Webber, D. J., Plumridge, A. and Horswell, M. (2016). Understanding productivity variations between Wales and England, Report to the Government of Wales. Found that, for single-location businesses, this can be as large as 26% in the South West of England. For multi-location firms the gap is smaller, primarily as a result of lower average costs and greater scale economies.

11 Boddy, M. (2005). Meeting the productivity challenge. Technical Report. University of the West of England & University of Bath.

2.3.3 Figure 2-5 illustrates this, showing productivity[12] in southern England, relative to the UK average. Productivity in the counties along the A303 corridor is below the UK average. This is viewed as a serious problem by Local Enterprise Partnerships[13] [14] in the South West peninsula[15].

Economic growth is constrained by traffic congestion, delay and unreliable journey times

The South West

2.3.4 Businesses in the South West have identified disruption to business travel and unreliable journey times due to congestion as major barriers to the growth of the region. In a survey[16] of over 650 businesses, 89% felt that the current unreliability of the A303 was harming their business.

2.3.5 The six Local Enterprise Partnerships ("LEPs") in the South West have set targets for growth in jobs and housing over the next five years. Cumulatively, they aim to create approximately 92,000 new jobs in the South West by 2021, with 45,000 of these in the South West peninsula[17]. This level of employment growth will put even greater demands on the region's transport network, making existing problems worse, preventing the growth from being fully realised.

The Local Area

2.3.6 In a survey by Salisbury and District Chamber of Commerce, 50% of local firms said congestion on the A303 had a negative impact on their business. Problems included the unreliability of logistics and the impact of congestion on visitors to the region. Evidence was presented of local businesses avoiding travel at peak times because of delays on the A303[18].

2.3.7 In its Strategic Economic Plan[19] ("SEP"), Swindon and Wiltshire LEP has designated a 'Salisbury-A303 Growth Zone'[20], which includes Salisbury, Amesbury, and the garrison towns around Salisbury Plain. This area currently supports 51,500 jobs and around 4,900 businesses, generating around £2.1 billion of Gross Value Added ("GVA")[21], equivalent to 15% of

12 Boddy, M. (2005) Meeting the productivity challenge. Technical Report. University of the West of England & University of Bath.

13 Heart of the South West LEP (2014). Strategic Economic Plan 2014-2030: Part 2: Understanding our Growth Potential.

14 Cornwall and Isles of Scilly LEP (2014). Cornwall and Isles of Scilly Strategic Economic Plan 2017-2030.

15 The South West peninsula comprises Cornwall and the Isles of Scilly, Devon, Dorset, and Somerset. The South West region additionally includes Wiltshire, Gloucestershire, Bath and North East Somerset, North Somerset, South Gloucestershire, Bristol and Swindon.

16 Parsons Brinkerhoff (February 2013). A303/A30/A358 Corridor Improvement Programme – Economic Impact Study..

17 Total number of jobs expected to be created LEP growth deals by 2021 across Cornwall and Isles of Scilly, Dorset, Enterprise M3, Heart of the South West, Swindon and Wiltshire and West of England LEPs.

18 Heart of the South West LEP, Somerset County Council, Wiltshire Council, Devon County Council (2013). A303 Corridor Improvement Programme (including the A358 and A30): Outline Economic Case and proposed next steps.

19 Swindon and Wiltshire LEP (2016). Strategic Economic Plan: Using our pivotal location in southern England to create wealth, jobs and new business opportunities.

20 The SEP published in 2014 refers to this zone as the South Wiltshire growth zone.

21 Swindon and Wiltshire LEP (2014). Aligning Local Innovation with Government Ambition: Strategic Economic Plan.

the total GVA in the LEP area. The SEP outlines plans to build 8,000 new homes and create 7,550 new jobs within the Growth Zone[22]. This will further add to pressure on the A303.

2.3.8 In its Strategic Economic Plan[23] ("SEP"), Swindon and Wiltshire LEP has designated a 'Salisbury-A303 Growth Zone'. Access to the Strategic Road Network is important for the key locations within the Growth Zone, particularly Amesbury and the garrison towns of Larkhill, Bulford and Tidworth[24]. The A303 provides this, but performs inefficiently.

2.3.9 The Ministry of Defence Site at Boscombe Down, south-east of Amesbury, is an established Centre of Excellence for aerospace, defence and security technology, with over 2,000 staff. A decision in 2017 by Boeing Defence UK to develop a new aircraft servicing and maintenance base at Boscombe could create several thousand new jobs to the area, again adding to the pressure on the A303 from additional journeys to work.

2.3.10 The Solstice Park business park in Amesbury includes large commercial units, distribution centres, trade and roadside businesses, which depend on good transport links. Accessibility is an important factor for businesses considering locating in the area. Congestion on the A303 is therefore a problem for users and occupiers of the business park, reducing efficiency and making the site less attractive to new business.

2.3.11 More generally, the Swindon and Wiltshire LEP identifies the traffic conditions on the A303 as a significant barrier to the growth of the South Wiltshire area[25]. The only alternative route to the South West is via the M4/M5, which involves a considerable detour around the north of Bristol.

Overall, tourism and the visitor economy are harmed by congestion and unreliable journey times

<u>The South West</u>

2.3.12 Tourism is a key contributor to South West regional economy, and is estimated to contribute £8.9 billion (7.6%) of the region's total output in GVA terms (the value generated by any unit engaged in the production of goods and services). This is the highest contribution of tourism to a regional economy anywhere in the UK outside London. Most visitors travel by car[26], and this puts pressure on the strategic road corridors (M4/M5 and A303/A30/A358). The resulting congestion and journey time unreliability affect all road users and can deter people from visiting, particularly in the summer. In a survey[27] 60% of visitors who had used the A303/A30/A358, said negative travel experiences would affect their future decisions to use the corridor for leisure trips.

22 Ibid.

23 Swindon and Wiltshire LEP (2016). Strategic Economic Plan: Using our pivotal location in southern England to create wealth, jobs and new business opportunities.

24 Wiltshire Council (2015). Wiltshire Core Strategy adopted on 20 January 2015.

25 Swindon and Wiltshire LEP (2014)

26 Of the 18 million visits by UK residents to the SW, 85% were undertaken by car - Visit England (2014). South West England and Domestic Tourism.

27 Parsons Brinckerhoff (February 2013). A303/A30/A358 Corridor Improvement Programme Economic Impact Study.

The Local Area

2.3.13 Tourism related to the WHS is also fundamental to the tourist economy of Wiltshire, supporting jobs, infrastructure and services which benefit local communities. Congestion on the A303 makes it more difficult for people to access the WHS and until this problem is resolved it will be more difficult to build on the economic benefits of the WHS and attract more visitors.

2.4 Heritage – the problems

2.4.1 Stonehenge is a globally famous and iconic monument, an internationally recognised symbol of Britain and one of the best-known and most inspirational monuments in the world. Considered to be the most architecturally sophisticated prehistoric stone circle in the world, it is a focal point within the Stonehenge, Avebury and Associated Sites WHS. The Stonehenge element of the WHS encompasses a very significant 2,600-hectare landscape that contains one of the world's richest concentrations of buried and upstanding Neolithic and Bronze Age funerary, ceremonial and other sites and monuments. The remains of these funerary and ceremonial monuments and their landscape setting have influenced architects, artists, historians, archaeologists and others, and continue to be an important focus for evolving archaeological practice and techniques.[28]

2.4.2 The Statement of Outstanding Universal Value ("OUV") sets out a summary of the World Heritage Committee's reasons why the WHS has OUV. It notes that

"The World Heritage property Stonehenge, Avebury and Associated Sites is internationally important for its complexes of outstanding prehistoric monuments. Stonehenge is the most architecturally sophisticated prehistoric stone circle in the world, while Avebury is the largest. Together with inter-related monuments, and their associated landscapes, they demonstrate Neolithic and Bronze Age ceremonial and mortuary practices resulting from around 2000 years of continuous use and monument building between circa 3700 and 1600 BC. As such they represent a unique embodiment of our collective heritage. […]

Stonehenge is one of the most impressive prehistoric megalithic monuments in the world on account of the sheer size of its megaliths, the sophistication of its concentric plan and architectural design, the shaping of the stones, uniquely using both Wiltshire Sarsen sandstone and Pembroke Bluestone, and the precision with which it was built."[29]

28 Simmonds, S. and Thomas, B., (2015). Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015. Chippenham: World Heritage Site Coordination Unit on behalf of the Stonehenge and Avebury WHS Steering Committees. Available at http://www.stonehengeandaveburywhs.org/management-of-whs/stonehenge-and-avebury-whs-management-plan-2015/ (accessed 21 September 2018).

29 UNESCO, (2013). Adoption of retrospective Statements of Outstanding Universal Value. Stonehenge, Avebury and Associated Sites. WHC-12/37.COM/8E. Thirty-seventh Session, Phnom Penh, Cambodia: World Heritage Committee, United Nations Educational, Scientific and Cultural Organisation. Available at https://whc.unesco.org/archive/2013/whc13-37com-8E-en.pdf (last accessed 21 September 2018).

Other major monuments at Stonehenge "include the Avenue, the Cursuses, Durrington Walls, Woodhenge, and the densest concentration of burial mounds in Britain.

2.4.3 In recognition of its importance, the site was inscribed on UNESCO's World Heritage List in 1986. The inscription means that Stonehenge and the Neolithic and Bronze Age funerary, ceremonial and other contemporary archaeological sites and monuments within the WHS, their physical remains and settings, their siting in relation to each other, their design in relation to the skies and astronomy, and their disposition within the landscape are recognised by the international community as being of OUV.

The A303 severs the WHS limiting enjoyment and appreciation of the site

2.4.4 The existing A303 bisects the WHS landscape, severing visual and physical relationships between monuments, groups of monuments and their relationships with the landscape. The A303 introduces an intrusive and discordant element of hard modern infrastructure, heavy moving traffic and noise. This has a very severe impact on the setting of the WHS monuments, including the stone circle which lies 165m from the road.

2.4.5 The current environment is characterised by visual intrusion due to the presence of the A303 surface route, views of moving and stationary traffic, night-time light spill / light pollution from lit junctions and vehicle lights, intrusion on solstitial alignments, aural intrusion due to traffic noise and air quality impacts on human receptors due to traffic fumes.

2.4.6 Although the stone circle is the most widely recognised monument, the WHS includes numerous Neolithic and Bronze Age sites and monuments of similar importance, both north and south of the road, including:

a. The Avenue – a 3km linear monument and possible ceremonial route from the River Avon to Stonehenge;

b. Woodhenge, and the henge enclosure of Durrington Walls;

c. The Cursus – a 3km linear earthwork and possible ceremonial route;

d. The Cursus Barrows;

e. The Old King Barrows and New King barrows;

f. Winterbourne Stoke Crossroads Barrows;

g. Normanton Down Barrows, including the Sun Barrow and Bush Barrow; and

h. Coneybury Henge.

2.4.7 There are many other archaeological monuments within the WHS which together make an important contribution to the OUV of the WHS. This sequence of monuments reflects the changing foci and landscape organisation as the ritual and funerary landscape developed over time. These monuments include unique concentrations of Neolithic long barrows and the densest concentration of Bronze Age burial mounds in Britain.

2.4.8 The A303 intrudes into, and severs, the prehistoric landscape. The severance impacts affect the visual and physical landscape connections between the monuments critical to an understanding of their importance and context, and diminishing the integrity of the landscape. This landscape evolved over many millennia, with each generation building new monuments, but with respect to the works of those that came before. The present-day A303 interrupts many key visual and physical connections between these monuments.

2.4.9 For example, towards the eastern side of the WHS, the existing A303 severs the Avenue. In the centre, the A303 separates Stonehenge from the Normanton Down Barrows and disrupts the mid-winter sunset solstitial alignment between Stonehenge and the Sun Barrow. In the west, the traffic on the existing A303, the A360 and particularly, the Longbarrow roundabout, dominate the setting of monuments. The Longbarrow roundabout is immediately adjacent to the important Winterbourne Stoke Crossroads complex of burial mounds.

2.4.10 The A303 also severs several existing public rights of way that would otherwise connect the northern and southern parts of the WHS. This has serious negative implications for visitors, limiting their ability to explore the southern part of the WHS. Crossing the existing A303 on foot is difficult and potentially dangerous[30]. Visitors cannot, therefore, appreciate or explore the WHS as a whole, or readily understand how the archaeological sites are inter-related and connected. According to an English Heritage survey carried out in 2009, (referenced in the WHS Learning and Interpretation strategy[31]) following their visit to Stonehenge, 41% of visitors were still unaware of the wider WHS landscape.

2.4.11 Traffic on the existing A303 surface route diminishes people's enjoyment of the unique historic landscape and degrades the setting of many monuments in the Stonehenge part of the WHS. This adversely affects its OUV, and compromises its Integrity and Authenticity. This has implications for visitor perceptions, experiences and their understanding of the WHS, for the setting of the monuments within the WHS including Stonehenge (an iconic monument and symbol of Britain internationally) and the tourism economy.

2.4.12 Vehicle lights on the existing A303 intrude upon the mid-winter sunset solstitial alignment. The lit junctions at the Longbarrow and Countess Roundabouts result in night-time light spill, contributing to impacts on dark skies.

2.4.13 The difficulties faced by visitors, both in terms of the visual and aural intrusion caused by the existing A303 and the severance that results in the

30 Simmonds, S. and Thomas, B., (2015). Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015. Chippenham: World Heritage Site Coordination Unit on behalf of the Stonehenge and Avebury WHS Steering Committees. Available at http://www.stonehengeandaveburywhs.org/management-of-whs/stonehenge-and-avebury-whs-management-plan-2015/. Page 169 (access 21 September 2018).

31 English Heritage. (2011). Stonehenge World Heritage Site. A Strategy for Interpretation, Learning and Participation 2010–15. (http://www.stonehengeandaveburywhs.org/assets/SH-WHS-Interpretation-Learning-Participation.pdf (access 21 September 2018).

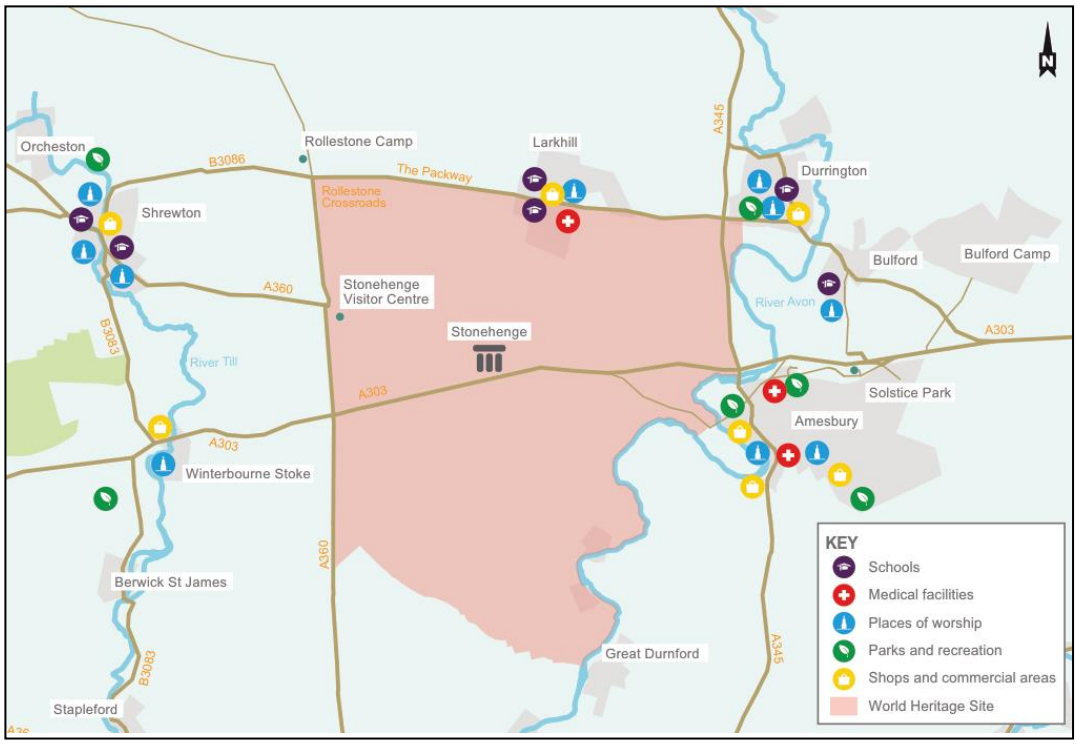
inaccessibility of the wider landscape, interrupt and obstruct people from exploring and understanding an important part of the cultural heritage of the world.

2.5 Communities – the problems

2.5.1 Local communities along the length of the existing A303 and to the north and south of the road are directly affected both by congestion on the A303, and by traffic seeking to avoid congestion and delays. The traffic on the road also results in significant environmental impacts including high levels of traffic noise, visual intrusion and impact on wildlife.

2.5.2 The local communities in the vicinity of the A303 are shown in Figure 2-6. The A303 passes just to the north of Amesbury, and bisects the village of Winterbourne Stoke. Nearby settlements include the garrison towns of Larkhill and Bulford Camp, Durrington to the north of Stonehenge, and the villages of Bulford, to the east of Larkhill, and Shrewton, to the west.

Figure 2-6: Towns and villages in the vicinity of the scheme



Traffic causes severance and visual intrusion in the village of Winterbourne Stoke

2.5.3 The existing A303 runs through the village of Winterbourne Stoke, 8km to the west of Amesbury. Traffic through the village is subject to the same seasonal variations as the rest of the A303 and can average more than 30,000 vehicles per day in the summer, an average of one every two or three seconds. There is a 40 mph speed limit, and the carriageway is of sub-standard width through the village.

2.5.4 This traffic and the road itself (Figure 2-7), present both a physical and psychological barrier to pedestrians and other NMUs, impeding movements within the village and causing severance of the village community. In particular, the road restricts pedestrian access from properties on the south side of the road to community facilities on the northern side, including the local shop and the bus stop providing services into Amesbury and Salisbury.

Figure 2-7: A303 through Winterbourne Stoke

2.5.5 There is frontage development on both sides of the A303 as it passes through Winterbourne Stoke and there are intersections with several minor roads. Egress onto the A303 is difficult and dangerous due to the high traffic flows on the main road. Congestion on the A303 has also caused problems for emergency services when attending incidents.

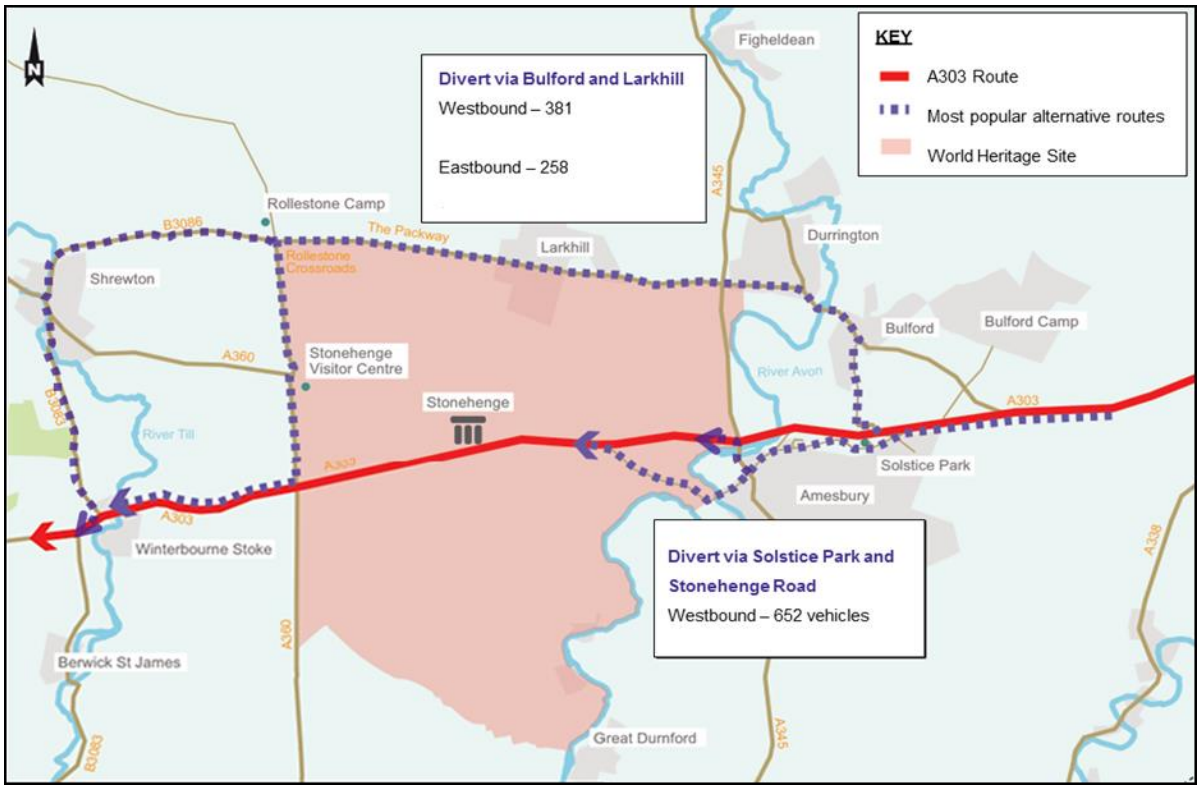
2.5.6 Much of the village is a Conservation Area which extends southwards of the A303. Both the volume of traffic on the road, and the associated safety measures such as 'gateway' road markings, enhanced speed limit signs, street lighting and a speed camera, have a damaging effect on the character and visual amenity of the village.

Villages near the A303 suffer from rat-running traffic

2.5.7 Congestion between Amesbury and Berwick Down encourages A303 traffic to divert on to several local routes in order to minimise delays. Use of inappropriate routes results in further severance and increases the risk of safety problems, whilst reducing air quality and increasing noise levels for residents in Amesbury, Bulford, Durrington, Larkhill and Shrewton). The local roads running through these villages are not designed to accommodate traffic levels experienced when cars and HGVs divert off the A303 because of congestion. In some places there are no footpaths, and pedestrians are required to walk in the roadway when accessing local shops and schools – the mix of pedestrians and traffic is a serious safety concern.

2.5.8 'Rat running' activity has been investigated by analysing Automatic Number Plate Recognition ("ANPR") data gathered in August 2017. Figure 2-8 shows the main local routes used by traffic to avoid congestion on the Scheme section of the A303. The red line represents the A303 and dashed lines show the most popular alternative routes. The plan shows traffic on these roads which is attributable to rat running. The figures represent the busiest 6 hours on a Friday in August.

Figure 2-8: A303 vehicle routes and traffic (August 2017, Friday, 10:00 – 19:00)



2.5.9 Only a relatively small proportion of the A303 traffic needs to divert to cause a disproportionate impact on these local roads.

Tourist traffic has an adverse impact on local communities

2.5.10 Stonehenge has long been one of the top ten major paid attractions in England. The stone circle and visitor centre attract around 1.6 million visitors a year[32] and is a key draw for tourists visiting the region[33]. Approximately 60% of visitors to Stonehenge are from overseas, and it is one of the most visited attractions in the country by international visitors[34].

32 Regeneris Consulting, (2018). Assessment of the Visitor Economy and Local Economy Benefits of the A303 Improvements – draft report.

33 Simmonds, S. and Thomas, B., (2015). Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015. Chippenham: World Heritage Site Coordination Unit on behalf of the Stonehenge and Avebury WHS Steering Committees. Available at http://www.stonehengeandaveburywhs.org/management-of-whs/stonehenge-and-avebury-whs-management-plan-2015/. Page 169 (access 21 September 2018).

34 Visit Britain, Inbound Tourism to Britain Regional Profiles.

2.5.11 There is a view among local residents that they suffer the inconvenience and disruption associated with traffic accessing Stonehenge, but receive little economic benefit in return[35].Wiltshire Council supports this view in the Council's Core Strategy which states that 'despite the number of visitors Stonehenge attracts, Amesbury and the surrounding area see little economic benefit from it'[36]. Improving local connections, enhancing the visitor experience at Stonehenge, and encouraging people to dwell longer in the WHS and providing access to the wider WHS landscape from the Amesbury end of the WHS, will provide opportunities to deliver local economic benefits.

2.6 Environment – the problems

2.6.1 This section provides an overview of the current environmental problems caused by the existing A303. Further and more detailed information can be found in the Environmental Statement ("ES"), (document reference 6.1) which presents the likely significant environmental effects of the development, the measures to avoid or reduce such effects and the alternatives considered.

2.6.2 The Scheme is located in an area with a variety of habitats including; chalk grassland, woodland and scrub, river habitats, farmland and hedgerows. The chalk grassland supports rare plants such as Early Gentian and Slender Bedstraw and a range of butterflies. The river system is important for its vegetation, fish and a rare snail, and also supports water voles and otters. The local farmland is important for birds of arable land and grassland, including the nationally rare Stone Curlew, as well as Quail, Hobby and Corn Bunting. The area includes internationally and nationally designated sites for nature conservation.

2.6.3 The Scheme is also located within "NCA 132 Salisbury Plan and West Wiltshire Downs" National Character Area for landscape[37]. Key characteristics of this landscape include the habitats of the chalk landscape, as well as the outstanding prehistoric ritual landscape described above.

The existing A303 forms a barrier to wildlife

2.6.4 In the same way that it is difficult for humans to cross the road, the A303 is also a barrier to the movement of wildlife and is associated with animal mortalities, such as barn owls and otters.

The existing A303 causes problems of noise for the residents of Winterbourne Stoke

2.6.5 Existing traffic noise levels at properties in Winterbourne Stoke adjacent to the existing A303 are high due to the volume of traffic and the close proximity of properties to the road. The existing high noise levels through

35 Wiltshire Council (2015) Wiltshire Core Strategy.

36 Wiltshire Council, (2015). Wiltshire Core Strategy.

37 Natural England (2013). NCA Profile:132 Salisbury Plain and West Wiltshire Downs (NE479). Available from: http://publications.naturalengland.org.uk/publication/5001829523914752 (last accessed 21 September 2018)

the centre of Winterbourne Stoke are recognised through the designation of two Noise Important Areas. Noise Important Areas were identified by Defra as part of the strategic mapping of major roads, railways, airports and agglomerations completed under the EU Environmental Noise Directive. With regard to road traffic noise they represent those areas on the strategic road network most exposed to traffic noise and which contain sensitive receptors, such as residential properties. Highways England is responsible for assessing the potential to reduce traffic noise levels at Noise Important Areas on the strategic road network.

Run-off from the existing road causes water pollution

2.6.6 The existing A303 has an informal and outdated drainage system, which allows surface water run-off (which can be polluted by contaminants from the road and traffic) to flow straight into the verges, or outfalls in the local rivers.

2.7 Summary of the need for the Scheme

2.7.1 The economy of the South West performs poorly compared to other regions of the UK, due to its location which is exacerbated by the congestion, delays and unreliable journey times caused by inefficient transport infrastructure. The A303 is one of the few main arterial routes to the South West and its current limitations contribute to these economic problems.

2.7.2 The Amesbury to Berwick Down section of the A303 is a major contributor to the road's transportation problems; it is the longest section of single carriageway on the A303 and Countess roundabout (at the eastern end of the Scheme) is the first point at which traffic is brought to a halt after joining the A303 from the M3 motorway. This single carriageway section carries significant volumes of traffic throughout the year and users can suffer long delays. This causes rat running through unsuitable local roads as people seek alternative routes. Network resilience is low in this single lane section when road accidents or roadworks occur.

2.7.3 Stonehenge is considered to be the most architecturally sophisticated prehistoric stone circle in the world, attracting 1.6 million visitors a year. The A303 bisects the WHS landscape and passes within 165m of the Stonehenge monument, introducing the sight and sound of traffic and having a very severe impact on the setting of Stonehenge and other WHS monuments.

2.7.4 The existing A303 route adversely impacts local communities, such as the village of Winterbourne Stoke, where up to 30,000 vehicles per day pass directly through the village. The A303 is also a barrier to wildlife, generates water run-off that pollutes the environment and is an urban intrusion into a landscape noted for its sense of remoteness, openness and tranquillity.

2.8 Scheme objectives

2.8.1 In response to the long-standing recognition of the problems caused by the existing A303 between Amesbury and Berwick Down and in response to the Government's commitment within the Road Investment Strategy,

Highways England confirmed proposals for improvement of this length of road within its Delivery Plan.

2.8.2 Objectives for the Scheme have been formulated both to address identified problems and to take advantage of the opportunities that new infrastructure would provide. The objectives are defined in the Department for Transport's ("DfT") Client Scheme Requirements ("CSRs") which respond directly to the need for change:

a. Transport – To create a high quality reliable route between the South East and the South West that meets the future needs of traffic.

b. Economic growth – To enable growth in jobs and housing by providing a free-flowing and reliable connection between the South East and the South West.

c. Cultural heritage – To help conserve and enhance the World Heritage Site and to make it easier to reach and explore.

d. Environment and community – To improve biodiversity and provide a positive legacy for nearby communities.

3 Scheme development and options considered

3.1 Introduction

3.1.1 This Chapter sets out a brief chronology of the development of the Scheme; the options considered and the selection process that led to the Scheme. A more detailed description of the development of the Scheme can be found in Chapter 3 of the ES, Assessment of Alternatives. A detailed breakdown of the options considered can be found in the Technical Appraisal Report[38] and the Scheme Assessment Report (2017)[39]. The Design and Access Statement (document reference 7.2) describes the design alternatives considered and explains the reasoning for the ultimate selection of the proposed design.

3.2 Developing the Scheme: option identification and selection process

3.2.1 Proposals for the improvement of the A303 between Amesbury and Berwick Down have been the subject of extensive study and consultation since 1991[40]. Over the past 25 years more than 60 potential routes have been identified for a scheme to improve the A303 and reduce its impact on the WHS, as illustrated in Figure 3-1.

Figure 3-1: Potential route options

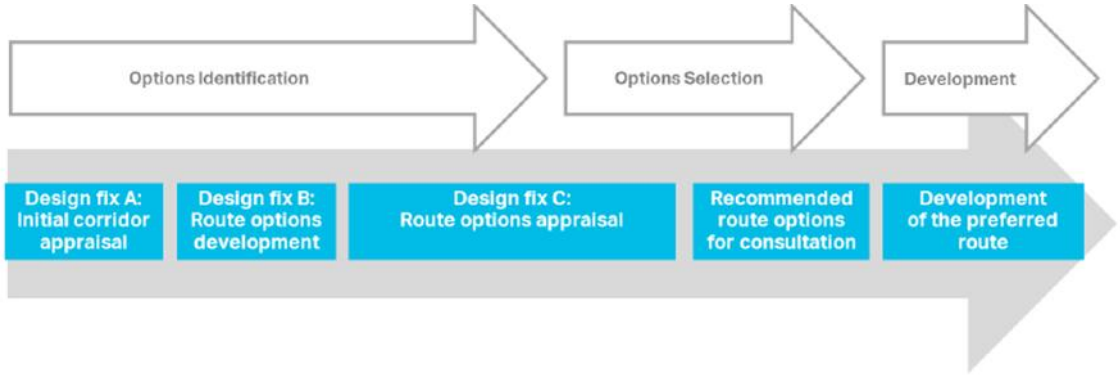
38 https://highwaysengland.citizenspace.com/cip/a303-stonehenge/supporting_documents/Volume%201%20%20TAR%20red%201.pdf

39 Highways England (2017). A303 Stonehenge Amesbury to Berwick Down Scheme Assessment Report: Volume 1. Available from: https://highwaysengland.citizenspace.com/cip/a303-stonehenge/results/sar-volume-1.pdf (last accessed 21 September 2018)

40 In assessing options to the identified traffic problems consideration has been given to the degree to which these could be addressed through other modes of transport. This is set out within Chapter 8 of the Transport Assessment, DCO Document Reference 7.4. It concludes that alternative modes considered will not, by themselves, provide a solution to the problems on the A303 between Amesbury and Berwick Down or meet the principle objectives of the scheme.

3.2.2 A fresh review was undertaken in 2016 of all previous work, together with new options that emerged, as part of a rigorous search for the best route. Highways England used the broad approach to option selection, identification and development as set out in Figure 3-2 below.

Figure 3-2: Option identification, selection and development



3.2.3 The process comprised seven discrete steps, listed below.

Step 1 - Identifying the route corridors

Step 2 - Assessing route corridor options (Design Fix A)

Step 3 - Developing route options (Design Fix B)

Step 4 - Assessing route options (Design Fix C)

Step 5 - Consulting on the route options

Step 6 - Determining the Preferred Route

Step 7 - Developing the Proposed Scheme

Step 1: Identifying the route corridors

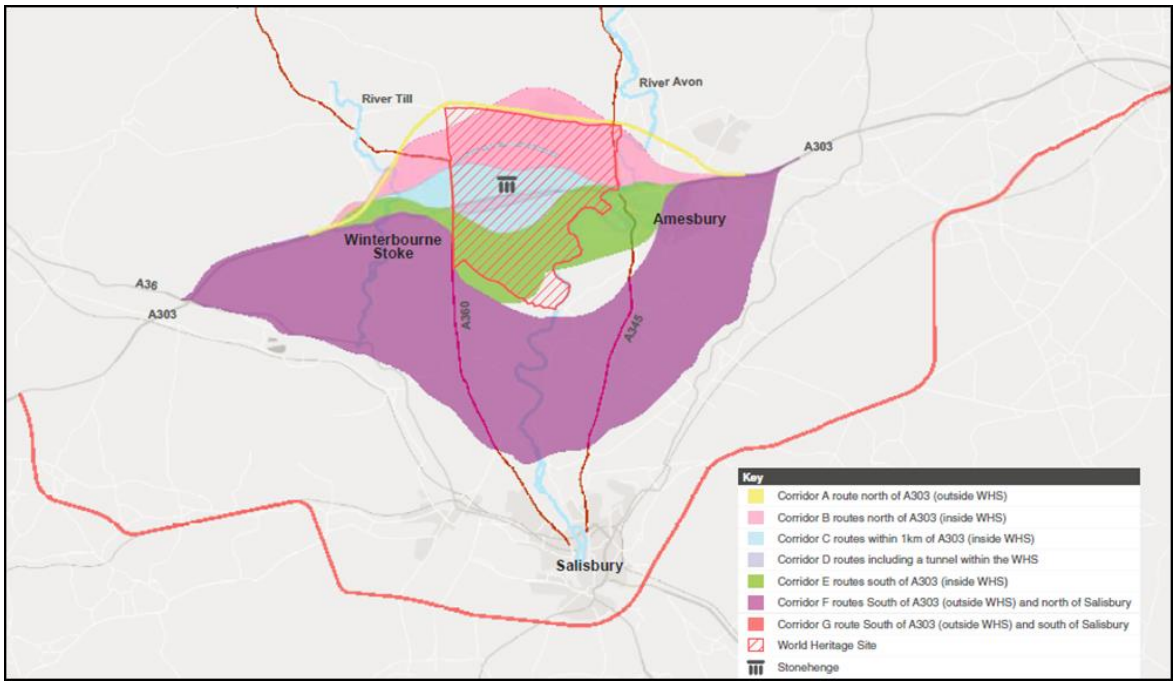
3.2.4 A review of over 60 route options was undertaken and grouped into seven broad route corridors (A to G) as part of the initial corridor identification and sifting exercise (Figure 3-3). The routes within these corridors fell into one of three categories:

a. surface routes partially within the WHS - Corridors B, C and E;

b. routes including a tunnel within the WHS - Corridor D; and

c. surface routes wholly outside the WHS - Corridors A, F and G.

Figure 3-3: Step 1 – Broad Route corridors



Step 2: Assessing route corridor options

3.2.5 The next step was to assess the route corridors themselves to identify which ones best met the scheme's objectives. The assessments of all the route corridors and the conclusions drawn are summarised in Table 3-1.

Table 3-1: Conclusions from route corridor assessment

Route Corridor	Assessment	Conclusion
Surface routes within the WHS **(Route corridors B, C and E)**	Surface routes within the WHS could offer transport and economic benefits at a lower cost than building a tunnel. However, the A303 would still split the WHS in two and be visible and intrusive within the WHS. These route corridors would therefore fundamentally fail to secure the heritage and environmental objectives.	Surface routes through the WHS (route corridors B, C and E) would not meet the objective for enhancing the WHS, including to "protect, conserve and transmit to future generations" and the Outstanding Universal Value of the WHS. For this reason surface routes within the WHS were not taken forward to step 3.

Route Corridor	Assessment	Conclusion
A tunnel within the WHS **(Route corridor D)**	A tunnel would reconnect the two halves of the WHS currently divided by the A303 and reduce the impact of traffic, thereby improving the historic landscape and the setting of key ancient monuments including Stonehenge itself. Although the tunnel portals and dual carriageway approaches would fall within the WHS there would be overall heritage benefits. The impact of the portals and approaches can be mitigated with appropriate design. A tunnel would also help enhance biodiversity by bolstering and creating habitats that would increase the range and number of flora and fauna species. Although more expensive, a tunnel would be a more direct route meaning it is best for delivering transport and economic benefits.	Tunnel routes through the WHS (route corridor D) meet the objectives of the scheme and were taken forward to step 3.
Surface routes outside the WHS **(Route corridors A, F and G)**	**Route corridor A** There is limited scope for surface routes north of the WHS because of the proximity of Larkhill and Durrington. This northern route corridor would also cause substantial harm to important heritage features such as Durrington Walls and the Outstanding Universal Value of the WHS, and so would not deliver overall heritage benefits. There would also be significant adverse impacts on the environment and local communities.	Route corridor A Surface routes to the north of the WHS would not meet heritage objectives and would perform badly against the environment and community objective. For these reasons route corridor A was not taken forward to step 3.
	Route corridor F Routes south of the WHS would completely remove the A303 from the WHS, bringing substantial heritage benefits by reconnecting the two halves of the WHS in their entirety and improving the setting of key monuments. These benefits need to be balanced against impacts on the environment, as the new road would have an extensive, lengthy footprint within a high quality, unspoilt landscape. Any route within corridor F would involve a new high-level crossing of the Woodford Valley and the River Avon. This valley has several attractive villages which straddle the banks of the River Avon and has a number of conservation areas and many listed buildings. The Avon also has protected status as a Special Area of Conservation and is a Site of Special Scientific Interest. Options in route corridor F would offer a less direct route for through traffic and would therefore deliver reduced transport and economic benefits. They would also interact less well with local roads and would increase rat-running through local villages.	**Route corridor F** Surface routes south of the WHS perform less well against transport and economic objectives the further south they go, due to increased distance, journey times and therefore costs, and would have increasing adverse effects on the environment and communities. However, they would have substantial benefits for the WHS. For this reason, route corridor F was taken forward to step 3.

Route Corridor	Assessment	Conclusion
	Route corridor G Any route to the south of Salisbury would be a long diversion for A303 traffic, resulting in extensive adverse impacts on both the environment and communities. Although it would offer improved access to Salisbury, the option would fail to reduce journey times for users of the A303 and would not deliver the economic and transport objectives sought for the scheme.	**Route corridor G** A lengthy route to the south of Salisbury would be a very poor environmental fit and would also not deliver the scheme's economic and transport objectives. This route corridor was therefore not taken forward to step 3.

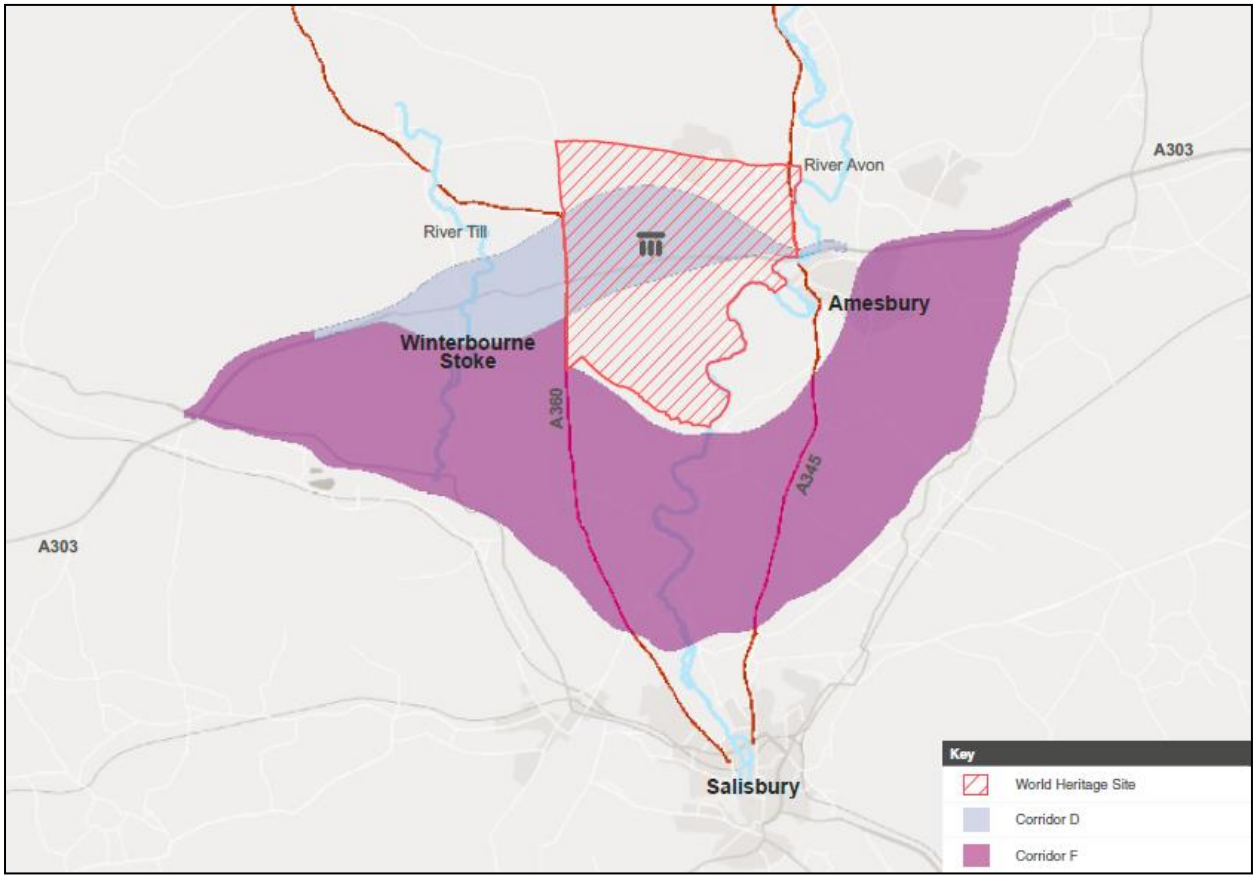
3.2.6 Two route corridors were selected to go forward to Step 3 of the route identification process:

a. route Corridor D: routes including a tunnel within the WHS; and

b. route corridor F: surface routes south of A303, wholly outside the WHS.

3.2.7 All other route corridors did not meet the key scheme objectives and were not taken forward for further assessment. Figure 3-4 shows the two route corridors taken forward to Step 3.

Figure 3-4: Route corridors selected for further assessment



Step 3: Developing route options

3.2.8 The purpose of Step 3 was to identify more specific potential alignments or 'route options' within the two broad route corridors. In Step 3, best practice design principles were applied to find alignments (route options) within the two remaining route corridors which would:

a. have least effects on nearby people and property;

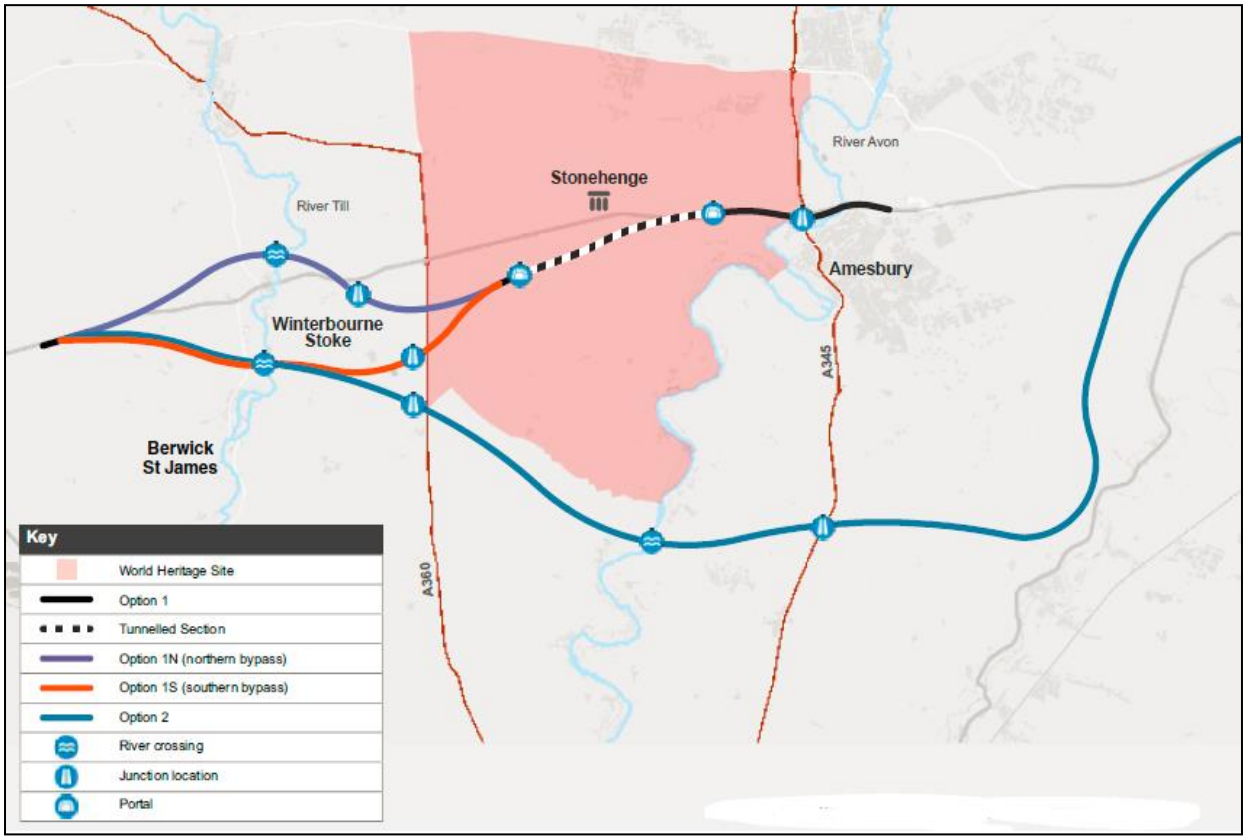
b. be best absorbed within the landform;

c. have least effect on the landscape; and

d. avoid direct impacts on designated features and the most sensitive and valued assets within the WHS.

3.2.9 Having appraised and identified potential options, three options proceeded for further detailed assessment in Step 4, as illustrated in Figure 3-5. Two options included part surface/part tunnelled routes, one with a bypass to the south of Winterbourne Stoke and the other with a northern bypass. The third option kept the route south of the WHS boundary and was a surface route.

Figure 3-5: Optimum route options in route corridors



Step 4: Assessing route options

3.2.10 The options assessed at Step 4 are shown in Figure 3-5 above, and described below.

a. Option 1 – a 1.8-mile tunnel under the WHS with either:
    i. option 1N – a northern bypass of Winterbourne Stoke, or
    ii. option 1S – a southern bypass of Winterbourne Stoke
b. Option 2 – a surface route south of the WHS

3.2.11 The Scheme Assessment Report[41] ("SAR") published in 2017 describes the assessment of these options in detail.

3.2.12 An assessment against the four key objectives of the scheme demonstrated that the southern surface route would perform worse than the tunnel route in several areas and was therefore discounted in favour of a tunnelled route. The key reasons for this decision are set out in Table 3-2 below.

Table 3-2: Consideration of Option 2 against Client Scheme Requirements

Objectives	Option 2 (southern surface route)
Transport	The surface route was approximately 4 kilometres longer than the tunnelled route leading to a predicted additional 4 serious accidents or deaths per year. The surface route was further from the existing direct route between Amesbury and Winterbourne Stoke. Traffic modelling showed it attracted less traffic on to the route, particularly from the north, as it is longer in length and detours materially to the south. As a result, and there would be much greater traffic using the unsuitable local roads, which would cause significant congestion, noise, disturbance and deterioration in traffic and pedestrian safety. The situation on the local roads was expected to be exacerbated by expected traffic growth because of development at Larkhill and Boscombe Down.
Cultural Heritage	The surface route was fully outside of the current boundary of the WHS. However, as described above, the surface route was expected to result in additional traffic in the local villages and increased journey times for residents. Consequently, it was considered likely there would be pressure to retain the existing A303 which would retain both the severance of the WHS and traffic within the sight and sound of the historic monuments. Indications from recent discoveries outside of the WHS suggested that the route could impact unknown heritage features.
Environment and Community	The surface route had a significantly greater impact on sensitive and important landscapes, designated environments, and communities. It would create a brand-new route through pristine countryside, affecting Special Areas of Conservation, Sites of Special Scientific Interest and at least one Special Landscape Area. The surface route would create severance of several villages and impacts upon well used facilities for non-motorised users. It also had a far higher noise impact as was in the proximity of more villages and communities than the tunnelled route.

3.2.13 Overall, Option 2 (the southern surface route) was not considered to be deliverable for all of the reasons set out above and because it would not be

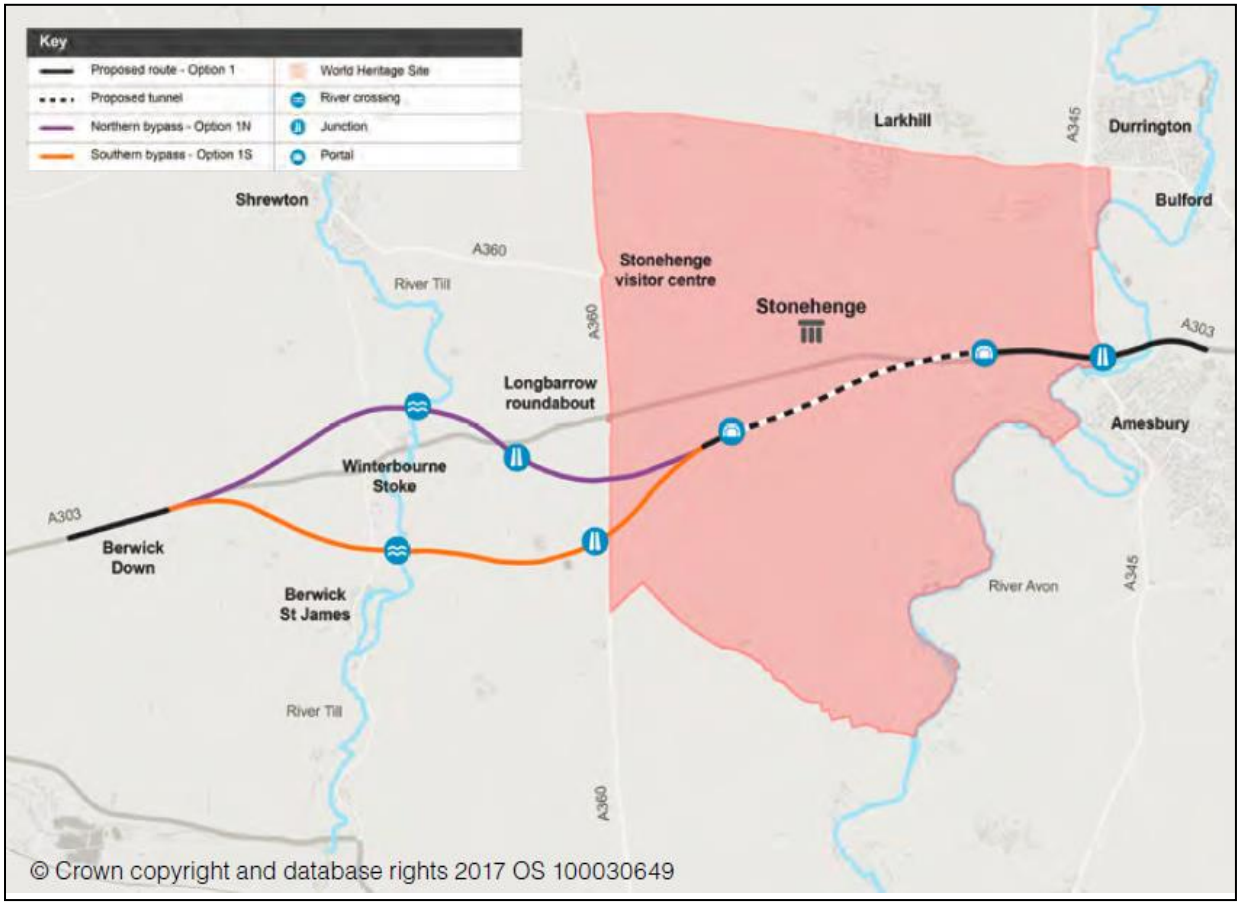
41 Highways England (2017). A303 Stonehenge Amesbury to Berwick Down Scheme Assessment Report: Volume 1. Available from: https://highwaysengland.citizenspace.com/cip/a303-stonehenge/results/sar-volume-1.pdf (last accessed 21 September 2018)

supported by the Local Highways Authority or local communities. It was therefore concluded that Option 2 should not be taken forward to consultation.

Step 5: Consulting on the route options

3.2.14 Options 1N and 1S were taken forward to a non-statutory consultation in January/March 2017. Figure 3-6 illustrates the two route options presented in the non-statutory consultation. The Consultation Report (document reference 5.1) describes the feedback received on these two options.

Figure 3-6: Route options in 2017 consultation



3.2.15 More than 9,000 people and organisations responded, and these responses informed the further development of the scheme. There was general support for the idea of enhancing the setting of the stone circle and the WHS, although heritage bodies were also concerned about the project's impact on the Integrity and Authenticity of the prehistoric landscape in the west of the WHS.

3.2.16 Consultees generally welcomed the positioning of the eastern tunnel portal to the east of The Avenue, as this would allow this part of the ancient ceremonial route to be reconnected. There were major concerns about the proximity of the proposed western portal to the Normanton Down Barrow

Group, and suggestions that it should be relocated closer to the WHS boundary, or the line of the existing A303.

3.2.17 There was general support for the provision of free-flowing junctions at Countess (A303/A345) and Longbarrow (A303/A360). There were however concerns about visual intrusion, noise and impacts on archaeology near Countess, and suggestions that the Longbarrow junction should be closer to the existing line of the A303.

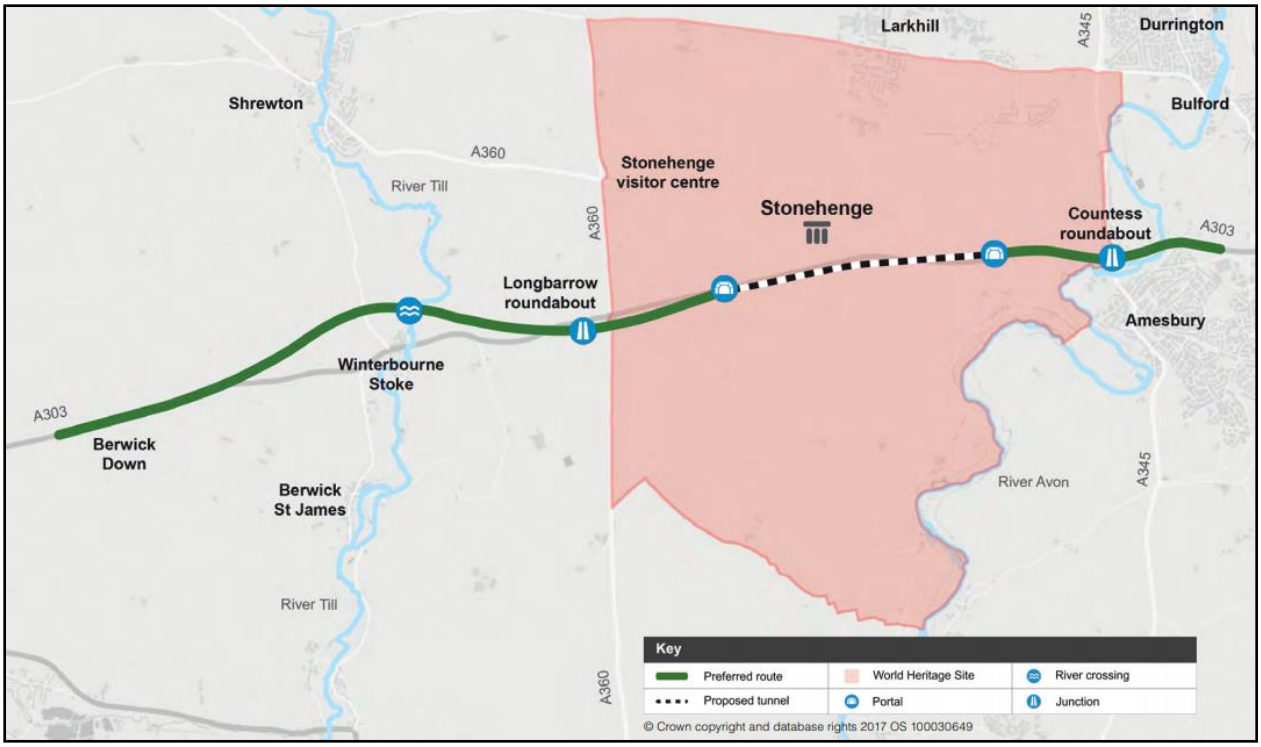
3.2.18 The northern bypass option for Winterbourne Stoke attracted greater public support than a route to the south. The northern option was also predicted to have fewer impacts in relation to the local communities and the wider environment, based on a qualitative assessment of landscape and biodiversity.

3.2.19 On this basis, it was concluded that a northern bypass for Winterbourne Stoke (option 1N) was the better option.

Step 6: Determining the Preferred Route

3.2.20 Following consideration of feedback received from the non-statutory consultation and after further design development, the preferred route was announced by the Secretary of State in September 2017. The Preferred Route is illustrated in Figure 3-7 below, and forms the basis of the proposed Scheme.

Figure 3-7: Preferred Route announced in 2017



3.2.21 The preferred route was approximately 8 miles (13 km) long and comprised:

a. a new two lane dual carriageway between Amesbury and Berwick Down;

b. a free-flowing junction between the A303 and A345;

c. a twin-bore tunnel under part of the WHS;

d. a junction west of the WHS, accommodating free-flowing A303 and A360 traffic movements, and a link to Winterbourne Stoke; and

e. a bypass to the north of Winterbourne Stoke.

3.2.22 The preferred route would provide a range of benefits for the WHS, including opportunities for mitigation identified through consultation. The detailed assessment, described in the SAR, concluded that it had the greatest level of public support and the lowest impact on the historic environment, landscape and biodiversity.

Step 7: Developing the Proposed Scheme

3.2.23 Statutory consultation took place from 8 February to 23 April 2018 on the proposed scheme.

3.2.24 A number of design options were presented at statutory consultation and the public was asked to respond to questions on these. Following consultation, the design was developed to include:

a. environmental screening to the southern side of the River Till viaduct: to reduce the visual impact of vehicles and vehicle headlights;

b. vertical retaining walls to the western approach to the tunnel with 1 in 2 grassed slope tops: to minimise land take within the WHS and reduce the visual impact of the walls;

c. fully grassed over tunnel portals, with tunnel service buildings external to the tunnel but set below ground and recessed into the retaining walls; and

d. landscaped retained embankment flyover at Countess roundabout in preference to an open arrangement; to allow for greater visual screening of the structures.

3.2.25 As a result of feedback from the statutory consultation, including feedback from the heritage stakeholders, three further changes were identified and presented at a supplementary non-statutory consultation held between 17 July and 14 August 2018.

a. the previously proposed link between Byways 11 and 12 in the WHS was proposed to be removed from the Scheme. This would avoid having an additional route open to motor vehicles in the WHS landscape;

b. Green Bridge Four was proposed to be widened to approximately 150m and located further east into the WHS: to provide physical and visual connectivity between barrow groups;

c. modifications were proposed for the junction arrangements at Rollestone crossroads to make it more compact and minimise impacts on adjacent landholdings.

3.2.26 Chapter 4 provides a description of the Scheme which has resulted from the options identification and assessment process described in this chapter.

4 The Scheme

4.1 Overview of the Scheme

4.1.1 At the conclusion of the optioneering exercise and following consultation on the proposals as described in Chapter 3, the Scheme now being taken forward within the DCO application was selected as the option that best delivers the objectives described in section 2.8, thereby resolving the existing problems and meeting the defined need. The Scheme being applied for is set out in the draft DCO (Application Document 3.1) and the works plans and engineering sections (Application Documents 2.5, 2.7 and 2.8).

4.1.2 The Scheme would be approximately 8 miles (13km) long and comprise the following key components:

a. a northern bypass of Winterbourne Stoke with a viaduct over the River Till valley;

b. a new junction between the A303 and A360 to the west of and outside the WHS, replacing the existing Longbarrow roundabout;

c. a tunnel approximately 2 miles (3.3km) in length past Stonehenge; and

d. a new junction between the A303 and A345 at the existing Countess roundabout.

4.1.3 For the purposes of describing the Scheme in more detail, we have divided it into three sections:

- Western section - Winterbourne Stoke bypass to Longbarrow junction
- Central section - within the World Heritage Site
- Eastern section - Countess junction to just beyond the Solstice Park junction

4.1.4 This chapter describes the Scheme section by section from west to east.

Western section

4.1.5 The Scheme would commence on the existing A303 approximately at Yarnbury Castle and would closely follow the existing A303 alignment, south of Parsonage Down NNR. It would then continue in a north easterly direction providing a bypass to the north of the village of Winterbourne Stoke.

4.1.6 A ‘green bridge’ would be constructed over the new A303 northwest of Scotland Lodge Farm near the southeast corner of Parsonage Down. This bridge would provide ecological and landscape connectivity across the Scheme and would form part of a non-motorised user (NMU) route and agricultural access route which would run from adjacent to a layby on the existing A303 to Parsonage Down and Yarnbury Castle. An area east of Parsonage Down would be used to create chalk grassland habitat using excavated chalk material arising from construction.

4.1.7 Local access from Winterbourne Stoke, northwards towards Shrewton, would be provided by the B3083. This access would be maintained by the

provision of a single span bridge to carry the new A303 over the B3083. The proposed new bridge would be located to the west of the existing B3083. This location would necessitate the realignment of part of the B3083 but would enable the B3083 to be kept open to traffic throughout the construction period, other than for discrete periods to allow short duration specific activities to be undertaken (e.g. construction of tie-ins etc.). The clear span of the bridge would accommodate both the re-aligned B3083 and a segregated verge on the east side to allow cattle movements and equestrian use across the new alignment.

4.1.8 The Scheme would continue in an easterly direction, crossing the River Till valley on a new twin deck viaduct. The River Till viaduct would carry the proposed A303 over the River Till SAC and SSSI and its floodplain. The viaduct would be designed to minimise impacts on the river below while balancing other environmental considerations, such as landscape and visual impacts. It would be a twin deck structure, with each deck approximately 14m wide and 210m long, and with a gap of approximately 7m between the decks. The road level on the bridge would be approximately 10m above the River Till where it crosses the river channel. The location of the piers would not be within the SAC or SSSI and would allow the existing bridleway (WST04) from Winterbourne Stoke to remain at its current location. An environmental screen, approximately 1.5m in height, would be installed on the southern parapet to help screen vehicle movements from locations to the south.

4.1.9 A second green bridge at the Winterbourne Stoke Public Right of Way (PRoW) WST06B would maintain the existing PRoW over the new A303 alignment and as with other green bridges would provide for ecological and landscape connectivity across the Scheme.

4.1.10 Continuing to the east, the Scheme would cross the line of the existing A303 approximately 700m west of the existing A360 Longbarrow Roundabout. A new grade separated junction with the A360 is proposed to the west of the WHS boundary. This junction, known as the Longbarrow junction, would accommodate free-flowing traffic movements between the A360 and the A303. The junction would consist of two roundabouts connected by a short length of dual carriageway, carried over the A303 on a new green bridge with earth bunds on each side, to help mitigate visual impact and to provide ecological connectivity. The roundabouts would be set below existing ground level.

4.1.11 Traffic lights would be required at the Longbarrow junction. The traffic lights could be used during both day and night. A link to the de-trunked A303 to the west, accessing Winterbourne Stoke, would also be provided from the new Longbarrow Junction.

Central section

4.1.12 As the Scheme crosses the line of the existing A360, it would enter into the WHS where it then follows closely the line of the existing A303.

4.1.13 The proposed alignment over the first c.1.0km of this section would generally be in a cutting varying in depth between approximately 7m and 10m. Approximately 2.5m to the tops of the cutting would have

approximately 1 in 2 grassed slopes. The bottom of the cutting would comprise vertical retaining walls.

4.1.14 Shortly after entering the WHS there would be a further green bridge (also known as a 'land bridge') that would be approximately 150m in length and would start approximately 150m from the western boundary of the WHS. In addition to an NMU route, this bridge would also provide visual and landscape connectivity between barrow groups to the north and south of the Scheme. The existing A303 through the WHS would be converted to a restricted byway.

4.1.15 The western tunnel portal would be located within the WHS, north west of Normanton Gorse, approximately 1.0km east of the existing Longbarrow roundabout and immediately to the south of the existing A303. The tunnel would commence with a fully grassed over cut and cover tunnel before it becomes a bored tunnel. Tunnel service buildings would be located outside the tunnel portal.

4.1.16 The Scheme would then continue in tunnel in an easterly direction following an alignment that is broadly similar to the existing A303 but at a depth of up to approximately 50m.

4.1.17 The tunnel would be a twin-bore structure, approximately 2 miles (approximately 3.3 km) in length, and each bored section of the tunnel would have an internal diameter of approximately 11.5m.

4.1.18 The two bores would be connected underground by a series of cross passages at regular intervals to allow for the safe evacuation of road users in the event of an incident in one of the bores.

4.1.19 The tunnel would contain a number of mechanical and electrical, operational and safety systems. The items of plant required to power and control these systems would predominantly be housed at the tunnel service buildings located outside of the tunnel.

4.1.20 The tunnel would emerge at the eastern tunnel portal through a short section of cut and cover tunnel extending eastwards from the bored tunnel section. The eastern tunnel portal would be located to the east of the King Barrow Ridge and The Avenue and just to the north of the existing A303. The portal approach would be in deep cutting formed mostly of grassed slopes beyond the extents of the tunnel buildings.

4.1.21 The Scheme would then closely follow the line of the existing A303 to Countess Roundabout.

Eastern section

4.1.22 A new flyover above the existing roundabout would separate traffic going east-west along the A303 from traffic going north-south along the A345 Countess Road, with slip roads accommodating traffic movements between the two roads. The new flyover would include two single span bridges that would accommodate the existing roundabout traffic lanes.

4.1.23 Retaining walls would be required at this junction to support the A303 between the slip-roads. Noise barriers, approximately 1.8m high, would be installed along both sides of the flyover to help screen vehicle and to help attenuate vehicle noise.

4.1.24 There are two existing subways between the proposed eastern tunnel portal and Countess Junction, which would be removed. New pedestrian crossings would be created around the existing Countess roundabout to provide north/south connectivity along Countess Road under the A303.

4.1.25 The Scheme would tie in with the existing A303 close to the existing River Avon Bridge, to the west of Solstice Park junction.

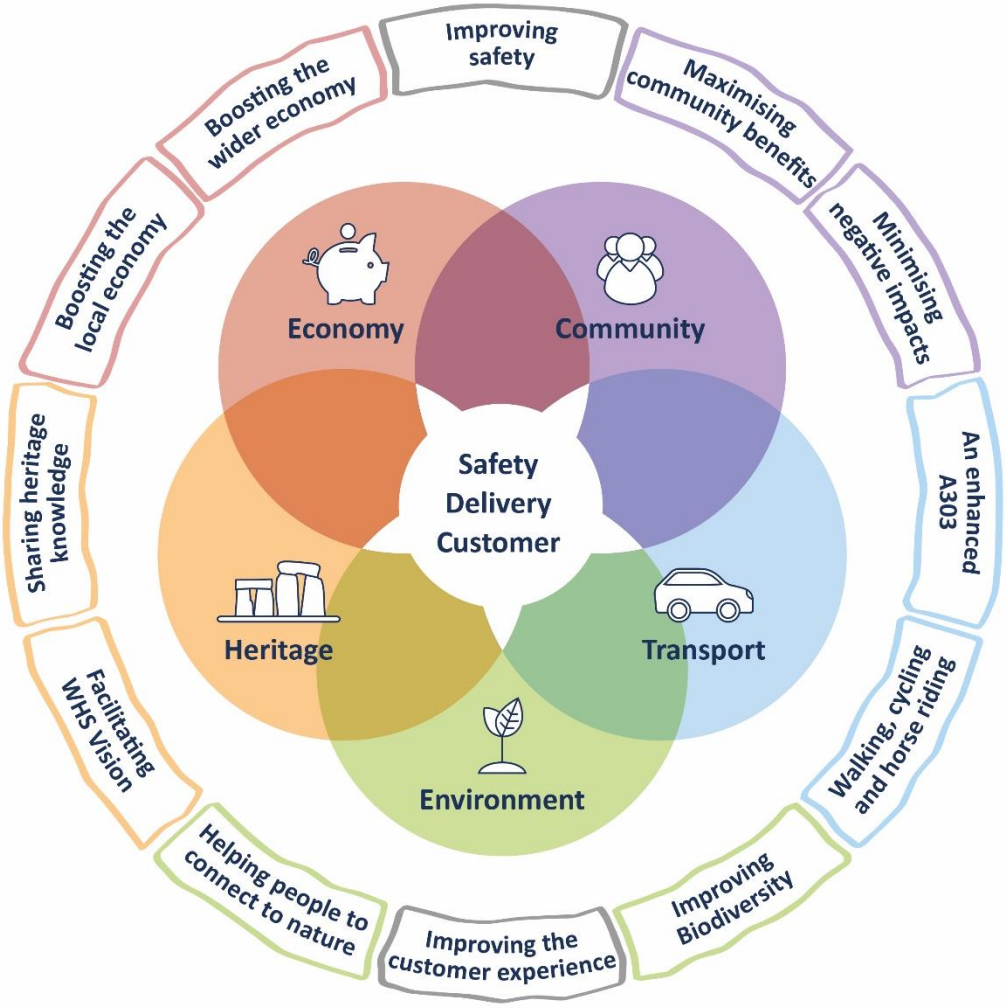
4.1.26 To the east of the Solstice Park Junction there would be a number of changes to existing rights of way and to points of access to and from the A303.

5 Scheme benefits and opportunities

5.1 Scheme benefits and opportunities

5.1.1 The Scheme will deliver, contribute to and facilitate benefits across a wide range of needs and opportunities. Highways England has expressed its holistic view of these in the 'benefits wheel' graphic (Figure 5-1).

Figure 5-1: A303 Benefits Wheel



5.1.2 The Scheme will remove a long-standing bottleneck for road users, helping to create a high performing dual carriageway route to the South West, supporting the local and regional economy.

5.1.3 With approximately 2 miles of the road in a tunnel, the Scheme will also remove a large section of the A303 from the central part of the WHS, allowing the two halves of the Stonehenge component of the WHS (to the north and south of the existing A303) to be reunited. The tunnel, deep cuttings and related mitigation measures will reduce visual intrusion and noise from traffic within the WHS, allowing the inter-relationships between important monuments and monument groups to be observed and understood without the presence of heavy traffic.

5.1.4 The Scheme will reduce traffic impacts on the village of Winterbourne Stoke, reduce rat-running in other local settlements, and improve the resilience and safety of this part of the strategic road network.

5.1.5 Table 5-1 summarises the particular benefits that the Scheme will deliver.

Table 5-1: The benefits of the Scheme

What the Scheme will achieve	
Transport	Journey times will be reduced as a result of increased capacity, higher speed limits and grade separated junctions. Benefits will be greatest in the summer months and other times of high demand.
	Junctions will be grade-separated, splitting long-distance traffic on the Strategic Road Network from local traffic, improving traffic flow with faster and more reliable journeys.
	The road will be designed to modern standards and perform as part of a high quality dual carriageway route, reducing risk of accidents.
	The A303 will become a less congested, more efficient and more attractive route, reducing the incentive for traffic to rat run through local communities.
	As a dual carriageway, the improved road will be better able to cope with incidents and unexpected demands, leading to improved network resilience.
	Journey times will be more consistent, with less congestion, making it easier to reliably plan journeys and reducing road user frustration.
	The Scheme will include improved provision for NMUs, helping encourage use of more sustainable modes of transport for local journeys and encourage local people to explore the WHS safely on foot, bicycle or horse back.
Economic Growth	The capacity of the A303 will be increased, relieving the pressure on current and anticipated traffic flows, and allowing for economic growth, including housing and employment.
	Faster journeys lead to less wasted time during journeys and waiting in congestion, freeing time for more productive activities, leading to economic benefits.
	Local journeys will be easier and more reliable, helping to stimulate and support local economic activity.
	The road will be upgraded to form part of a high performing dual carriageway route, assisting the flow of traffic on the Strategic Road Network and giving productivity benefits.

What the Scheme will achieve	
	Tourism will benefit from easier journeys to the South West
	There will also be tourism benefits associated with the greatly enhanced setting of the monuments and monument groups within the Stonehenge WHS.
Cultural Heritage	The removal of the A303 and its traffic will greatly improve the setting of the stone circle and numerous monuments and monument groups across the central part of the WHS. Visitors will be able to appreciate the stone circle and inter-relationships with numerous monuments and monument groups without the sight and sound of traffic intruding on their experience. This will help to conserve and enhance the WHS and sustain its Outstanding Universal Value.
	The Scheme will also remove the intrusion of vehicles and vehicle lights upon the mid-winter sunset solstitial alignment and restore the relationship between the stone circle and the Sun Barrow. It will also allow the removal of the lit junction at Longbarrow Roundabout, which currently results in night-time light spill and light pollution on the western edge of the WHS, contributing to improvements in the experience of dark skies.
	The removal of the A303 will reconnect the Avenue where it is currently severed by the existing road.
	The existing road as it passes through the WHS will be altered for use by NMUs allowing safer exploration of the WHS east to west.
	The Scheme would afford safer NMU connections using north-south Public Rights of Way, currently severed by the existing surface A303.
	Removal of Longbarrow Roundabout and the conversion of the A303 and part of the A360 to NMU routes, immediately adjacent to the Winterbourne Stoke Crossroads complex of burial mounds, will allow improvements to the immediate landscape context and setting of this important barrow group.
	The construction of the Scheme will improve visitor's enjoyment and experience of the WHS landscape as a whole and provide opportunities for improved interpretation and presentation of the WHS
	The construction of the Scheme will require advanced archaeological works to record archaeological remains in advance of Scheme construction. This will present educational and community outreach opportunities working sensitively and in close collaboration with key heritage stakeholders.
Communities and	By putting part of the A303 in a tunnel, the Scheme will allow landscape reconnection within the redundant section, helping to increase

What the Scheme will achieve	
environment	biodiversity.
	By offering a better direct route, the Scheme will reduce rat-running through villages, including Shrewton and Larkhill, improving noise and air quality.
	The Winterbourne Stoke bypass and de-trunking of the existing road will improve quality of life for residents e.g. in terms of noise, air quality and accessibility.
	Learning and finds during the development of the Scheme will be presented to local schools and communities, improving knowledge of the area and education generally.
	The Scheme will be designed to achieve a CEEQUAL rating of 'excellent' (an evidence-based sustainability assessment, rating and awards scheme for infrastructure which celebrates high environmental and social performance).

5.2 Transport - benefits and opportunities

Reduced journey times

5.2.1 The Scheme will replace the existing, low-capacity single carriageway with a new high performing two lane dual carriageway road. The dualled road will significantly increase capacity and lead to improved journey times, less congestion and fewer delays. Existing single level junctions will be replaced by free-flowing, grade separated intersections. A303 traffic will be free-flowing, whilst local traffic on north-south routes will be able to cross the A303 much more easily without the need to mix with through traffic.

Safety benefits

5.2.2 Dual carriageways are known to have lower accident rates than single carriageway roads[42]. Typically, dual carriageways allow vehicles to maintain their speed whilst passing slower moving vehicles without causing conflict with opposing traffic.

5.2.3 The new dual carriageway and junctions on the Scheme will be designed to modern safety standards and will provide for safer and quicker journeys for all road users. The improved route will also be more resilient and less susceptible to disruption due to the additional lanes, recovering faster from incidents.

5.2.4 The Scheme has an overall net positive impact on accidents and casualties, with a monetised benefit of c. £4 million. Table 5-2 confirms the net reduction in accidents, and states this benefits as a monetised value.

[42] DMRB: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol6/section1/td993.pdf

Further detail can be found in the Economic Appraisal Package of the Combined Modelling and Appraisal Report (Appendix D), submitted with the Transport Assessment (Document Reference 7.5).

Table 5-2: Summary of accident benefits

Accidents saved	Casualties saved	Economic benefit (£000's)
5	52	4,390

2010 process, discounted to 2010. Benefit rounded to nearest ten thousand

Reducing congestion reduces rat-running

5.2.5 As journeys on the A303 become more reliable, vehicles which have previously been taking alternative routes through unsuitable local roads will return to the A303, so reducing rat running within villages, easing congestion for local people and helping to reduce risk of accident.

Additional carriageways increases resilience

5.2.6 Traffic modelling has been used to undertake sensitivity tests to show the resilience in the Scheme design to accommodate additional traffic in future years. The results show that the Scheme can accommodate higher levels of background traffic growth and still provide journey time benefits, thus demonstrating the resilience of the Scheme. Indeed, the journey time benefits would be greater for higher levels of background growth due to the increasing levels of congestion that would occur without the Scheme in these scenarios.

Less stressful journeys

5.2.7 Journey times will be less variable and easier to predict, saving drivers' time and reducing frustration. Travel time reliability has been calculated by comparing variability of journey times the single-carriageway section of the A303 past Stonehenge and a comparative dual-carriageway section. Following Scheme opening, users of the A303 are likely to experience less variation in travel times and less incident delay, improving the reliability of their journeys. The impact of the Scheme on journey time reliability has been assessed and monetised in line with DfT guidance.

5.2.8 The results of the appraisal of journey time reliability showed that, across the 60 year appraisal period, the Scheme will produce benefits of approximately £61 million as shown in Table 5-3. Further detail can be found in the Economic Appraisal Package of the Combined Modelling and Appraisal (Appendix D), submitted with the Transport Assessment (Document Reference 7.5).

Table 5-3: Journey time reliability benefits by user type (£000s)

Commute	Business	Other	Goods vehicles	Total
10,000	9,000	36,000	6,000	61,000

2010 process, discounted to 2010. Benefit rounded to nearest ten thousand

Provision for walkers, cyclists and horse riders

5.2.9 The Scheme includes approximately 17km of new designated non-motorised user routes; footways, cycleways, bridleways, restricted byways and byways. Many of these are separated from roads, so providing for a safer and more enjoyable journey for the user.

5.2.10 Improvements include the change of the redundant A303 within the WHS to a restricted byway. In conjunction with improvements to Stonehenge Road and the de-trunked A303 as it enters Winterbourne Stoke, the restricted byway will provide an important link between Amesbury and Winterbourne Stoke for walkers, cyclists, carriages and horse riders. It will serve as a direct route for these groups (who are prohibited from using the tunnel for reasons of safety) whilst at the same time providing significantly improved access to the WHS.

5.2.11 The restricted byway will also provide links with some of the long-distance Public Rights of Way including the National Cycle Route network, paths such as the Celtic Way, Monarch's Way, and the routes along the Wylye and Avon valleys.

5.3 Economic growth - benefits and opportunities

Increased capacity relieves pressure and creates space for growth

5.3.1 Daily traffic flows in 2017 ranged from 28,000 to over 30,000 vehicles Average Daily Traffic (ADT). These are considerably in excess of the congestion reference flow of 22,000 for a single carriageway. The congestion reference flow is an estimate of annual average daily traffic flow at which the carriageway is likely to be congested. These volumes cause congestion and result in a redistribution of trips to alternative routes. The problem is especially severe in the summer months. Traffic forecasting for future years indicates that the operational capacity of the existing road constrains the AADT to approximately 30,000 vehicles per day, as currently experienced, resulting in increased redistribution and rat running, and longer delays; the road has no capacity to accommodate additional vehicles.

5.3.2 The upgrade of the road to a high performing two-lane dual carriageway will enable the road to accommodate current and future anticipated traffic flows, relieving the current restriction on growth in the area caused by the road.

5.3.3 The forecast AADT in 2026 with the Scheme is well within the capacity of the upgraded road. In addition, the traffic forecasts reflect new traffic associated with housing growth, including that associated with army re-basing within the region. The improved journey times delivered by the Scheme will stimulate the local economy as people travel to work and to community and retail facilities, and help them go about their daily lives.

Faster journeys lead to economic benefits

5.3.4 Good transport is essential to the efficient working of the economy. The Scheme will greatly improve the A303 as part of a modern, high performing dual carriageway route, linking business in the South West with the rest of the country. Businesses dependent on the A303/A358 corridor will find it

easier and cheaper to maintain contact with their customers and suppliers, and will have access to larger markets. Employees will have access to a wider range of jobs.

5.3.5 The savings made to journey times are the major contributor to the economic benefits of the Scheme. By improving the reliability of journey times, business journeys such as deliveries will become easier, and the Scheme will result in wider economic benefits from effectively bringing businesses closer together.

5.3.6 As presented in Section 2.2, journeys which might typically take less than 20 minutes on a normal mid-week day can take more than an hour on a summer Friday and nearly an hour on a summer Sunday. Once the Scheme is open, the predicted journey time would be in the order of 14 minutes throughout the week and year.

5.3.7 The Scheme provides approximately £252 million of user benefits, taking into account the impacts of the Scheme on travel times and vehicle operating costs, and the dis-benefits experienced during a five-year period of construction. Further detail can be found within the Economic Appraisal Package of the Combined Modelling and Appraisal (Appendix D), submitted with the Transport Assessment (Document Reference 7.5).

Better local journeys serve the local economy

5.3.8 As transport becomes easier and journey times quicker and more reliable, the area will become more attractive to inward investment, helping to stimulate development and growth. Locally, business will benefit from the improved accessibility of Solstice Park and the removal of congestion on the A303.

Part of an upgrade to the SRN, providing wider productivity benefits

5.3.9 The Scheme is an integral part of the longer-term corridor improvements to create a high performing dual carriageway route between London and the South West. Within the RIS the Government has committed to the upgrading of the A303-A358 corridor by 2029. The A303 Amesbury to Berwick Down Scheme is one of three schemes being currently progressed, with five further schemes to follow in coming road investment periods.

5.3.10 The expected increase in Gross Domestic Product ("GDP") due to the Scheme is greater with other corridor improvements in place than for the Scheme in isolation (Table 5-4).

Table 5-4: Forecast GDP impacts (2023 – 2082 at 2010 prices, discounted to 2010)

	Impact of the Scheme in isolation	Impact of corridor improvements (without Scheme)	Impact of corridor improvements (with Scheme)	Impact of Scheme with corridor improvements
Predicted Increase in GDP	£0.3 billion	£1.3 billion	£1.9 billion	£0.6 billion

Supporting tourism

5.3.11 The tourism economy of the South West in particular will benefit from the provision of an improved corridor, especially in the summer months when more people go on holiday to South West locations such as Devon and Cornwall.

5.3.12 Additionally, the reconnection of the two halves of the WHS will improve the visitor experience, giving the opportunity to attract more visitors to the area (managed within the context of the WHS Management Plan 2015). It will encourage visitors to stay longer and spend more and encourage new investment in visitor facilities in Amesbury and other neighbouring settlements, with the consequent creation of more employment in the local area and an increased GVA contribution.

5.3.13 In accordance with HM Treasury guidance, a contingent valuation survey was undertaken for the Scheme using best practice stated preference methods, to seek to determine in monetary terms the value people would place on removing the road from the vicinity of the Stonehenge monument. By means of a public survey, people were asked if they would be prepared to pay to support the construction of a scheme which removed the sight and sound of the road from the vicinity of Stonehenge through increased taxes. The results were used to measure the total net benefits associated with the expected reduced noise, increased tranquillity, increased visual amenity and reduced landscape severance associated with the removal of the A303 from part of the Stonehenge WHS. The survey assessed the preferences of three population groups: Stonehenge visitors, road users, and the UK resident general population (aged 16 and over). The survey identified a figure of £955 million (at 2010 discounted prices) for this benefit. Further detail can be found in the Economic Appraisal Package of the Combined Modelling and Appraisal Report (Appendix D), submitted with the Transport Assessment (Document Reference 7.5).

Summary economic benefits and Benefit Cost Ratio (BCR)

5.3.14 Public and private finance options are being considered for funding the Scheme. Table 5-5 provides a summary of the economic benefits for the Scheme over a 60 year appraisal period, whilst Table 5-6 provides a summary of the Scheme's costs over the same period, for both financing options.

Table 5-5: Summary of Scheme Cost Benefit Analysis

Benefit component	Private finance amount (£M)	Public finance amount (£M)
Economic Efficiency of Transport System (TEE) benefits (including construction)	252	252
Indirect tax revenues	92	87
Accident benefits	4	4
Increase in pollution from higher speeds and flow	-86	-86
Journey time reliability benefits	61	61
Wider economic impacts	35	35
Value of removing road from WHS (contingent valuation)	955	955
Benefits	**1,313**	**1,307**

2010 prices, discounted to 2010. Benefit rounded to nearest ten thousand

Table 5-6: Summary of Scheme Costs

Benefit component	Private finance amount (£M)	Public finance amount (£M)
Investment costs	1,040	970
Operating costs	109	235
Costs	**1,149**	**1,206**

2010 prices, discounted to 2010. Benefit rounded to nearest ten thousand

5.3.15 Taking into account the wider economic, journey time reliability and cultural heritage impacts of the Scheme, the adjusted Net Present Value (NPV) is calculated at approximately £100-£160 million, resulting in a Benefits to Cost Ratio (BCR) of 1.14 if privately financed and 1.08 if publically financed. The Combined Modelling and Appraisal Report (Application Document 7.5) sets outs the transport related economic benefits in detail.

5.4 Cultural heritage - benefits and opportunities

5.4.1 The A303 currently bisects the WHS. Permanently removing the existing surface road from much of the WHS landscape is the single most important opportunity to transform the setting of the stone circle and the inter-relationships of numerous monuments and monument groups in the central part of the WHS, and sustain its OUV.

5.4.2 The 2015 WHS Management Plan[43] sets out the vision and sustainable management priorities for the WHS. It sets out the overall strategy for achieving the correct balance between conservation, access, the interests of the local community and the sustainable use of the site. The priorities of the Plan include:

- reducing the dominance and negative impact of roads and traffic and ensuring any A303 improvements support this; and
- improving the interpretation and enhancing the visitor experience of the wider landscape.

5.4.3 The key benefits and opportunities for cultural heritage offered by the Scheme are summarised below.

Restores the tranquillity of the WHS landscape

5.4.4 The Scheme will restore the tranquil environment and setting of the stone circle and surrounding WHS landscape, by removing the sight and sound of the existing surface road into a tunnel. This will greatly enhance the experience for visitors across the central part of the WHS (Figure 5-2). It will also improve the setting of the Winterbourne Stoke complex of burial mounds. This will help to conserve and enhance the WHS and sustain its OUV.

Figure 5-2: Before view and simulated after view

43 Simmonds, S. and Thomas, B., (2015). Stonehenge, Avebury and Associated Sites World Heritage Site Management Plan 2015. Chippenham: World Heritage Site Coordination Unit on behalf of the Stonehenge and Avebury WHS Steering Committees. Available at http://www.stonehengeandaveburywhs.org/management-of-whs/stonehenge-and-avebury-whs-management-plan-2015/. Page 169 (access 21 September 2018).

Re-unites the site and reconnects The Avenue

5.4.5 By placing the road in a 2 mile tunnel as it crosses the WHS, the two halves of the site (north and south of the existing A303) will be re-united. This will enable visitors to appreciate the whole historic landscape, including the inter-relationships of monuments and monument groups with the landscape. It will improve views towards the important mid-winter sunset solstitial alignment between Stonehenge and the Sun Barrow.

5.4.6 The removal of the road over this distance will create a much larger area for people to explore through an extended network of footpaths and bridleways. This will dramatically change the visitor experience, potentially increasing dwell time from a couple of hours to see the stone circle and visitor centre, to a day or more as people walk the wider landscape and enjoy other significant features. This presents a major opportunity to increase understanding of, participation in, interpretation and presentation of the wider WHS landscape.

5.4.7 The removal of the A303 will allow the reconnection of part of The Avenue, where it is currently severed by the A303.

Reconnects the WHS with local communities

5.4.8 The Scheme also affords an opportunity for local communities to reconnect with the WHS. For example, there will be easy access from the town of Amesbury into the heart of the WHS via Stonehenge Road and the new restricted byway that will use the line of the existing A303, which will no longer accommodate through-traffic. Residents will be able to access the WHS on foot, by bicycle or on horseback and explore it more easily than is currently possible, providing wider social and wellbeing benefits.

5.4.9 A restricted byway, adjacent to the current A360, will link English Heritage's Stonehenge Visitor Centre with the restricted byway along the A303 and so provide a route free of motor traffic for people to move between the Visitor Centre, Amesbury and Berwick Down, providing opportunities for local people, the visiting wider public and tourism businesses.

Attracts more visitors to the wider WHS

5.4.10 Whilst over 1.4 million people visit Stonehenge and the Visitor Centre each year, only about 200,000 people currently visit the wider WHS landscape itself (beyond the stone circle). The Scheme will create the opportunity to attract significantly more people to visit and explore the wider WHS landscape (managed within the context of the WHS Management Plan), which will in turn provide other tourism benefits and opportunities in the local and regional area.

Educational learning and community outreach opportunities from archaeological investigations will be shared, adding to the understanding of the WHS

5.4.11 The construction of the Scheme will require archaeological works to record archaeological remains in advance of Scheme construction. This will present educational and community outreach opportunities, working sensitively and in close collaboration with key heritage stakeholders.

5.4.12 As part of the legacy of the Scheme, opportunities will be pursued to produce or enable popular publications and academic books and/or papers about the archaeological excavations. These will be made available to as wide an audience as possible (locally, regionally, nationally and internationally) given the importance of the WHS.

5.4.13 Archaeological archives would be deposited at a local museum and made publicly accessible with the museum's agreement.

5.4.14 Opportunities to enhance public appreciation of the findings and an understanding of the Scheme would be developed during the course of the archaeological investigations and could involve, for example, providing interpretation panels and displays of finds at selected venues.

5.5 Communities and environment - benefits and opportunities

Transformed Communities

5.5.1 The relocation of the A303 to the north of Winterbourne Stoke will remove through traffic from the centre of the village. This will significantly reduce noise levels and visual intrusion, and improve air quality in the centre of the village, making the village more tranquil and attractive for residents and visitors.

5.5.2 The Scheme will declutter the road through the village, as well as down-grade the section between the new Longbarrow junction and Winterbourne Stoke to a local road. It will close off the majority of vehicular access west of the village towards Yarnbury Castle. The improvements will include removing overly 'urban' signage and street furniture, and narrowing the road width to increase non-motorised user provision.

5.5.3 By offering a better direct route, the Scheme will reduce rat-running traffic through local villages such as Shrewton, reducing noise disturbance and improving air quality, as well as making it easier and safer for people to reach local facilities such as schools or shops.

5.5.4 The improvements at Countess roundabout will make it easier for residents to move between the northern and southern parts of Amesbury and to access the A303.

Landscape reconnection and habitat restoration

5.5.5 The Scheme will connect habitats by placing 2 miles of the road in a tunnel and by using green bridges over the new road, reducing the visual intrusion on the landscape and accommodating the safe movement of wildlife. The green bridges aid crossing by bats and other species, offering sheltered crossing features to reduce mortality and improving connectivity to existing habitat features.

5.5.6 The Scheme presents an opportunity to support Highways England and the WHS Management Plan sustainable management priorities including: maintaining and enhancing the Scheme's overall nature conservation value, enhancing biodiversity and seeking opportunities for the expansion of chalk grassland. The Scheme will create in the order of 70 hectares of chalk grassland. Chalk grassland is an essential habitat in the area, with the potential to support a rich array of species.

5.5.7 The Scheme will use Sustainable Drainage Systems including natural water treatment techniques such as reed beds, to manage run-off from the Scheme in a sustainable way, contributing to improved water quality over and above the existing surface outfalls from the current road.

5.5.8 The Scheme is largely unlit, and utilises the tunnel, retained cuttings and a long land bridge Green Bridge Four in order to minimise light spill/ light pollution into the WHS landscape from traffic, helping to enhance dark skies across the WHS and in particular in the vicinity of the current Longbarrow Roundabout.

Designing to excellent environmental standards

5.5.9 The Scheme has been designed in accordance with current planning, design and engineering practice and codes. This includes the Civil Engineering Environmental Quality Assessment and Awards Scheme (CEEQUAL) sustainability rating scheme delivered by the Building Research Establishment. The Scheme is aiming to achieve an Excellent CEEQUAL rating.

5.6 Delivering the benefits and legacy

5.6.1 A Benefits Steering Group has been established. The group is jointly chaired by Highways England and DfT, with attendance by the following key stakeholders:

- Department for Culture, Media and Sport;
- Wiltshire Council;
- Historic England;
- Natural England;
- Environment Agency;
- Stonehenge and Avebury WHS Representatives;
- National Trust; and
- English Heritage Trust.

5.6.2 The aim of this group is to ensure that the identified benefits are delivered and to create a collaborative vision for the legacy of the Scheme in the local area beyond the DCO process and construction. The group will identify opportunities to build on the catalytic effect of the Scheme, and so deliver lasting positive change.

5.6.3 Highways England has established a Local Community Forum which enables people living and working near the Scheme to find out accurate, up-to-date information about the Scheme, ask questions of the project team and identify and discuss opportunities to create local legacy benefits, which will then be passed on to the Benefits Steering Group. The forum is intended to help ensure that the Scheme delivers a full range of benefits and leaves a legacy beyond the road for local communities.

5.7 Scheme benefits and opportunities - summary

5.7.1 Chapter 2 establishes the need for the Scheme to deal with long-standing transportation, economic, cultural heritage and community & environmental problems caused by the current A303 between Amesbury and Berwick Down. The Scheme will resolve these problems and deliver benefits across a wide range of needs and opportunities.

5.7.2 The higher-capacity A303 will reduce journey times, especially at times of highest demand. The modern road design, including revised junctions, will result in faster and more reliable journeys, reduced accident risk, reduced congestion, less incentive to rat run on local roads and improved road network incident resilience.

5.7.3 Increased A303 capacity will support economic growth. It will support growth in housing and employment, reduce time wasted in congestion, improve local economic activity due to increased confidence in reliable journey times and improve productivity due to better traffic flow. It will also provide a boost to the tourist economy, both locally within the Stonehenge WHS and regionally in the South West.

5.7.4 The very close proximity of the A303 to the Stonehenge monument and the way it bisects the WHS has been a long-standing major problem. The Scheme resolves this by putting the A303 into a tunnel as it passes Stonehenge, which will greatly improve its setting and the visitor experience. There are numerous other cultural heritage benefits including the reconnection of the historic Avenue, better access to NMUs and improvement to the setting of a range of important historic monuments.

5.7.5 The Scheme has been designed to provide a net gain in biodiversity and to achieve a CEEQUAL rating of ‘excellent’, demonstrating strong sustainability credentials. Local communities will also benefit from reduced rat-running, locally improved air quality and reduced noise impacts, with the village of Winterbourne Stoke benefiting enormously from the planned by-pass which will remove tens of thousands of vehicles from the village centre in busy periods.

6 Description of the Order land and surrounding context

6.1 Introduction

6.1.1 This chapter provides a short summary description of the Order land and its surroundings as context for the following sections on policy compliance. A more detailed description is provided in the ES (document reference 6.1).

6.2 Location of the Scheme

6.2.1 The NSIP Scheme is situated within the county of Wiltshire. The A303 is a key route which runs from the M3 in the east, to Devon in the west. The part of the route affected by the Scheme begins south east of Yarnbury Castle, near Berwick Down (Grid Ref. *SU 040 401*), and follows a general west-east alignment similar to the existing A303, but passing to the north of Winterbourne Stoke, for approximately 13km to finish just east of Solstice Park, Amesbury (Grid Ref. *SU 190 424*).

6.3 Extent of the Order land

6.3.1 The land required to be temporarily and/or permanently used for the construction, operation and maintenance of the Scheme, together with land required for associated and ancillary development is referred to in the Land Plans (document reference 2.2). It is important to note that the land required may ultimately be slightly less than shown due to design and construction methodology of the Scheme, and therefore the plans illustrate the maximum amount of land needed for the Scheme, allowing for the flexibility required. The land acquisition and possessions proposals for the Scheme are summarised in Table 6-1.

Table 6-1: Summary of Land Acquisitions and Possessions

Acquisition Type	Area (ha)
Permanent acquisition of land	229.00
Permanent acquisition of rights	116.30
Permanent acquisition of subsoil and permanent acquisition of rights at surface	46.00
Temporary use of land for construction	36.50

6.4 Existing land uses and character

Topography

6.4.1 The Order limits and the surrounding area consist of a complex pattern of rolling landform, resulting in a series of ridge lines, valleys and downland. The principal watercourses are the River Till and the River Wylye in the

west and the River Avon in the east. As a result of this rolling landform, the valley systems and ridge lines, the extent of visibility across the site area is varied with enclosed views within the valleys contrasting with extensive and often panoramic views from elevated ridges.

Settlement, Infrastructure and Land Use

6.4.2 The principal land use of the Order limits is existing highway and agricultural land, consisting of large scale arable fields interspersed with localised areas of livestock land. Winterbourne Stoke is a small settlement adjacent to the A303. Within the WHS, a key land use is tourism, with the Stonehenge Visitor Centre situated along the western edge of the WHS. In the immediate surrounding area, the Ministry of Defence ("MoD") establishments of Durrington and Larkhill extend across elevated landform to the north and south of The Packway and Fargo Road, which are linked to the Salisbury Plain MoD training facility situated further north. West Amesbury's settlement pattern extends intermittently to the west of the River Avon, and adjacent to Stonehenge Road. Amesbury Park is situated to the north of this road and adjacent to the River Avon. Amesbury is a predominantly residential settlement, concentrated to the south of the A303. The eastern part of Amesbury also consists of extensive large scale utilitarian built form within several business parks. Land at Solstice Park, Amesbury, immediately to the south of the Scheme, is allocated as a Principal Employment Area under Policy 35 of the Wiltshire Core Strategy.

Agricultural Land and Holdings

6.4.3 The agricultural land within the alignment of the Scheme is mapped at a large-scale under the Agricultural Land Classification ("ALC") system as mainly Class 3 (good to moderate) with small areas of Grade 2 and Grade 4 land. The majority of the land is in arable use, though some alongside the River Till and around the major archaeological monuments is permanent grassland. Small areas of woodland are scattered throughout the landscape, some of which contain stands of coniferous trees.

Public Rights of Way

6.4.4 There are a number of Public Rights of Way within the Scheme area. There is also open access land within parts of the WHS. The A303 physically severs the PRoW connectivity within the WHS, between the northern and southern parts of Winterbourne Stoke, and between the WHS and Amesbury. The existing network of Public Rights of Way are set out in the Rights of Way and Access Plans (document reference 2.6), included in Volume 2.

6.5 Ecological designations

6.5.1 There are ten statutory designated sites within the Order limits and fifteen non-statutory designated ecological sites within 500m of the Order limits. Full details of ecological designations are provided in ES (document reference 6.1).

6.6 Heritage designations

The Stonehenge, Avebury and Associated Sites World Heritage Site

6.6.1 The Scheme passes through the Stonehenge, Avebury and Associated Sites World Heritage Site ("WHS"). The WHS is inscribed for its Outstanding Universal Value ("OUV") and is of international importance as well as a designated heritage asset under UK planning policy. The Scheme passes through the Stonehenge element of the WHS between Longbarrow Crossroads, Winterbourne Stoke and Countess Roundabout, Amesbury.

Scheduled monuments

6.6.2 The scheduled monuments within the study area described in Chapter 6 of the ES (document reference 6.1) span late prehistory to the post medieval era. There are a greater number of monuments and features of Neolithic and/or Bronze Age date, particularly within the WHS. Iron Age sites, including the hillforts of Yarnbury Camp and Vespasian's Camp, are also present. There is only one scheduled site of specifically Roman date within the study area, this being the settlement on Winterbourne Stoke Down. Scheduled medieval sites are absent from the study area. The most recent scheduled monument is the guidepost on the former Stapleton Road, now a green lane south of the A303, which dates to 1750.

Listed buildings

6.6.3 The listed buildings within the study area described in Chapter 6 of the ES (document reference 6.1) span the Medieval to Modern periods. Grade I and Grade II* listed buildings include: West Amesbury House, Amesbury Abbey, located around Countess Roundabout, (listed at Grade I, with other Grade II* listed buildings within the Abbey grounds); the church of St Mary and St Mellor, Amesbury; the church of St Andrew, Rollestone; the church of St Peter, Winterbourne Stoke; and the Manor House, Winterbourne Stoke. Many of the Grade II listed buildings within the area are associated with historic villages such as Winterbourne Stoke and Rollestone, or are situated in the town of Amesbury. There are also a number of listed milestones on modern roads that had their origins as historic turnpikes.

Registered Parks and Gardens

6.6.4 There is one registered park and garden within 1km of the Order Limits: Amesbury Abbey (Grade II*).

Conservation Areas

6.6.5 Within 1km of the Order Limits there are three conservation areas: Amesbury; West Amesbury; and Winterbourne Stoke. Five more are within the 2km study area: Berwick St James; Bulford; Durrington; Lake; and Wilsford.

Non-designated assets

6.6.6 The Wiltshire and Swindon Historic Environment Record (WSHER) contains over 1800 individual records for the study area. A minority of these heritage assets are non-designated historic buildings, but most are archaeological in character.

6.7 Landscape designations

6.7.1 Relevant landscape designations include the Cranborne Chase Area of Outstanding Natural Beauty (AONB) to the south-west of Winterbourne Stoke (approximately 1km form the Scheme boundary at its closest point) and a Special Landscape Area (SLA) (Saved Policies C4 and C5 of the former Salisbury District Council adopted Local Plan. The SLA covers the majority of the land with in the Scheme boundary, except for Countess Roundabout, Amesbury, Bulford and Larkhill.

6.8 Water and flood risk

6.8.1 The River Avon is a classified Water Framework Directive (WFD) surface water body, is designated as a SAC and classed as a main river. The River Till is designated as a Main River and in its upper reaches north of Berwick St James it flows as a winterbourne on an intermittent basis.

Flood Risk

6.8.2 The majority of the surface water flood risk in the Road Drainage and Water Environment (RDWE) study area is categorised as Low. There are also relatively small areas at Medium or High flood risk. The River Avon and River Till are chalk rivers fed both by groundwater and overland sources during periods of heavy or prolonged rainfall. The Environment Agency's 'Flooding from Rivers' online mapping[44] classifies some parts of the RDWE set out in Chapter 11 of the ES (document reference 6.1) as Flood Zone 2 or 3, indicating that there are areas at medium or high probability of flooding.

Source Protection Zones (SPZs)

6.8.3 There are eight SPZs for public drinking water supply abstractions within the Road Drainage and Water Environment study area set out in Chapter 11 of the ES (document reference 6.2, Figure 11.1). There is one SPZ located north of Amesbury at Durrington, where the SPZ1 lies partially within the Order Limits. The eastern most point of the proposed site boundary intersects the SPZ3 (outer catchment) of an abstraction south of Amesbury, near Little Durnford.

6.9 Noise

6.9.1 The Noise and Vibration Study Area considered within Chapter 9 of the ES (document reference 6.1) is predominantly rural in nature. Road traffic noise from the existing A303 is a readily appreciable problem that affects the setting of the WHS. Other sources of road traffic noise include the A360, A345 and other local roads. The existing A303 also passes close to residential properties at Amesbury and Winterbourne Stoke, and the A345 runs through Amesbury and adjacent to Larkhill and Durrington. The area is also subject to occasional noise from light aircraft, military aircraft and other military activities.

[44] https://data.gov.uk/dataset/bad20199-6d39-4aad-8564-26a46778fd94/risk-of-flooding-from-rivers-and-sea

6.9.2 Under the Environmental Noise Directive 2002 (END)[45] strategic noise mapping of major roads, railways, airports and agglomerations has been completed across England, including for the A303. Five 'Noise Important Areas' (those areas most exposed to noise) were identified in the Round 2 strategic noise mapping (carried out in 2012) in the vicinity of the Scheme. The two Noise Important Areas on the existing A303 in Winterbourne Stoke (3527 and 3528) are the responsibility of Highways England. The three Noise Important Areas in Amesbury are the responsibility of the local Highway Authority Wiltshire Council (12681, 12682 and 12683). Noise Important Areas are illustrated on Figure 9.1 of the ES (Document reference 6.2).

6.10 Air quality

6.10.1 There are no Air Quality Management Areas (AQMAs) within the Scheme boundary or the Area of Detailed Modelling shown in Figure 5.1 of the ES (Document Reference 6.1 and 6.2). The nearest AQMAs are in Salisbury, approximately 6.2miles (10km) south of Amesbury. A number of statutory designated ecological sites, which contain features sensitive to air pollutants, are located within the Area of Detailed Modelling (ES Figure 5.1, document reference 6.2).

6.11 Administrative areas affected

6.11.1 The Scheme is located within the administrative area of Wiltshire Council. Appendix B provides details of local planning policies of Wiltshire Council relevant to the Scheme, and how the Scheme complies with them.

6.12 Relevant planning history

6.12.1 An assessment of planning history within the zone of influence for the Environmental Impact Assessment and Traffic Assessment has been undertaken in order to inform the assessment of future baseline and cumulative effects in Chapter 15, Appendix 15.1 of the Environmental Statement (document reference 6.3). Other planning history relevant to this Case for the Scheme, within the Scheme boundary, is very limited due to the location of the Scheme, but includes outline planning permission for the Stonehenge visitor centre, which was granted by Wiltshire Council (planning permission reference S2009/1527).

[45] Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise - Declaration by the Commission in the Conciliation Committee on the Directive relating to the assessment and management of environmental noise. Document 32002L0049.

7 Policy and Legislative Considerations

7.1 Introduction and legislative context

Consideration of the DCO Application

7.1.1 Under Section 104(3) of the Act (as amended), the application for the DCO is required to be determined in accordance with relevant National Policy Statement, except where the Secretary of State is satisfied that one or more of the following applies (sections 104 (4-8)) (emphasis added):

a. "deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations (Section 104(4));

b. deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State, being in breach of any duty imposed on the Secretary of State by or under any enactment (Section 104(5));

c. deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment (Section 104 (6));

d. the adverse impact of the proposed development would outweigh its benefits (Section 104(7));

e. any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met (Section 104 (8))".

Consideration of the DCO Application

7.1.2 In accordance with Section 104(2) of the Act (as amended), the Secretary of State for Transport is required to have regard to the following in deciding this DCO Application (emphasis added):

a. "any national policy statement which has effect in relation to development of the description to which the application relates (a "relevant national policy statement");

b. any local impact report (within the meaning given by section 60(3)) submitted to the Secretary of State before the deadline specified in a notice under section 60(2);

c. any matters prescribed in relation to development of the description to which the application relates; and

d. any other matters which the Secretary of State thinks are both important and relevant to its decision."

7.1.3 This chapter firstly considers whether any matters under Section 104 (4-6 & 8) would apply which may affect determination of the application in accordance with the relevant NPS.

7.1.4 This chapter then goes on to consider matters under Section 104(2) which the Secretary of State must have regard to, including the local impact report, prescribed matters and any other important and relevant matters,

including conformity with relevant local planning policy, which is supported by a local planning policy accordance table in Appendix B.

7.1.5 The relevant NPS is the NPSNN and this chapter concludes with an overview of the Scheme's conformity with the NPSNN, including whether adverse impacts of the Scheme would outweigh its benefits (Section 104(7)), which is supported by a NPSNN Accordance Table in Appendix A.

7.2 International obligations, Secretary of State duties, lawfulness and prescribed conditions

7.2.1 Deciding the application in accordance with the NPSNN would not lead to the United Kingdom being in breach of any of its international obligations. This is evidenced throughout the application – e.g. in respect of habitats, birds and protection of water bodies—and in the NPSNN accordance tracker. In respect of the World Heritage Convention (WHC), it is principally evidenced in the NPSNN accordance table (Appendix A) and the Heritage Impact Assessment (HIA) (ES Appendix 6.1, document reference 6.3).

7.2.2 The protection and conservation of World Heritage Sites is integrated into the comprehensive UK legal and policy framework in connection with the assessment and consideration of harm to heritage assets – namely, the UK's national policy statements, NPPF, Planning Act 2008 provision, and the established approach to assessment of impacts on heritage generally and the balancing of factors in decision making. As a result great weight is given to harm to World Heritage Sites. The application by the Secretary of State of the planning balance envisaged by this framework and in particular the NPSNN is in accordance with the WHC.

7.2.3 The HIA assesses the impact of the proposed Scheme on the Attributes that convey the OUV of the WHS, their Integrity and Authenticity, as well as the alignment of the Scheme with the vision, aims and policies of the 2015 WHS Management Plan and the criteria for the site's inscription as a WHS. The HIA concludes that the overall effect on the WHS would be slight beneficial and the OUV of the WHS will be sustained by the construction of the Scheme.

7.2.4 The NPSNN accordance table applies these conclusions to demonstrate that the Scheme complies with the requirements of the NPSNN with respect to the World Heritage Site. It therefore follows that granting development consent for the Scheme would not lead to the UK being in breach of the WHC.

7.2.5 With regard to Sections 104(5), (6) and (8) of the Act, the Applicant has prepared the application with careful consideration of all of the legal obligations applying to it and the Secretary of State. The Applicant is not aware of any respect in which deciding the application in accordance with the NNNPS would be unlawful, put the Secretary of State in breach of any duty imposed by or under any enactment or breach a condition to the contrary.

7.3 Local Impact Report, prescribed matters and other important and relevant matters

7.3.1 The Local Impact Report will be prepared by the relevant local authority (Wiltshire Council) following formal submission of the DCO Application and is not discussed in this document.

Prescribed matters

7.3.2 The prescribed matters referred to in Section 104(2)(c) of the Act (as amended) are set out in the Infrastructure Planning (Decisions) Regulations 2010 (as amended). The relevant prescribed matters are:

i. having regard to the desirability of preserving listed buildings, conservation areas and scheduled monuments and their settings where the development would affect these (Regulation 3); and

ii. having regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992 (Regulation 7).

7.3.3 Regulation 3 – preservation of designated heritage assets. The impact of the Scheme on cultural heritage assets is considered in Chapter 6 of the ES (document reference 6.1) and the HIA (document reference 6.3). The Scheme is heritage-led in terms of its design and incorporates built-in measures to minimise impacts and to enhance the significance and setting of heritage assets. Appendix A considers the negative and positive impacts of the Scheme on designated heritage assets, noting that the ES concludes that the Scheme will have a beneficial effect on the Attributes of the OUV and Integrity and Authenticity of the WHS as a whole. Appendix A also notes that there will be: no instance of 'substantial harm' or total loss of significance to a designated asset; some limited instances of less than substantial harm to the significance of heritage assets relating to negative changes to their setting; and beneficial and significant beneficial effects on designated heritage assets and Asset Groups respectively. Appendix A concludes that the beneficial effects on the setting of the WHS, the Conservation Area and designated heritage assets, together with the need for the Scheme and the wide ranging and long term benefits it will deliver, are more than sufficient to outweigh any limited adverse impacts on the setting of a small number of designated assets. The Secretary of State's obligation to have regard to the desirability of preserving listed buildings, conservation areas and scheduled monuments and their settings, where the development would affect these, is considered to have been addressed in this respect.

7.3.4 Regulation 7 – Biological diversity. The approach to considering biodiversity in the ES takes account of the UK Post 2010 Biodiversity Framework. As the UK Post 2010 Biodiversity Framework was produced in response to the commitments originally outlined in the United Nations Environmental Programme Convention on Biological Diversity of 1992, the Secretary of State's obligation to have regard to the Convention is therefore considered to be addressed in this respect.

Other important and relevant matters

7.3.5 Section 104(2) (d) of the Act (as amended) requires the Secretary of State for Transport to have regard to 'any other matters which the Secretary of State thinks are both important and relevant to its decision.' This may include the Scheme's conformity with the adopted development plan policy, as defined by Section 38(6) of the Planning and Compulsory Purchase Act 2004. A detailed assessment of conformity with the development plan and with national waste management planning policy and local planning policy is provided in Appendix B.

The National Planning Policy Framework (2018)

7.3.6 The National Planning Policy Framework ("NPPF") (2018) sets out the Government's planning policies for England and how these are expected to be applied. The NPPF is clear (in Paragraph 5) that the role of the NPS is the primary decision making document for NSIPs under the Planning Act 2008 (as amended).

7.3.7 Paragraph 1.17 of the NPSNN states that the NPPF will be an important and relevant consideration 'but only to the extent relevant to [the] project'. As a result, this document briefly considers the extent of any such relevance and compliance with NPPF policies.

7.3.8 Paragraph 7 of the NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 10 explains that there is a 'presumption in favour of sustainable development' 'at the heart of the Framework', 'so that sustainable development is pursued in a positive way'.

7.3.9 The NPPF places particular emphasis on the provision of net gain in terms of the conservation and enhancement of the natural environment (Paragraphs 170, 174 and 175), with requirements for measurable net gains for biodiversity.

7.3.10 Sustainable development is an inherent element of the Scheme, which has been developed to ensure the best balance between maximising benefits and minimising environmental impacts. The Scheme objectives also ensure that net gain is achieved across the three inter-related sustainable development objectives set out in the NPPF (economic, social and environmental). Environmental mitigation is integrated into the design of the Scheme, with demonstrable net gains in terms of biodiversity, as required by the NPPF. The ES (document reference 6.1) concludes that the Scheme would have likely significant beneficial effects as a result of ecological network connectivity through incorporation of green bridges and habitat creation along the length of the Scheme.

7.3.11 The definition of sustainable development, set out in the NPPF, refers to the ability of future generations to meet their own needs. In line with this, the NPPF places emphasis on the planning system and development proposals to consider and accommodate future needs, challenges, impacts and resilience.

7.3.12 The Scheme objectives (Chapter 2) are founded in a clear need to address existing challenges, from restricted economic growth and inadequate

transport capacity, to current impacts of the current A303 route on the setting of the WHS and local community and environmental impacts of the existing road.

7.3.13 In delivering these objectives the Scheme is compliant with the NPPF support for development that considers future needs, growth and resilience.

Local planning policy

7.3.14 The development plan for the area comprises: the Wiltshire Core Strategy incorporating saved policies from district local plans; Minerals and Waste Plans; and made Neighbourhood Plans. The Wiltshire Core Strategy (WCS) was adopted on 20 January 2015. The plan provides a planning policy framework for Wiltshire for the period up to 2026.

7.3.15 The WCS sets out a spatial vision to deliver stronger, more resilient communities in the County by 2026. The Scheme aligns with the WCS vision to deliver stronger and more resilient communities, in particular Strategic Objectives 1, 4, 5 and 6, as well as Core Policies 4 and 48.

7.3.16 Overall, the Scheme is closely aligned with the strategic objectives and core economic, community, environmental, heritage and infrastructure policies of the WCS, relevant saved policies of Salisbury Local Plan and relevant policies of the Wiltshire and Swindon Waste Core Strategy. In conclusion, the Applicant considers that the Scheme conforms with relevant policies of the adopted development plan and therefore these other important and relevant matters further support the case for the making of the development consent order for the Scheme.

Other relevant policy

7.3.17 In addition, as described in Chapter 2, the Road Investment Strategy, the Transport Investment Strategy, the National Infrastructure Delivery Plan and the Highways England Delivery Plan set out a strong position of support in delivering national networks that meet the country's long-term needs. The Scheme is specifically identified as a priority scheme for improvement and has been a long-standing objective of improving the Strategic Road Network between the South-East and South-West regions of the UK. The Scheme also complies with the overall goals and objectives of the Wiltshire Local Transport Plan and the WHS Site Management Plan.

7.4 The National Policy Statement for National Networks (NPSNN) and adverse impacts weighed against benefits

Introduction

7.4.1 The purpose of the NPSNN is set out in Paragraph 1.1, which sets out the need for and Government's policies to deliver development of NSIPs on the national road and rail networks in England. It provides planning policy for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.

Compliance with the NPSNN

7.4.2 The NPSNN Accordance Table (Appendix A) demonstrates how the application complies with the NPSNN, providing evidence to allow the Secretary of State to grant development consent for the Scheme. It also serves as a record of the Scheme's strategic alignment and conformity with the NPSNN.

7.4.3 Paragraph 2 of the NPSNN states that the Secretary of State should use the NPSNN as the primary basis for making decisions on development consent applications for national networks NSIPs in England. The NPSNN Accordance Table (Appendix A) demonstrates the conformity of the Scheme with the NPSNN. The following sub-sections summarise the most important areas of compliance.

a. Section 2 of the NPSNN sets out the need for development of the national networks, the Government's policy and strategic vision and objectives. Paragraph 2.10 of the NPSNN states that the Government has concluded that, at a strategic level there is a compelling need for development of the national networks. It further states that the Examining Authority and the Secretary of State should start their assessment of applications for infrastructure covered by the NPSNN on that basis. This is supported by Paragraph 2.22, which states that without improving the road network, including its performance, it will be difficult to support further economic development and this will impede economic growth and reduce people's quality of life. The Government has therefore concluded that, at a strategic level, there is a compelling need for development of the national road network. The Scheme comprises an essential part of a wider package of proposals for the A303/A30/A358 corridor to transform connectivity to and from the South West of England, as described in the Roads Investment Strategy, the Transport Investment Strategy, the National Infrastructure Delivery Plan, and the Highways England Delivery Plan. The Scheme therefore helps to address the compelling and strategic need for development, identified in the NPS.

b. Paragraph 3.1 of the NPSNN states that the need for development of the national networks, and the Government's policy for addressing that need, must be seen in the context of the Government's wider policies on economic performance, environment, safety, technology, sustainable transport and accessibility, as well as journey reliability and the experience of road users. The Scheme directly addresses the Government's wider strategic policy objectives, whilst specifically addressing the historic problems in the Scheme area. A description of these problems, strategic government policy and the need for the Scheme is provided in Chapter 2. The Scheme fulfils this long established need, and delivers benefits in terms of resolving local transport, economic, environmental and heritage concerns and the Government's recognised national commitment to improving the strategic road network. These benefits are described in Chapter 5.

c. Paragraph 4.2 states that there is a presumption in favour of granting development consent for national networks, subject to the detailed policies and protections of the NPSNN and the legal constraints set out in the Planning Act. All relevant aspects of the NPSNN, in terms of its detailed policies and protections, together with the legal aspects set out in the Act have been appropriately and adequately addressed. As a result, the Applicant considers that the presumption in favour of granting development consent should be afforded considerable weight by the Examining Authority and the Secretary of State.

d. Paragraph 4.3 of the NPSNN states that, in considering any proposed development and in weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account:

    i. potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and

    ii. its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.

7.4.4 The weighing of adverse impacts against benefits is undertaken in detail in the NPSNN Accordance Table (Appendix A). Section 5 of the NPSNN also provides further advice on generic impacts and how they should be considered in terms of weighing benefits against potential adverse effects. This is considered in Section 7.5 and in the NPSNN Accordance Table.

7.4.5 In terms of adherence to national policy requirements, the Scheme demonstrates compliance with the Government's strategic vision for the development of the national road network, as well as the Government's wider policies for economic performance, environment, safety, technology, sustainable transport and accessibility, as well as journey reliability and the experience of road users.

7.5 Balance of effects

7.5.1 Section 104(7) of the 2008 Act (as amended) requires that the application should be determined in accordance with relevant National Policy Statement unless the adverse impact of the proposed development would outweigh its benefits. This document provides an overview of the economic, social and environmental benefits of the Scheme as detailed in Section 5. The potential adverse impacts of the Scheme have also been comprehensively considered and addressed through the management and mitigation measures described in the ES (document reference 6.1). The balance of benefits and adverse impacts is also considered through the Applicant's response to the balancing exercises for relevant topic areas expressed within the NPSNN, set out in Appendix A.

7.5.2 The ES (document reference 6.1) has considered each impact assessment topic according to whether there are likely to be significant environmental

effects, in line with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended). The conclusions from the ES have been reviewed in order to consider the conformity of the Scheme with the NPSNN, the NPPF, the development plan, plus other infrastructure and transport plans and strategies as set out in Appendices A and C of this document.

7.5.3 Table 7-1 summarises Chapters 5-15 of the ES, and provides information detailing significant environmental effects as presented in Chapter 16 of the ES (document reference 6.1).

Table 7-1: Summary of significant environmental effects

Topic	Assessment of significant environmental effects	
	Construction Stage	Operational Stage
Air Quality	• No significant effects.	• No significant effects.
Cultural Heritage	• Temporary **adverse** effects of construction activities on the setting of heritage assets within and outside the WHS. • Permanent **adverse** effects due to the loss or truncation of eleven non-designated assets • Permanent **adverse** effects on the setting of one listed building in the vicinity of Countess Roundabout. • Permanent **adverse** effect on the character of the Winterbourne Stoke to Shrewton Water Meadows Historic Landscape Character Area. • Permanent **beneficial** effects, once built, on the setting of 72 scheduled monuments, including Stonehenge, together with two non-designated heritage assets, due to the removal of severance and improvements to inter-relationships between heritage assets.	• Permanent **beneficial** effect on the setting of 75 scheduled monuments and two non-designated assets, due to the removal of traffic using the A303. • Permanent **beneficial** effect on public access to the WHS.

Topic	Assessment of significant environmental effects	
	Construction Stage	Operational Stage
Landscape and Visual	• Temporary **adverse** effects of construction activities on the rural landscape, particularly the River Till valley and at Longbarrow Junction, including in terms of changes to landform and tranquillity. • Temporary **adverse** visual effects of construction activities on residents of Amesbury, specifically in proximity to Countess Roundabout, and Winterbourne Stoke, visitors to the WHS and users of the PRoW network.	• **Adverse** effects on the rural landscape between Berwick Down and Longbarrow Junction, including adverse effects on landform and tranquillity, in the opening year. • **Adverse** visual effects on users of the PRoW network and some residents in the area west of the WHS in the opening year. • Permanent **adverse** effects on the landscape of the River Till valley. • Permanent **adverse** visual effects on the residents of Countess Farm and users of the PRoW in the River Till valley. • Permanent **beneficia**l effects on the townscape within Winterbourne Stoke. • Permanent **beneficial** effects on the pattern, tranquillity and connectivity of the landscape within the WHS. • Permanent **beneficial** visual effects on visitors to the WHS and users of the PRoW network within the WHS.
Biodiversity	• Permanent **adverse** effect due to the loss of the designated non-statutory Countess Cutting CWS. • **Beneficial** effect on chalk grassland habitat in the vicinity of Parsonage Down and other grassland areas within the scheme. • Permanent **beneficial** effect as a result of ecological network connectivity through incorporation of green bridges and habitat creation along the length of the scheme.	• No significant effects.

Topic	Assessment of significant environmental effects	
	Construction Stage	Operational Stage
Noise and Vibration	• Temporary **adverse** noise effects of construction activities for residential properties in close proximity to the works, such as at Countess Roundabout and the northern edge of Winterbourne Stoke. • No significant vibration effects.	• Permanent **adverse** noise effects for a single property on the northern edge of Winterbourne Stoke closest to the section of the A303 which is realigned to the north of the village. • Permanent **adverse** noise effects for the closest properties along Church Street and High Street in Amesbury due to the closure of Stonehenge Road. • Permanent **beneficial** noise effects for residents of Winterbourne Stoke located in close proximity to the existing A303 through the centre of the village. • Permanent **beneficial** noise effects for visitors to the WHS, residents at Stonehenge Cottages and the northern end of Stonehenge Road. • Permanent **beneficial** noise effects for residents of properties on the B390 between Shrewton and Chitterne.
Geology and Soils	• No significant effects.	• No significant effects.
Road Drainage and the Water Environment	• No significant effects.	• Permanent **beneficial** effect as a result of improved prevention and treatment of pollution from road run-off and sediment transport to the River Avon.
Materials	• The anticipated failure to meet the target of 22% use of secondary and recycled aggregate would be a likely significant temporary **adverse** effect.	• No significant effects.

Topic	Assessment of significant environmental effects	
	Construction Stage	Operational Stage
People and Communities	• Temporary **adverse** effects on seven agricultural holdings and permanent adverse effects on two agricultural holdings. • Permanent **adverse** effects on best and most versatile agricultural land.	• Permanent **adverse** effects on driver views through the WHS. • Permanent **beneficial** effects on connectivity and local travel patterns for users of the PRoW network. • Permanent **beneficial** effects resulting from reduced severance for the community of Winterbourne Stoke. • Permanent **beneficial** effects of improved journey time reliability and reduced stress for drivers on A303.
Climate	• No significant effects.	• No significant effects.
Cumulative effects	• Temporary **adverse** combined visual, noise and air quality effects on recreational users of Parsonage Down NNR, byways in the River Till valley, the WHS and Lords Walk. • Temporary **adverse** combined visual, noise and air quality effects on residents of Cherry Lodge, Foredown House, the northern part of Winterbourne Stoke and Countess Farm.	• Permanent **adverse** combined visual and noise effects on recreational users of byways in the River Till valley. • Permanent **adverse** combined visual, noise and air quality effects on residents of Countess Farm. • Permanent **beneficial** combined visual, noise and air quality effects on residents of Winterbourne Stoke. • Permanent **beneficial** combined visual, noise and cultural heritage effects on visitors to the WHS.

7.5.4 The NPSNN Compliance Table in Appendix A provides an analysis of these effects and the wide-ranging benefits of the Scheme. In each case, it can be concluded that the careful selection of the Scheme from reasonable alternatives and the proposed mitigation will minimise adverse impacts such that the benefits of the Scheme outweigh likely adverse impacts.

8 Summary and conclusions

8.1 Need and Scheme objectives

8.1.1 This Case for the Scheme identifies the problems of the A303 between Amesbury and Berwick Down and describes the need for the Scheme. It identifies traffic problems that affect the local and regional economy, local and regional transportation, local communities and internationally and nationally designated environments. These problems and the consequent need for the Scheme are articulated in existing government strategies which confirm a long-standing government commitment to improving the A303 strategic road network. The DfT has set objectives to ensure that the proposed Scheme resolves these problems and delivers substantive and wide-ranging benefits.

8.2 Alternatives, the Scheme and its benefits

8.2.1 Alternative options to address these problems have been under consideration since the early 1990s. A wide ranging and detailed optioneering process, involving extensive study and consultation, has considered reasonable alternatives, ultimately resulting in the announcement of the preferred route by the Secretary of State in September 2017, confirming a route including a northern bypass of Winterbourne Stoke. The Scheme has been developed since the preferred route and further public consultation has undertaken. Taking on board feedback received and through ongoing stakeholder engagement the design of the Scheme has been developed to that now set out within the DCO application.

8.2.2 The Scheme has been identified as the best option to meet the defined need and objectives, including the delivery of a comprehensive set of benefits. It offers an effective solution to two key challenges – congestion on the A303 and the impacts of the road and traffic on the WHS. The Scheme not only addresses traffic issues, but its legacy will be to provide numerous real and tangible benefits to the WHS, the local area and the wider economy of the South West.

8.2.3 Transportation benefits include reduced journey times, reduction of problems associated with rat-running along alternative local routes and improved safety, resilience and journey time reliability.

8.2.4 Economic benefits include increased road capacity to support housing and employment growth. Reduced congestion, reduced transport costs and more reliable journey times will support businesses, including the local economy and benefit tourism locally and in the south west. .

8.2.5 The cultural heritage benefits of the Scheme are substantial. The setting of Stonehenge will be greatly improved, benefiting the visitor experience (at Stonehenge and in the wider WHS) and helping to protect and enhance the WHS and sustain its Outstanding Universal Value.

8.2.6 The Scheme has been carefully designed to incorporate community and environmental benefits. There will be a significant biodiversity net gain due

to improvements to existing habitat and connectivity between habitats in an east west direction, reconnecting existing semi natural habitats within the wider landscape. The village of Winterbourne Stoke will be by-passed, improving quality of life for residents.

8.3 The Planning Act 2008

8.3.1 The Planning Act 2008 requires that, in determining DCO applications, the SoS must have regard to the relevant NPS, the Local Impact Report, any prescribed matters and any other matters the SoS thinks are important and relevant. Paragraph 4.2 of the NSPNN confirms that there is a presumption in favour of granting development consent for national networks.

8.3.2 The Planning Act 2008 also states that DCO applications should be determined in accordance with the relevant NPS except in certain circumstances including where adverse impacts would outweigh benefits, or where to do so would be unlawful, in breach of duty or condition, or in breach of international obligations.

8.3.3 Deciding the DCO application in accordance with the NPSNN would be lawful. The Applicant has carefully considered legal obligations set out in the NPSNN, including those under the Habitats Regulations and Water Framework Directive, and wider legal obligations associated with promoting a highways scheme of this type. The Scheme also meets the requirements in respect of the World Heritage Site designation and would not result in a breach of the UK's international obligations were the Order to be made.

8.3.4 Relevant prescribed matters which the SoS must have regard to include the preservation of heritage assets and biological diversity and in both matters, it has been demonstrated that any harm to such assets is limited and significantly outweighed by the benefits of the Scheme.

8.3.5 A review of other relevant national and local planning policy has been undertaken to identify and address any other relevant and important matters. This review demonstrates that the Scheme is compliant with national and local planning policy.

8.4 NPSNN compliance

8.4.1 The Scheme demonstrates compliance with the NPSNN, including the Government's strategic vision for the development of the national road network, wider policies for economic performance, environment, safety, technology, sustainable transport and accessibility, as well as journey reliability and the experience of road users. Where harm is generated by the construction or operation of the Scheme, it has been demonstrated through careful and comprehensive assessment that the substantial and long lasting benefits, such as improvements to the setting of Stonehenge and biodiversity net gain, as well as the extensive transportation, economic and community benefits, will outweigh the limited harm identified.

8.5 Determination of the application

8.5.1 There are no legal reasons, international obligations, prescribed conditions or matters which would require the Secretary of State to refuse this DCO

application. The Scheme also complies with all other relevant national planning, infrastructure and transport policies. Similarly, the Scheme accords with all other relevant and important matters that the Secretary of State might need to take into consideration, including the adopted development plan for the local area and the NPPF.

8.5.2 The detailed NPSNN Accordance Table demonstrates the conformity of the Scheme with the NPSNN. Overall, it is considered that the public benefits provided by the Scheme are clear, founded in factual evidence and outweigh any adverse effects. This document has shown that, where the NPSNN requires a balancing judgement between harm and benefits, the evidence demonstrates that the Scheme fully complies with the NPS and that the Scheme benefits significantly outweigh adverse impacts.

8.5.3 There is no policy or legislative reason that should preclude the acceptability of the Scheme. There is a clearly established and strong need to deliver this Scheme, which will result in extensive benefits to the WHS, the local area and the wider regional economy and the Applicant considers that there is a clear and justified case for the development consent order for the Scheme to be made.

9 Glossary

Term	Meaning
ADT	Average Daily Traffic
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
APFP Regulations	The Infrastructure Planning (Application: Prescribed Forms and Procedure) Regulations 2009 together with subsequent amendments
CEEQUAL	The Civil Engineering Environmental Quality Assessment and Awards Scheme
CIEEM	Chartered Institute of Ecology and Environmental Management
Consultation Report	A report forming part of the DCO application, outlining the statutory consultation undertaken on the Scheme.
CSR	Client Scheme Requirements
CWS	County Wildlife Site
DAS	Design and Access Statement
DCO	Development Consent Order
DfT	Department for Transport
EIA	Environmental Impact Assessment
ES	Environmental Statement
Examining Authority	The person(s) appointed by the Secretary of State (SoS) to assess the DCO application and make a recommendation to the SoS.
Grade Separated Junction	Roads crossing the carriageway pass at a different level, so as not to disrupt the flow of traffic. Slip roads connect the carriageway to the junction.
GVA	Gross Value Added
HGV	Heavy Goods Vehicle

Term	Meaning
HIA	Heritage Impact Assessment
ICOMOS	International Council on Monuments and Sites
ICOMOS-UK	UK National Committee of the International Council on Monuments and Sites
Important Areas	Important areas are defined as those where 1% of the population are affected by the highest level of noise from major roads according to the results of the strategic noise mapping. The population in these are likely to be at the greatest risk of experiencing a significant adverse impact to health and quality of life as a result of exposure to road traffic noise.
LEP	Local Enterprise Partnership
MHCLG	Ministry of Housing, Communities and Local Government
Net Present Value (NPV)	Net Present Value is simply calculated as the sum of future discounted benefits minus the sum of future discounted costs.
NNR	National Nature Reserve
Non-motorised Users (NMUs)	Pedestrians, cyclists, equestrians.
NPPF	National Planning Policy Framework 2018
NPS	National Policy Statement. National Policy Statements are produced by government. They comprise the government's central policy documents for the development of nationally significant infrastructure.
NPSNN	National Policy Statement for National Networks, Department for Transport, December 2014. The document sets out the need and government policies for nationally significant infrastructure rail and road projects for England.
NSIP	Nationally Significant Infrastructure Project
Order Limits	The extent (in terms of land requirements) of the Scheme.
OUV	Outstanding Universal Value

Term	Meaning
PRoW	Public Right of Way
RIS	Roads Investment Strategy 2015-2020
SAC	Special Area of Conservation
SAR	Scheme Assessment Report
Secretary of State (SoS)	The Secretary of State for Transport.
SLA	Special Landscape Area
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
The Act	The Planning Act, 2008 (as amended).
The Applicant	Highways England
The Inspectorate	Planning Inspectorate
The Scheme	The A303 Amesbury to Berwick Down Project
TPO	Tree Preservation Order
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WCS	Wiltshire Core Strategy
WFD	Water Framework Directive
WHC	World Heritage Convention
WHS	World Heritage Site
WSHER	Wiltshire and Swindon Historic Environment Record

APPENDIX A – ASSESSMENT OF ACCORDANCE WITH THE NATIONAL POLICY STATEMENT FOR NATIONAL NETWORKS

This Appendix provides a high level assessment of the Scheme's strategic alignment and conformity with the NNNPS. The Appendix is set out as follows:

- Table 1: the Scheme's conformity with NNNPS Chapter 2;
- Table 2: the Scheme's conformity with NNNPS Chapter 3;
- Table 3: the Scheme's conformity with NNNPS Chapter 4; and
- Table 4: the Scheme's conformity with NNNPS Chapter 5.

The tables signpost other relevant documentation submitted as part of the application for development consent and provides a summary of the findings where appropriate. Amongst others, the following sources of information have been used in particular to inform the completion of the accordance tables:

- Draft Development Consent Order (Application Document 3.1);
- Consents and Agreement Position Statement (Application Document 3.3);
- Environmental Statement (Application Document 6.1);
- Environmental Statement Appendices (Application Document 6.3)
- Appendix 2.2 Outline Construction Environmental Management Plan of the Environmental Statement Appendices (Application Document 6.3)
- Case for the Scheme (Application Document 7.1);
- Design and Access Statement (Application Document 7.2); and
- Transport Assessment (Application Document 7.4).

Table A1: National Policy Statement for National Networks Chapter 2

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
2.1	The national road and rail networks that connect our cities, regions and international gateways play a significant part in supporting economic growth, as well as existing economic activity and productivity and in facilitating passenger, business and leisure journeys across the country. Well-connected and high-performing networks with sufficient capacity are vital to meet the country's long-term needs and support a prosperous economy.	The A303 Stonehenge Scheme forms part of a package of proposals for the A303/A30/A358 corridor to achieve a modern standard dual carriageway, improving the vital connection between the South West and London and the South East, and including the upgrade of remaining single carriageway sections on the route to dual carriageway. The Transport Assessment (Application Document 7.4) shows the Scheme would enable significant increases in traffic volumes using the A303 through increased capacity and a reduction in delays. These improvements would make the local area, and the South West, more attractive for businesses to locate and would help in promoting a competitive local economy. Through these improvements, the Scheme would also benefit leisure and business travellers, for example those using the A303 to journey to the South West. The Scheme would upgrade the existing A303 to a modern higher performing standard, and this would improve safety and reduce accidents on the route. The economic benefits of the Scheme are as per NPSNN paragraph 2.2 of this Appendix.
2.2	There is a critical need to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. Improvements may also be required to address the impact of the national networks on quality of life and environmental factors.	The Scheme would create appropriate capacity to cope with peak demand and growth on the SRN, and provide a free flowing, safe, reliable and resilient network for the future. The Transport Assessment (Application Document 7.4) describes the operational impacts of the Scheme on traffic. The model assesses neutral month morning, interpeak and evening peak periods. The neutral month model represents the average Monday-Friday weekday in October 2017. Given the specific issues on the A303 caused by holiday traffic, a busy period model has also been developed. The

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		'busy day' model represents an average Friday-Sunday from 15 July to 28 August 2017, but is also considered representative of other times of year. Journey times along the length of A303 between its junctions with the A34 north of Winchester and A36 north west of Salisbury incorporating the Scheme are in the region of half an hour in both directions in all neutral month time periods in 2017, with journey times slightly higher in the eastbound direction in the AM peak, and westbound direction in the PM peak. In the busy day model, average journey times are around 10 minutes longer than the neutral peaks, and are forecast to increase by a further 10 minutes by 2041. The addition of the Scheme will result in journey time savings of circa four minutes throughout most days, and an average of about 20 minutes across busy days. This demonstrates that the Scheme will deliver significant journey time benefits. The benefits will be most pronounced on busy days, where substantial journey time savings will result in journey times being comparable with the neutral month time periods, where there will be minimal congestion and delay. The new dual carriageway and junctions on the Scheme will be designed to modern safety standards and will provide for safer and quicker journeys for all road users. The improved route will also be more resilient and less susceptible to disruption due to the additional lanes, recovering faster from incidents. Environmental factors are further addressed in the Environmental Statement (Application Document 6.1); a summary of the benefits is provided in NPSNN paragraph 2.6 and 3.2 of this Appendix, and quality of life factors are considered in NPSNN paragraph 2.16 of this Appendix.

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
2.6	There is also a need for development on the national networks to support national and local economic growth and regeneration, particularly in the most disadvantaged areas. Improved and new transport links can facilitate economic growth by bringing businesses closer to their workers, their markets and each other. This can help rebalance the economy.	The government is concerned that the UK economy is not functioning efficiently due to 'market distortions' or 'failures'[46]. The economy of the South West performs poorly compared to other regions of the UK, with a lower than average GDP per capita[47].This is largely due to its location but is made worse by the congestion, delays and unreliable journey times caused by inefficient transport infrastructure. Chapter 2 of this Case for the Scheme document describes the issues created by the current A303 for the economy. These include: • there is a significant 'productivity gap' between the south east and the south west, exacerbated by poor connectivity; • congestion is a barrier to economic growth in the south west. 92,000 jobs are projected to be created in the south west by 2021, alongside growth in housing. The existing road cannot support this growth; • congestion and poor journey time reliability are a constraint to local businesses; • tourism and the visitor economy, locally and nationally, are constrained by congestion and unreliable journey times. The conventional economic costs and benefits of the Scheme (savings in journey times, operating costs, greenhouse gases and collisions) are quantified and monetised in the ComMA Appendix D: Economic Appraisal Package, (Application Document 7.5), together with an assessment of wider economic impacts including: agglomeration benefits (due to businesses being in close proximity), labour supply impacts (more people may enter the labour market if their travel costs are reduced)

[46] TAG Unit A2.1 Wider Economic Impacts Appraisal, DfT, May 2018
[47] EU Regional Innovation Monitor, base profile, South West England

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		and a move to more productive jobs (by improving access to areas of higher productivity). A Wider Economic Impact Assessment[48] has concluded that the Scheme would create 1,800 new jobs by 2040, excluding construction effects. Chapter 5 of this Case for the Scheme document describes the economic benefits of the Scheme, which result from reduced congestion, improved journey reliability and improved journey times, including supporting growth in: • business growth locally and in the South West; • housing growth, stimulating the local economy; and • growth in tourism. The Scheme provides around £252 million of user benefits, taking into account the impacts of the Scheme on travel times, and the disbenefits experienced during an anticipated five-year period of construction. Further to the core transport user benefits, the impact of the Scheme on journey time reliability and wider economic impacts has been appraised. Journey time reliability has been calculated through analysis of observed journey time data for the single-carriageway section of the A303 past Stonehenge and a comparative dual-carriageway section. Analysis in-line with WebTAG results in a journey time benefit of around £61 million. Wider economic impacts considered include growth in the economy through agglomeration, improved labour supply and increased output in imperfectly competitive markets. The benefit to the wider economy is considered to be around £35 million.

[48] A303 Amesbury to Berwick Down Wider Economic Impact Assessment. (PwC, July 2016).

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		As described in Chapter 2 of this Case for the Scheme document, the assessment of this Scheme has been informed by the DfT's Rebalancing Toolkit (2017).
2.7	In some cases there may be a need for development to improve resilience on the networks to adapt to climate change and extreme weather events rather than just tackling a congestion problem.	Chapter 11 Road Drainage and the Water Environment of the Environmental Statement (Application Document 6.1) and Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3), consider the impact of flooding from climate change, and describes how this is taken into account within the Scheme. The road is designed (as set out in Appendix 11.3 Road Drainage Strategy of the Environmental Statement Appendices (Application Document 6.3)) to minimise the risk of it flooding from the Scheme, and also the risk of flooding to the Scheme, by incorporating current design standards and future climate change allowances to improve its resilience.
2.9	Broader environment, safety and accessibility goals will also generate requirements for development. In particular, development will be needed to address safety problems, enhance the environment or enhance accessibility for non-motorised users. In their current state, without development, the national networks will act as a constraint to sustainable economic growth, quality of life and wider environmental objectives.	As indicated within Chapter 2 of this Case for the Scheme document, two of the four Scheme objectives relate to enhancing the environment. These are: c. Cultural Heritage: To help conserve and enhance the World Heritage Site (WHS) and to make it easier to reach and explore; and d. Environment and Community: To improve biodiversity and provide a positive legacy for nearby communities. The Scheme delivers a design which achieves its economic and transport objectives (Scheme Objectives 1 and 2) whilst protecting the local environment and providing heritage and community benefits (Scheme Objectives 3 and 4). As stated within Chapter 5 of this document, the Scheme objectives also respond to the environmental, safety and accessibility needs which are identified within national policy, in particular within the NPPF and Stonehenge and Avebury WHS Management Plan 2015. The Scheme would create the opportunity to re-connect the north and south parts of the WHS and reunite the WHS. It would restore the

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		tranquillity of the WHS landscape; improve footpaths and bridleways within the WHS; and reconnect the WHS with local communities. On the subject of safety, the Transport Assessment (Application Document 7.4) concludes that existing accident data does not indicate any inherent safety issues in the surroundings of the Scheme, including at links/ junctions with the A303 which would be exacerbated through the Scheme. Chapter 5 of the Transport Assessment demonstrates that the Scheme would improve connectivity and accessibility for walkers, cyclists and horse riders through the creation of new public rights of way (PRoW). Accessibility for non-motorised users (NMUs) is considered in more detail in NPSNN paragraphs 3.17 and 3.19 of this Appendix. As per this Case for the Scheme document paragraph 2.16 and 5.195 of this Appendix, the Scheme would improve quality of life. As per this Case for the Scheme document paragraphs 2.6 and 2.10 of this Appendix, the Scheme would support growth in the economy.
2.10	The Government has therefore concluded that at a strategic level there is a compelling need for development of the national networks - both as individual networks and as an integrated system. The Examining Authority and the Secretary of State should therefore start their assessment of applications for infrastructure covered by this NPS on that basis.	The A303 forms one of two strategic routes between the South East and South West regions of the UK, the other being the M4/M5 corridor. Together with the A30 and A358, the A303 plays a vital role in supporting the economy of the South West peninsula and the wider South West region. The Government's aim, announced in the Road Investment Strategy for the 2015/16 to 2019 Road Period ("RIS1") is to upgrade all remaining single carriageway sections of the A303 between the M3 and the A358 to create a high quality dual carriageway route to the South West on which mile-a-minute journeys are the norm. Full details on the need for the Scheme are provided in Chapter 3 of this Case for

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		the Scheme (Application Document 7.1).
2.12	Roads are the most heavily used mode of transport in England and a crucial part of the transport network. By volume roads account for 90% of passenger miles and two thirds of freight. Every year road users travel more than 431 billion miles by road in Great Britain.	The Transport Assessment (Application Document 7.4) sets out the benefits of the Scheme in terms of improving the operation of the Strategic Road Network (SRN) and providing additional highways capacity. The A303 Amesbury to Berwick Down scheme ("the Scheme") forms part of a programme of improvements for upgrading the A303/A358 corridor, improving this vital connection between the South West and London and the South East and including the upgrade of remaining single carriageway sections on the route to dual carriageway. This investment is stated as a priority project in the National Infrastructure Plan and Government's commitment is confirmed in the Road Investment Strategy (2015-2020). Subject to achieving an approved Development Consent Order ("DCO"), preliminary works are planned to start in 2020 with the main construction works following in 2021, and the Scheme is due to open to traffic in 2026. Objectives for the Scheme have been formulated both to address identified problems and to take advantage of the opportunities that new infrastructure would provide. The objectives are defined by the Department for Transport ("DfT"): • **Transport** - To create a high quality reliable route between the South East and the South West that meets the future needs of traffic; • **Economic Growth** - to enable growth in jobs and housing by providing a free flowing and reliable connection between the South East and the South West. • **Cultural Heritage** - To help conserve and enhance the World Heritage Site and to make it easier to reach and explore; and • **Environment and Community** - To improve biodiversity and provide a positive legacy for nearby communities. The objectives would be achieved by providing a high quality, two-lane dual

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2 The need for development of the national networks and Government's policy		
		carriageway on the A303 trunk road between Amesbury and Berwick Down in Wiltshire. The Scheme would resolve traffic problems and, at the same time, protect and enhance the Stonehenge component of the Stonehenge, Avebury and Associated Sites World Heritage Site, hereafter referred to as the "WHS". The Scheme would be approximately 8 miles (13km) long and comprise the following key components: e) A northern bypass of Winterbourne Stoke with a viaduct over the River Till valley; f) A new junction between the A303 and A360 to the west of and outside the WHS, replacing the existing Longbarrow roundabout; g) A twin-bore tunnel approximately 2 miles (3.3km) long, past Stonehenge; and h) A new junction between the A303 and A345 at the existing Countess roundabout.
2.13	The Strategic Road Network provides critical links between cities, joins up communities, connects our major ports, airports and rail terminals. It provides a vital role in people's journeys, and drives prosperity by supporting new and existing development, encouraging trade and attracting investment. A well-functioning Strategic Road Network is critical in enabling safe and reliable journeys and the movement of goods in support of the national and regional economies.	Highways England is the strategic highways company charged with operating, maintaining and improving England's motorways and major A roads. The existing A303 is part of the trunk road network for which Highways England is responsible. The Scheme's alignment with the requirement of the NPSNN, in terms of its connectivity, and economic benefits are as per NPSNN paragraph 2.10, 2.12 and 2.16 of this Appendix. Safety benefits are as per NPSNN paragraph 3.10.
2.16	Traffic congestion constrains the economy and impacts negatively on quality of life by:	The Government is concerned that the UK economy is not functioning efficiently due to 'market distortions' or 'failures'[49]. The economy of the South West performs

[49] TAG Unit A2.1 Wider Economic Impacts Appraisal, DfT, May 2018

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
	- Constraining existing economic activity as well as economic growth, by increasing costs to businesses, damaging their competitiveness and making it harder for them to access export markets. Businesses regularly consider access to good roads and other transport connections as key criteria in making decisions about where to locate. - Leading to a marked deterioration in the experience of road users. For some, particularly those with time pressured journeys, congestion can cause frustration and stress, as well as inconvenience, reducing quality of life. - Constraining job opportunities as workers have more difficulty accessing labour markets. - causing more environmental problems, with more emissions per vehicle and greater problems of blight and intrusion for people nearby. This is especially true where traffic is routed through small communities or sensitive environmental areas	poorly compared to other regions of the UK, with a lower than average GDP per capita[50].This is largely due to its location but is made worse by the congestion, delays and unreliable journey times caused by inefficient transport infrastructure. Businesses in the South West have identified disruption to business travel and unreliable journey times due to congestion as major barriers to the growth of the region. In a survey[51] of over 650 businesses, 89% felt that the current unreliability of the A303 was harming their business. Local communities along the length of the existing A303 and to the north and south of the road are directly affected and blighted by the intrusion and congestion on the A303, and by traffic seeking to avoid congestion and delays. The traffic on the road also results in significant environmental impacts including high levels of traffic noise, visual intrusion and impact on wildlife. The Environmental Statement (Application Document 6.1) identifies sensitive environmental areas which are considered within the assessment. The existing A303 passes through a small community (Winterbourne Stoke) and within or close to sensitive environmental areas, which include Parsonage Down National Nature Reserve (NNR), the River Till Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC), Stonehenge, Avebury and Associated Sites WHS, the River Avon SSSI and SAC. Chapter 5 of this Case for the Scheme document indicates that the Scheme provides a significant improvement to the SRN between Amesbury and Berwick Down by dualling the A303 and improving connections with local roads. The Scheme would therefore support the delivery of more resilient communities in the

[50] EU Regional Innovation Monitor, base profile, South West England
[51] A303/A30/A358 Corridor Improvement Programme – Economic Impact Study. Parsons Brinkerhoff, February 2013.

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		area local to the Scheme. It would create appropriate capacity to cope with peak demand and growth on the SRN and provide a free flowing, safe and reliable network for the future which would support local growth. The Scheme would also improve access to the local area and the South West region and thus indirectly support economic productivity. This in turn would support and attract businesses to the South West and local area as well as boosting tourism and creating jobs. As described in Chapter 13 of the Environmental Statement (Application Document 6.1), the reduction in congestion and associated vehicular user severance on the route would reduce driver stress and would therefore improve driver experience. The Scheme would reunite the WHS, it would restore the tranquillity of the WHS landscape; reconnect the WHS with local communities; and improve provision for NMUs. It is expected to result in more visitors being attracted to the WHS and the local area. Furthermore, it would deliver biodiversity benefits with the introduction of measures such as green bridges and a net increase in semi natural habitat. Chapter 13 of the Environmental Statement (Application Document 6.1) considers effects on the amenity of residents. The assessment concludes that there are no residents or users of public rights of way, community facilities or businesses that would experience a significant effect on their amenity either during construction or operation.
2.17	The national road network is already under significant pressure. It is estimated that around 16% of all travel time in 2010 was spent delayed in traffic, and that congestion has significant economic costs: in 2010 the direct costs of congestion on the Strategic Road Network in England were	The extent to which existing and future congestion on the route is a constraint to the local and South West economy is described in Chapter 3 of the Case for the Scheme (Application Document 7.1). In a survey[52] of over 650 businesses in the South West, 89% of respondents felt that the current unreliability of the A303 was harming their business. In the local area, a survey by Salisbury and District

[52] A303/A30/A358 Corridor Improvement Programme – Economic Impact Study. Parsons Brinkerhoff, February 2013.

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
	estimated at £1.9 billion per annum.	Chamber of Commerce, 50% of local firms said congestion on the A303 had a negative impact on their business. The journey time savings delivered by the Scheme are as per NPSNN Paragraph 2.2 of this appendix.
2.18	The pressure on the road network is forecast to increase with economic growth, substantial increases in population and a fall in the cost of car travel from fuel efficiency improvements. Under the Department's 2014 estimates, it is forecast that a quarter of travel time will be spent delayed in traffic by 2040, with direct costs rising to £9.8 billion per annum by 2040 on the Strategic Road Network in England, without any intervention. Under our low and high demand scenarios, the proportion of travel time spent delayed in traffic could range between 12.1% and 21.8% on the Strategic Road Network. When considering all the roads within England, our central estimates would amount to: a. A 71% increase in the number of hours households spend delayed in traffic each year, from 45 hours is 2010 to 76 hours in 2040 b. A 150% increase in the number of working days lost to	The Transport Assessment (Application Document 7.4) sets out the methodology used in assessing future traffic pressures and this has informed the design of the Scheme. The effects the Scheme would have on traffic delays, taking account of increasing future demand, are as per NPSNN Paragraph 2.2 of this Appendix.

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
	congestion each year (from 42 million in 2010 to 106 million in 2040).	
2.22	Without improving the road network, including its performance, it will be difficult to support further economic development, employment and housing and this will impede economic growth and reduce people's quality of life. The Government has therefore concluded that at strategic level there is a compelling need for development of the national road network.	Chapter 5 of this Case for the Scheme document demonstrates that the Scheme provides a significant improvement to the SRN between Amesbury and Berwick Down by dualling the A303 and delivering other improvements such as improved connections with local roads. The Scheme would therefore support the delivery of more resilient communities in the area local to the Scheme. It would create appropriate capacity to cope with peak demand and growth on the SRN and provide a free flowing, safe, reliable and resilient network for the future which would support economic and housing growth. The Scheme would also improve access to the local area and the South West region and thus indirectly support economic productivity. This in turn would support and attract businesses to the region and local area as well as boost tourism and create jobs.
2.23	The Government's wider policy is to bring forward improvements and enhancements to the existing Strategic Road Network to address the needs set out earlier. Enhancements to the existing national road network will include: - junction improvements, new slip roads and upgraded technology to address congestion and improve performance and resilience at junctions, which are a major source of congestion; - implementing "smart motorways" (also known as "managed motorways") to increase capacity and improve	The Scheme provides a significant improvement to the SRN between Amesbury and Berwick Down by dualling the A303 and delivering other improvements such as improved connections with local roads. It creates appropriate capacity to cope with peak demand and growth on the SRN and provide a free flowing, safe, reliable and resilient network for the future which supports local growth, and growth in the South West. The Scheme provides a new highway comprising of the following main features: a. a northern bypass to Winterbourne Stoke with a viaduct over the River Till valley; b. a new junction with the A303 and A360 to the west of and outside the WHS, replacing the existing Longbarrow roundabout; c. a twin-bore tunnel approximately 2 miles (3.3 kilometres) long, past Stonehenge; and

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
	performance; - improvements to trunk roads, in particular dualling of single carriageway strategic trunk roads and additional lanes on existing dual carriageways to increase capacity and to improve performance and resilience.	d. a new junction between the A303 and A345 at the existing Countess roundabout. The Scheme features equipment to enable operational monitoring and control of traffic during incidents and maintenance, equipment would be located along the length of the Scheme. The equipment includes CCTV cameras and variable message signs.
2.24	The Government's policy on development of the Strategic Road Network is not that of predicting traffic growth and then providing for that growth regardless. Individual Schemes will be brought forward to tackle specific issues, including those of safety, rather than to meet unconstrained traffic growth (i.e. 'predict and provide').	The Government's aim, announced in the Road Investment Strategy for the 2015/16 to 2019 Road Period ("RIS1") is to upgrade all remaining single carriageway sections of the A303 between the M3 and the A358 to create a high quality dual carriageway route to the South West on which mile-a-minute journeys are the norm, and to tackle specific issues on this section of the SRN. In pursuit of this aim, eight improvement schemes have been identified. It is proposed that these will form a staged programme of improvement. Three of the schemes, including A303 Amesbury to Berwick Down, are included in the current (2015/16 to 2020/21) Road Period.
2.25	On the road network different approaches and measures will be appropriate for different places. This reflects differences in local preferences and choices and differing scope for alternatives to road travel. The network must also offer a coherent mode of transport for national journeys and must combine to form a single, usable network. In general, the nature of some journeys on the Strategic Road Network mean that there will tend to be less scope for the use of alternative transport modes.	The Scheme is designed to address capacity and congestion issues on the A303, which is an important route on the SRN. The primary alternative mode for the dominant long-distance trips on the A303 corridor would be rail. The South West and South Wales Multi-Modal Study (SWARMMS) strategy identified improvements required to these lines, and a number of these have been implemented. Whilst further improvements would deal with existing rail capacity and speed issues, it not would be impossible for a rail improvement to entirely solve the identified problems in the location of the Scheme. The Scheme will not result in any changes to existing bus stops and will therefore have no direct impact on local bus routes. As a result, there will be no material effect on local bus services that operators would need to respond to.

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
2 The need for development of the national networks and Government's policy		
		Section 8.5 of the Transport Assessment (Application Document 7.4) considers alternative modes of transport. As per NPSNN paragraph 3.17 and 3.19 of this Appendix, the Scheme is designed to incorporate and improve alternative forms of transport to provide a usable route throughout the Scheme.
2.27	In some cases, to meet the need set out in section 2.1 to 2.11, it will not be sufficient to simply expand capacity on the existing network. In those circumstances new road alignments and corresponding links, including alignments which cross a river or estuary, may be needed to support increased capacity and connectivity.	Chapter 3 Assessment of Alternatives of the Environmental Statement (Application Document 6.1) sets out the process of options identification, selection and development. It explains why the alignment of the Scheme, including the crossing of the Rivers Till and Avon, remains close to the alignment of the existing A303 and why an alternative alignment taking the road outside the WHS would not be deliverable.

Table A2: National Policy Statement for National Networks Chapter 3

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
3	**WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS**	
Environmental and Social Impacts		
3.2	The Government recognises that for development of the national road and rail networks to be sustainable these should be designed to minimise social and environmental impacts and improve quality of life.	The objectives of the Scheme are: **Transport**: to create a high quality reliable route between the South East and South West that meets the future needs of traffic; **Economic Growth**: to enable growth in jobs and housing by providing a free flowing and reliable connection between the South East and the South West; **Cultural Heritage**: to help conserve and enhance the WHS and to make it easier to reach and explore; and **Environment and Community**: to improve biodiversity and provide a positive legacy for nearby communities. Whilst the Scheme does have impacts (as expressed in the Environmental Statement), the Scheme has been designed to meet the above objectives and will minimise social and environmental impacts and improve quality of life, as per NPSNN Paragraph 2.16 of this Appendix. In addition, the Scheme would in an overall reduction in disturbance from traffic noise within Winterbourne Stoke and other nearby communities affected by rat running and congestion; as well as improving connectivity between communities across the route corridor. These improvements would improve quality of life within those communities. These benefits are described in further detail in Chapter 5 of this Case for the Scheme document. The Scheme would deliver a wide range of environmental and social benefits and these are discussed in Chapter 5 of this Case for the Scheme document.
3.3	In delivering new schemes, the Government expects applicants to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the Government's planning guidance. Applicants should also provide evidence that they have considered	At the core of the NPPF is a presumption in favour of sustainable development. The principles of the NPPF relevant to each of the topics covered in the ES, and local planning policies that need to be considered, are set out in Chapter 7 of this Case for the Scheme document. An Environmental Impact Assessment (EIA) of the Scheme has been carried out, and is reported in the Environmental Statement

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
3	**WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS**	
	reasonable opportunities to deliver environmental and social benefits as part of schemes.	(Application Document 6.1) which assesses the likely significant environmental impacts of the Scheme (including those on local communities) and presents mitigation for the likely significant adverse environmental effects arising from the Scheme. The residual significant environmental effects of the Scheme (following mitigation which is proposed) are described in Environmental Statement Chapter 16 (Application Document 6.1). The environmental and social benefits of the Scheme are summarised in Table 5-1 of this document.
3.6	Transport will play an important part in meeting the Government's legally binding carbon targets and other environmental targets. As part of this there is a need to shift to greener technologies and fuels, and to promote lower carbon transport choices. Over the next decade, the biggest reduction in emissions from domestic transport is likely to come from efficiency improvements in conventional vehicles, specifically cars and vans, driven primarily by EU targets for new vehicle CO2 performance. Electrification of the railway will also support reductions in carbon.	Chapter 14 Climate of the Environmental Statement (Application Document 6.1) provides an assessment of greenhouse gas (GHG) emissions arising from the construction and operation of the Scheme. The ES acknowledges that GHG emissions per vehicle are expected to decrease over time due to increased vehicle efficiency and the use of alternative fuels.
3.8	The impact of road development on aggregate levels of emissions is likely to be very small. Impacts of road development need to be seen against significant projected reductions in carbon emissions and improvements in air quality as a result of current and future policies to meet the Government's legally binding carbon budgets and the European Union's air quality limit values. For example: - Carbon – the annual CO2 impacts from delivering a	Chapter 14 Climate of the Environmental Statement (Application Document 6.1) indicates that GHG emissions arising as a result of the Scheme represent less than 0.03% of total emissions in any five-year carbon budget during which they arise. The Environmental Statement concludes that the GHG emissions arising as a result of the Scheme would not have a material impact on the Government meeting its carbon reduction targets. In addition, the assessment concludes that no significant cumulative effects with other schemes are anticipated. Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1)

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
3	**WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS**	
	programme of investment on the Strategic Road Network of the scale envisaged in Investing in Britain's Future amount to well below 0.1% of average annual carbon emissions allowed in the fourth carbon budget This would be outweighed by additional support for ULEVs also identified as overall policy. - Air quality – aggregate air quality impacts from delivering a programme of investment on the Strategic Road Network of the scale envisaged in Investing in Britain's Future are small. Total PM10 and NOX might be expected to increase slightly, but this needs to be seen in the context of projected reductions in emissions over time. PM10 and NOX are expected to decrease over the next decade or so as a result of tighter vehicle emission standards, then flatten, with further falls over time due to greater levels of electric and other ultra-low emission vehicles.	assesses the impact of the Scheme during construction and operation on air quality. There are no predicted annual average concentrations of NO_2 above the air quality objective in either the years of construction or first year of operation for the scheme in the air quality study area. Therefore, there are no small, medium or large changes in air quality above the air quality objective set by the EU and transposed into UK law by the Air Quality Standards Regulations 2010. A compliance risk assessment has been undertaken for the air quality study area. This found that there are no links reported by Defra to the European Commission as non-compliant in either the years of construction or the first year of scheme operation within the air quality study area. This indicates there is no compliance risk for the Scheme. The air quality effects of the Scheme for European and National designated ecosystem sites are considered in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). The assessment concludes that the predicted changes in air quality and nitrogen deposition are not significant.
3.10	The Government's overall vision and approach on road safety is set out in the Strategic Framework for Road Safety. It is a vision in which Britain remains a world leader in road safety; where highway authorities are empowered to take informed decisions within their area; where driver and rider training gives learners the skills they need to be safe on our roads; and where tough measures are taken against the minority of offenders who deliberately choose to drive dangerously. As set out in paragraphs 4.60 to 4.66, Scheme promoters are expected to take opportunities to	The Scheme has been designed in accordance with a number of design principles and technical design codes which support the overarching vision for road safety. Section 3.4 Other design principles and requirements of the Design and Access Statement (DAS) (Application Document 7.2) details those documents which have influenced design and contain road safety design principles and features which have been embodied into the Scheme. Section 6.2 Scheme wide design principles of the DAS provides further detail on how the scheme addresses some safety design considerations. The Scheme would upgrade the existing A303 to a modern standard. Junctions are

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
3	**WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS**	
	improve road safety, including introducing the most modern and effective safety measures where proportionate.	largely or entirely grade separated, so traffic on the main road can proceed without stopping. The Scheme includes technology to manage traffic and provide better information to drivers. This is achieved by designing the route to desirable minimum standards as defined in Design Manual for Roads and Bridges (DMRB) (June 2018). These include vehicle restraint system barriers, which would be provided in accordance with the required standards. An analysis of predicted accidents and casualties for the 60-year appraisal period has been undertaken, and is presented within Chapter 5 of the Transport Assessment (Application Document 7.4). For the Scheme section only (not considering other corridors), the Scheme would result in a decrease in accidents and casualties over the 60-year appraisal period. As stated in Chapter 5 of this Case for the Scheme document, the monetary value of the overall change in forecast accidents is a benefit of £4 million. Further detail on the benefits for accidents and casualties is provided at NPSNN Paragraph 4.61 of this Appendix. The tunnel design addresses European Directive 2004/54/EC of the European Parliament on minimum safety requirements for tunnels in the Trans-European Road Network and as outlined in NPSNN Paragraphs 4.60-66 of this Appendix. This includes, lighting the tunnel internally ensuring safety of road users. Escape routes would be provided between the tunnel portals. The Scheme is being designed in accordance with the Design Manual for Roads and Bridges (2018), which provides modern and rigorous highways safety standard for roads and tunnels.
Sustainable Transport		
3.17	There is a direct role for the national road network to play in helping pedestrians and cyclists. The Government expects applicants to use reasonable endeavours to address the	Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) identifies the existing safety and severance issues for NMUs using the existing PRoW and road network and sets out mitigation and enhancements

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	needs of cyclists and pedestrians in the design of new Schemes. The Government also expects applicants to identify opportunities to invest in infrastructure in locations where the national road network severs communities and acts as a barrier to cycling and walking, by correcting historic problems, retrofitting the latest solutions and ensuring that it is easy and safe for cyclists to use junctions.	proposed as part of the Scheme. These include: - new PRoWs created in the western section along the de-trunked/downgraded A303, including on the north and south side of the new alignment and a new segregated bridleway east from Winterbourne Stoke to the new Longbarrow Junction; - the provision of 'green bridges' one of which facilitates the realignment of the existing WSTO6B PRoW and two of which each provide a new NMU route; and - the tunnelling of the A303 and downgrading the current road in that section to a route open to NMUs only and extending to the Stonehenge Visitor Centre to the north and AMES13 to the south. Severance is also considered further in response to NPSNN paragraph 3.19. In addition to accessibility improvements, the Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) identifies the following safety benefits of the Scheme: - improved amenity experience and safety of PRoW users through the tunnelling, de-trunking of the A303 and the provision of newly created NMU routes; and - improved safety for residents in the vicinity of the junctions through improved NMU facilities and separating trunk road traffic from local traffic movements, as well as providing a consistent high standard of signing relating to the junctions.
Accessibility		
3.19	The Government is committed to creating a more accessible and inclusive transport network that provides a range of opportunities and choices for people to connect with jobs, services and friends and family.	As set out in Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1), congestion on the existing A303 and connecting roads is a source of severance for both Motorised Travellers and Non-Motorised Users, affecting access across the A303 or connecting roads within villages such as

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		Winterbourne Stoke and Shrewton. It also reduces access along the A303 for Motorised Travellers to services in larger communities such as Amesbury or further afield. The upgraded A303 would allow east-west journeys through the Scheme to take less time, be more reliable and resilient, thereby improving the driver experience and reducing driver stress. The improvements to travel times along the route, which would benefit all Motorised Travellers, are as per NPSNN paragraph 2.2 of this Appendix. The Scheme would also reduce severance for NMUs. As part of the package of improvements to Non-Motorised User routes (as described in 3.17, above), the former A303 route through the WHS would be downgraded to a route for NMUs, approximately 4.2km in length. This route would reduce severance between Winterbourne Stoke and Amesbury for Non-Motorised Users. Section 6.5 of the Transport Assessment (Application Document 7.4) indicates that the Scheme would not result in any changes to existing bus stops and would therefore have no direct impact on local bus routes.
3.20	The Government expects applicants to improve access, wherever possible, on and around the national networks by designing and delivering Schemes that take account of the accessibility requirements of all those who use, or are affected by, national networks infrastructure, including disabled users. All reasonable opportunities to deliver improvements in accessibility on and to the existing national road network should also be taken wherever appropriate.	The Scheme is designed to provide improved access between London and the South West. The Highways England design standards and Scheme specific details are compliant with current national legislation set out under the Equality Act 2010 and associated Public Sector Equality Duty (PSED). Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) indicates that provision of a tunnel in the Stonehenge WHS and the conversion of the existing A303 to a restricted byway in this location would provide additional opportunity for recreational walking and cycling journeys for residents of Winterbourne Stoke, Shrewton and other villages in the River Till valley. To consider whether the Scheme design provides for inclusive transport options for

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		all users, an Equality Impact Assessment (EqIA) (Application Document 7.3) has been undertaken of the Scheme. The EqIA is a predictive assessment tool which is designed to ensure that projects do not discriminate against or disadvantage people, and also considers how equality can be advanced. The EqIA concludes the Scheme design is likely to provide a range of benefits that would be shared by groups with protected characteristics. Children, younger people, older people and disabled users are all predicted to benefit from reduced community Severance caused by rat-running through villages surrounding the A303 when there is congestion on the A303. Winterbourne Stoke in particular would experience reduced severance due to the removal of the existing A303 from the village. The Scheme includes direct benefits such as improved facilities for NMU, benefitting cyclists, pedestrians and equestrian users and also provides a more reliable route for those with protected characteristics using private cars. Section D of the EqIA indicates that changes to journey times, local travel patterns, and certainty of route for NMUs would arise from the temporary closures and diversions of PRoWs. This impact would be mitigated by retention of the wider network of alternative available routes during construction. . This should reduce construction impact on NMU users, however is it accepted that even minimal disruption can have an adverse impact on groups with mobility issues such as older people and people with disabilities. The routes for diversions would be agreed with Wiltshire Council.
3.21	Applicants are reminded of their duty to promote equality and to consider the needs of disabled people as part of their normal practice. Applicants are expected to comply with any obligations under the Equalities Act 2010.	As per NPSNN paragraph 3.19 and 3.20 of this Appendix. In addition to accessibility issues (considered in NPSNN Paragraph 3.20 of this Appendix), the EqIA (Application Document 7.5) and Heritage Impact Assessment (Application Document 6.3) consider the impact on other groups with protected

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		characteristics. Stonehenge is of religious importance to Pagans and Druids. The Heritage Impact Assessment (Application Documents 6.3) concludes that the construction of the Scheme would not have a direct physical impact on any heritage assets that are considered spiritually significant to the pagan and druid groups consulted during preparation of the Heritage Impact Assessment. The Scheme is likely to have beneficial effects on the setting of several heritage asset groups with spiritual significance, as identified in the Heritage Impact Assessment. The Heritage Impact Assessment acknowledges that the spiritual experiences of the landscape are not confined to Asset Groups, or to cultural heritage assets. Archaeological sites, combined with flora and fauna, landforms, places of personal and collective memory, and peoples' individual beliefs, contribute to a landscape which, for some, fosters contemplation and spiritual practices. Although the new tunnel introduces modern infrastructure into the land, with deep cuttings and portals, the removal of the existing A303 surface route would result in a beneficial impact on spiritual experiences and practices within the landscape as a whole.
3.22	Severance can be a problem in some locations. Where appropriate applicants should seek to deliver improvements that reduce community severance and improve accessibility.	As per NPSNN paragraph 3.19 of this Appendix, the impact of the Scheme on severance is assessed in Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1). Once operational, the Scheme would overall reduce severance, and benefit NMU. In addition, the Scheme would result in permanent relief from the vehicular user severance caused by congestion on the A303.

Table A2: National Policy Statement for National Networks Chapter 4

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4	**ASSESSMENT PRINCIPLES**	
4.3	In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account: - its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; - its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts	Chapter 5 of this Case for the Scheme document provides an overview of the transport, economic, cultural heritage, community and environmental benefits associated with the Scheme. The Scheme offers a uniquely effective solution to the two key challenges – congestion on the A303 and the impacts of the road and traffic on the WHS. It will remove a long-standing bottleneck for road users, helping to create a high performing dual carriageway route to the South West, supporting the local and regional economy. With part of the road in a tunnel, the Scheme will also remove a large section of the A303 from the most sensitive part of the WHS, allowing the two parts of the site to be reconnected. The tunnel, deep cuttings and related mitigation measures will reduce visual intrusion and the sound from traffic within the WHS, enhancing its enjoyment and important views within the prehistoric landscape. The Scheme will reduce traffic impacts on Winterbourne Stoke, reduce rat-running in other local settlements, and improve the resilience and safety of this part of the strategic road network. Section 5 of this Appendix addresses the impact assessments required by the NPSNN and the conclusions of the assessment of adverse effects, including those residual adverse effects presented in the Environmental Statement. Based on the information presented to respond to Section 5 of this Appendix, it is concluded that the Scheme does not cause any adverse effects that, considered individually, cumulatively or as a whole are so severe that the decision maker should refuse the application. The Non-Technical Summary of the Environmental Statement (Application Document 6.4) also provides a summary of the residual significant environmental

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
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		effects, including benefits arising from the Scheme.
4.4	In this context, environmental, safety, social and economic benefits and adverse impacts, should be considered at national, regional and local levels. These may be identified in this NPS, or elsewhere.	The Environmental Statement (Application Document 6.1) reports on the EIA, which has been carried out with consideration for potential effects at national, regional and local levels. The DAS (Application Document 7.2) and Transport Assessment (Application Document 7.4) consider the safety benefits of the Scheme. These are as per NPSNN Paragraph 3.10. The economic benefits of the Scheme are described within Chapter 5 of this Case for the Scheme document, and as per NPSNN Paragraph 2.6 and 2.10.
General principles of assessment – Business Case		
4.5	Applications for road and rail projects (with the exception of those for SRFIs, for which the position is covered in paragraph 4.8 below) will normally be supported by a business case prepared in accordance with Treasury Green Book principles. This business case provides the basis for investment decisions on road and rail projects. The business case will normally be developed based on the Department's Transport Business Case guidance and WebTAG guidance. The economic case prepared for a transport business case will assess the economic, environmental and social impacts of a development. The information provided will be proportionate to the development. This information will be important for the Examining Authority and the Secretary of State's consideration of the adverse impacts and benefits of a	Application Document The Scheme's business case has been developed in line with the Government's requirements set out in the HM Treasury's Green Book, as well as Department for Transport Business Case guidance and WebTAG guidance. This has informed the economic case for the Scheme, which is presented within Chapter 5 of this document, and the transport economics presented within ComMA Appendix D: Economic Appraisal Package (Application Document 7.5). It presents the anticipated benefits and dis-benefits associated with the Scheme. The economic benefits include savings in journey times, fuel and accidents, air quality benefits, taxation impacts, improved journey time reliability and wider economic impacts. The wider economic benefits also include the economic value of removing the road from the WHS. Chapter 5 concludes that taking into account the wider economic, journey time reliability and cultural heritage impacts of the scheme, the adjusted Net Present Value (NPV) is calculated at approximately £150 million.

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	proposed development. It is expected that NSIP Schemes brought forward through the development consent order process by virtue of Section 35 of the Planning Act 2008, should also meet this requirement.	
Local transport model		
4.6	Applications for road and rail projects should usually be supported by a local transport model to provide sufficiently accurate detail of the impacts of a project. The modelling will usually include national level factors around the key drivers of transport demand such as economic growth, demographic change, travel costs and labour market participation, as well as local factors. The Examining Authority and the Secretary of State do not need to be concerned with the national methodology and national assumptions around the key drivers of transport demand. We do encourage an assessment of the benefits and costs of Schemes under high and low growth scenarios, in addition to the core case. The modelling should be proportionate to the scale of the Scheme and include appropriate sensitivity analysis to consider the impact of uncertainty on project impacts.	A local transport model has been produced in line with Department for Transport (DfT) guidelines. Details are provided in the Transport Assessment (Application Document 7.4), and the Traffic Forecasting Report (Application Document 7.5). The 'A303 Stonehenge South West Regional Traffic Model (SWRTM) (DCO) model' has been developed as a refinement of the Highways England's SWRTM. Information from the existing models was augmented, particularly with the introduction of local demand data, local traffic counts and network refinements pertinent to the Scheme. The A303 Stonehenge SWRTM (DCO) model was developed, calibrated and validated in accordance with guidance: this includes appropriate elements of the DfT's Web-based Transport Analysis Guidance (WebTAG) as well as guidelines produced during the development of the Highways England Regional Traffic Models (RTMs). This approach has ensured a proportionate approach to modelling. In addition to appraising the core scenario, the model has also been used to assess the impacts of three alternative scenarios around the core assumptions. These include high and low growth scenarios, in accordance with guidance in WebTAG unit M4, and an alternative local growth scenario. This approach addresses the impact of uncertainty on the project. The initial estimate for the reference demand is developed using a combination of an Uncertainty Log and national growth forecasts published within the National Trip End Model (NTEM) and generated by the Trip End Model Program (TEMPro 7.2).

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		NTEM is a national database which considers changes in population at local authority level, changes in employment at local authority level and changes to economic factors such as household incomes at the national level.
4.9	The Examining Authority should only recommend, and the Secretary of State should only impose, requirements in relation to a development consent, that are necessary, relevant to planning, relevant to the development to be consented, enforceable, precise, and reasonable in all other respects. Guidance on the use of planning conditions or any successor to it, should be taken into account where requirements are proposed.	The draft Development Consent Order (DCO) (Application Document 3.1) includes proposed Requirements which are considered to be necessary, relevant, enforceable, precise and reasonable and has taken into account guidance on the use of planning conditions. The Explanatory Memorandum (Application Document 3.2) explains the purpose and effect of each provision in the draft DCO, including the requirements.
4.10	Planning obligations should only be sought where they are necessary to make the development acceptable in planning terms, directly related to the proposed development and fairly and reasonably related in scale and kind to the development	The parameters for a section 106 agreement with Wiltshire Council are being considered, and will be informed by the Statement of Common Ground with the Council. Any obligations which are specified within this Section 106 agreement will be in accordance with this policy, and therefore would be capable of being material to the Secretary of State's consideration of the DCO application.
Environmental Impact Assessment		
4.15	All proposals for projects that are subject to the European Union's Environmental Impact Assessment Directive and are likely to have significant effects on the environment, must be accompanied by an environmental statement (ES), describing the aspects of the environment likely to be significantly affected by the project. The Directive specifically requires an environmental impact assessment to identify, describe and assess effects on human beings, fauna and flora, soil, water, air, climate, the landscape,	An Environmental Statement has been prepared in accordance with the Infrastructure Planning (EIA) Regulations 2017. The Environmental Statement presents a description of the Scheme, the likely significant environmental effects of the Scheme, the measures to avoid or reduce such effects and the alternatives considered. Chapter 4 Environmental Assessment Methodology of the Environmental Statement (Application Document 6.1) sets out the approach taken to prepare the EIA.

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	material assets and cultural heritage, and the interaction between them. Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 sets out the information that should be included in the environmental statement including a description of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project, and also the measures envisaged for avoiding or mitigating significant adverse effects. Further guidance can be found in the online planning portal. When examining a proposal, the Examining Authority should ensure that likely significant effects at all stages of the project have been adequately assessed. Any requests for environmental information not included in the original environmental statement should be proportionate and focus only on significant effects. In this NPS, the terms 'effects', 'impacts' or 'benefits' should accordingly be understood to mean likely significant effects, impacts or benefits.	
4.16	When considering significant cumulative effects, any environmental statement should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been granted, as well as those already in existence). The Examining Authority may also have other evidence before it, for example from a Transport Business Case, appraisals of	Chapter 15 Cumulative Effects of the Environmental Statement (Application Document 6.1) sets out the how the effects of the Scheme would combine and interact with the effects of other development. The cumulative effects assessment has been undertaken in accordance with PINS Advice Note 17: Cumulative Effects Assessment published December 2015. The cumulative assessment has identified a number of receptors where in-combination impacts may arise, particularly during construction where works would

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	sustainability of relevant NPSs or development plans, on such effects and potential interactions. Any such information may assist the Secretary of State in reaching decisions on proposals and on mitigation measures that may be required..	be in close proximity to receptors. These effects may include visual, noise and dust effects. Due to the nature of the works, there are limited opportunities for mitigation measures to avoid these potentially significant effects during construction. It should be noted that the visual impacts alone are currently anticipated to result in significant effects on the identified receptors. The additional adverse impacts due to noise and (in some cases) dust may be expected to combine resulting in an effect of greater magnitude, but which would vary during the construction period due to the phasing of works. The combined effects reported in the assessment therefore represent the 'worst case' construction period. During operation, a significant effect is likely to remain in respect of recreational users on byways within the River Till floodplain and the residents of Countess Farm. Beneficial effects due to combined impacts have also been identified once the Scheme is operational, related to the removal of existing A303 traffic from Winterbourne Stoke and from the central section of the WHS. Chapter 15 Cumulative Effects of the Environmental Statement (Application Document 6.1) indicates that a review of the planning applications and proposed developments within the Scheme's Zone of Influence, which generally extends to 2km was undertaken to identify other developments where effects could combine or interact with the effects of the Scheme. These are presented in Appendix 15.2 of the Environmental Statement. The predicted traffic flows associated with the developments identified have been included in the traffic data used for the noise, air quality, water, and people and communities assessments. As such, these assessments are inherently cumulative. Of the nine other developments identified with the potential for combined impacts, none are anticipated to result in significant adverse cumulative effects with the proposed scheme during construction or operation.

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4	**ASSESSMENT PRINCIPLES**	
4.17	The Examining Authority should consider how significant cumulative effects and the interrelationship between effects might as a whole affect the environment, even though they may be acceptable when considered on an individual basis with mitigation measures in place.	Chapter 15 Cumulative Effects of the Environmental Statement (Application Document 6.1) indicates that once the Scheme is operational, significant adverse combined effects (i.e. inter-relationship effects on a single receptor) are likely to remain in respect of recreational users on byways within the River Till floodplain and the residents of Countess Farm. Beneficial combined effects have also been identified once the Scheme is operational, related to the removal of existing A303 traffic from Winterbourne Stoke and from the central section of the WHS. No significant cumulative effects (i.e. effects of the proposed scheme acting cumulatively with effects from other proposed developments) are identified during construction or operation.
4.18	In some instances it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail. Where this is the case, the applicant should explain in its application which elements of the proposal have yet to be finalised, and the reasons why this is the case.	Detail of the Scheme design is shown on the Works Plans and the Engineering Section Drawings (Application Document 2.5, 2.7 & 2.8) and the Chapter 4 of this Case for the Scheme document. The Scheme involves linear and non-linear works. The draft DCO (Application Document 3.1) provides for limits of deviation both laterally and vertically. The purpose of this is to provide Highways England with a necessary, but proportionate degree of flexibility when constructing the Scheme. At this stage, all the land included in the Order limits is considered to be necessary to enable the delivery of the Scheme, as explained in the Statement of Reasons (Application Document 4.1). The maximum design parameters referenced in the draft DCO have been assessed in the Environmental Statement (Application Document 6.1). The realistic worst 'case scenario' has been applied for the EIA. Additionally, where there are elements of the Scheme which have not been finalised, or temporary works, the realistic 'worst case' scenario has been applied.
4.19	Where some details are still to be finalised, applicants are advised to set out in the environmental statement, to the best of their knowledge, what the maximum extent of the proposed development may be (for example in terms of site area) and assess the potential adverse effects which the project could have to ensure that the impacts of the project as it may be constructed have been properly assessed.	

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4	**ASSESSMENT PRINCIPLES**	
4.20	Should the Secretary of State decide to grant development consent for an application where details are still to be finalised, this will need to be reflected in appropriate development consent requirements in the development consent order. If development consent is granted for a proposal and at a later stage the applicant wishes for technical or commercial reasons to construct it in such a way that it is outside the terms of what has been consented, for example because its extent will be greater than has been provided for in terms of the consent, it will be necessary to apply for a change to be made to the development consent.	The draft requirements contained in the draft DCO (Application Document 3.1) make provision for the detailed design of the Scheme in general accordance with the Works Plans and Engineering Section Drawings (Application Document 2.5, 2.7 & 2.8), subject to any variation agreed in writing by the Secretary of State on the basis that the changes would not give rise to any materially new or materially worse adverse environmental effects in comparison with those reported in the environmental statement.
4.21	In cases where the EIA Directive does not apply to a project, and an environmental statement is not therefore required, the applicant should instead provide information proportionate to the project on the likely environmental, social and economic effects.	The EIA Directive and therefore the Infrastructure Planning (EIA) Regulations 2017 apply to the Scheme and therefore this NPSNN paragraph is not applicable.
Habitats Regulations Assessment		
4.22	…The applicant should seek the advice of Natural England and, where appropriate, for cross-boundary impacts, Natural Resources Wales and Scottish Natural Heritage to ensure that impacts on European sites in Wales and Scotland are adequately considered.	Highways England has engaged with Natural England to ensure that the Scheme includes the requisite measures to avoid adversely affecting the integrity of the River Avon SAC and the Salisbury Plain SAC and Special Protection Area (SPA). Appendix 8.25 Assessment of Implications on European Sites (AIES): Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3) confirms that the DCO boundary of the project does not overlap with areas of devolved administrations nor with those of other EEA States.

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4	**ASSESSMENT PRINCIPLES**	
4.23	Applicants are required to provide sufficient information with their applications for development consent to enable the Secretary of State to carry out an Appropriate Assessment if required. This information should include details of any measures that are proposed to minimise or avoid any likely significant effects on a European site. The information provided may also assist the Secretary of State in concluding that an appropriate assessment is not required because significant effects on European sites are sufficiently unlikely that they can be excluded.	In accordance with the Conservation of Habitats and Species Regulations 2017, a Habitats Regulations Assessment ("HRA") Screening has been undertaken for each SPA and SAC which could be affected by the Scheme and this is set out in Appendix 8.24 The Likely Significant Effects Report of the Environmental Statement Appendices (Application Document 6.3) , Appendix 8.25 Assessment of Implications on European Sites (AIES): Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3) sets out the second stage of the HRA process and has been undertaken with reference to Planning Inspectorate Advice Note Ten: Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects (version 8, November 2017). Selection of the preferred route option also took HRA screening into account, and was informed by an earlier HRA screening assessment. Appendix 8.24 The Likely Significant Effects Report of the Environmental Statement Appendices (Application Document 6.3) and Appendix 8.25 Assessment of Implications on European Sites (AIES): Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3) provide sufficient information to enable the Secretary of State for Transport (and the Planning Inspectorate, acting on its behalf) to determine whether an appropriate assessment is required and to undertake the assessment pursuant to Regulation 63(2) of the Conservation of Habitats and Species Regulations 2017. This includes measures to avoid any likely significant effects. As described within Appendix 8.24 The Likely Significant Effects Report of the Environmental Statement Appendices likely significant effects on the River Avon SAC, Salisbury Plain SAC, and Salisbury Plain SPA could not be dismissed. For all three European sites, impacts have been taken forward to Appropriate Assessment because there are likely to be significant impacts without any mitigation, and so the appropriate assessment takes the proposed mitigation into

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		account in forming a conclusion regarding effects on integrity. Appendix 8.25 Assessment of Implications on European Sites (AIES): Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3) indicates that following the inclusion and implementation of the mitigation measures set out and discussed in the Statement to Inform, the Scheme would have no adverse effect on the integrity of any European sites alone or in combination with other projects and plans.
4.24	If a proposed national network development makes it impossible to rule out an adverse effect on the integrity of a European site, it is possible to apply for derogation from the Habitats Directive, subject to the proposal meeting three tests. These tests are that no feasible, less-damaging alternatives should exist, that there are imperative reasons of overriding public interest for the proposal going ahead, and that adequate and timely compensation measures will be put in place to ensure the overall coherence of the network of protected sites is maintained.	Appendix 8.25 Assessment of Implications on European Sites (AIES): Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3) has demonstrated that the Scheme would not have adverse effects on the integrity of any European sites, and this paragraph of the NPSNN is therefore not applicable.
4.25	Where a development may negatively affect any priority habitat or species on a site for which they are a protected feature, any Imperative Reasons of Overriding Public Interest (IROPI) case would need to be established solely on one or more of the grounds relating to human health, public safety or beneficial consequences of primary importance to the environment.	The Appropriate Assessment described in NPSNN paragraph 4.22 of this Appendix has demonstrated that the Scheme would not have adverse effects on priority habitats or species on a site for which they are a protected feature, and this paragraph of the NPSNN is therefore not applicable.
Alternatives		

NPSNN Paragraph Number	Requirement of the National Policy Statement for National Networks (NPSNN)	Scheme compliance with the NPSNN
4	**ASSESSMENT PRINCIPLES**	
4.26	Applicants should comply with all legal requirements and any policy requirements set out in this NPS on the assessment of alternatives. In particular: - The EIA Directive requires projects with significant environmental effects to include an outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects. - There may also be other specific legal requirements for the consideration of alternatives, for example, under the Habitats and Water Framework Directives. - There may also be policy requirements in this NPS, for example the flood risk sequential test and the assessment of alternatives for developments in National Parks, the Broads and Areas of Outstanding Natural Beauty (AONB).	Chapter 3 Assessment of Alternatives of the Environmental Statement (Application Document 6.1) sets out the main alternatives considered and how the preferred option was determined through consideration of environmental effects. Table 3-1 identifies those route options which were not taken forward, and environmental and other reasons why these were not progressed. Chapter 3 of this Case for the Scheme document also sets out the alternative options considered and how the preferred option was determined. In terms of other specific legal requirements for the consideration of alternatives: - Appendix 11.2 Water Framework Directive Compliance Assessment of the Environmental Statement Appendices (Application Document 6.3) demonstrates that the Scheme does not lead to any deterioration in the status of any quality element for surface or ground water bodies; nor would it lead to a delay in compliance of WFD objectives for the relevant water bodies. As such, the alternatives test under the WFD is not engaged. - Appendix 8.25 The Assessment of Implications for European Sites, to Inform Appropriate Assessment of the Environmental Statement (Application Document 6.3) carried out under the Habitat Regulations concludes that no likelihood of significant effects, or no adverse effect on the integrity of the relevant European Site arises from the Scheme. As such, the alternatives test under these Regulations is not engaged. - The Statement of Reasons (Application Document 4.1) considers the application of the alternatives test in a compulsory acquisition context; and demonstrates that all of the permanent land within the Order limits is required for the Scheme and that no alternative exists to the compulsory acquisition proposed. Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement (document 6.3) details the application of the sequential test.

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		The Scheme is not located within a National Park, the Broads or an Area of Outstanding Natural Beauty.
4.27	All projects should be subject to an options appraisal. The appraisal should consider viable modal alternatives and may also consider other options (in light of the paragraphs 3.23 to 3.27 of this NPS). Where projects have been subject to full options appraisal in achieving their status within Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker. For national road and rail Schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process. It is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken.	Prior to the A303's inclusion within the Government's Road Investment Strategy, the Government Office for the South West produced the *London to South West and South Wales Multi Modal Study* (SWARMMS) (2012), which considered alternative modes of transport on the wider transport network in the area, included on the rail network in order to improve transport connections between the south west, south wales and London. This included consideration of a multi-modal transport corridor including rail and road connections between London and Exeter, London and Bristol & Severn Estuary, Bristol and Exeter, and Exeter and Penzance. The primary alternative mode for the dominant long-distance trips on the A303 corridor would be rail. The SWARMMS strategy identified improvements required to these lines, and a number of these have been implemented. Whilst further improvements would deal with existing capacity and speed issues, it would be impossible for a rail improvement to entirely solve the identified problems in the Scheme location. Prior to options identification, the A303 was included within the Department for Transport (DfT) Road Investment Strategy (December 2014), in which the DfT committed to undertaking feasibility study for the A303 to *"help identify and fund solutions to tackle some of the most notorious and long-standing road hot spots in the country".* The commitment was to undertake *"construction of a twin-bored tunnel at least 1.8 miles long as the road passes Stonehenge and a bypass for Winterbourne Stoke to link the existing dual carriageway section around Amesbury with the dual carriageway at Berwick Down."* The Scheme options were appraised as per the response to NPSNN Paragraph 4.26 of this Appendix. The process for options identification was undertaken through several stages, and involved a full options appraisal, as described within Section 3.2, Chapter 3 of the Environmental Statement Chapter 3 (Application Document

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		6.1). The process of options identification and route selection leading to the Scheme is summarised below. The process followed the following stages: - Corridor identification and initial sifting of corridors (Stage 1); - Design development of route options within preferred corridors (Stage 2); - Route options appraisal and sifting to identify options to take forward for further appraisal (Stage 3); - The selection of two preferred routes, which were taken to non-statutory public consultation in January/March 2017 (Stage 4); - The selection of a Preferred Route which was announced by the Secretary of State in September 2017 and which forms the basis of the Scheme (Stage 5). The Secretary of State announced the Preferred Route on 12th September 2017 and it is this route which forms the basis for the Scheme. Full details of the earlier work undertaken to inform the Secretary of State's decision, including options identification and selection process and the development of the Preferred Route can be found in the Scheme Assessment Report which was published prior to this application: https://highwaysengland.citizenspace.com/cip/a303-stonehenge/ Section 8.5 of the Transport Assessment (Application Document 7.4) considers whether an alternative modal intervention could solve the problem (including congestion on the A303). - Walking, cycling and local public transport are not viable alternatives to car use for most of the journeys made on this section of the A303 due to the trip lengths that are involved. - Coach is a possible alternative for some journeys between urban centres. However, the frequencies of services to major destinations in the South West are low and coaches using the A303 would be subject to the same delays as cars. Hence, where a car is available, using the coach is relatively unattractive

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		for most users of the A303. Also, the capacity of the coach services provided is relatively small in comparison with the number of people that can be accommodated in vehicles using an improved dual carriageway. - Rail is considered the only modal alternative which can seriously compete with road for the types of journey being made by A303 road users. However, there is no planned or prospective rail scheme or investment which would offer a solution to existing and future anticipated traffic problems.
Criteria for "good design" for national network Infrastructure		
4.28	Applicants should include design as an integral consideration from the outset of a proposal.	Chapter 4 'Design Evolution and Engagement' of the DAS (Application Document 7.2) clearly demonstrates that sufficient consideration was given to the assessment of key design opportunities and challenges at the outset of the project and that these have been used to inform the design. They include the unique nature of the WHS as well as numerous other factors within the surrounding landscape context. Stakeholder engagement was entered into early in the design process and has formed an integral part of the design development process. The design has been developed with input from stakeholders. Chapter 4 Design Evolution and Engagement of the DAS (Application Document 7.2) sets out this process in further detail. The Scheme was presented to Highway England's Strategic Design Panel. This is an independent design review panel which draws on members from numerous organisations including the Design Council. Where reasonably practicable, comments made by the panel have been incorporated into the Scheme. Further information on this process can be found in Chapter 4 Design Evolution and Engagement of the DAS (Application Document 7.2). In response to the key opportunities and challenges, the stakeholder engagement

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		process and comments received via the design panel, Highways England developed a set of high level design principles which have been used to guide the design approach to date. These have been set out in Chapter 5 High Level Design Principles and Design Guide of the DAS (Application Document 7.2).
4.29	Visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost. Applying "good design" to national network projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible.	The overarching design rationale for the Scheme has been driven by the unique nature of the WHS and the surrounding landscape. The high level design principles (which can be found in Chapter 5 High Level Design Principles and Design Guide of the DAS (Application Document 7.2)) which have informed elements of the design of the Scheme include the aim of integrating the Scheme into the landscape with minimal visibility as a key design factor. Chapter 6 Design Rationale of the DAS demonstrates how the Scheme appearance would achieve the design principles in providing good aesthetics that are also sensitive to place. This design has been prepared in accordance with Commission for Architecture and the Built Environment (2016) guidance. Functional requirements of the Scheme, as a highways infrastructure project, are led by technical documents setting out parameters for new road design, such as DMRB and the costs involved in those design elements. The relevant technical documents are referenced in Chapter 3 Design Policy Context of the DAS (Application Document 7.2). Chapter 6 Design Rationale of the DAS provides a brief description of how the highways design elements has evolved as a result of meeting DMRB requirements. Compliance with these requirements will ensure the Scheme is fit for purpose. Chapter 6 Design Rationale of the DAS (Application Document 7.2) sets out general principles relating to sustainability and climate change that have informed the Scheme design. For example this has led to the design of the River Till viaduct being developed to avoid impact on flood risk and shading to ecological receptors. Further, the drainage design, an outline of which is set out indicatively in the Road Drainage Strategy (Appendix 11.3 of Application Document 6.3 (ES Appendices) would seek to

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		ensure that the drainage design would be integrated sympathetically into the landscape and be designed for future flows taking account of climate change. Further information on embedded sustainable design can also be found in Chapter 6 Design Rationale of the DAS. Also set out in Chapter 6 Design Rationale of the DAS (Application Document 7.2), the Scheme is aiming to achieve an excellent rating with the Civil Engineering Environmental Quality Assessment and Awards Scheme (CEEQUAL) sustainability rating scheme delivered by the Building Research Establishment (BRE). Chapter 6 Design Rationale of the DAS (Application Document 7.2) references materials generated through tunnel excavations being reused within the Scheme to reduce environmental impacts. Through efficient reuse of materials on site, the Scheme would deliver sustainable infrastructure. The materials which are reused would create a new chalk down landscape which is sensitive to the setting of the Scheme.
4.31	A good design should meet the principal objectives of the scheme by eliminating or substantially mitigating the identified problems by improving operational conditions and simultaneously minimising adverse impacts. It should also mitigate any existing adverse impacts wherever possible, for example, in relation to safety or the environment. A good design will also be one that sustains the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts.	Reference should also be made to the Scheme compliance response set out in NPSNN Paragraphs 4.28 and 4.29 of this Appendix. Chapter 2 Scheme Background of the DAS (Application Document 7.2) sets out the objectives for the Scheme which have been developed to address identified problems and take advantage of the opportunities that this new infrastructure would provide. In design terms, the Scheme is considered to address the following: Transport: The Scheme has been designed to meet requirements of technical documents which set out parameters for new road design, such as DMRB referenced in Chapter 3 Design Policy Context of the DAS (Application Document 7.2). In doing so, this would contribute towards providing a high performing reliable route between the south east and south west that meets future needs. Chapter 6

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		Design Rationale of the DAS demonstrates how this would be achieved. Chapter 6 also sets out how the Scheme would provide a safer route than the existing, which would be more resilient to incidents. Overall, this would result in an improvement to operational conditions. Economic growth: The Scheme design would provide an improvement to the existing operating conditions of the A303. This would provide a supporting role in enabling growth in jobs and housing through contributing to a free-flowing and reliable connection between the south east and the south west. Cultural heritage: Chapter 4 Design Evolution and Engagement of the DAS (Application Document 7.2) highlights the Scheme as presenting a significant opportunity to demonstrate exemplary design in its response to the significance of the WHS and its OUV. Along with numerous other heritage assets in and around the Scheme this has informed the high level design principles to which the Scheme has been developed. Chapter 6 Design Rationale of the DAS explains how the Scheme conserves and enhances the WHS, and makes it easier to reach and explore. Most significantly, the Scheme proposes a twin bore tunnel to remove a large section of the A303 route from the WHS, reconnecting the two halves. The Scheme has been designed with the aim of minimising adverse impact, for example, the location of the tunnel portals has been chosen to avoid impacting on heritage assets. Their visual impact is further reduced through provision of cut and cover canopies. Environment and community: Chapter 4 Design Evolution and Engagement of the DAS (Application Document 7.2) sets out the need to respond to constraints created by statutory and non-statutory ecological sites and protected species in and around the Scheme area, as well as protected landscapes designations and surrounding settlements. These have also informed the high level design principles to which the Scheme was developed. Chapter 6 Design Rationale of the DAS (Application Document 7.2) explains how design mitigation measures within the Scheme would

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		improve biodiversity and provide a positive legacy for nearby communities. Chapter 6 Design Rationale of the DAS (Application Document 7.2) sets out how the Scheme has been designed with a long lifespan and the design takes into account potential for climate change. Chapter 4 Design Evolution and Engagement of the DAS makes reference to cost as a consideration in the design.
4.33	The applicant should therefore take into account, as far as possible, both functionality (including fitness for purpose and sustainability) and aesthetics (including the Scheme's contribution to the quality of the area in which it would be located). Applicants will want to consider the role of technology in delivering new national networks projects. The use of professional, independent advice on the design aspects of a proposal should be considered, to ensure good design principles are embedded into infrastructure proposals.	Reference should also be made to the Scheme compliance response set out in NPSNN Paragraphs 4.29 and 4.31 of this Appendix. Functional requirements of the Scheme, as a highways infrastructure project, are led by technical documents setting out parameters for new road design, such as DMRB referenced in Chapter 3 Design Policy Context of the DAS. These technical documents are set out in Chapter 6 Design Rationale of the DAS, and the chapter provides a brief description of the highways design elements as a result of meeting DMRB requirements. Compliance with these requirements will ensure the Scheme is fit for purpose. The Scheme features technological equipment to enable operational monitoring and control of traffic during incidents and maintenance would be located along the length of the Scheme. This would include CCTV cameras and variable message signs to provide information to drivers. Stakeholder engagement was undertaken early in the design process and has formed an integral part of the design development process. The design has been developed with input from stakeholders. Chapter 4 Design Evolution and Engagement of the DAS sets out this process in further detail. The Scheme was presented to Highway England's Strategic Design Panel. This is an independent design review panel which draws on members from numerous

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		organisations including the Design Council. Where reasonably practicable, comments made by the design panel have been incorporated into the Scheme. Further information on this process can be found in Chapter 4 Design Evolution and Engagement of the DAS. The stakeholder engagement process and use of the strategic design panel demonstrates independent advice has been sought on the design aspects of the Scheme which has ensured good design principles have been embedded into the proposals.
4.34	Whilst the applicant may only have limited choice in the physical appearance of some national networks infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation.	Reference should also be made to the Scheme compliance response set out in NPSNN Paragraphs 4.28, 4.29 and 4.31 of this Appendix. Chapter 6 Design Rationale of the DAS (Application Document 7.2) demonstrates that Highways England has adopted an approach of high quality design in response to the key opportunities and challenges which influenced the design development have been set out in Chapter 4 Design Evolution and Engagement of the DAS. These include the WHS, historic landscape, protected landscapes, statutory and non-statutory ecological designations and proximity to nearby communities. As described in Chapter 6 Design Rationale of the DAS, embedded mitigation which has been identified as part of the EIA has also informed the design, including mitigation which ensures the Scheme responds to its context and minimises impact on landscape and historic settings. This is summarised in further detail in NPSNN paragraphs 4.31 and 4.33.
4.35	Applicants should be able to demonstrate in their application how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set	As per NPSNN paragraph 4.28 - 4.29 of this Appendix. Chapter 4 Design Evolution and Engagement of the DAS (Application Document 7.2) details how the design process was conducted, how different design options

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	out the reasons why the favoured choice has been selected. The Examining Authority and Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.	were considered and the preferred design chosen. The Scheme has been designed to satisfy the technical standards (DMRB) set out in Chapter 3 Design Policy Context of the DAS, which set out the operational requirements for a highway. These ensure the Scheme can be operated efficiently. Chapter 6 Design Rationale of the DAS highlights the safety principles which the design has been required to satisfy. These include provision of a high performing dual carriageway between Amesbury and Berwick Down, constructed to current day standards. See response to NPSNN Paragraph 4.61 of this Appendix. Security implications have been carefully considered as part of the design process. See response to NPSNN Paragraph 4.76 of this Appendix.
Climate change adaptation		
4.38	Adaptation is therefore necessary to deal with the potential impacts of these changes that are already happening. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure.	Chapter 14 Climate of the Environmental Statement (Application Document 6.1) assesses the potential climate impacts of the construction and operation of the Scheme and details aspects of the design and mitigation measures during the proposed operation and construction to address these impacts. Section 14.8 identifies construction and operational design and management measures to address climate change effects. As specified within Chapter 14 Climate of the Environmental Statement, the proposed drainage systems include future climate change allowances to improve the A303's resilience to the risk of increased frequency of heavy precipitation. Construction mitigation measures include incorporation of current road design standards and future climate change allowances, adequate space within tunnels for anticipated future cooling and ventilation requirements. Operational measures include use of attenuation features to detain runoff from all events expected to occur with 1% annual probability or more frequently. Drainage attenuation measures, and

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		the consideration of future flood risk scenarios with climate change allowances is described in the Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3). Section 8.8, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) describes how the Scheme would establish a network of green bridges and infrastructure.
4.40	New national networks infrastructure will be typically long-term investments which will need to remain operational over many decades, in the face of a changing climate. Consequently, applicants must consider the impacts of climate change when planning location, design, build and operation. Any accompanying environment statement should set out how the proposal will take account of the projected impacts of climate change.	The UK Climate Projections 2009 (UKCP09) for temperature and precipitation variables have been obtained and analysed for the Scheme, and are summarised in Chapter 14 Climate of the Environmental Statement (Application Document 6.1). For the South West of England, there is projected to be an increase in annual temperatures and increased seasonality in rainfall, with wetter winters and drier summers expected. The mitigation requirements, which respond to these future scenarios are set out in NPSNN paragraph 4.38 of this Appendix, and are addressed within Chapter 14.
4.41	Where transport infrastructure has safety-critical elements and the design life of the asset is 60 years or greater, the applicant should apply the UK Climate Projections 2009 (UKCP09) high emissions scenario (high impact, low likelihood) against the 2080 projections at the 50% probability level.	As per NPSNN paragraph 4.40 of this Appendix.
4.42	The applicant should take into account the potential impacts of climate change using the latest UK Climate Projections available at the time and ensure any environment statement that is prepared identifies appropriate mitigation or adaptation measures. This should cover the estimated lifetime of the new infrastructure.	As per NPSNN paragraph 4.40 of this Appendix.

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	Should a new set of UK Climate Projections become available after the preparation of any environment statement, the Examining Authority should consider whether they need to request additional information from the applicant.	
4.43	The applicant should demonstrate that there are no critical features of the design of new national networks infrastructure which may be seriously affected by more radical changes to the climate beyond that projected in the latest set of UK climate projections. Any potential critical features should be assessed taking account of the latest credible scientific evidence on, for example, sea level rise (e.g. by referring to additional maximum credible scenarios such as from the Intergovernmental Panel on Climate Change or Environment Agency) and on the basis that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime through potential further mitigation or adaptation.	Section 14.9, Chapter 14 Climate of the Environmental Statement (Application Document 6.1) indicates that the Scheme is designed to be resilient to impacts from weather events and climatic conditions and designed in accordance with current planning, design and engineering practice and codes. The assessment has found that, based on the mitigation built into the design and assumed management practices, as well as the UKCP09 climate change projections, information from other environmental disciplines, and details on Scheme design, that none of the potential impacts identified would be significant (and are therefore classed as non-significant). Appendix 14.1 Climate Resilience Baseline of the Environmental Statement Appendices (Application Document 6.3) considers the potential range of changes in climate that might occur, and sets out the evidence considered to substantiate this. This indicates that the UKCP09 Weather Generator (WG) has been used to develop probabilistic daily weather conditions for the 2020s (2010-2039), the 2050s (2040-2069) and the 2080s (2070-2099). The WG's Threshold Detector (TD) is a post-processing tool that can be applied to outputs from the WG. It allows users to investigate how often thresholds, such as temperatures or daily rainfall greater or less than a certain level, are likely to be exceeded in the future. Table 14.13, Chapter 14 Climate of the Environmental Statement (Application Document 6.1) identifies the construction and operational climate change resilience measures which are proposed. The assessment concludes, based on the mitigation built into the design and assumed management practices, as well as the UKCP09 climate change projections, information from other environmental disciplines, and

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		details on Scheme design, that none of the potential impacts identified would be significant.
4.44	Any adaptation measures should be based on the latest set of UK Climate Projections, the Government's national Climate Change Risk Assessment and consultation with statutory consultation bodies. Any adaptation measures must themselves also be assessed as part of any environmental impact assessment and included in the environment statement, which should set out how and where such measures are proposed to be secured.	Chapter 14 Climate of the Environmental Statement (Application Document 6.1) concludes that based on the embedded mitigation (these adaptation measures are as described in NPSNN Paragraph 4.40 of this Appendix) built into the design and assumed management practices, information from other environmental disciplines, details on scheme design, and taking into account UKCP09 Climate change projects, that none of the potential climate change impacts identified would be significant. Stakeholder comments provided on flood risk and water management that indirectly relate to climate resilience impacts can be found in Chapter 11 Road Drainage and the Water Environment of the Environmental Statement (Application Document 6.1).
4.45	If any proposed adaptation measures themselves give rise to consequential impacts the Secretary of State should consider the impact in relation to the application as a whole and the impacts guidance set out in this part of this NPS (e.g. on flooding, water resources, biodiversity, landscape and coastal change).	The adaptation measures which are proposed are not expected to give rise to any adverse consequential impacts.
4.46	Adaptation measures can be required to be implemented at the time of construction where necessary and appropriate to do so.	Table 14.13, Chapter 14 Climate of the Environmental Statement (Application Document 6.1) describes where adaptation measures would be implemented at the time of construction.
Pollution control and other environmental protection regimes		
4.48	Issues relating to discharges or emissions from a proposed project which affect air quality, water quality, land quality	Details of other regulatory consents to be sought for the Scheme are set out in the

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	and the marine environment, or which include noise and vibration, may be subject to separate regulation under the pollution control framework or other consenting and licensing regimes. Relevant permissions will need to be obtained for any activities within the development that are regulated under those regimes before the activities can be operated.	Consents and Agreements Position Statement (Application Document 3.3).
4.50	In deciding an application, the Examining Authority and the Secretary of State should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. They should assess the potential impacts of processes, emissions or discharges to inform decision making, but should work on the assumption that in terms of the control and enforcement, the relevant pollution control regime will be properly applied and enforced. Decisions under the Planning Act should complement but not duplicate those taken under the relevant pollution control regime.	Chapter 7 and Appendix B of this Case for the Scheme document sets out how the Scheme conforms to planning policy and is an acceptable use of the land. The impacts of that use are considered throughout the Environmental Statement (Application Document 6.1). Details of other regulatory consents to be sought for the Scheme are set out in The Consents and Agreements Position Statement (Application Document 3.3).
4.52	There is a statutory duty on applicants to consult the Marine Management Organisation (MMO) on nationally significant projects which would affect, or would be likely to affect, any relevant marine areas as defined in the Planning Act (as amended by section 23 of the Marine and Coastal Access Act 2009)…	The Marine Management Organisation has not been consulted as the Scheme, given its location and likely effects, would not affect, or would likely affect any relevant marine areas as defined in the Planning Act (as amended by section 23 of the Marine and Coastal Access Act 2009).
4.53	When an applicant applies for an Environmental Permit, the relevant regulator (the Environment Agency) requires that	The Consents and Agreements Position Statement (Application Document 3.3) identifies the separate water Environmental Permits that will be pursued separate

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	the application demonstrates that processes are in place to meet all relevant Environmental Permit requirements…	and subsequent to the application for development consent including those under the Environmental Permit requirements, and includes Consent for discharge to controlled water and/ or groundwater in accordance with Environmental Permitting (England and Wales) Regulations 2016. As further detailed in the Consents and Permissions Statement, Highways England has discussed with the Environment Agency its intention to seek any required Environmental Permits following the detailed design of the Scheme when the level of information necessary to support an application for an Environmental Permit will be available. From those discussions, Highways England is not aware of any good reason to believe that such permits would not be granted in due course.
4.54	Applicants are encouraged to begin pre-application discussions with the Environment Agency as early as possible. It is however expected that an applicant will have first thought through the requirements as a starting point for discussion. Some consents require a significant amount of preparation; as an example, the Environment Agency suggests that applicants should start work towards submitting the permit application at least 6 months prior to the submission of an application for a Development Consent Order, where they wish to parallel track the applications. This will help ensure that applications take account of all relevant environmental considerations and that the relevant regulators are able to provide timely advice and assurance to the Examining Authority.	As described within the Consents and Agreements Position Statement (Application Document 3.3), the approach to discharging Environmental Permits after the grant of the Development Consent Order has been discussed with the Environment Agency. Discussions within the Environment Agency regarding the disapplication of environmental permits regarding the following pollution control regimes is ongoing: - Environmental permit for working on or near a main river under Water Act 2014 and Environmental Permitting (England and Wales) Regulations 2016 - Working around a water source protection area under Environmental Permitting (England and Wales) Regulations 2016 - Dewatering/discharge of water from excavations under the Land Drainage Act 1991 Negotiations for the agreement of disapplications and associated Protective Provisions will continue ahead of DCO examination. Agreement on Protective Provisions will be captured in the Statement of Common Ground being prepared

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		with the Environment Agency. Should agreement on disapplication not be reached, formal application for consent will commence subsequent to the detailed design phase and sufficiently in advance of the relevant works to allow for timely grant of consent. Highways England will continue to engage with the consent granting body ahead of main construction works. A Statement of Common Ground is being developed with the Environment Agency to record the matters that have been agreed between both parties and to identify any matters where comments still need to be resolved.
4.55	The Secretary of State should be satisfied that development consent can be granted taking full account of environmental impacts. This will require close cooperation with the Environment Agency and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, Drainage Boards, and water and sewerage undertakers, to ensure that in the case of potentially polluting developments: • the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and • the effects of existing sources of pollution in and around the project are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in	As descried in NPSNN Paragraph 4.54 of this Appendix, close cooperation with the Environment Agency on pollution control requirements is ongoing, and will ensure that potential releases will be adequately regulated, either under the relevant pollution control frameworks or, subject to the Environment Agency's agreement, will be disapplied and the pollution control requirements will be addressed within the Development Consent Order. Chapter 11 Road Drainage and the Water Environment of the Environmental Statement (Application Document 6.1) indicates that there has been regular and extensive liaison with the Environment Agency and with Wiltshire Council's Principal Drainage Engineer to discuss the available baseline data, to develop the modelling and impact assessment methodologies and the assessments' initial outcomes for water quality, road drainage and groundwater. This liaison took place within every month from July 2017 to September 2018 and involved meetings, teleconferences and email correspondence on single or multiple water and drainage topics. Engagement with Wessex Water was also undertaken to discuss available baseline

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	relation to statutory environmental quality limits	data, impact assessment methodologies and the assessments' initial outcomes. Earlier consultation with the Environment Agency and Wiltshire Council is also described within Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1), this included identification of existing sources of pollution which could result in cumulative effects. This includes an existing Esso Pipeline in the vicinity of the Scheme, where at the EIA Scoping stage, the Environment Agency identified that the method of works for the construction of the road, bridge and tunnel will need to identify actions that will be taken in the event of intercepting contamination. Chapter 10 identifies mitigation to address this risk. Further potential existing sources of contamination are identified within Table 10.9, Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1). The extent to which these pose a risk to controlled waters, or human health is summarised within Section 10.9. All of the risks identified will be managed, and would therefore not make the development unacceptable, or exceed statutory environmental limits.
4.56	The Secretary of State should not refuse consent on the basis of regulated impacts unless there is good reason to believe that any relevant necessary operational pollution control permits or licences or other consents will not subsequently be granted.	Details of other regulatory consents to be sought for the Scheme are set out in the Consents and Agreements Position Statement (Application Document 3.3). That document sets out that there is no reason to consider that the relevant permits or licences will not be subsequently granted.

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4.58	It is very important that during the examination of a nationally significant infrastructure project, possible sources of nuisance under section 79(1) of the 1990 Act, and how they may be mitigated or limited are considered by the Examining Authority so they can recommend appropriate requirements that the Secretary of State might include in any subsequent order granting development consent. More information on the consideration of possible sources of nuisance is at paragraphs 5.81-5.89	A Statement of Statutory Nuisances (Application Document 6.5) details how possible sources of nuisance under section 79(1) of the Environmental Protection Act 1990 are to be mitigated.
Safety		
4.60	New highways developments provide an opportunity to make significant safety improvements. Some developments may have safety as a key objective, but even where safety is not the main driver of a development the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Highway developments can potentially generate significant accident reduction benefits when they are well designed.	An analysis of predicted accidents and casualties for the 60-year appraisal period presented within Chapter 7 of the Transport Assessment (Application Document 7.4) indicates that without the Scheme 49,452 accidents and casualties are expected, and with the Scheme 49,400 are expected. This is a decline of 52. This analysis considers all assessed transportation links, and not just the A303 corridor. The decline includes the net effects of rerouting of traffic from other transport corridors, such as the M4/ M5 corridor. The monetary value of the overall change in forecast accidents is a benefit of £4 million. For the Scheme section only (not considering other corridors), the Scheme would result in a decrease from 2,049 to 1,941 (a reduction of 108 fewer casualties) over the 60-year appraisal period.
4.61	The applicant should undertake an objective assessment of the impact of the proposed development on safety including the impact of any mitigation measures. This should use the methodology outlined in the guidance from DfT (WebTAG) and from the Highways Agency.	Chapter 6 of the DAS (Application Document 7.2) details how safety of road users has been considered as part of developing the preferred route option and design of the Scheme, including mitigation measures which are proposed, in accordance with this paragraph. Safety benefits include: - Provision of a high standard dual carriageway between Amesbury and Berwick Down, this would be constructed to current standards providing a much safer route than existing which is more resilient to incidents;

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		- Provision of grade separated junctions with the A360 and A345, this would allow strategic traffic to continue on the A303 without stopping;
		- Rat running on local roads would be reduced as local traffic would be able to cross the route via grade separated junctions without the need to travel on the A303, reducing the risk of accident;
		- Provision of safety standards within the tunnel to meet the requirements of relevant design codes (DMRB and EU Directive 2004/54/EC), this would include:
		  ○ Escape routes between tunnel portals at regular intervals;
		  ○ An emergency walkway;
		  ○ Emergency call points at regular intervals
		  ○ Fixed fire-fighting system
		  ○ Vehicle cross-overs on the tunnel approaches to enable contraflow working when one tunnel bore is closed; and
		  ○ Technological management systems to monitor and manage traffic flows, detecting incidents as required.
		- Provision of safety restraint systems (barriers) in accordance with the required standards along the length of the new dual carriageway;
		- Provision of green bridges along the route to facilitate safe access across the new A303 route;
		- Provision of signal controlled surface level crossings at the new Longbarrow junction to facilitate safe NMU access through the junction;
		- Provision of signal controlled surface level crossings at the upgraded Countess junction to facilitate safe pedestrian and cycle access through the junction;
		- Alterations to the east of Countess junction have been proposed to improve safety along the A303, these include the following:
		  ○ Closing the existing entry from Amesbury Road onto the A303, instead traffic would be accommodated at the Double Hedges junction;
		  ○ Alterations to the entry slip road at the Double Hedges junction; and
		- Access onto PROW's from the A303 between Amesbury Road and the A3028

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		would be closed. Appendix 2.2 Outline Environmental Management Plan of the Environmental Statement Appendices (Application Document 6.3) also specifies measures to ensure the safety of workers during the construction phase. The Transport Assessment (Application Document 7.4) provides an analysis of accidents and concludes overall that the Scheme would have a beneficial impact in terms of reducing accidents. A Cost and Benefit to Accidents – Light Touch (COBA-LT) assessment has been undertaken in accordance with the Department for Transport's WebTAG guidance. The results are reported within the Transport Assessment (Application Document 7.4), and are summarised below. Over the 60 year appraisal period, without the Scheme, 49,452 accidents and casualties are expected, and with the Scheme 49,400 are expected. This is a decline of 52. This analysis considers all assessed transportation links, and not just the A303 corridor. The decline includes the net effects of rerouting of traffic from other transport corridors, such as the M4/ M5 corridor. For the Scheme section only (not considering other corridors), the Scheme would result in a decrease from 2,049 to 1,941 (a reduction of 108 fewer casualties) over the 60-year appraisal period. As stated in Chapter 5 of this Case for the Scheme document, the monetary value of the overall change in forecast accidents is a benefit of £4 million.
4.62	They should also put in place arrangements for undertaking the road safety audit process. Road safety audits are a mandatory requirement for all trunk road highway improvement Schemes in the UK (including motorways).	The Scheme has been subject to Stage 1 Road Safety Audit (RSA) – see Chapter 11 of the Transport Assessment (Application Document 7.4). This is the first stage in an ongoing audit which will be progressed at a later stage of design, as per DfT and Highways England guidance.
4.64	The applicant should be able to demonstrate that their Scheme is consistent with the Highways Agency's Safety	Measures to minimise the risk of death and injury during construction are specified within the Appendix 2.2 Outline Environmental Management Plan of the

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	Framework for the Strategic Road Network and with the national Strategic Framework for Road Safety. Applicants will wish to show that they have taken all steps that are reasonably required to: - minimise the risk of death and injury arising from their development; - contribute to an overall reduction in road casualties; - contribute to an overall reduction in the number of unplanned incidents; and - contribute to improvements in road safety for walkers and cyclists.	Environmental Statement Appendices (Application Document 6.3). The measures which have been specified, and contribute to a reduction on road casualties, are as per NPSNN paragraph 4.61 of this Appendix. Chapter 4 of the Transport Assessment (Application Document 7.4) describes the potential for unplanned tunnel incidents or maintenance periods. In general, the Scheme would be more resilient to unplanned incidents than the current road as there is more flexibility with a dual carriageway to close a single lane and manage the traffic during unplanned incidents. The tunnel and approaches have been designed so that one or other bore would remain open during all but the most rare of circumstances, acting as a single carriageway open to two way traffic, with cross-overs at approaches in order to direct traffic as appropriate. In the event of the emergency closure of both bores of the tunnel, traffic would be diverted along the high load route, but using the A345 (Countess Road) rather than the A3028 to re-join the A303 at Countess roundabout. The measures which have been specified, and contribute to an improvement in safety for walkers and cyclists are as per NPSNN paragraph 4.61 of this Appendix.
4.65	They will also wish to demonstrate that: - they have considered the safety implications of their project from the outset; and - they are putting in place rigorous processes for monitoring and evaluating safety.	Chapter 6 of the DAS (Application Document 7.2) details how safety of road users has been considered as part of developing the preferred route option and design of the Scheme. The safety design requirements for the Scheme are as per NPSNN paragraph 4.61 of this Appendix. Appendix 2.2 Outline Environmental Management Plan of the Environmental Statement Appendices (Application Document 6.3) also specifies measures to ensure the safety of workers during the construction phase. As per NPSNN paragraph 4.62, the first stage of Road Safety Audit has been

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		undertaken, and this will be progressed at a later stage of design, subject to development consent.
4.66	The Secretary of State should not grant development consent unless satisfied that all reasonable steps have been taken and will be taken to: - minimise the risk of road casualties arising from the Scheme; and - contribute to an overall improvement in the safety of the Strategic Road Network.	As described within Chapter 5 of the DAS (Application Document 7.2), the Scheme has been designed to comply with the Design Manual for Roads and Bridges (DMRB). DMRB is the standard which sets desirable minimum criteria for the Scheme geometry - for example horizontal and vertical radii, forward visibility and junction layouts. The DMRB forms the basis of a safe highway design which would minimise the risk of road casualties arising from the Scheme and contribute to an overall improvement in the safety of the SRN. The extent to which these standards have been applied is considered in Appendix 3.1 Departures from Standards Checklist of the Transport Assessment (Application Document 7.4). The Scheme would result in a reduction in road casualties - for the Scheme section only (not considering other corridors), the Scheme would result in a decrease from 2,049 to 1,941 (a reduction of 108 fewer casualties) over the 60-year appraisal period. The effectiveness of steps taken to minimise risk road casualties are as per NPSNN paragraph 4.60 of this Appendix. The Scheme has also been designed to improve safety for NMUs (see NPSNN paragraphs 3.15 and 3.19 of this Appendix.).
Security considerations		
4.76 - 4.77	Where national security implications have been identified, the applicant should consult with relevant security experts from CPNI [Centre for the Protection of National Infrastructure] and the Department for Transport, to ensure that physical, procedural and personnel security measures have been adequately considered in the design process	Security implications have been carefully considered and no national security issues have been identified in developing the Scheme. As a result, it has not been necessary to consult the CPNI. Appendix 4.2 Major Accidents and Disasters Long List of the Environment Statement Appendices (Application Document 6.3) summarises the potential effects

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	and that adequate consideration has been given to the management of security risks. If CPNI and the Department for Transport (as appropriate) are satisfied that security issues have been adequately addressed in the project when the application is submitted, they will provide confirmation of this to the Secretary of State, and the Examining Authority should not need to give any further consideration to the details of the security measures during the examination. The applicant should only include such information in the application as is necessary to enable the Examining Authority to examine the development consent issues and make a properly informed recommendation on the application.	for major accidents and disasters, including natural hazards or terrorist attack. No significant effects are anticipated. The Ministry of Defence has been consulted, and has not expressed any specific security requirements for the Scheme. See also responses to NPSNN paragraphs 5.56 and 5.57 of this Appendix.
Health		
4.81 - 4.82	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. 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.	Chapter 4 Environmental Assessment Methodology of the Environmental Statement (Application Document 6.1) sets out the approach taken to the assessment of the effects of the Scheme on human health. A qualitative assessment of health effects has been undertaken within the Chapter 13, People and Communities of the Environmental Statement (Application Document 6.1). The information collated via the topic assessments has been considered within the approach set out in the London Healthy Urban Development Unit (HUDU) Planning for Health Rapid Health Impact Assessment Tool, Second Edition (June 2015). The HUDU tool is generally recognised as an appropriate mechanism for assessing human health impacts. Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) considers the potential consequences for health and wellbeing from

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		the construction and operation of the proposed scheme. The assessment draws upon information and conclusions contained within various assessments reported within this ES (e.g. Air Quality, Landscape, Noise and Vibration, and Climate) and separate reports, such as the Equalities Impact Assessment and Transport Assessment. The assessment concludes that overall effects on health during construction would be neutral (although effects on health from access to work and training are positive), and effects on health during operation would be beneficial (although effects on health from climate change are neutral). Factors which influence health and are considered include: • Access to healthcare service and other social infrastructure • Access to open space and nature • Air quality noise and neighbour amenity • Accessibility and active travel • Access to work and training • Social cohesion and lifetime neighbourhoods • Climate change As the effects are either neutral or beneficial no further specific mitigation measures have been identified. Effects on human health which arise due to noise and air quality impacts are also considered separately as per Section 5 of the NPSNN Appendix below.

Table A3: National Policy Statement for National Networks Chapter 5

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Air quality		
5.6 - 5.9	Where the impacts of the project (both on and off-Scheme) are likely to have significant air quality effects in relation to meeting EIA requirements and / or affect the UKs ability to comply with the Air Quality Directive, the applicant should undertake an assessment of the impacts of the proposed project as part of the environmental statement. The environmental statement should describe: - existing air quality levels; - forecasts of air quality at the time of opening, assuming that the Scheme is not built (the future baseline) and taking account of the impact of the Scheme; and - any significant air quality effects, their mitigation and any residual effects, distinguishing between the construction and operation stages and taking account of the impact of road traffic generated by the project. Defra publishes future national projections of air quality based on evidence of future emissions, traffic and vehicle fleet. Projections are updated as the evidence base changes. Applicant's assessment should be consistent with this but may include more detailed modelling to demonstrate local impacts.	The method of baseline assessment is included in Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1). The existing and future baseline has been reported in Chapter 5 Air Quality. The future baseline is referred to within the assessment as the 'do minimum' scenario which takes into account what future air quality would be assuming the Scheme does not go ahead. The future baseline also takes into account likely changes owing to government initiatives to reduce pollutant emissions from motor vehicles and other sources, along with traffic growth and committed developments. Within the future baseline Defra projections of air quality have been considered and a conservative approach to these projections has been adopted. The results of the air quality assessment include construction effects and operational effects, the latter of which includes the impact of road traffic generated by the Scheme. Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1) assesses the impact of the Scheme during construction and operation on air quality. The evaluation of the significance of local operational air quality effects is reported in Table 5.14, Section 5.9. The table concludes that there are no predicted annual average concentrations of NO_2 or PM_{10} above the air quality objective in either the years of construction or first year of operation for the scheme in the air quality study area. Therefore, there are no small, medium or large changes in air quality above the air quality objectives expected and as such no significant air quality effects are predicted. A compliance risk assessment has been undertaken for the air quality study area. This found that there are no links reported by Defra to the European Commission as non-

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	In addition to information on the likely significant effects of a project in relation to EIA, the Secretary of State must be provided with a judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive.	compliant in either the years of construction or the first year of scheme operation within the air quality study area. This indicates there is no Air Quality Directive compliance risk for the Scheme. The air quality effects of the Scheme on European and National designated ecosystem sites are considered in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). The ecology assessment has concluded that the predicted changes in air quality and nitrogen deposition are not significant.
5.10	The Secretary of State should consider air quality impacts over the wider area likely to be affected, as well as in the near vicinity of the Scheme. In all cases the Secretary of State must take account of relevant statutory air quality thresholds set out in domestic and European legislation. Where a project is likely to lead to a breach of the air quality thresholds, the applicant should work with the relevant authorities to secure appropriate mitigation measures with a view to ensuring so far as possible that those thresholds are not breached.	The study area for the air quality assessment is defined in Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1). This includes detailed consideration of locations along and around the Scheme route and also the wider area. As concluded in that chapter, the assessment indicates that no sensitive receptors are predicted to experience an exceedance of the relevant air quality objective. The majority of receptors are predicted to experience a negligible change in concentration, and would remain below the relevant air quality objective.
5.12	The Secretary of State must give air quality considerations substantial weight where, after taking into account mitigation, a project would lead to a significant air quality impact in relation to EIA and / or where they lead to a deterioration in air quality in a zone/agglomeration.	The significance of air quality effects associated with the Scheme and the compliance of the Scheme with the EU Air Quality Directive is presented in Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1). No significant impacts or deterioration across a zone or agglomeration resulting in a compliance risk are predicted.

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5.13	The Secretary of State should refuse consent where, after taking into account mitigation, the air quality impacts of the Scheme will: - result in a zone/agglomeration which is currently reported as being compliant with the Air Quality Directive becoming non-compliant; or - affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the European Commission at the time of the decision.	As per NPSNN Paragraphs 5.6 – 5.9 of this Appendix, neither of these scenarios occur with this Scheme, and so this paragraph will not need to be engaged by the Secretary of State.
5.14 - 5.15	The Secretary of State should consider whether mitigation measures put forward by the applicant are acceptable. A management plan may help codify mitigation at this stage. The proposed mitigation measures should ensure that the net impact of a project does not delay the point at which a zone will meet compliance timescales. Mitigation measures may affect the project design, layout, construction, operation and/or may comprise measures to improve air quality in pollution hotspots beyond the immediate locality of the Scheme. Measures could include, but are not limited to, changes to the route of the new Scheme, changes to the proximity of vehicles to local receptors in the existing route, physical means including barriers to trap or better disperse emissions, and speed control. The implementation of mitigation measures may require working with partners to support their delivery.	Chapter 5 Air Quality of the Environmental Statement (Application Document 6.1) indicates that no specific mitigation is necessary during the operation of the Scheme. Appendix 2.2 Outline Environmental Management Plan of the Environmental Statement Appendices (Application Document 6.3) documents the environmental mitigation measures to be implemented during construction, why they are required, who is responsible for delivering them and details any ongoing maintenance arrangements.
Carbon emissions		

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5.17	Carbon impacts will be considered as part of the appraisal of Scheme options (in the business case), prior to the submission of an application for DCO. Where the development is subject to EIA, any Environmental Statement will need to describe an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets. However, for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets.	Assessment of GHG emissions was undertaken as part of the appraisal of route alignment options using the WebTAG Environmental Assessment methodology. Chapter 14 Climate of the Environmental Statement (Application Document 6.1) presents an assessment of greenhouse gas emissions arising from the construction and operation of the Scheme. Table 14.16 identifies the national level carbon budgets at different project stages. It is concluded that the GHG impact of the Scheme would not have a material impact on the Government meeting its carbon reduction targets.

5.19	Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout, and use of materials) in both design and construction should be presented. The Secretary of State will consider the effectiveness of such mitigation measures in order to ensure that, in relation to design and construction, the carbon footprint is not unnecessarily high. The Secretary of State's view of the adequacy of the mitigation measures relating to design and construction will be a material factor in the decision making process.	Highways England's license has a requirement for minimising GHG emissions.
		
		Section 14.8, Chapter 14 Climate of the Environmental Statement (Application Document 6.1) identifies mitigation measures to be implemented to reduce emissions across the lifecycle of the Scheme. These measures are set out in Table 14.12 and include:
		• Development and implementation of a plan to reduce energy consumption and associated carbon emissions, e.g. consideration of renewable and/or low or zero carbon energy
		• Where reasonably practicable, the implementation of measures to manage material resource use during construction, such as:
		  ○ Use of materials with lower embedded greenhouse gas emissions (and water consumption);
		  ○ Use of sustainably sourced materials;
		  ○ Use of recycled or secondary materials.

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Biodiversity and ecological conservation		
5.22 - 5.23	Where the project is subject to EIA the applicant should ensure that the environmental statement clearly sets out any likely significant effects on internationally, nationally and locally designated sites of ecological or geological conservation importance (including those outside England) on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity and that the statement considers the full range of potential impacts on ecosystems. The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.	Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) outlines the effects on sites, habitats and species. The potential impacts on Ecosystems are summarised in Section 8.7, including: • Habitat loss or gain; • Fragmentation of populations or habitats; • Disturbance; • Habitat Degradation; • Species Mortality. The significant effects are summarised in Section 8.9, Chapter 8 Biodiversity of the Environmental Statement – the only adverse of such effects being the loss of the designated non-statutory Countess Cutting CWS. The non-significant effects are summarised in Appendix 8.23 of the Environmental Statement Appendices (Application Document 6.3). Appendix 8.23 indicates that after mitigation and enhancement measures are taken into consideration: • internationally and nationally designated habitats are not expected to be subject to significant effects. • Locally designated or undesignated habitats are expected to experience neutral or beneficial effects due to habitat creation and enhancement measures. These include Parsonage Down CWS, Luxenborough Banks CWS, and Stonehenge Down CWS which would benefit from improved or enhanced habitat. • Undesignated habitat, including calcareous unimproved grassland would be affected by an adverse effect due to the loss of the Countess Cutting, and this loss would be compensated within an adjacent cutting. The grassland within the replacement cutting would be classed as semi-improved. • Individual species (protected or otherwise) are not expected to experience significant adverse effects. Slight beneficial effects are anticipated for bats and badgers.

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		Section 8.8, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) also describes the design mitigation and enhancement measures which are proposed. The construction and operational mitigation and enhancement measures include: • Four green bridges to establish and improve connectivity of habitat. • The Scheme is in a cutting for most of its length, where necessary these include false cuttings to reduce risk of mortality for bats and birds. • River Till Viaduct has been designed to minimise shading impact on sensitive marginal habitat. • Replacement and improvement of habitats. • Improved east-west connectivity of habitat through creation of new habitats and soft estate. • Two bat hibernation features. • Lighting only included where necessary to minimise impact on bats. • Enhancement of chalk grassland between Parsonage Down SSSI and the Scheme to the south. In addition, Appendix 2.2 OEMP (Application Document 6.3) proposes further measures to limit effects on biodiversity during construction. Chapter 10 of the Environmental Statement (documents reference 6.1) indicates that there are no geological SSSIs within the Scheme study area. Furthermore, there are no Local Geological Sites (LGS) within the Scheme study area.
5.25	As a general principle, and subject to the specific policies below, development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The	The Scheme has sought to avoid significant harm to features of biodiversity interest, both during the consideration of alternatives, and during the Environmental Impact Assessment. The approach ensures that where significant adverse effects are anticipated these are compensated where it has not been possible to mitigate or avoid such effects.

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	applicant may also wish to make use of biodiversity offsetting in devising compensation proposals to counteract any impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought.	As stated in Section 8.8, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1), the Scheme incorporates measures that have been embedded into the design to mitigate adverse effects on biodiversity features and compensate for the loss of habitats by the creation of new areas of habitat within the Scheme. It also includes working practices which to avoid significant harm and provide mitigation for important biodiversity features during construction and operation. These measures have been identified and developed through the EIA process, including consultation with stakeholders and statutory bodies. Chapter 3 Assessment of Alternatives of the Environmental Statement (Application Document 6.1) describes where features of biodiversity conservation interest have been taken into consideration in both the selection and design of the Scheme. No features of geological conservation interest were identified as key constraints which informed the assessment of alternatives. Section 8.10 in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) states that during construction the permanent loss would occur of the Countess Cutting CWS which is designated for approximately 0.74ha of early successional chalk grassland it supports. The loss of the chalk grassland within this site at the year of opening is considered to be a significant adverse effect. However, this loss would be compensated over time by the creation of chalk grassland in the new cutting between the eastern portal and Countess Junction. Habitat loss and gain is summarised within Section 8.9 Chapter 8 Biodiversity of the Environmental Statement. The Scheme would lead to the loss of approximately 16ha of semi-natural habitats, of which less than 1ha has been assessed as being of local value. No irreplaceable habitats would be affected (such as ancient woodland or veteran trees). Overall, there would be a net gain of approximately 186ha of semi-natural habitats in the soft estate and East Parsonage Down, mainly chalk grassland.

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		Over time, this would contribute to enhancing the natural environment locally by providing net gains for biodiversity, and by establishing coherent ecological networks that are more resilient to current and future pressures. Regarding geological conservation interests, as per NPSNN paragraph 5.24 of this Appendix, these are not present.
5.26	In taking decisions, the Secretary of State should ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species, habitats and other species of principal importance for the conservation of biodiversity, and to biodiversity and geological interests within the wider environment.	The presence of designated sites, protected species, habitats and sites of principal importance within the study area is described in Tables 8.11 and 8.12 of Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). This table also describes the sensitivity and value which they are attributed within the assessment. A summary of the impact significance after the implementation of mitigation/enhancement measures and adherence to best practice working methods is provided in Section 8.9 of Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). Section 8.9 in Chapter 8 Biodiversity of the Environmental Statement indicates that the integrity of the River Avon SAC (incorporating the River Till SAC) and the Salisbury Plain SAC and SPA would not be adversely affected by the Scheme. The significant effects on Countess Cutting CWS are as per paragraph 5.25 above. Areas of lowland calcareous unimproved chalk grassland (a Habitat of Principal Importance) are located within Countess Cutting CWS and would result in an adverse residual effect. The loss of the chalk grassland at Countess Cutting CWS would also represent an adverse residual effect on terrestrial invertebrates due to habitat loss. This impact would be partially counteracted by the provision of suitable habitat that is to be created for reptiles adjacent to the area to be lost and the new cutting mentioned above and is expected to be suitable for notable terrestrial invertebrates.

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		Regarding geological conservation interests, as per NPSNN paragraph 5.24 of this Appendix, these are not present.
5.27	The most important sites for biodiversity are those identified through international conventions and European Directives. The Habitats Regulations provide statutory protection for European sites (see also paragraphs 4.22 to 4.25). The National Planning Policy Framework states that the following wildlife sites should have the same protection as European sites: - potential Special Protection Areas and possible Special Areas of Conservation; - listed or proposed Ramsar sites; and - sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation and listed or proposed Ramsar sites.	Section 8.10, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) indicates that the integrity of the River Avon SAC (incorporating the River Till SAC) and the Salisbury Plain SAC and SPA would not be adversely affected by the Scheme. These findings are provided in detail in Appendix 8.25 Assessment of Implications for European Sites Statement to Inform Appropriate Assessment of the Environmental Statement Appendices (Application Document 6.3). No listed or proposed Ramsar sites or sites, or sites identified or required as compensatory measures for adverse effects on European sites, including potential SPA or SAC, and listed or proposed Ramsar Sites are affected by the Scheme.
Biodiversity SSSIs		
5.29	Where a proposed development on land within or outside a SSSI is likely to have an adverse effect on an SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect on the site's notified special interest features is likely, an exception should be made only where the benefits of the development at this site clearly outweigh both the impacts that it is likely to have on the features of the	As described within Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1), the Scheme avoids the SPA, NNR and RSPB reserve and there would be no direct habitat loss from the SACs and SSSIs. The mitigation measures proposed as part of the Scheme are considered acceptable to mitigate harm and therefore, the Scheme is not likely to have an adverse indirect effect on a SSSI, either individually or in combination with other developments. The mitigation which is proposed to address potential adverse effects as described in Chapter 8 Biodiversity is described in further detail below.

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	site that make it of special scientific interest, and any broader impacts on the national network of SSSIs. The Secretary of State should ensure that the applicant's proposals to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity or geological interest, are acceptable. Where necessary, requirements and/or planning obligations should be used to ensure these proposals are delivered.	Section 8.3, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) outlines the assessment approach for this topic chapter. Table 8.9 describes the SSSIs and NNR which are within the study area. • Salisbury Plain SSSI: Located adjacent to the Scheme boundary in two locations near Bulford camp to the far east of the Scheme and Rollestone Junction to the north of the Scheme; • River Avon System SSSI: Crossed by the Scheme; • River Till SSSI: Crossed by the Scheme; • Parsonage Down SSSI and NNR: The SSSI section is located adjacent to the Scheme boundary. The NNR is partially located within Scheme boundary; • Yarnbury Castle SSSI: Located approximately 80m from the Scheme boundary; • Steeple Langford Down SSSI: Located approximately 840m from the proposed boundary. Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) considers the effects of the proposed viaduct over the River Till, which has the potential for indirect impacts on the SAC / SSSI, due to the permanent shading associated with the River Till viaduct. To minimise shading of vegetation under the viaduct, the design is a twin-deck structure, with a gap of a minimum of 7m between the decks. Continuity of vegetation within the SSSI would be maintained and hence it would not result in an impact on the integrity of the SAC. As such the impacts of shading are considered to result in a neutral effect. Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) considers the effects of the proposed temporary bridge over the River Till SSSI during the construction phase (approximately two years). The temporary bridge would be a single lane bridge approximately 6m wide, to reduce the temporary shading impact on the habitat below. It is concluded that the temporary bridge, while it would cause

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		localised shading, would not be present for long enough to cause an irreversible adverse effect on the integrity of the habitats present within the SAC and SSSI, and would have neutral effect on the integrity of the biodiversity features of the SAC. As described in Section 8.9, Chapter 8 Biodiversity of the Environmental Statement there would be no loss of habitat within Parsonage Down SSSI for the construction of the scheme, there would be modification of existing calcareous grassland in 1.2ha of the 188ha Parsonage Down SSSI to provide a stone curlew nesting plot. The potential impacts of construction would therefore be: • habitat modification; and • habitat degradation due to possible pollution events and dust deposition. The mitigation which is proposed to limit dust generation is based on Institute of Air Quality Management guidance, and is outlined in Section 8.9 Chapter 8 Biodiversity of the Environmental Statement. Overall the impact on Parsonage Down SSSI from the habitat modification due to creation of the stone curlew nesting plot is considered to result in a benefit the SSSI. As described in Section 8.9, Chapter 8 Biodiversity of the Environmental Statement, the potential operational impacts on Parsonage Down SSSI / NNR would be limited to habitat degradation from NOx deposition. The mitigation which is proposed to mitigate NOx deposition is outlined in Chapter 8 Biodiversity of the Environmental Statement, and includes conversion of existing areas of agricultural land to chalk grassland. Removing these areas from nitrogen fertilisation, which would otherwise run off into the SSSI, would contribute to offsetting the potential atmospheric nitrogen deposition resulting from NOx deposition. Following implementation of this mitigation, no significant operational effects are expected on the structure and function of the SSSI / NNR as the SSSI / NNR is fully and partially located within the SAC (respectively). As described in Section 8.2, Chapter 8 Biodiversity, the measures that will be deployed

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		on this Scheme are incorporated within Appendix 2.2 Outline Environmental Management Plan (document reference 6.3) which is submitted as part of the DCO application and will be finalised at the end of the DCO Examination period. The requirements within the OEMP will be secured within the DCO. The measures in the OEMP will then be applied in practice by the appointed contractors. Regarding geological conservation interests, as per NPSNN Paragraph 5.24 of this Appendix, these are not present.
Biodiversity -Irreplaceable habitats including ancient woodland and veteran trees		
5.32	Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this.	Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) considers all ecological features. No ancient woodland is present within the study area. Table 8.11 indicates a single veteran beech tree is located to the north of New Kings Barrow. No loss or deterioration of this tree is anticipated.
5.33	Development proposals potentially provide many opportunities for building in beneficial biodiversity or geological features as part of good design. When considering proposals, the Secretary of State should	Section 8.8, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) describes the mitigation and enhancements which are proposed. These measures maximise the opportunity for the Scheme to benefit biodiversity by improving existing habitat, and in particular connectivity between habitats in an east west

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	consider whether the applicant has maximised such opportunities in and around developments. The Secretary of State may use requirements or planning obligations where appropriate in order to ensure that such beneficial features are delivered.	direction, reconnecting existing semi natural habitats within the wider landscape. See also further detail in the response to NPSNN paragraph 5.22-5.23. For example, the creation of chalk grassland that is proposed between Parsonage Down SSSI and the Scheme to the south would benefit existing species including invertebrates, such as butterflies through improved habitats.
Biodiversity - Protection of other habitats and species		
5.35	Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales and therefore requiring conservation action. The Secretary of State should ensure that applicants have taken measures to ensure these species and habitats are protected from the adverse effects of development. Where appropriate, requirements or planning obligations may be used in order to deliver this protection. The Secretary of State should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits of the development (including need) clearly outweigh that harm.	Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) considers all ecological features, identifies those that are of principal importance and assesses the residual effect. Ecology and nature conservation has been assessed in accordance with relevant sections of the DMRB (as updated by Interim Advice Note 130/10). Information was obtained from previous studies, biological records, consultation with relevant organizations, and field surveys completed in 2018. The mitigation and enhancement measures that will be deployed on this Scheme are being incorporated into Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3). This details the environmental mitigation measures that would be implemented during construction, why they are required, who is responsible for delivering them and detailing any ongoing reporting criteria. Of the six Habits of Principal Importance within the 500m study area considered in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1), only good quality semi-improved grassland, lowland calcareous grassland, deciduous woodland and lowland fens occur within the Scheme boundary. Habitat loss and gains associated with the Scheme are summarised in Table 8.14, and include Habitats of Principal Importance (HPI). Overall the Scheme would lead to the loss of approximately 16ha of semi-natural habitats. As shown on Figure 2.5 Environmental Masterplan of the Environmental Statement (Application Document 6.2), there would be approximately 203ha of new habitats, mainly chalk grassland (162ha), which would be present and developing at year of opening (2026) and these would be more established by the

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		assessment 15 years after opening. The benefits in terms of habitat creation therefore significantly outweigh the losses to HPI. In addition to the biodiversity benefits, the losses of HPI would also be outweighed by the economic, transport and heritage benefits of the Scheme. These benefits include creating a high quality, reliable route alleviating local issues associated with congestion, and improving connectivity between the South East and South West, and reconnecting the historic landscape and in doing so protecting and enhancing the OUV of the WHS. Once mitigation is taken into account, there are no significant long-term adverse effects persisting into the operational period. Some construction effects are significant at a local level only, but are short-term.
Biodiversity – Mitigation		
5.36	Applicants should include appropriate mitigation measures as an integral part of their proposed development, including identifying where and how that: - during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works; - during construction and operation, best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised (including as a consequence of transport access arrangements); - habitats will, where practicable, be restored after construction works have finished; - developments will be designed and landscaped to provide green corridors and minimise habitat fragmentation where reasonable;	Measures to reduce the potential construction effects on biodiversity are specified within Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3), and include: - measures which are required to limit the impacts outside the Scheme boundary, including through provision of site hoarding and fencing; - measures to reduce the potential for disturbance or effects on species and habitats, including great crested newts, reptiles, birds, bats, badgers, otters, water vole and other species; - measures required to enable restoration of habitats following construction; - new green infrastructure, which provides an ecological benefit, as per NPSNN paragraph 5.22-5.23 of this Appendix, including the need to minimise habitat fragmentation; - enhancement of existing habitats, as per NPSNN paragraph 5.22-5.23 of this Appendix. These improvements include greening of existing network crossing points through the provision of three green bridges, and habitat improvement within the network verge. The location and specifications for habitat restoration and new habitat creation are set

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	- opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals, for example through techniques such as the 'greening' of existing network crossing points, the use of green bridges and the habitat improvement of the network verge.	out in Appendix 8.26 Outline Landscape and Ecological Management Plan of the Environmental Statement Appendices (Application Document 6.3).
5.37	The Secretary of State should consider what appropriate requirements should be attached to any consent and/or in any planning obligations entered into in order to ensure that mitigation measures are delivered.	The draft DCO (Application Document 3.1) Schedule 2, Part 1includes a requirement that the applicant must comply with the OEMP, which would be certified as part of the making of the DCO. The mitigation which is specified in the OEMP is secured by this section of the DCO. Further detailed requirements are described within the draft DCO, and relate to mitigation and management of environmental effects. These include, but are not limited to, requirements relating to protected species, contaminated land and groundwater, implementation of landscaping, archaeology, traffic management and surface water drainage.
Waste management		
5.42	The applicant should set out the arrangements that are proposed for managing any waste produced. The arrangements described should include information on the proposed waste recovery and disposal system for all waste generated by the development. The applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that the alternative is the best overall environmental outcome.	Chapter 12 Materials of the Environmental Statement (Application Document 6.1) discusses the arrangements proposed for managing waste produced by the Scheme. Material use and waste generation is expected to be very small during operation of the Scheme. Section 12.7, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) explains that as part of the OEMP, construction contractors will be required to produce a Site Waste Management Plan which will identify and record the types, quantities and destination of waste arisings from the Scheme and define measures to minimise waste arisings from the Scheme and to recover waste materials in accordance with the principles of the waste hierarchy. The OEMP also identifies

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		approaches which will be followed to minimise waste generation and disposal including recovery targets and monitoring. As described in Chapter 12 Materials of the Environmental Statement (Application Document 6.1), it is anticipated there will be an overall cut-fill balance of excavated material for the Scheme. This will be achieved through reuse of materials on site to backfill excavations or adjust local site levels. Appendix 12.1 The Tunnel Arisings Management Strategy of the Environmental Statement Appendices (Application Document 6.3) sets out the proposed strategy for managing material excavated from the tunnelling works which are the largest volume of material produced during construction. Excavated material is proposed to be re-used within the boundary of the Scheme, to the east of Parsonage Down NNR. Excavated material will be managed in accordance with a Materials Management Plan produced under the CL:AIRE Code of Practice (Ref 12.21) and therefore the excavated material is not considered as a waste. The on-site management of excavated material will therefore not require the use of any existing waste management capacity in the region and is the most suitable approach compared with off-site alternatives.
5.43	The Secretary of State should consider the extent to which the applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from the construction and operation of the proposed development. The Secretary of State should be satisfied that the process sets out: - any such waste will be properly managed, both on-site and off-site; - the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which	Section 12.1, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) indicates the Scheme would prioritise waste prevention, followed by preparing for re-use, recycling, recovery and lastly disposal to landfill as per the internationally recognised waste hierarchy. Section 12.9 describes the targets which are proposed for materials management including a 22% target for use of secondary and recycled aggregates, for those applications where it is technically and economically feasible to substitute these alternative materials for primary aggregates. In addition, Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) secures a target for an overall recovery rate for construction waste materials of 70%.

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	is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and - adequate steps have been taken to minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where an alternative is the most sustainable outcome overall.	A SWMP will be developed by the contractor pursuant to the OEMP. Information on the capacity of the waste market has been identified in Chapter 12 Materials of the Environmental Statement (Application Document 6.1).
Civil and military aviation and defence interests		
5.55	Where the proposed development may have an effect on civil or military aviation and/or other defence assets, an assessment of potential effects should be carried out.	Table 13.14, Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) explains that an assessment of effects on civil or military aviation and/or other defence assets has not been undertaken within the Scope of the People and Communities assessment as the Scheme would have no effect on civil or military aviation and/ or other defence assets. As per NPSNN Para 5.56 of this Appendix, the assets which were identified were not affected.
5.56	The applicant should consult the MoD, CAA, National Air Traffic Services (NATS) and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or other defence interests.	Highways England has met with the MoD to ensure the scope and sensitivities of their operations are fully understood and protected accordingly and agree the approach adopted. Full details of how representations received from the MoD have been addressed can be found in the Consultation Report (Application Document 5.1). As part of the EIA Scoping consultation NATS (En Route) Public Limited Company ("NERL") confirmed that the Scheme presented for EIA Scoping does not conflict with their safeguarding criteria and therefore they had no safeguarding objection to the Scheme. The Civil Aviation Authority were consulted, but indicated that they had no comments on the Scheme. No further elements of Communication, Navigation and Surveillance (CNS) infrastructure are affected by the Scheme.
5.57	Any assessment on aviation or other defence	As per NPSNN Paragraphs 5.55 and 5.56 of this Appendix, no assessment of

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	interests should include potential impacts during construction and operation of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures.	operational effects of aviation or other defence interests is required at this stage. Further consultation with the MOD regarding construction effects on their operations (including infrastructure and flight patterns) will be undertaken prior to construction as specified in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3).
5.58	If any relevant changes are made to proposals for an NSIP during the pre-application period or before the end of the examination of an application, it is the responsibility of the applicant to ensure that the relevant aviation and defence consultees are informed as soon as reasonably possible.	No such changes are anticipated, however in such an event the relevant consultees would be informed.
5.59	The Secretary of State should be satisfied that effects on civil and military aviation and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on aviation or defence interests has been carried out. In particular, it should be satisfied that the proposal has been designed to minimise adverse impacts on the operation and safety of aerodromes and that reasonable mitigation is carried out. It may also be appropriate to expect operators of the aerodrome to consider making reasonable changes to operational procedures. The Secretary of State will have regard to the necessity, acceptability and reasonableness of operational changes to aerodromes, and the risks or harm of such changes when taking decisions. When making such a judgement in the case of military aerodromes, the Secretary of State should have	No effects on civil or military aviation and other defence assets are anticipated. The approach to consideration of these issues is as per NPSNN Paragraphs 5.55, 5.56 and 5.57 of this Appendix.

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	regard to interests of defence and national security.	
5.62	Where, after reasonable mitigation, operational changes and planning obligations and requirements have been proposed, development consent should not be granted if the Secretary of State considers that: - a development would prevent a licensed aerodrome from maintaining its licence; - the benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs; or - the development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training.	Given that the Scheme is not expected to affect civil and military aviation interests, no mitigation is proposed at this stage.
Dust, odour, artificial light, smoke, steam		
5.82	Because of the potential effects of these emissions and in view of the availability of the defence of statutory authority against nuisance claims s.104 of the Planning Act 2008 described previously, it is important that the potential for these impacts is considered by the applicant in their application, by the Examining Authority in examining applications and by the Secretary of State in taking decisions on development consents.	The Statement of Statutory Nuisances (Application Document 6.5) explains how the Scheme would not cause a nuisance for reasons of dust, odour, artificial light, smoke and steam, having regard to the results of the Environmental Statement (Application Document 6.1). Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) details the mitigation measures that would be implemented during the construction of the Scheme which would seek to keep impacts to the local community to a minimum. The Appendix 2.2 OEMP (Application Document 6.3) is secured within the Requirements in Schedule 2 of the draft DCO (Application Document 3.1).
5.83	For nationally significant infrastructure projects of the type covered by this NPS, some impact on amenity for local communities is likely to be unavoidable. Impacts should be kept to a minimum and should be	The methods to keep impacts to a minimum are described in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3). The impacts on amenity are described in Chapter 13 People and Communities of the

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	at a level that is acceptable.	Environmental Statement (Application Document 6.1) and conclude that there would be no likely significant effects on amenity during construction or operation.
5.84 - 5.87	Where the development is subject to an Environmental Impact Assessment, the applicant should assess any likely significant effects on amenity from emissions of odour, dust, steam, smoke and artificial light and describe these in the Environmental Statement. In particular, the assessment provided by the applicant should describe: - the type and quantity of emissions; - aspects of the development which may give rise to emissions during construction, operation and decommissioning; - premises or locations that may be affected by the emissions; - effects of the emission on identified premises or locations; and - measures to be employed in preventing or mitigating the emissions. The applicant is advised to consult the relevant local planning authority and, where appropriate, the Environment Agency about the scope and methodology of the assessment. The Secretary of State should be satisfied that all reasonable steps have been taken, and will be taken, to minimise any detrimental impact on amenity from emissions of odour, dust, steam, smoke and artificial light. This includes the impact of light pollution from	Construction effects associated with odour, dust and smoke, including the predicted type, quantity and receptor locations of emissions are considered within the Environmental Statement (Application Document 6.1). The reasonable steps taken via mitigation measures in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) would include those for dust suppression, control and use of equipment/plant and construction traffic management. With the implementation of mitigation measures, no significant effects are likely. The scope of the EIA was discussed with Wiltshire Council and the Environment Agency. The consideration of their comments is included within the specific Environmental Statement chapters to which the comments relate. The potential for odour and steam effects was considered during the EIA Scoping stage for the Environmental Statement, and was informed by discussions with Wiltshire Council. No potential effects were identified. The design of the Scheme is such that air quality would be improved during the operational phase of the Scheme. No mitigation is proposed. Chapter 7 Landscape and Visual of the Environmental Statement (Application Document 6.1) assesses the impacts of the proposed artificial lighting for the Scheme during construction and operation (Section 7.9 describes the character of the night sky assessment). During construction, lighting for the construction compounds, the 24-hour tunnelling operation, general working areas in winter months and lighting from construction vehicles on the haul routes will be required. The assessment concludes there would be a slight loss of darkness and a minor adverse impact compared to the existing lighting in the area. The reasonable steps taken via measures to mitigate light nuisance from artificial lighting used as part of the construction phase is identified within Appendix 2.2 OEMP of the Environmental Statement (see Application Document 6.3).

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	artificial light on local amenity, intrinsically dark landscapes and nature conservation	During operation, lighting will increase as a result of the variable message signs on the B3083 bridge and River Till Viaduct. However, vehicle headlights will be screened by the visual screen on the viaduct. There will be a substantial reduction in lighting from vehicles within the WHS as they will be largely contained within the tunnel and under the long bridge, as well as the removal of existing lighting at Longbarrow Junction. There will also not be any additional lighting for the Countess Flyover and therefore the Scheme will not appreciably increase the existing lighting levels within Amesbury. The assessment therefore concludes that there would be a slight beneficial effect.
5.89	The Secretary of State should ensure the applicant has provided sufficient information to show that any necessary mitigation will be put into place. In particular, the Secretary of State should consider whether to require the applicant to abide by a Scheme of management and mitigation concerning emissions of odour, dust, steam, smoke, artificial light from the development to reduce any loss to amenity which might arise during the construction and operation of the development. A construction management plan may help codify mitigation.	As per NPSNN paragraph 5.82 and 5.84-5.87 of this Appendix.
Flood risk		

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5.90	Climate change over the next few decades is likely to mean milder wetter winters and hotter drier summers in the UK, while sea levels will continue to rise. Within the lifetime of nationally significant infrastructure projects, these factors will lead to increased flood risks in areas susceptible to flooding, and to an increased risk of flooding in some areas which are not currently thought of as being at risk. The applicant, the Examining Authority and the Secretary of State (in taking decisions) should take account of the policy on climate change adaptation in paragraphs 4.36 to 4.47.	As per NPSNN Paragraph 4.38 the need to adapt to climate change has been taken into consideration as part of the Scheme assessment and design. The assessment has considered a range of weather conditions which might arise, including increased temperatures and increased precipitation. As per NPSNN Paragraph 4.40, 4.41, 4.42, and 4.32 assessment has also been undertaken to consider the potential future increase in flood risk (both in areas which are currently susceptible, or in areas which are not currently at risk) as a result of climate change, and any necessary design requirements to respond to this increased risk.
5.91	The National Planning Policy Framework (paragraphs 100 to 104) makes clear that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. But where development is necessary, it should be made safe without increasing flood risk elsewhere. The guidance supporting the National Planning Policy Framework explains that essential transport infrastructure (including mass evacuation routes), which has to cross the area at risk, is permissible in areas of high flood risk, subject to the requirements of the Exception Test.	Appendix 11.5 Level 3 Flood Risk Assessment (FRA) of the Environmental Statement (Application Document 6.3) identifies that the Scheme is located within areas at risk of flooding. The Environment Agency's 'Flood Map for Planning' classifies parts of the Order limits as Flood Zone 2 or 3, indicating that there are areas at medium or high probability of flooding. These areas are generally located where the Scheme crosses valley saddles and along Main River (River Till and River Avon) and tributary corridors. Since the Scheme is partially located in Flood Zone 3a and 3b, an Exception Test is required. Chapter 4 of the FRA indicates that the Exception Test is only required for elements of proposed development (Essential Infrastructure) in Flood Zone 3. As described in Chapter 10 of the FRA, where an encroachment within Flood Zone 3 exists assessment has been undertaken through site specific hydraulic modelling. It is demonstrated that under both the Scheme will not have a detrimental impact on flooding, to the satisfaction of the Exception Test.
5.92 - 5.93	Applications for projects in the following locations should be accompanied by a flood risk assessment (FRA): - Flood Zones 2 and 3, medium and high probability of river and sea flooding;	Appendix 11.5 Level 3 Flood Risk Assessment (FRA) of the Environmental Statement (Application Document 6.3) assesses the risk of all forms of flooding to and from the Scheme. The approach presented in the Flood Risk Assessment is based on the Source-Pathway-Receptor model. As part of following this model the causes or 'sources' of flooding to and from the Scheme are considered based on a review of local

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	- Flood Zone 1 (low probability of river and sea flooding) for projects of 1 hectare or greater, projects which may be subject to other sources of flooding (local watercourses, surface water, groundwater or reservoirs), or where the Environment Agency has notified the local planning authority that there are critical drainage problems. This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.	conditions and consideration of the effects of climate change using Environment Agency guidance. The nature and likely extent of flooding arising from any one source has also been considered, e.g. whether such flooding is likely to be localised or widespread.
5.94	In preparing an FRA the applicant should: - consider the risk of all forms of flooding arising from the project (including in adjacent parts of the United Kingdom), in addition to the risk of flooding to the project, and demonstrate how these risks will be managed and, where relevant, mitigated, so that the development remains safe throughout its lifetime; - take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made; - consider the vulnerability of those using the infrastructure including arrangements for safe access and exit; - include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project; - consider if there is a need to remain operational	Appendix 11.5 Level 3 Flood Risk Assessment (FRA) of the Environmental Statement: (Application Document 6.3) meets the requirements which are set by the NPS NN including information to apply the Sequential and Exception tests, and demonstrates that the development remains safe from flooding through its lifetime (taking climate change into account). In addition, with the mitigation which is proposed, the residual risk which the temporary and permanent features of the Scheme would generate for other receptors so is low. The need for safe access and egress routes has been considered within Chapter 10 of Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3). The Scheme is not impacted by flooding and should always remain operational during periods of nearby flooding. The Road Drainage Strategy (ES Appendix 11.3) secured through the DCO, has taken account of climate change in its design to ensure that this can be the case.

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	during a worst case flood event over the development's lifetime; - provide the evidence for the Secretary of State to apply the Sequential Test and Exception Test, as appropriate.	
5.96	Applicants for projects which may be affected by, or may add to, flood risk are advised to seek sufficiently early pre-application discussions with the Environment Agency, and, where relevant, other flood risk management bodies such as lead local flood authorities, Internal Drainage Boards, sewerage undertakers, highways authorities and reservoir owners and operators. Such discussions can be used to identify the likelihood and possible extent and nature of the flood risk, to help scope the FRA, and identify the information that will be required by the Secretary of State to reach a decision on the application once it has been submitted and examined. If the Environment Agency has concerns about the proposal on flood risk grounds, the applicant is encouraged to discuss these concerns with the Environment Agency and look to agree ways in which the proposal might be amended, or additional information provided, which would satisfy the Environment Agency's concerns, preferably before the application for development consent is submitted.	Consultation undertaken as part of the assessment of flood risk is set out in Chapter 4 of Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3). This includes discussions with the Environment Agency and LLFA both during the scoping of the FRA, and during the statutory consultation on the Scheme. The items which were raised during the statutory consultation and how they have been dealt with are also summarised within Chapter 4 the FRA.
5.97	For local flood risk (surface water, groundwater and ordinary watercourse flooding), local flood risk management strategies and surface water	Wiltshire Local Flood Risk Management Strategy has been considered as part of the baseline for Chapter 11 Road Drainage and the Water Environment of the Environmental Statement (Application Document 6.1). The records of past flooding

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	management plans provide useful sources of information for consideration in Flood Risk Assessments. Surface water flood issues need to be understood and then account of these issues can be taken, for example flow routes should be clearly identified and managed.	which are relevant to the Scheme are described in Section 11.6. Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) assesses the risk from all sources of flooding to and from the Scheme, including local sources. Surface water flood risk is described in Chapter 6, and identifies historic flooding events details of which have been obtained from Wiltshire Council. In terms of the level of surface water flooding risk, Chapter 10 indicates the majority of surface water flood risk in the study area is categorised as 'Low'; with some small 'pockets' of 'Medium' or 'High' flood risk. These are typically in valley bottoms and where surface water flow paths are impeded by artificial structures. In terms of Flood Risk to the Scheme and on-going resilience of the Scheme, Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) indicates that the Scheme is designed to minimise the risk of flooding by incorporating current design standards and future climate change allowances to improve its resilience through the use of sustainable drainage techniques. Therefore the Scheme remains safe from flooding through its lifetime. In terms of Flood Risk from the Scheme, Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) indicates that any scheme elements which will result in an increase in impermeable area have design mitigation incorporated. The road is designed to minimise the risk of flooding with attenuation features to detain runoff from all events expected to occur with 1% AEP or more frequently. This includes consideration of flow routes: The surface water hydraulic modelling for the Parsonage Down area shows flood depth differences to the existing surface water overland flow path. The proposed mitigation is to implement a land drainage solution to enable the overland flow path to continue towards the River Till. With the mitigation which is proposed, the residual risk, which the temporary and permanent features of the Scheme would generate for other receptors, is low.

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5.98	Where flood risk is a factor in determining an application for development consent, the Secretary of State should be satisfied that, where relevant: - the application is supported by an appropriate FRA; - the Sequential Test (see the National Planning Policy Framework) has been applied as part of site selection and, if required, the Exception Test (see the National Planning Policy Framework).	A Flood Risk Assessment has been prepared, and is provided at Appendix 11.5 of the Environmental Statement Appendices (Application Document 6.3). The Environmental Agency classifies land affected by the Scheme as Flood Zone 2 or 3, indicating that there are areas at medium or high probability of flooding. The presence of Flood Zone 3 requires that flood risk is assigned as a high importance. These areas are generally located at valley saddles and along Main River and tributary corridors. The approach regarding the Sequential Test and Exception Test are as per NPSNN paragraphs 5.94 of this Appendix.
5.99	When determining an application, the Secretary of State should be satisfied that flood risk will not be increased elsewhere and only consider development appropriate in areas at risk of flooding where (informed by a flood risk assessment, following the Sequential Test and, if required, the Exception Test), it can be demonstrated that: - within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and - development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning; and priority is given to the use of sustainable drainage systems.	These requirements are satisfied. The approach regarding the Sequential Test and Exception Test are as per NPSNN paragraphs 5.94 of this Appendix. The approach to ensuring the Scheme is suitably flood resilient is as per NPSNN Paragraph 5.97 of this Appendix. The need for safe access and egress routes has been considered within Chapter 10 of Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3). The Scheme is not impacted by flooding and should always remain operational during periods of nearby flooding. The Road Drainage Strategy (ES Appendix 11.3) secured through the DCO, has taken account of climate change in its design to ensure that this can be the case.
5.100	For construction work which has drainage implications, approval for the project's drainage system will form part of any development consent	Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3), notes that the drainage scheme has been designed according to national SuDS best practice highlighted in Chapter 3. These

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	issued by the Secretary of State. The Secretary of State will therefore need to be satisfied that the proposed drainage system complies with any National Standards published by Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010.93 In addition, the development consent order, or any associated planning obligations, will need to make provision for the adoption and maintenance of any Sustainable Drainage Systems (SuDS), including any necessary access rights to property. The Secretary of State, should be satisfied that the most appropriate body is being given the responsibility for maintaining any SuDS, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority, or another body such as the Internal Drainage Board.	include the principles of Defra (2015) Sustainable Drainage Systems, Non-statutory technical standards for SuDS and the Design Manual for Roads and Bridges. Further detail is also presented in Appendix 11.3 Road Drainage Strategy of the Environmental Statement (Application Document 6.3). The Applicant will be responsible (as necessary) for maintenance of these features within the land included within the Order limits. The draft DCO (Application Document 3.1) includes in the Requirements (Schedule 2, Part 1) draft requirements which relate to surface water drainage.
5.101	If the Environment Agency continues to have concerns and objects to the grant of development consent on the grounds of flood risk, the Secretary of State can grant consent, but would need to be satisfied before deciding whether or not to do so that all reasonable steps have been taken by the applicant and the Environment Agency to try and resolve the concerns.	As described within Chapter 4 Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) consultation with the Environment Agency has been ongoing throughout the design of the Scheme. Based on the conclusions presented in the FRA, as per NPSNN Paragraph 5.91 no such grounds for an objection are anticipated.
5.102	The Secretary of State should expect that reasonable steps have been taken to avoid, limit and reduce the risk of flooding to the proposed infrastructure and	The Scheme falls into the second case described in the NPSNN, as the A303 is within areas which are at risk of flooding, and the existing route is being replaced. The steps which have been taken to avoid, limit and reduce flood risk from and to infrastructure

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	others. However, the nature of linear infrastructure means that there will be cases where: - upgrades are made to existing infrastructure in an area at risk of flooding; - infrastructure in a flood risk area is being replaced; - infrastructure is being provided to serve a flood risk area; and - infrastructure is being provided connecting two points that are not in flood risk areas, but where the most viable route between the two passes through such an area.	are as per NPSNN Paragraphs 5.90. 5.97, 5.103 and 5.104 of this Appendix.
5.103	The design of linear infrastructure and the use of embankments in particular, may mean that linear infrastructure can reduce the risk of flooding for the surrounding area. In such cases the Secretary of State should take account of any positive benefit to placing linear infrastructure in a flood-risk area.	The Scheme will not have any benefits in terms of reducing flood risk for the surrounding area. However, as described in Chapter 8 of Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3), the design will ensure that flood risk to the surrounding area from flooding would be low.
5.104	Where linear infrastructure has been proposed in a flood risk area, the Secretary of State should expect reasonable mitigation measures to have been made, to ensure that the infrastructure remains functional in the event of predicted flooding.	The Scheme is not impacted by flooding during the its design life and should always remain operational during periods of nearby flooding, as described in Chapter 3 Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3). The Scheme and its drainage measures (as described in Appendix 11.3 Road Drainage Strategy of the Environmental Statement) are designed to manage surface water runoff to minimise the risk of causing flooding elsewhere through the use of attenuation features to detain runoff from all events expected to occur with 1% annual exceedance probability (including climate change) or more frequently. The drainage measures comply with the principles of the non-statutory technical standards for SuDS and the Design Manual for Roads and Bridges (DMRB).

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		Other design measures are embedded into the Scheme design to minimise the potential impact on flood risk. These include: a) Siting of permanent facilities outside of the flood zones or surface water flow paths, such as, the operational facilities for the tunnel; and, b) Avoiding the siting of embankments and cuttings within the known floodplains.
Flood risk – mitigation		
5.110	To satisfactorily manage flood risk and the impact of the natural watercycle on people, property and ecosystems, good design and infrastructure may need to be secured using requirements or planning obligations. This may include the use of sustainable drainage systems but could also include vegetation to help to slow runoff, hold back peak flows and make landscapes more able to absorb the impact of severe weather events.	No planning obligations relating to flood risk management systems are anticipated. Sustainable drainage systems have been included within the Road Drainage Strategy (ES Appendix 11.3).
5.112 - 5.115	Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts. The surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect. It may be necessary to provide surface water storage	As per NPSNN paragraphs 5.97 of this Appendix, the drainage systems for Scheme are designed to minimise the risk of it flooding elsewhere by incorporating current design standards and future climate change allowances. Attenuation and drainage design in considered in Appendix 11.3 Road Drainage Strategy of the Environmental Statement Appendices (Application Document 6.3). Chapter 3 indicates that drainage from the road (excluding areas outside the road, described below) would be sent entirely to infiltration basins. There would be no outfalls to surface watercourses from these basins. Preliminary sizing of the basins has been undertaken to contain the 1 in 100 year rainfall event, including a 30% allowance for climate change and 300mm freeboard. In addition, to take into account the risk of an extreme rainfall event larger than the design standard, exceedance routes from the basins have been identified to ensure any potential risk of damage or disruption to property or infrastructure or livestock caused from flow from the basins would be

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	and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation. The sequential approach should be applied to the layout and design of the project. Vulnerable uses should be located on parts of the site at lower probability and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood storage uses. Opportunities can be taken to lower flood risk by improving flow routes, flood storage capacity and using SuDS.	minimised. No surface water storage or infiltration outside of the site is proposed. New and improved drainage systems are proposed to provide land drainage for areas outside of the road. These are also described in Chapter 3 of Appendix 11.3 Road Drainage Strategy of the Environmental Statement Appendices (Application Document 6.3), and may include: - ditches to capture surface water flows from natural catchments adjacent to the highways; - measures to convey drainage from groundwater to the River Till or River Avon via a system of ditches or pipes; - bunds to retain surface flows and discharge these to the River Till; - soakaways and infiltration systems to match existing systems on new Sections of the A360, B3038 and Rollestone Cross; - drainage systems to convey groundwater and surface water from the proposed tunnel. With the mitigation which is proposed, the residual risk which the temporary and permanent features of the Scheme would generate for other receptors is low. As described in Chapter 10, Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) elements of the Scheme are located in areas which are vulnerable to flooding. The permanent Scheme elements at risk from fluvial flooding include: a) The provision of utilities to provide power to the eastern portal crosses the River Avon floodplain and therefore is located within the 1% AEP flood extent; and b) The piers of the River Till viaduct are located within the 1% AEP flood extent. To mitigate potential impacts to the Scheme the installation of vulnerable above ground

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		utilities structures would be located outside of the River Avon 0.1% AEP plus climate change flood extent. The permanent scheme elements at risk from surface water flooding include: a) Longbarrow Junction upgrades; b) Twin-bore tunnel, including portals; c) Countess Roundabout flyover; d) Embankments and cuttings; e) Road drainage; and f) High Load route. The road is designed to minimise the risk of it flooding by incorporating current design standards and future climate change allowances to improve its resilience through the use of sustainable drainage techniques (as described above). With design mitigation, the risk to the Scheme from surface water flooding would be Low.
Land instability		
5.117 - 5.118	Where necessary, land stability should be considered in respect of new development, as set out in the National Planning Policy Framework and supporting planning guidance. Specifically, proposals should be appropriate for the location, including preventing unacceptable risks from land instability. If land stability could be an issue, applicants should seek appropriate technical and environmental expert advice to assess the likely consequences of proposed developments on sites where subsidence, landslides and ground compression is known or suspected. Applicants should liaise with the Coal Authority if necessary. A preliminary assessment of ground instability should	Section 10.6, Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1) details the potential geotechnical hazards affecting the Order land and concludes that there is no significant risk to land instability arising from the Scheme. This conclusion has been reached further to the Appendix 10.6 Land Instability Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) that has been carried out. Given the location of the Scheme and there being no coal resources present, there has been no requirement to liaise with the Coal Authority. Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1) summarises the assessment that has been undertaken, and the mitigation which is proposed:

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	be carried out at the earliest possible stage before a detailed application for development consent is prepared. Applicants should ensure that any necessary investigations are undertaken to ascertain that their sites are and will remain stable or can be made so as part of the development. The site needs to be assessed in context of surrounding areas where subsidence, landslides and land compression could threaten the development during its anticipated life or damage neighbouring land or property. This could be in the form of a land stability or slope stability risk assessment report.	Natural cavities: There is a potential for natural cavities to be present, and this has been confirmed during archaeological trial trenching. Natural cavities can often be found present within Chalk in the form of dissolution features which can be present as sinkholes, dissolution pipes and swallow holes. However, it is concluded that the features identified would not pose land instability issues to the Scheme, as they appear to be positioned above the proposed carriageway level, so would be excavated out during construction. Faults and fractures: Potential faulting has been logged during the previous ground investigations and discontinuities have been identified around the proposed tunnel area, which typically vary in nature. The risk from faulting has been assessed in the Appendix 10.1 Preliminary Ground Investigation Report of the Environmental Statement Appendices (Application Document 6.3) and has concluded that such a risk is low. Tunnel construction: The proposed tunnel runs in close proximity to the three buildings at Stonehenge Cottages, situated east of Stonehenge. Based on ground movement analyses undertaken in the Land Instability Risk Assessment, it is considered that ground movements caused by tunnel construction would not have a significant impact on settlement around the cottages.
The historic environment		
5.124	Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the policies for designated heritage assets. The absence of designation for such heritage assets does not indicate lower significance.	Section 6.3, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) addresses this by describing the criteria to assess the value of archaeological remains; in DMRB terminology value equates to significance in the NPS. This identifies how value or significance has been determined for undesignated assets. Where appropriate, non-designated assets are attributed a higher value, which has ensured their significance is reflected in the assessment.
5.125	The Secretary of State should also consider the	Section 6.3, Chapter 6 Cultural Heritage of the Environmental Statement (Application

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	impacts on other non-designated heritage assets (as identified either through the development plan process by local authorities, including 'local listing', or through the nationally significant infrastructure project examination and decision making process) on the basis of clear evidence that the assets have a significance that merit consideration in that process, even though those assets are of lesser value than designated heritage assets.	Document 6.1) considers the impact on non-designated heritage assets and this is supported by evidence establishing their significance. The value of all assets, including non-designated assets, is described in Tables 6.11 and 6.12 of Chapter 6. All heritage assets that contribute to conveying the OUV of the WHS are assigned a Very High value, whether they are designated or non-designated.
5.126 - 5.127	Where the development is subject to EIA the applicant should undertake an assessment of any likely significant heritage impacts of the proposed project as part of the Environmental Impact Assessment and describe these in the environmental statement. The applicant should describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant Historic Environment Record should have been consulted and the heritage assets assessed using appropriate expertise. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation.	The approach to assigning significance, and assessing effects is proportionate to the highly sensitive location in which the Scheme is located. Section 6.3, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) describes the approach taken to assessing effects on heritage within the EIA. The ES chapter is the primary document which reports the Scheme impacts and effects upon heritage assets. It reports the impacts on all designated and non-designated heritage assets, including the Stonehenge, Avebury and Associated Sites WHS. In addition, Appendix 6.1 Heritage Impact Assessment has been undertaken. The purpose of the Heritage Impact Assessment is to assess the potential negative and positive impacts of the Scheme on the OUV of the WHS in accordance with ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties. The Heritage Impact Assessment addresses both designated and non-designated heritage assets that express the OUV of the WHS. It deals only with impacts on OUV, Integrity and Authenticity and does not examine impacts on other designated or non-designated heritage assets that do not contribute to OUV. Section 6.6 Baseline Conditions, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) describes the total numbers of heritage asset affected, including archaeological remains, historic buildings and historic landscapes, and the contribution and value derived from their setting. Data on each asset, including

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		information on setting and value/ significance is, presented in Appendix 6.2 – 6.6 of the Environmental Statement Appendices (Application Document 6.3). Section 6.3 Assessment Methodology, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) notes the sources used to determine the baseline information, which include the Historic Environment Record. As described within Section 6.3 Assessment Methodology, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) the baseline has been informed by extensive prior archaeological evaluations and excavations. In addition, field work has been undertaken to inform the Scheme design. Evaluation fieldwork has been carried out for sections of the Scheme within and adjacent to the WHS (eastern portal and approaches, western portal and approaches, new Longbarrow Junction and approaches, and the Rollestone Corner improvement). Much of the Winterbourne Stoke bypass alignment was archaeologically evaluated for previous A303 improvement schemes (see Environmental Statement Appendix 6.10 (Application Document 6.3). The majority of the land within the Order limits of the proposed scheme has been evaluated by recent detailed archaeological geophysical surveys, either as part of academic projects or in support of the Scheme.
5.128	In determining applications, the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development (including by development affecting the setting of a heritage asset), taking account of the available evidence and any necessary expertise from: - relevant information provided with the application and, where applicable, relevant information	As per NPSNN paragraphs 5.126 – 5.127 of this Appendix. Section 6.6 Baseline Conditions, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) provides information on the value/significance of each heritage asset, including archaeological remains, historic buildings and historic landscapes, and the contribution and value derived from their setting. Data on each asset, including information on setting is presented in Appendix 6.2 – 6.6 of the Environmental Statement (Application Document 6.3). Section 6.6, Chapter 6 also details prior consultation and expert advice received, and the data sources and

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	submitted during examination of the application; - any designation records; - the relevant Historic Environment Record(s), and similar sources of information; - representations made by interested parties during the examination; and - expert advice, where appropriate, and when the need to understand the significance of the heritage asset demands it.	requests that have been undertaken with relevant stakeholders.
5.129	In considering the impact of a proposed development on any heritage assets, the Secretary of State should take into account the particular nature of the significance of the heritage asset and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal.	The consideration of significance of heritage assets is as per NPSNN Paragraphs 5.124 – 5.127 of this Appendix. As per NPSNN Paragraph 2.9 of this Appendix particular attention has been and continues to be given to the cultural heritage aspects of the design of the Scheme, and the protection and enhancement of the WHS is an objective for the Scheme. As per NPSNN Paragraph 5.132 of this Appendix, the Scheme assessment and design has responded to the sensitivity and the value of designated and non-designated heritage assets including the WHS in order to ensure that it provides an overall benefit for this and future generations. These benefits would be experienced by future generations.
5.130	The Secretary of State should take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution that their conservation can make to sustainable communities – including their economic vitality. The Secretary of State should also take into account the desirability of new development making a positive contribution to the character and local	As stated within Chapter 6 of Appendix 6.1 Heritage Impact Assessment of the Environmental Statement Appendices (Application Document 6.3) the design process has involved extensive consideration of heritage issues, which have influenced the design of the Scheme. The Scheme is heritage-led in terms of its design and incorporates measures built in to the Scheme to minimise impacts and to enhance the significance and setting of heritage assets, such as the removal of the current A303 into a tunnel across the central part of the WHS, the downgrading of the current A303 and parts of the A360 to NMU routes and the provision of large areas of chalk grassland. The Scheme also allows the reconnection of the severed route of the Avenue where it is

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	distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials, use and landscaping (for example, screen planting).	crossed by the current A303. Placing the new road in tunnel removes the intrusion of the existing road and associated light pollution in views between Stonehenge and the Sun Barrow, restoring an important solstitial alignment. The tunnel would remove the severance due to the existing road between monument groups to the north and south of the A303, in particular between the Normanton Down Barrows and Stonehenge; Stonehenge Bottom / Luxenborough Barrows and Stonehenge; the Old and New King Barrows and the Coneybury Henge and Associated Monuments and both the north and south parts of the Avenue Barrows. The benefits of the Scheme to the surrounding community, including those who use the WHS are considered within Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1). The benefits include new and improved NMU routes across the WHS, these would both enhance visitor's enjoyment of the WHS, and would have wider benefits in terms of improving the connections between communities such as Winterbourne Stoke and Amesbury, and supporting their sustainability. Economic benefits which are brought about through improvements to Stonehenge are described within Chapter 5 of this Case for the Scheme document and are valued at £955 million, by means of a contingent valuation. The Scheme would support the vitality of nearby communities by allowing the creation of a non-motorised user ("NMU") route linking Winterbourne Stoke with Amesbury, following the line of the removed A303 across the WHS. The NMU route would link English Heritage's Stonehenge visitor centre with Amesbury, providing opportunities for tourism businesses. There is also opportunity to link with NMU routes beyond the WHS to create an extended network, for example linking with the National Cycle Network which currently passes north to south through Amesbury. The way in which design has influenced the Scheme is described within the DAS

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		(Application Document 7.2). This includes a consideration of scale, height, massing, alignment, materials, use, landscaping and the design decisions which have shaped the Scheme design.
5.131	When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Given that heritage assets are irreplaceable, harm or loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including World Heritage Sites, Scheduled Monuments, grade I and II* Listed Buildings, Registered Battlefields, and grade I and II* Registered Parks and Gardens should be wholly exceptional.	The Scheme is in an area which contains a large number of heritage assets and which is therefore highly sensitive to change. Section 6.12, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) concludes the assessment does not identify any instance of 'substantial harm' or total loss of significance to any designated asset. This includes the Stonehenge element of the Stonehenge, Avebury and Associated Sites WHS. In addition, Section 6.11, Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) concludes that the Scheme is assessed to have a beneficial effect on the Attributes of OUV, Integrity and Authenticity of the WHS as a whole. Adverse effects including harm or loss to designated heritage assets are anticipated. Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) identifies less than 'substantial harm' to the significance of heritage assets relating to negative changes to their setting, arising from the presence of the new road and its associated infrastructure, and/or from changes to the visual and aural impact of traffic during its operation. These effects are as per NPSNN Paragraph 5.134 of this Appendix. These instances of less than substantial harm are outweighed by the Scheme benefits are as per NPSNN Paragraph 5.134 of this Appendix and it is therefore considered that this harm is justified on that basis.
5.132	Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset, the greater the justification that will be	As per NPSNN Paragraph 5.129 of this Appendix, particular attention has been and continues to be given to the cultural heritage aspects of the design of the Scheme, and the protection and enhancement of the WHS is an objective of the Scheme design. As per NPSNN paragraphs 5.131 of this Appendix. The OUV of the WHS would be sustained overall by the construction of the Scheme.

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	needed for any loss.	The assessment of effects on the WHS is considered in Appendix 6.1 Heritage Impact Assessment of the Environmental Statement (Application Document 6.3). It is concluded that the impacts of the Scheme have been minimised such that effects on Attributes of OUV are slight adverse at worst and significant beneficial at best. - The Scheme would bring substantial benefits to large parts of the WHS, in particular the tunnel section where very large beneficial effects would be experienced by Stonehenge itself (Attribute of OUV 1) and large beneficial effects would be experienced by its solstitial alignment (Attribute of OUV 4). - beneficial effects would be experienced in relation to the siting of monuments in relation to each other (Attribute of OUV 5), within the landscape without parallel (Attribute of OUV 6), and with regards to the influence that the monuments and their landscape setting have on architects, artists, historians, archaeologists and others (Attribute of OUV 7). - adverse effects would be experienced by physical archaeological remains (Attribute of OUV 2). There would be adverse effects upon the siting of monuments in relation to the landscape (Attribute of OUV 3) due to the positioning of new cuttings within the WHS (western and eastern approach roads and portals), which avoid known archaeological remains that contribute to the OUV of the WHS, but partially introduce new severance and impacts on the setting of heritage assets and Asset Groups. Less than substantial harm is anticipated to affect designated and non-designated assets, including those within the WHS and this is considered below as per NPSNN Paragraph 5.134. The Scheme does not identify any instance of 'substantial harm' or total loss of significance to a designated asset. There is a long-standing, fully evidenced need for the benefits of this Scheme to be realised, as demonstrated by numerous policy documents which define the need for the scheme. In addition to the overall heritage benefits, this Scheme would deliver a range

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		of substantial economic, transport, environmental and community benefits, which are summarised in Table 5-1, Chapter 5 of this Case for the Scheme document. The design of the scheme strikes an appropriate balance between delivering the Scheme requirements and minimising harm to designated heritage assets in this archaeologically and historically important location. The limited harm to designated heritage assets reported in the ES confirms that this is a successful balance which enables the conclusion to be drawn that the Scheme benefits outweigh this limited harm.
5.133	Where the proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm or loss of significance is necessary in order to deliver substantial public benefits that outweigh that loss or harm, or alternatively that all of the following apply: - the nature of the heritage asset prevents all reasonable uses of the site; and - no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and - conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and - the harm or loss is outweighed by the benefit of bringing the site back into use.	Section 6.11, Chapter 6 Cultural Heritage of the Environmental Assessment (Application Document 6.1) concludes that the Scheme does not identify any instance of 'substantial harm' or total loss of significance to a designated asset.
5.134	Where the proposed development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be	Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) identifies less than 'substantial harm' to the significance of heritage assets relating to negative changes to their setting, arising from the presence of the new road and its

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	weighed against the public benefits of the proposal, including securing its optimum viable use.	associated infrastructure, and/or from changes to the visual and aural impact of traffic during its operation. These effects are summarised in tables 6.11 and 6.12 of the Environmental Statement. Less than substantial harm is anticipated to affect designated and non-designated assets, including those within the WHS as summarised below. - Barrow groups and ring ditches at Winterbourne Stoke West, Winterbourne Stoke Hill, Diamond Barrows, Countess Farm Barrows, and Normanton Gorse Barrows. These contain scheduled monuments and contribute to expressing Attributes of the OUV of the WHS. - The setting of non-designated assets conveying Attributes of OUV, comprising a series of non-designated undated ring ditches north and northwest of Vespasian's Camp. - The setting of listed buildings, including those located close to Countess Roundabout and at Countess Farm, or to the existing A303 in Amesbury. - The setting of Amesbury Conservation Area, and Amesbury Abbey Registered Park and Garden. - The loss of archaeological remains within the Scheme footprint, which collectively contribute to the understanding of activity in this part of the WHS, but are not considered to contribute to OUV. The Scheme would also result in significant beneficial effects on the setting of Asset Groups and on designated isolated and discrete assets which contribute to the OUV of the WHS. These are detailed in Heritage Impact Assessment Sections 6.9 and 6.10, and summarised in Section 9.4, Chapter 9 of the Heritage Impact Assessment. Chapter 11 of the Heritage Impact Assessment sets out the overall impact and significance of effect of the Scheme on the OUV of the WHS. Alignment with the 2015 Stonehenge, Avebury and Associated Sites WHS Management Plan vision, aims and policies is considered in Section 12.3 of the Heritage Impact Assessment.

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		The Scheme is assessed to have beneficial effects for a number of designated heritage assets on the route of the present A303 between Longbarrow Roundabout and the junction with Stonehenge Road. These include Grade I and Grade II Listed structures, including milestones and markers. In each case the beneficial effect is due to the conversion of the present A303 to a restricted byway. There is a long-standing, fully evidenced need for the benefits of this Scheme to be realised, as demonstrated by a numerous policy documents which define the need for the scheme. The design of the scheme strikes an appropriate balance between delivering the Scheme requirements and minimising harm to designated heritage assets in this historically important location, whilst delivering overall heritage benefits as described in 5.137 below. In addition to the heritage benefits, the Scheme would deliver a range of substantial economic, transport, environmental and community benefits, which are summarised in Table 5-1, Chapter 5 of this Case for the Scheme document. These benefits are considered to outweigh the less than substantial harm.
5.135	Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. The Secretary of State should treat the loss of a building (or other element) that makes a positive contribution to the site's significance either as substantial harm or less than substantial harm, as appropriate, taking into account the relative significance of the elements affected and their contribution to the significance of the Conservation Area or World Heritage Site as a whole.	The relative significance of assets within the WHS and conservation areas, and their individual contribution are described within Chapter 6, Appendix 6.1 Heritage Impact Assessment of the Environmental Statement Appendices (Application Document 6.3). The assessment reported in Chapter 6 Cultural Heritage of the Environmental Statement (Application Document 6.1) does not identify any instances where a loss of a building or other element that makes a positive contribution to the WHS would occur.
5.136	Where the loss of significance of any heritage asset has been justified by the applicant based on the	The Scheme would result in the loss of some archaeological remains of low and medium value both outside and within the WHS and would change the setting of

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	merits of the new development and the significance of the asset in question, the Secretary of State should consider imposing a requirement that the applicant will prevent the loss occurring until the relevant development or part of development has commenced.	scheduled monuments close to the western and eastern approach cuttings. No preliminary works (including advanced archaeological mitigation works) would commence either within the WHS or outside it until the DCO is granted by the Secretary of State. Relevant controls on these preliminary works are included in the OEMP, which is secured by a DCO requirement
5.137	Applicants should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.	The Scheme is heritage-led and seeks to avoid and minimise adverse impacts on the OUV of the WHS where reasonably practicable. Appendix 6.1 Heritage Impact Assessment of the Environmental Statement Appendices (Application Document 6.3) indicates the Scheme would enhance and better reveal the significance of the WHS and its OUV by: • Improving the aural and visual environment of the Stonehenge monument by providing it with an uncluttered and respectful setting that reflects the iconic status of the monument and its cultural significance within the WHS. • Substantially enhancing the setting of the Stonehenge monument, providing the opportunity to reconnect it physically and visually with the wider WHS to the south. This would improve views to and from the monument, relationships between the monument and other monuments in the WHS landscape and, importantly, the visitor experience at the monument. • Removing traffic and modern road infrastructure from views towards the winter solstice sunset. • Minimising light pollution related to the A303 Scheme by omitting highway lighting where reasonable practicable within the WHS and concealing traffic and visibility of car head and tail lights by placing the road in tunnel and cutting through the WHS. • Reducing the current adverse effects of the existing surface A303 route on the setting of heritage assets and the OUV of the WHS by placing the road in a tunnel across the WHS for approximately 1.9 miles (approximately 3.0km). This would reduce the physical and contextual severance and remove visual clutter and distraction from sightlines between a number of significant monuments, including the Avenue, Stonehenge, the Normanton Down Barrows, barrow cemeteries on King Barrow Ridge

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		and numerous barrows to the south of the existing A303. • Enhancing the WHS by relocating the Longbarrow Junction outside the WHS, reducing physical and visual severance, noise and light intrusion. • Maximising the public benefit of archaeological work conducted in connection with Scheme route identification, design and impact assessment and mitigation via post-excavation assessment, publication, dissemination and public outreach. • Maximising opportunities to reconnect the WHS landscape and providing the opportunity to widen accessibility and circulation to key archaeological sites within the wider WHS landscape. This aims to enable the eventual exploration of the landscape on foot by downgrading the existing A303 through the WHS and redundant sections of the A360 to restricted byways, and introducing new rights of way for NMUs, in order to increase public awareness and enjoyment. • Enabling opportunities for the transmission of OUV and increasing the public's awareness, understanding and perception of the OUV of the WHS.
5.138	Where there is evidence of deliberate neglect of or damage to a heritage asset the Secretary of State should not take its deteriorated state into account in any decision.	The Statement of OUV commentary on protection and management requirements[53] indicates that *'the A303 continues to have a negative impact on the setting of Stonehenge, the integrity of the property and visitor access to some parts of the wider landscape'.* This negative impact cannot be considered 'deliberate neglect' or 'damage'. However, the Statement of OUV and the WHS Management Plan both state the ambition to remove the existing A303 which impacts negatively on the OUV of the WHS.
Landscape and visual impacts		
5.144 - 5.146	Where the development is subject to EIA the applicant should undertake an assessment of any likely significant landscape and visual impacts in the environmental impact assessment and describe these in the environmental assessment. A number of guides	Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) assesses the likely significant landscape and visual impacts of the Scheme. Section 7.2, Chapter 7 Landscape and Visual Impact Assessment of the Environmental

[53] https://whc.unesco.org/en/list/373/

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	have been produced to assist in addressing landscape issues. The landscape and visual assessment should include reference to any landscape character assessment and associated studies, as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England. The applicant's assessment should include any significant effects during construction of the project and/or the significant effects of the completed development and its operation on landscape components and landscape character (including historic landscape characterisation). The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation.	Statement (Application Document 6.1) takes into account the local landscape policies in the Wiltshire Core Strategy (2015) and the saved policy C6 of the Salisbury District Local Plan (2003). Section 7.3, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) explains that district level published landscape character areas including those within the South Wiltshire and Salisbury District Landscape Character Assessment (2008) have been identified as landscape receptors for the assessment. As discussed in Section 7.3, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) the construction phase assessment has been undertaken based upon winter conditions, when most vegetation is not in leaf and there would be greater visibility of the construction activity compared to summer months. The significance of construction effects on the landscape character, and historic landscape character components is as described in Table 7.11. An operational assessment has been undertaken at: a) year 1 and during winter, when most vegetation is not in leaf and there would be greater visibility of the construction activity compared to summer months. This represents a maximum effect scenario; and b) year 15 and during summer, when the existing vegetation and proposed planting is in leaf and fully established, such that there is a reduced visibility of the Scheme, representing a minimum effect scenario. The significance of operational effects on the landscape character, and historic landscape character components is as described in Tables 7.12 and 7.13 Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1). Section 7.9, Chapter 7 Landscape and Visual Impact Assessment of the Environmental

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		Statement (Application Document 6.1) considers effects on tranquillity, and how this would affect people. This includes noise and light pollution effects. Disturbance from noise effects, and impact on nature conservation is considered within Section 8.9, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). Environmental Statement Appendix 7.2 (Application Document 6.3) explains the assessment methodology which has drawn upon The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, April 2013 and Highways England Interim Advice Note 135/10 (2010).
5.147- 5.148	Any statutory undertaker commissioning or undertaking works in relation to, or so as to affect land in a National Park or Areas of Outstanding Natural Beauty, would need to comply with the respective duties in section 11A of the National Parks and Access to Countryside Act 1949 and section 85 of the Countryside and Rights of Way Act 2000. For significant road widening or the building of new roads in National Parks and the Broads applicants also need to fulfil the requirements set out in Defra's English national parks and the broads: UK government vision and circular 2010 or successor documents. These requirements should also be complied with for significant road widening or the building of new roads in Areas of Outstanding Natural Beauty.	The Scheme is not located within a National Park or AONB. Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) indicates that there are no key views identified within the Cranborne Chase and West Wiltshire AONB Management Plan from which the Scheme would be visible. In addition, intervening landform screens the AONB from views of the WHS.
5.149	Landscape effects depend on the nature of the existing landscape likely to be affected and nature of the effect likely to occur. Both of these factors need to	The existing landscape is described in Section 7.6, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) as is the nature of the effects likely to occur.

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	be considered in judging the impact of a project on landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints, the aim should be to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.	Section 7.8 explains how, as part of the design process, a series of principles were established based upon the local landscape character areas, so as to successfully integrate the Scheme within the existing landscape. These have included maximising landscape enhancement opportunities; minimising lighting and land take; provision of planting, earthworks and use of false cuttings; improved NMU connectivity; and appropriate structural design to retain character and reduce overall massing in sensitive areas.
5.150 - 5.151	Great weight should be given to conserving landscape and scenic beauty in nationally designated areas. National Parks, the Broads and Areas of Outstanding Natural Beauty have the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the Secretary of State has a statutory duty to have regard to in decisions. The Secretary of State should refuse development consent in these areas except in exceptional circumstances and where it can be demonstrated that it is in the public interest. Consideration of such applications should include an assessment of: - the need for the development, including in terms of any national considerations, and the impact of consenting, or not consenting it, upon the local economy; - the cost of, and scope for, developing elsewhere, outside the designated area, or meeting the need for it in some other way; and	As per NPSNN paragraphs 5.147- 5.148 of this Appendix.

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	- any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated. There is a strong presumption against any significant road widening or the building of new roads and strategic rail freight interchanges in a National Park, the Broads and Areas of Outstanding Natural Beauty, unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs very significantly. Planning of the Strategic Road Network should encourage routes that avoid National Parks, the Broads and Areas of Outstanding Natural Beauty.	
5.153	Where consent is given in these areas, the Secretary of State should be satisfied that the applicant has ensured that the project will be carried out to high environmental standards and where possible includes measures to enhance other aspects of the environment. Where necessary, the Secretary of State should consider the imposition of appropriate requirements to ensure these standards are delivered.	As per NPSNN paragraphs 5.147- 5.148 of this Appendix.
5.154 - 5.155	The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting,	As per NPSNN paragraphs 5.147- 5.148 of this Appendix.

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	operational, and other relevant constraints. This should include projects in England which may have impacts on designated areas in Wales or on National Scenic Areas in Scotland. The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.	
5.156	Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be given particular consideration. However, local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development.	Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) considers the effects of the Scheme on local landscape character including a Special Landscape Area in Section 7.9. The effects on Local Character Areas (LCA) are summarised in Table 7.11 (Construction), 7.12 (Operation – Year 1), at 7.13 (Operation – Year 15). Regarding construction effects, Chapter 7 concludes that construction activities would have likely significant temporary adverse effects on the rural landscape, including in terms of direct changes to landform and tranquillity. This would be particularly noticeable across the River Till valley and at Longbarrow junction. Regarding operational effects, Chapter 7 concludes that the Scheme would have the following effects: - significant adverse effects on the rural landscape between Berwick Down and Longbarrow Junction in the opening year, including for effects to landform and tranquillity; - significant permanent adverse effects on the landscape of the River Till valley; - significant permanent beneficial effects on the townscape within Winterbourne Stoke; - significant permanent beneficial effects on the pattern, tranquillity and connectivity of the landscape within the WHS.
5.157	In taking decisions, the Secretary of State should	Chapter 6 of the DAS (Application Document 7.2) describes how landscape and

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	consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation.	appearance has been taken into consideration within various elements of the Scheme to ensure the Scheme is sensitive to its setting. As described within Chapter 6 of the DAS, a central aim of the Scheme has been to remove the existing A303 from the part of the WHS around Stonehenge to improve its setting and relationships with the site's wider landscape in order to enhance the OUV of the WHS. The new A303 alignment has been designed to sit comfortably within the WHS, with minimal visibility in the wider landscape setting. This has been achieved through the provision of a carefully positioned tunnel. Further landscape and visual mitigation which is proposed to reduce the Scheme's effects during construction and operation is described in Tables 7.4 and 7.5 Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) and secured in the OEMP. Table 7.11, 7.12, at 7.13 in Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) describes the effects on LCAs. Of the 13 LCAs considered, effects would range from very large to moderate adverse effects during construction and large adverse to large beneficial effects during the opening year. However, these effects would become more beneficial as landscaping matures, and all but one character area considered would experience beneficial effects in year 15 of operation. At the Upper Till Floodplains and Meadows LCA the impact would remain large adverse. Construction and operational mitigation is described within Tables 7.5 and 7.6 of the Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1).
5.158	The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development…	Tables 7.11, 7.12, and 7.13, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1) describe the visual effects on identified receptors. At many of the viewpoints considered there would be very large to moderate adverse effects during construction and a range of large adverse to large beneficial effects during the opening year. However, the majority of these adverse

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		effects would reduce as landscape planting matures, and the visual receptors within the WHS would experience beneficial effects ranging from moderate to large beneficial in year 15 of operation. Visual Receptor 07 B Recreational users of Byway WST 04 and Visual Reception A 30 Countess Farm would continue to experience moderate adverse effects. In addition to the overall visual benefits, the Scheme would deliver a range of substantial economic, transport, environmental and community benefits, which are summarised in Table 5-1, Chapter 5 of this Case for the Scheme document. The considerable benefits which are described are considered to outweigh the adverse visual effects. Construction and operational mitigation is described within Tables 7.5 and 7.6, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1).
5.159	Reducing the scale of a project or making changes to its operation can help to avoid or mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design or changing the operation of a proposed development may result in a significant operational constraint and reduction in function. There may, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in scale or function. In these circumstances, the Secretary of State may decide that the benefits of the mitigation to reduce the landscape effects outweigh the marginal loss of scale or function.	As per NPSNN paragraphs 5.157 and 5.158 of this Appendix, once operational, and landscaping has matured the Scheme would result in both beneficial and adverse visual and landscape effects. By placing a section of the A303 in tunnel, the existing adverse impacts of the A303 on landscape and visual receptors within the WHS would be improved. In locations where adverse landscape and visual effects are anticipated the Scheme design has sought to avoid or minimise these effects where reasonably practicable through mitigation. Where adverse effects remain, these could not be minimised by reducing the scale of the Scheme, or further amending the design without resulting in an operational or an environmental constraint.
5.160	Adverse landscape and visual effects may be	The DAS (Application Document 7.2) includes a consideration of visual appearance

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	minimised through appropriate siting of infrastructure, design (including choice of materials), and landscaping Schemes, depending on the size and type of proposed project. Materials and designs for infrastructure should always be given careful consideration.	(including materials). Visual appearance and impacts of the Scheme have been a key factor in both selection the preferred route, and the design of elements of the Scheme. An overview of landscape design, and detailed analysis of Scheme elements is set out in Section 5.3 of the DAS (Application Document 7.2). This describes how the landscape design proposals have been developed with the aim of integrating the highways engineering aspects of the Scheme into the existing landscape and screening traffic from key visual receptors. The measures which are proposed (as described below) include siting, design (including materials) and landscaping. Western section, including Winterbourne Stoke bypass to Longbarrow Junction: • Integration of new earthworks into the existing rolling downland landscape by grading out of the embankments and rounding off the top of cuttings; • Removing the road from Winterbourne Stoke, reducing the scale of the carriageway and thereby improving the appearance of the village and Winterbourne Stoke Conservation Area; • Landscape enhancement through the re-creation of calcareous species rich grassland - a key characteristic of Salisbury Plain and a nationally rare habitat; • A planting strategy to respond to the landscape character and management objectives of Parsonage Down NNR; • Landscaping and planting to aid the Scheme's integration. Central section, within the WHS: • Provision of Green Bridge 4 to maintain physical and visual continuity in the landscape, and protect the landscape setting of archaeological features. • Establishing species rich grassland within cutting areas. • Maximising non-motorised users (NMU) opportunities within the WHS via 'green bridges', re-use of the existing A303 and connectivity to existing byways. Eastern section: Countess Junction to just beyond the Solstice Park Junction: • Siting the eastern portal of the tunnel east of The Avenue, which is currently severed by the A303.

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		• Establishing species rich grassland within cutting areas. • Providing planting and landscaping within the Countess junction. The assessment of construction and operational mitigation is also described within Tables 7.5 and 7.6, Chapter 7 Landscape and Visual Impact Assessment of the Environmental Statement (Application Document 6.1).
5.161	Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site, although if such landscaping was proposed to be consented by the development consent order, it would have to be included within the order limits for that application. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.	Landscaping associated with the Scheme is included within the Order limits. The proposed planting mitigation illustrated on the environmental masterplan contained within the Environmental Statement (Application Document 6.1) is considered to be adequate and additional off-site planting or landscaping is not essential.
Land use including open space, green infrastructure and Green Belt		
5.165 - 5.167	The applicant should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the 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. 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	Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) identifies existing and proposed land uses in the vicinity of the Scheme and covers the potential effects of the Scheme on people and communities. Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) states the likely effect on planning allocations identified in the development plan and applications. There are several sites which have planning permission or are allocated close to the Scheme. Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) indicates that part of the route lies within the WHS. National Trust and English Heritage owned land in the immediate vicinity of the Stones is publicly permissively accessible, but is not considered public open space.

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	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. During any pre-application discussions with the applicant, the local planning authority should identify any concerns it has about the impacts of the application on land-use, having regard to the development plan and relevant applications, and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements. These are also matters that local authorities may wish to include in their Local Impact Report which can be submitted after an application for development consent has been accepted.	The Scheme require the acquisition of a small strip of open space land in order to construct an unclassified side road that is required to replace part of Byway AMES1 which is being stopped up to facilitate the delivery of part of the Scheme. Highways England proposes to provide replacement open space land in the vicinity of the land that would be no less advantageous to users than the land that is lost, both in terms of its equivalent size and its proximity. Further detail on open space (and replacement land) is provided in the Statement of Reasons (Application Document 4.1).
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	Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) indicates: - During construction, the Scheme would result in disturbance to approximately 268ha of Best and Most Versatile (BMV) agricultural land (Grade 1, Grade 2 and 3a). The overall temporary effect of the Scheme on BMV agricultural land is significant adverse. - Following construction and restoration, the area of agricultural land that would be permanently required for the Scheme is approximately 38.5ha. Of this 38.5ha, the permanent requirement for 30ha of BMV land in Grade 2 and 3a is assessed as an impact of major magnitude. The overall permanent effect of the Scheme on BMV agricultural land is significant adverse.

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	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.	The Scheme was identified through a thorough options identification process, as described in Chapter 3 Assessment of Alternatives in the Environmental Statement (Application Document 6.1). The appraisal of alternative options involved consideration of environmental effects, including effects on agricultural land. Although the preferred route, which forms the basis of the Scheme, involved loss of agricultural land it performed better from a heritage, landscape and biodiversity perspective. These were the primary basis for determining the location of the Scheme. Due to the Scheme's location within a rural area, it has not been possible to use brownfield sites ahead of agricultural land. Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1) identifies the potential sources of land contamination within and in the vicinity of the Order Limits (Table 10.9 and Figure 10.2 illustrate the study area). It also assesses the impacts on soil quality and the risks posed by the Scheme as a result of land contamination and sources of contamination. As a result of appropriate control measures during construction which are identified in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3), there are not expected to be any significant adverse effects on soil quality; or significant risks posed by disturbance of land suspected to be contaminated such as military sites and fuel stations; interaction with the High Pressure Oil Pipeline; or as a result of the storage of potentially hazardous materials on construction compounds. The design of the Scheme also includes measures that will contain and control any releases of contaminants along the highway and its associated infrastructure during operation e.g. drainage design to prevent/minimise the risk of discharging pollutants into the chalk aquifer via drainage pathways.
5.169	Applicants should safeguard any mineral resources on the proposed site as far as possible.	Environmental Statement Chapter 10 Geology and Soils (Application Document 6.1) identifies there are no Mineral Consultation Areas, Mineral Safeguarding Areas or Preferred Areas (as defined by the Wiltshire and Swindon Aggregate Minerals Site

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		Allocations Local Plan (2013)) within the Order limits or are expected to be affected by the Scheme. There are also no active mines, quarries or designated mineral resources affected by the Scheme. This NPSNN paragraph is therefore not applicable.
5.170 - 5.171	The general policies controlling development in the countryside apply with equal force in Green Belts but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved except in very special circumstances. Applicants should therefore determine whether their proposal, or any part of it, is within an established Green Belt and, if so, whether their proposal may be considered inappropriate development within the meaning of Green Belt policy. Metropolitan Open Land, and land designated as Local Green Space in a local or neighbourhood plan, are subject to the same policies of protection as Green Belt, and inappropriate development should not be approved except in very special circumstances. Linear infrastructure linking an area near a Green Belt with other locations will often have to pass through Green Belt land. The identification of a policy need for linear infrastructure will take account of the fact that there will be an impact on the Green Belt and as far as possible, of the need to contribute to the achievement of the objectives for the use of land in Green Belts.	Land within the Order limits is not designated as Green Belt. These NPSNN paragraphs are therefore not applicable.
5.173	Where the project conflicts with a proposal in a development plan, the Secretary of State should take	Scheme compliance with the NPPF and local planning policies is described in Appendix B. The Scheme does not conflict with any proposals in a development plan document.

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	account of the stage which the development plan document has reached in deciding what weight to give to the plan for the purposes of determining the planning significance of what is replaced, prevented or precluded. The closer the development plan document is to being adopted by the local plan, the greater the weight which can be attached to the impact of the proposal on the plan.	The development plan for the area comprises the Wiltshire Core Strategy incorporating saved policies from district local plans, Minerals and Waste Plans and made Neighbourhood Plans. The Wiltshire Core Strategy (WCS) was adopted on 20 January 2015. The plan provides a planning policy framework for Wiltshire for the period up to 2026. Emerging planning policy and neighbourhood plans are not considered in this document, as explained in the policy assessment in Appendix B.
5.174	The Secretary of State should not grant consent for development on existing open space, sports and recreational buildings and land, including playing fields, unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements, or the Secretary of State determines that the benefits of the project (including need) outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities.	As noted in the response NPSNN paragraphs 5.165-5.167 Highways England is proposing to replace the small amount of open space lost as a result of the Scheme with replacement land very close and equivalent in size to the land that is to be lost. Given this compensatory (replacement) land, and the wider transport, economic and environmental benefits arising from the Scheme and set out in this document, it is considered that the loss of the small amount of open space lost would be outweighed by the benefits which the Scheme would deliver.
5.175	Where networks of green infrastructure have been identified in development plans, they should normally be protected from development, and, where possible, strengthened by or integrated within it. The value of linear infrastructure and its footprint in supporting biodiversity and ecosystems should also be taken into account when assessing the impact on green infrastructure.	The Wiltshire Core Strategy Proposals Map identifies indicative greenspace to the south of Amesbury. The Scheme would not involve any loss of this identified land. The Scheme would create a network of green infrastructure, and the ecosystems benefits of this are as per NPSNN paragraph 5.180 of this Appendix.
5.176	The decision-maker should take into account the economic and other benefits of the best and most	In addition to the quantity and value of the agricultural land which would either be temporarily disturbed, or lost due to development, Chapter 13 People and Communities

<table>
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<tr><td></td><td>versatile agricultural land. The decision-maker should give little weight to the loss of agricultural land in grades 3b, 4 and 5, except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy.</td><td>in the Environmental Statement (Application Document 6.1) considers agricultural holdings, the characteristics of these holdings and their sensitivity to change, and the effects on agricultural holdings including loss of land and other effects such as severance.

Section 13.9, Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) considers the economic benefits of effected agricultural land, and identifies that overall the Scheme would affect 15 holdings. Of these holdings, seven holdings experience large or moderate adverse effects temporarily which are significant; two remain significantly affected after agricultural land restoration. These holdings which are lost involve 17% and 14% of the land within the respective two effected farms, and would have a consequential effect on the land use and enterprise taking place within these farms.

The table below explains the grade of the land affected by the Scheme and the nature of the impacts:

<table>
<tr><th>Agricultural land quality</th><th>Area required during construction (ha)</th><th>Total area restored to unrestricted agriculture (ha)</th><th>Total area restored to permanent chalk grassland</th><th>Area permanently required</th></tr>
<tr><td>Grade 1</td><td>3.1</td><td>1.0</td><td>2.1</td><td>0</td></tr>
<tr><td>Grade 2</td><td>41.2</td><td>18.0</td><td>20.6</td><td>2.6</td></tr>
<tr><td>Subgrade 3a</td><td>223.2</td><td>85.9</td><td>109.9</td><td>27.5</td></tr>
<tr><td>BMV agricultural land</td><td>267.5</td><td>104.9</td><td>132.6</td><td>30.1</td></tr>
</table>
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<table>
<tr><th>NPSNN Paragraph Number</th><th>Requirement of the National Policy Statement for National Networks (NPSNN)</th><th>Scheme compliance with the NPSNN</th></tr>
<tr><td>5</td><td>GENERIC IMPACTS</td><td></td></tr>
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<table>
<tr><td>Subgrade 3b</td><td>29.3</td><td>12.4</td><td>8.4</td><td>8.1</td></tr>
<tr><td>Grade 4</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Grade 5</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Non-agricultural land</td><td>80.2</td><td>0</td><td>0
(21.2)</td><td>0</td></tr>
<tr><td>Total agricultural land</td><td>296.8</td><td>117.3</td><td>162.1</td><td>38.5</td></tr>
</table>
As specified within Section 13.9 Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1), financial compensation would be available to mitigate for the loss of agricultural land. However, there can be no certainty that this would be used to reduce the adverse agricultural effects. Therefore, the conclusions within Section 13.9, and summarised above represent a worst case, and could be reduced if the owner and/or occupier is able, and chooses, to use compensation payments to replace assets.

As per NPSNN Paragraph 5.168 of this Appendix, the Scheme has been identified through thorough options identification process, and the impacts on agricultural land have been weighed against other environmental impacts in selecting the Scheme. In addition, the Scheme delivers a range of substantial economic, transport, environmental and community benefits, which are summarised in Table 5-1 Chapter 5 of this Case for the Scheme document. The substantial benefits which are described are considered to outweigh the adverse effects on agricultural land.</td></tr>
<tr><td>5.180</td><td>Where green infrastructure is affected, applicants should aim to ensure the functionality and connectivity of the green infrastructure network is maintained and any necessary works are undertaken,</td><td>No identified green infrastructure is affected. Section 8.10 Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) indicates that proposed habitat creation would improve east-west connectivity and reduce the current north-south fragmentation impacts associated with the current A303. This habitat creation includes</td></tr>
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	where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space, including appropriate access to new coastal access routes, National Trails and other public rights of way.	higher quality habitats, including drainage swales, hedgerows, and infiltration areas that would further increase the foraging habitat to the north and south of the Scheme, further reducing the likely fragmentation impacts. This mitigation would reduce the habitat fragmentation impacts associated with the existing A303. Mitigation measures to reduce the impacts associated with fragmentation are described within Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) and include the following: • green bridge one (Parsonage Down) and associated structural planting at Scotland Lodge; • green bridge two (east of the River Till); • B3083 underbridge; and, • the River Till viaduct would avoid any fragmentation impacts on the commuting route running along the River Till valley. Section 13.8, Chapter 13 People and Communities in the Environmental Statement (Application Document 6.1) describes the mitigation and enhancement measures that are proposed. These would involve enhancements to existing PRoW to improve access through the WHS, and along and across the A303: • new PRoWs created in the western section along the de-trunked/downgraded A303, including a new restricted byway on the north and south sides of the new alignment both tying in with PRoW SLAN3, and a new segregated bridleway east from Winterbourne Stoke to the new Longbarrow Junction; • the provision of 'green bridges' one of which facilitates the realignment of the existing WSTO6B PRoW and two of which each provide a new NMU route; and • the tunnelling of the A303 and downgrading the current road in that section to a route open to NMUs only.
5.181	The Secretary of State should also consider whether	The Scheme would require the acquisition of a small strip of open space land in order to

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	mitigation of any adverse effects on green infrastructure or open space is adequately provided for by means of any planning obligations, for example, to provide exchange land and provide for appropriate management and maintenance agreements. Any exchange land should be at least as good in terms of size, usefulness, attractiveness, quality and accessibility. Alternatively, where Sections 131 and 132 of the Planning Act 2008 apply, any replacement land provided under those sections will need to conform to the requirements of those sections.	construct an unclassified side road that is required to replace part of Byway AMES1 which is being stopped up to facilitate the delivery of part of the Scheme. Highways England proposes to provide replacement open space land that would be as good in terms of size, usefulness, attractiveness, quality and accessibility. Further detail is provided in the Statement of Reasons (Application Document 4.1).
5.182	Where a proposed development has an impact on a Mineral Safeguarding Area (MSA), the Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to safeguard mineral resources.	Chapter 10 Geology and Soils of the Environmental Statement (Application Document 6.1) indicates no Mineral Safeguarding Areas (as defined by the Wiltshire and Swindon Aggregate Minerals Site Allocations Local Plan (2013)) within the Order limits, or are expected to be affected by the Scheme. This NPSNN paragraph is therefore not applicable.
5.183	Where a project has a sterilising effect on land use there may be scope for this to be mitigated through, for example, using the land for nature conservation or wildlife corridors or for parking and storage in employment areas.	The Scheme would not sterilise existing land uses for future use save for seven agricultural land holdings whose land will be subject to compulsory acquisition. This includes land used for creation of new chalk grassland East of Parsonage Down.
5.184	Public rights of way, National Trails, and other rights of access to land (e.g. open access land) are important recreational facilities for walkers, cyclists and equestrians. Applicants are expected to take appropriate mitigation measures to address adverse effects on coastal access, National Trails, other public rights of way and open access land and, where	Section 13.8, Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) describes the mitigation and enhancement measures that are proposed. These would involve enhancements to existing PRoW to improve access through the WHS, and along and across the A303: • new PRoWs created in the western section along the de-trunked/downgraded A303, including a new restricted byway on the north and south sides of the new alignment both tying in with PRoW SLAN3, and a new segregated cycleway east from

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	appropriate, to consider what opportunities there may be to improve access. In considering revisions to an existing right of way consideration needs to be given to the use, character, attractiveness and convenience of the right of way. The Secretary of State should consider whether the mitigation measures put forward by an applicant are acceptable and whether requirements in respect of these measures might be attached to any grant of development consent.	Winterbourne Stoke to the new Longbarrow Junction; • the provision of 'green bridges' one of which facilitates the realignment of the existing WSTO6B PRoW and two of which each provide a new NMU route; and • the tunnelling of the A303 and downgrading the current road in that section to a route open to NMUs only. The measures proposed in respect of public rights of way and which would be attached to a grant of development consent are specified within Schedule 4 of the draft DCO (Application Document 3.1)
Noise and vibration		
5.187	Noise resulting from a proposed development can also have adverse impacts on wildlife and biodiversity. Noise effects of the proposed development on ecological receptors should be assessed in accordance with the Biodiversity and Geological Conservation section of this NPS.	Ecology is considered a sensitive receptor that could be affected by changes to noise and vibration. Effects of impacts on wildlife and biodiversity from noise have been assessed in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1). No likely significant noise effects on wildlife or biodiversity are reported.
5.189	Where a development is subject to EIA and significant noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment, which should form part of the environment statement: - a description of the noise sources including likely usage in terms of number of movements, fleet mix and diurnal pattern. For any associated fixed structures, such as ventilation fans for tunnels, information about the noise sources including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise.	Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) considers the potential impacts of the Scheme on noise and vibration. The assessment has been undertaken in accordance with the relevant standards and guidance, in particular, British Standards 5228 parts 1 and 2 and DMRB, HD213/11 which covers the various aspects required by NPSNN 5.189, and is proportionate to the effects which are anticipated. The assessment covers daytime and night-time periods. Chapter 9 Noise and Vibration of the Environmental Statement describes the baseline for the Scheme area as predominantly rural in nature. Road traffic noise from the A303 affects the setting of the WHS, particularly in the vicinity of Stonehenge. The existing A303 passes close to residential properties at Amesbury and Winterbourne Stoke and the high existing noise levels along the A303 through Winterbourne Stoke are reflected in the designation of two 'Noise Important Areas' (areas identified by the government as

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	- identification of noise sensitive premises and noise sensitive areas that may be affected. - the characteristics of the existing noise environment. - a prediction on how the noise environment will change with the proposed development: - In the shorter term such as during the construction period; - in the longer term during the operating life of the infrastructure; - at particular times of the day, evening and night as appropriate. - an assessment of the effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas. - measures to be employed in mitigating the effects of noise. Applicants should consider using best available techniques to reduce noise impacts. - the nature and extent of the noise assessment should be proportionate to the likely noise impact.	being most exposed to noise) in the vicinity. Noise sensitive receptors, including premises and areas are identified in Section 9.6, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1): • An estimated total of 1,777 residential buildings are located within the 600m noise prediction study area; • Five noise important areas (two in Winterbourne Stoke on the A303 and three in Amesbury on the A345). Sources of noise are described in Section 9.9, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1), and include: • Construction noise and vibration; • Operational traffic noise; • Operational plant/ fan noise associated with the tunnel. Section 9.9, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) describes how the noise environment would change, during both construction and operational. The results of this assessment are summarised in Table 9.25, and Table 9.26, and described below: Construction effects: - construction activities would have likely significant temporary adverse noise effects for nearby residential properties in close proximity to the works. Including those properties closest to the Countess Roundabout and a property at the northern edge of Winterbourne Stoke; - significant adverse vibration effects are not anticipated. Operational effects: - significant adverse noise effects for a single property on the northern edge of

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		Winterbourne Stoke closest to the section of the A303 which is realigned to the north of the village. - significant adverse noise effects for the closest properties along Church Street and High Street in Amesbury due to the closure of the Stonehenge Road access onto the A303 - significant beneficial noise effects for residents of Winterbourne Stoke located in close proximity to the existing A303 through the centre of the village. - significant beneficial noise effects for visitors to the WHS and residents at Stonehenge Cottages/northern end of Stonehenge Road. - significant beneficial noise effects for residents of properties on the B390 between Shrewton and Chitterne. Design mitigation and enhancement measures are described within Section 9.8, Chapter 9 Noise of the Environmental Statement (Application Document 6.1), and are summarised below. During construction, these include best practice measures to ensure compliance with measures to limit noise and vibration. These measures are specified within the Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3). During operation, a range of noise reduction measures have been incorporated within the Scheme including: - Selection of a route alignment which takes the road away from residential receptors in Winterbourne Stoke; - Use of false cuttings north of Winterbourne Stoke; - Setting the route within a tunnel and deep cutting within the WHS; - Use of thin road surfacing which results in lower levels of noise generation than a standard hot rolled asphalt surface; -

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		- Noise barriers at Countess flyover on both sides of the road between the slip roads; - A solid parapet on the southern side of the Till viaduct, tying into screening earthworks on either side.
5.190	The potential noise impact elsewhere that is directly associated with the development, such as changes in road and rail traffic movements elsewhere on the national networks, should be considered as appropriate.	Section 9.9, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) considers the construction and operational effects on road and rail traffic movements elsewhere, and indicates the changes in noise levels would also be associated with changes in traffic on the local road network, in particular on minor roads to the north through Larkhill, Shrewton and Chitterne which are currently used as alternatives to the A303. Section 9.9, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) considers the effects on noise elsewhere on the national network, and describes the effects on three Noise Important Areas located on the A345 in Amesbury.
5.191	Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. The prediction of road traffic noise should be based on the method described in Calculation of Road Traffic Noise. .... For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation	Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) considers the potential impacts of the Scheme on construction and operational noise and vibration. The assessment has been in accordance with the British Standards 5228 parts 1 and 2 and DMRB, HD213/11. Section 9.3, Chapter 9 Noise and Vibration of the Environmental Statement (Application Document 6.1) indicates that the prediction of road traffic noise is based on the CRTN.

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	strategies.	
5.192	The applicant should consult Natural England with regard to assessment of noise on designated nature conservation sites, protected landscapes, protected species or other wildlife. The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account.	Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1) states that consultation with statutory and non-statutory Nature Conservation Organisations, in particular Natural England, has been undertaken. This included regarding noise and vibration effects on habitats, however Natural England were not concerned due to the proposed low noise piling methods used during construction. Chapter 9 Noise of the Environmental Statement (Application Document 6.1) indicates that Natural England requested that consideration is given to timing of bridge piling works, which could impact on fish movements and other species associated with noise and vibration. Chapter 8 Biodiversity of the Environmental Statement indicates that mitigation is required to avoid impacts on fish in the River Till. Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) indicates that if any piling for viaduct piers is to be progressed when water is flowing within the River Till, use a low vibration and low noise piling method to reduce the vibration and noise impacts on the aquatic ecology within the river. . The results of the noise assessment have informed the ecological assessment. For example, the potential noise effects on habitat degradation and to breeding birds (taking account of seasonality), are described in Section 8.9, Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1).
5.193	Developments must be undertaken in accordance with statutory requirements for noise. Due regard must have been given to the relevant sections of the Noise Policy Statement for England, National Planning Policy Framework and the Government's associated planning guidance on noise.	Section 9.2, Chapter 9 Noise of the Environmental Statement (Application Document 6.1) identifies the legislation, policy, regulations, guidance and standards that are relevant to this assessment, including the Noise Policy Statement for England. This also addressed where the policy requirements have been addressed as part of the Scheme assessment. Section 9.3, Chapter 9 Noise of the Environmental Statement (Application Document 6.1) sets out how likely significant effects, in terms of the EIA Regulations, have been

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		identified for noise and vibration.
5.194	The project should demonstrate good design through optimisation of Scheme layout to minimise noise emissions and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission. The project should also consider the need for the mitigation of impacts elsewhere on the road and rail networks that have been identified as arising from the development, according to Government policy.	Section 9.8, Chapter 9 Noise of the Environmental Statement (Application Document 6.1) details the mitigation proposed in relation to the Scheme. As described in NPSNN Paragraphs 4.3 and 4.31 of this Appendix, reducing the environmental effects of the road, including on the setting of the WHS, and existing communities such as Winterbourne Stoke are objectives for the Scheme, and the Scheme layout responds to these objectives. Reducing noise impacts of the road within the WHS and Winterbourne Stoke through provision of a tunnel and bypass of Winterbourne Stoke are central to meeting these objectives. A summary of the mitigation which is proposed to minimise noise emissions includes landscaping, bunds and noise barriers, and is asper NPSNN paragraphs 5.189 of this Appendix. The effects of the Scheme elsewhere on the road network are as per NPSNN Paragraph 5.189 of the Appendix. The need for mitigation elsewhere has been considered as part of the noise assessment, but is not proposed.
5.195	The Secretary of State should not grant development consent unless satisfied that the proposals will meet, the following aims, within the context of Government policy on sustainable development: - avoid significant adverse impacts on health and quality of life from noise as a result of the new development; - mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and - contribute to improvements to health and quality of life through the effective management and control of noise, where possible.	The Scheme would have both adverse and positive effects associated with noise as per NPSNN Paragraph 5.189 of this Appendix. Where beneficial effects occur, these are expected to benefit health and quality of life. Construction and operational mitigation which is proposed to minimise adverse effect on health and quality of life from noise is as per NPSNN Paragraph 5.189 of this Appendix. The way in which the Scheme has responded to this Policy is considered in detail in Section 9.9, Chapter 9 Noise of the Environmental Statement (Application Document 6.1), as described below. *Construction*

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		Significant adverse effects occur for construction noise and vibration levels above the Significant Observed Adverse Effect Level (SOAEL) (see Table 9.3 and Section 9.3, Chapter 9 Noise of the Environmental Statement (Application Document 6.1)) which potentially occur for more than 10 days in 15, or 40 days in 6 months. Adverse effects occur at construction noise or vibration levels between the LOAEL and SOAEL. The third aim applies to all construction noise levels. With regard to the first aim, a significant adverse effect is predicted at this stage at two locations; receptors in close proximity to Countess Roundabout and a receptor north of Winterbourne Stoke. This is due to the close proximity of these receptors to construction activities and the duration of the works. This will be sought to be mitigated through the range of mitigation measures including: selection of quiet and low vibration equipment and methodologies; review of construction programme and methodology to consider low noise/low vibration methods; optimal location of equipment on site to minimise noise disturbance; the provision of acoustic enclosures around static plant, where necessary; use of less intrusive alarms, such as broadband vehicle reversing warnings; no start-up or shut down of vibratory plant e.g. rollers or compactors, within 50m of receptors and compliance with standard working hours, as recommended by Wiltshire Council, of 7:30am-6pm Monday-Friday and 07:30am-1pm Saturday for the majority of the works. The mitigation measures are set out in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3). As detailed above the contractors would utilise all sustainable mitigation measures, with the aim of avoiding significant effects. However, at this stage it is anticipated that significant adverse effects are likely to remain. With regard to identifying sustainable mitigation measures, factors including the cost versus the benefit, engineering practicality, any other impacts (such as landscape/visual) and consultation /stakeholder engagement responses are considered. The significant adverse effects likely to remain during construction are acceptable in the context of sustainable development as factors including engineering practicality, cost versus benefit etc., as outlined above, must be

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		considered. On this basis the first aim is met during construction. With regard to the second aim, adverse effects between the LOAEL and SOAEL are predicted at this stage at a range of receptors. The mitigation and minimisation measures as outlined above, and in Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) would be applied throughout the works, and therefore would benefit all receptors experiencing construction noise or vibration, including those with levels between the LOAEL and SOAEL. The restriction on the working hours at Countess Roundabout and north of Winterbourne Stoke has been made in order to minimise disturbance to nearby receptors from construction noise. There is an engineering requirement for tunnelling and directly associated activities, namely the STP, SLPP and the delivery of segments, to be undertaken on a 24 hour, 7 days a week basis. The location of these works, including the compound which is remote from sensitive receptors, was made in part to demonstrate that the second aim is met. Construction impacts between the LOAEL and SOAEL are acceptable in the context of sustainable development as factors including engineering practicality, cost versus benefit etc., as outlined above, must be considered. On the proposed mitigation and minimisation measures the second aim is met during construction. Construction noise and vibration by its nature introduces a new noise or vibration source into the existing environment and is temporary in duration, therefore the opportunity to improve existing noise levels are very limited. Operation Significant operational adverse noise effects occur at traffic noise levels above the SOAEL (see Table 9.7) and adverse effects occur at traffic noise levels between the LOAEL and SOAEL. The third aim applies to all traffic noise levels. Table 9.19 details the number of residential buildings in the study area which are above the SOAEL with

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		and without the Scheme. Almost all the remaining residential buildings are between the LOAEL and the SOAEL, with and without the Scheme, as the night time LOAEL is set at a low level. With regard to the first aim, mitigation measures incorporated within the Scheme design have reduced traffic noise levels from above the SOAEL to below the SOAEL at all affected properties in Winterbourne Stoke and Stonehenge Cottages. This is through the selection of a route alignment which bypasses Winterbourne Stoke, and setting the route within a tunnel and deep cutting within the WHS past Stonehenge Cottages. The majority of the remaining residential buildings above the SOAEL following the opening of the Scheme are in close proximity to main roads within Amesbury such as the A345. Such routes are already above the SOAEL without the Scheme and experience only a negligible change in traffic noise levels due to the Scheme. The purpose of the Scheme to improve traffic conditions on the A303 by grade separating Countess Roundabout results in small increases in traffic on roads connecting to the junction. The introduction of mitigation measures along existing roads which already experience high noise levels, to mitigate the negligible effect of the Scheme, is not sustainable. Such roads in built up areas have many residential and commercial buildings fronting onto the road, therefore mitigation measures such as barriers are not a practical engineering option and would have other adverse impacts including visual and access difficulties. With regard to the second aim, a range of further mitigation measures have been incorporated into the design as outlined in Section 9.8. These include the use of false cuttings on the bypass north of Winterbourne Stoke with a particular aim of minimising the impact at Foredown House; maximising the extent of the tunnel portals and green bridge 4; use of a thin surfacing system which results in lower levels of noise generation than a standard hot rolled asphalt surface at speeds at and above 75km/hr; inclusion of approximately 1.8m high absorptive noise barriers between the slip roads

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		on both the north and south side of Countess flyover; and inclusion of an approximately 1.5m high screen on the south side of the River Till viaduct. The decision to include noise barriers at Countess flyover was made in part to demonstrate the second aim is met. The extent of the noise barriers between the slip roads has been maximised within the physical constraints of the flyover. The proposed height of the barriers has resulted from determining a balance between the noise benefit and the visual impact. Feedback from the public consultation events and organisations such as Wiltshire Council, identified the likely benefits of noise barriers at Countess flyover. A barrier at the River Till is not deemed essential noise mitigation to comply with policy, within the context of sustainable development. However, an environmental barrier is proposed which would provide both noise and visual benefits. The inclusion of all the above identified mitigation and minimisation measures demonstrates that, within the context of sustainable development, at receptors between the LOAEL and the SOAEL the Scheme meets the requirements of the second aim. No areas where additional mitigation would be appropriate, within the context of sustainable development, have been identified i.e. considering engineering practicality, cost/benefit, other potential impacts such as landscape/visual and consultation responses. With regard to the third aim to 'improve where possible', the bypass of Winterbourne Stoke and the use of a tunnel/deep cuttings through the WHS results in significant improvements in traffic noise levels. The noise barriers at Countess are a reasonable balance between the reduction in the traffic noise impact at a significant number of properties and the visual impact of the barriers. On this basis the third aim has been met.

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5.196	In determining an application, the Secretary of State should consider whether requirements are needed which specify that the mitigation measures put forward by the applicant are put in place to ensure that the noise levels from the project do not exceed those described in the assessment or any other estimates on which the decision was based.	Sections 9.8 and 9.9, Chapter 9 Noise of the Environmental Statement (Application Document 6.1) covers noise impacts during construction and operation and identifies appropriate mitigation. As per NPSNN Paragraph 5.189 of this Appendix, these include construction and operational mitigation measures which are set out in the Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3), which itself is secured by DCO requirement.
5.197	The Examining Authority and the Secretary of State should consider whether mitigation measures are needed both for operational and construction noise over and above any which may form part of the project application. The Secretary of State may wish to impose requirements to ensure delivery of all mitigation measures.	As per NPSNN paragraphs 5.189, 5.195 and 5.196 of this Appendix both construction and operational noise mitigation and design are proposed. Construction mitigation measures are specified within Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3), which itself is secured by DCO requirement.
5.198	Mitigation measures for the project should be proportionate and reasonable and may include one or more of the following: - engineering: containment of noise generated; - materials: use of materials that reduce noise, (for example low noise road surfacing); - lay-out: adequate distance between source and noise-sensitive receptors; incorporating good design to minimise noise transmission through screening by natural or purpose built barriers; - administration: specifying acceptable noise limits or times of use (e.g., in the case of railway station PA systems).	The mitigation measures which are proposed are as per NPSNN paragraph 5.189 of this Appendix. It is considered that the mitigation proposed is proportionate and includes all reasonable measures (as far as sustainable), including reducing noise by containing it within noise barriers or bunds, use of materials such as low noise surfacing and through design by minimising its impact on sensitive receptors where reasonably practicable.
5.199	For most national network projects, the relevant Noise Insulation Regulations will apply. These place a duty	Chapter 9 Noise of the Environmental Statement (Application Document 6.1) covers noise impacts during construction and operation. Section 9.9 describes the Noise

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	on and provide powers to the relevant authority to offer noise mitigation through improved sound insulation to dwellings, with associated ventilation to deal with both construction and operational noise. An indication of the likely eligibility for such compensation should be included in the assessment. In extreme cases, the applicant may consider it appropriate to provide noise mitigation through the compulsory acquisition of affected properties in order to gain consent for what might otherwise be unacceptable development. Where mitigation is proposed to be dealt with through compulsory acquisition, such properties would have to be included within the development consent order land in relation to which compulsory acquisition powers are being sought.	Insulation Regulations requirements. A preliminary consideration of properties which may qualify for noise insulation works under the Regulations has identified a single property – Lindisfarne at the northern end of Ratfyn Road. The property is close to the A303 at the very eastern end of the main scheme extent, though at a considerably higher ground level than the road. Based on the preliminary assessment the Noise Insulation Regulations criteria are just exceeded. A complete Noise Insulation Regulations assessment will be completed after DCO decision when the detailed scheme design is finalised and in accordance with the timescales set out in the Regulations. Mitigation through compulsory acquisition is not proposed as the change would not result in unacceptable adverse effect levels of noise at the property.
5.200	Applicants should consider opportunities to address the noise issues associated with the Important Areas as identified through the noise action planning process.	Section 9.9, Chapter 9 Noise of the Environmental Statement (Application Document 6.1) considers how the Scheme would affect Noise Important Areas. The implementation of the Scheme would mitigate the two Noise Important Areas on the existing A303 in Winterbourne Stoke due to the major reduction in traffic noise levels through the centre of the village with the bypass in operation. The three Noise Important Areas on the A345 in Amesbury would experience a negligible change in traffic noise levels with the Scheme in operation.
Impacts on transport networks		
5.203 - 5.205	Applicants should have regard to the policies set out in local plans, for example, policies on demand management being undertaken at the local level. Applicants should consult the relevant highway authority, and local planning authority, as appropriate, on the assessment of transport impacts.	Wiltshire Council, the Local Highway Authority, has been consulted on the assessment of transport. The consultation on transport matters is summarised within Section 1.6 of the Transport Assessment (Application Document 7.4). In addition, the Transport Assessment also indicates how the Scheme has had regard to transport related policies within Wilshire Core Strategy and Wiltshire Local Transport Plan 3 (LTP3).

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	Applicants should consider reasonable opportunities to support other transport modes in developing infrastructure. As part of this, consistent with paragraph 3.19-3.22 above, the applicant should provide evidence that as part of the project they have used reasonable endeavours to address any existing severance issues that act as a barrier to non-motorised users.	Chapter 13 People and Communities of the Environmental Statement (Application Document 6.1) considers the effects of the Scheme on driver stress and NMUs. Section 13.9 considers NMUs and describes beneficial effects during operation relating to the improved transportation and movement between communities and facilities in the area. The Scheme would reduce existing severance issues experienced by NMUs. There are also significant long-term beneficial effects for pedestrians, cyclists and equestrians during operation arising from the Scheme's propose changes to the PRoW network - this will facilitate improved journey times and experiences for NMU users. Chapter 7 of this Case for the Scheme document provides a high level assessment of the Scheme's strategic alignment with current local planning policies.
5.206	For road and rail developments, if a development is subject to EIA and is likely to have significant environmental impacts arising from impacts on transport networks, the applicant's environmental statement should describe those impacts and mitigating commitments. In all other cases the applicant's assessment should include a proportionate assessment of the transport impacts on other networks as part of the application.	The Scheme is supported by a Statutory EIA which details impacts and mitigation. The results of the EIA are reported in the Environmental Statement (Application Document 6.1). In addition, the Scheme is supported by a Transport Assessment (Application Document 7.4), which considers the transport impacts of the Scheme on other networks, including rail and freight.
5.208	Where appropriate, the applicant should prepare a travel plan including management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport and sustainable modes where relevant, to reduce the need for any parking associated with the proposal and to mitigate transport impacts.	Section 10.4 of the Transport Assessment (Application Document 7.4) indicates that a maximum of 300 workers are expected to be on required during the Construction Phase. As described within Appendix 2.2 OEMP of the Environmental Statement (Application Document 6.1) Travel Plan would be in place for the workforce which will secure measures such as car sharing, mini-buses. These, combined with the predicted travel by single occupancy vehicles, provide a robust assumption of an average vehicle occupancy of three. In addition, a detailed Traffic Management Plan will be prepared to ensure the safe transition for road users from existing roads to the traffic managed sections of road.

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		Environmental effects associated with construction traffic are considered within the Environmental Statement. Air quality effects associated with construction are as per NPSNN Paragraph 5.84 - 5.87 of this Appendix. No significant effects are anticipated after mitigation measures which are proposed. Noise and vibration effects associated with construction traffic are as per NPSNN Paragraph 5.189 and no significant effects are anticipated after mitigation measures which are proposed. No operational Travel Plan is required, as the Scheme itself is not a source of transport impacts which would need to be addressed within a Travel Plan.
5.210	If new transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued in England which explains the circumstances where this may be possible. The Government cannot guarantee in advance that funding will be available for any given uncommitted Scheme at any specified time, and cannot provide financial support to a Scheme that solely mitigates the impacts of a specific development. Any decisions on co-funded transport infrastructure will need to be taken in the context of the Government's wider policy of transport improvements.	The Funding Statement (Application Document 4.2) sets out the funding arrangements for the Scheme, although co-funding is not proposed.
5.211	The Examining Authority and the Secretary of State should give due consideration to impacts on local transport networks and policies set out in local plans, for example, policies on demand management being undertaken at the local level.	Section 2.4 of the Transport Assessment (Application Document 7.4) states that the Scheme aligns with the strategic objectives described in the Wiltshire Local Transport Plan 3 (LTP3) including through minimising traffic delays and disruption and improve journey time reliability on the A303, improving safety for road users and contributing to a reduction of accidents.

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		The Transport Assessment (Application Document 7.4) indicates that the analysis presented: - meets the requirements of central government's transport objectives around economy, environment, social and public accounts; - aligns with national and local planning policy; - addresses future traffic demand and creates improved traffic congestion conditions and journey experience for motorists; - improves facilities for NMUs; and - creates a safer environment for all users. Accident rates are forecast to reduce as a result of the Scheme. Chapter 7 Planning Policy and Legislative Considerations of this document provides a high level assessment of the Scheme's strategic alignment with current local planning policies.
5.212	Schemes should be developed and options considered in the light of relevant local policies and local plans, taking into account local models where appropriate, however the Scheme must be decided in accordance with the NPS except to the extent that one or more of sub-sections 104(4) to 104(8) of the Planning Act 2008 applies.	The consideration of policies in local plans is set out in Section 2.3 of the Transport Assessment (Application Document 7.4) and Chapter 7 of this Case for the Scheme document.
5.215	Mitigation measures for Schemes should be proportionate and reasonable, focussed on promoting sustainable development.	The Environmental Statement (Application Document 6.1) contains a full and robust assessment of the relevant impacts that are likely to rise from the Scheme, and where significant impacts are identified, sets outs ways in which it is proposed that those impacts are avoided, reduced or mitigated. Those mitigation measures themselves take account of relevant policy, inherently including the policy focus on promoting sustainable development.

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		Appendices 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) (secured through the DCO) details the environmental mitigation measures that would be implemented during construction and operation, why they are required, who is responsible for delivering them and detailing ongoing reporting criteria. The mitigation measures proposed as part of the Scheme are proportionate and reasonable, and focussed on promoting sustainable development. The Environmental Masterplan presented in Figure 2.5 (Application Document 6.2) shows the mitigation measures embedded as integral elements of the Scheme design including the green bridges, the new NMU routes, and areas of habitat creation, such as landscaping and the new area of chalk grassland adjacent to Parsonage Down SSSI.
5.216	Where development would worsen accessibility such impacts should be mitigated so far as reasonably possible. There is a very strong expectation that impacts on accessibility for non-motorised users should be mitigated.	As per NPSNN paragraphs 3.17, 3.19 and 3.20 of this Appendix.
Water quality and resources		
5.220	… Where applicable, an application for a development consent order has to contain a plan with accompanying information identifying water bodies in a River Basin Management Plan.	Figure 11.1 of the Environmental Statement (Application Document 6.2) shows features of the water environment, key features are the River Avon, and the River Till, which are within the South West District and Avon Hampshire River Basin Management Plan. The RBMP area is not shown, as it includes the entire Scheme, and the surroundings of the Scheme, as shown on Figure 11.1.
5.221	Applicants should make early contact with the relevant regulators, including the Environment Agency, for abstraction licensing and with water supply companies likely to supply the water. Where a development is subject to EIA and the development is likely to have significant adverse effects on the water environment, the applicant should ascertain the existing status of, and carry out an assessment of the	As per NPSNN paragraph 4.54 of this Appendix, early contact with the Environment Agency has been made regarding consent requirements. Further consultation has been undertaken with the water supply companies. Appendix 11.1 Water Quality Risk Assessment of the Environmental Statement Appendices (Application Document 6.3) considers water quality effects. Appendix 11.2 Water Framework Directive Compliance Assessment of the

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	impacts of the proposed project on water quality, water resources and physical characteristics as part of the environmental statement.	Environmental Statement Appendices (Application Document 6.3) describes the effects on water resources.
5.222	For those projects that are improvements to the existing infrastructure, such as road widening, opportunities should be taken, where feasible, to improve upon the quality of existing discharges where these are identified and shown to contribute towards Water Framework Directive commitments.	The Scheme involves improvements to existing infrastructure, where this is the case the quality of discharges would be improved. Chapter 11 Road Drainage and Water Environment of the Environmental Statement (Application Document 6.1) considers the effects of the Scheme on water quality and opportunities to improve quality of existing discharges. Section 11.9 indicates that there would be an improvement in surface water quality due to prevention and treatment of pollution from road runoff and sediment transport. Section 6.2 of the Water Framework Directive Compliance Assessment (Appendix 11.2) of the Environmental Statement Appendices (Application Document 6.3) describes the mitigation measures which are embedded within the design. Regarding discharges, this indicates that infiltration basins would be implemented, including improved amenity grassland along the proposed new A303 alignment. These basins have been designed to include areas which are impermeable and therefore retain water for longer periods of time for biodiversity benefits and drainage attenuation. All of these proposed measures are set out in the Road Drainage Strategy (Environmental Statement Appendix 11.3 (Application Document 6.3) which is secured through the requirements of the DCO.
5.223	Any environmental statement should describe: - the existing quality of waters affected by the proposed project; - existing water resources affected by the proposed project and the impacts of the proposed project on water resources;	Chapter 11 Road Drainage and Water Environment of the Environmental Statement (Application Document 6.1) describes existing water resources, including: - existing quality of surface and groundwater's affected by the Scheme; - the existing surface and groundwater resources that could be affected by the Scheme; - existing fluvial geomorphology of the surface water features and how this would be

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	- existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project, and any impact of physical modifications to these characteristics; - any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive and source protection zones (SPZs) around potable groundwater abstractions; and - any cumulative effects.	affected by the Scheme; and - the impacts of the Scheme on the River Till and River Avon (WFD water body). Appendix 11.2 Water Framework Directive Compliance Assessment of the Environmental Statement Appendices (Application Document 6.3) shows that the Scheme would be compliant under the WFD. Additionally, the proposed works would be unlikely to have significant adverse effects on surface or groundwater bodies, or to result in the deterioration or prevention of an improvement in the overall WFD status of the River Till and River Avon or any downstream water bodies. Section 11.6, Chapter 11 Road Drainage and Water Environment of the Environmental Statement (Application Document 6.1) indicates that there are five SPZs for public drinking water supply abstractions within 5km of the Scheme. No likely significant adverse effects have been identified in relation to groundwater quality. Chapter 15 Cumulative Effects of the Environmental Statement (Application Document 6.1) addresses the cumulative effects of the Scheme. No significant cumulative effects on water resources with other development taking place nearby are anticipated.
5.224	Activities that discharge to the water environment are subject to pollution control. The considerations set out in paragraphs 4.48-4.56 on the interface between planning and pollution control therefore apply. These considerations will also apply in an analogous way to the abstraction licensing regime regulating activities that take water from the water environment, and to the control regimes relating to works to, and structures in, on, or under a controlled water.	The Consents and Agreements Position Statement (Application Document 3.3) identifies the separate water related consents that will be pursued separate and subsequent to the application for development consent. These include: - Consent for discharge to controlled water and/ or groundwater in accordance with Environmental Permitting (England and Wales) Regulations 2016. The DCO itself will include other consents through its provision for disapplication of the need for external consents and protective provisions for the benefit of regulators. This will include water abstraction and working on and near ordinary watercourses.
5.225	The Secretary of State will generally need to give	Appendix 11.2 Water Framework Directive Compliance Assessment of the

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	impacts on the water environment more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive.	Environmental Statement Appendices (Application Document 6.3) shows that the Scheme would be compliant under the WFD. Additionally, the proposed works would be unlikely to have significant adverse effects on surface or groundwater bodies, or to result in the deterioration or prevention of an improvement in the overall WFD status of the River Till and River Avon or any downstream water bodies.
5.226	The Secretary of State should be satisfied that a proposal has had regard to the River Basin Management Plans and the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. In terms of Water Framework Directive compliance, the overall aim of projects should be no deterioration of ecological status in watercourses, ensuring that Article 4.7 of the Water Framework Directive Regulations does not need to be applied.	
5.227	The Examining Authority and the Secretary of State should consider proposals put forward by the applicant to mitigate adverse effects on the water environment and whether appropriate requirements should be attached to any development consent and/or planning obligations. If the Environment Agency continues to have concerns and objects to the grant of development consent on the grounds of impacts on water quality/resources, the Secretary of State can grant consent, but will need to be satisfied before deciding whether or not to do so that all reasonable steps have been taken by the applicant and the	The Environment Agency have been issued drafts of the following documents which consider potential effects on the water environment, and identify mitigation to address these effects: • Appendix 11.1 Water Quality Risk Assessment of the Environmental Statement Appendices (Application Document 6.3); • Appendix 11.2 Water Framework Directive Compliance Assessment of the Environmental Statement Appendices (Application Document 6.3); • Appendix 11.3 Road Drainage Strategy of the Environmental Statement Appendices (Application Document 6.3); • Appendix 11.4 Ground Water Risk Assessment of the Environmental Statement Appendices (Application Document 6.3); • Appendix 11.5 Level 3 Flood Risk Assessment of the Environmental Statement

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	Environment Agency to try to resolve the concerns, and that the Environment Agency is satisfied with the outcome.	Appendices (Application Document 6.3). Mitigation measures to protect the water environment will be secured within Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3).
5.229	The Secretary of State should consider whether the mitigation measures put forward by the applicant which are needed for operation and construction (and which are over and above any which may form part of the project application) are acceptable. A construction management plan may help codify mitigation.	Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) details the environmental mitigation measures proposed to be implemented during construction, why they are required, who is responsible for delivering them and detailing ongoing reporting criteria. Application Document
5.230	The project should adhere to any National Standards for sustainable drainage systems (SuDs). The National SuDs Standards will introduce a hierarchical approach to drainage design that promotes the most sustainable approach but recognises feasibility, and use of conventional drainage systems as part of a sustainable solution for any given site given its constraints	As per NPSNN Paragraph 5.100 in this document.
5.231	The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example, designated areas for storage and unloading, with appropriate drainage facilities, should be marked clearly.	Section 11.8, Chapter 11 Road Drainage and the Water Environment of the Environmental Statement describes construction and operational mitigation which is proposed. These includes measures delivered through the design of the Scheme and also via construction methods. The standards which are referred to include good practice embodied in the DMRB. Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) details the environmental mitigation measures proposed to be implemented including why they are required, who is responsible for delivering them and ongoing reporting criteria. Measures include bunding for areas that may generate

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		contaminated water; minimising the extent of groundwater dewatering and groundwater abstraction where practically possible by the construction techniques; water, such as from excavated material and construction compounds, discharged to self-contained units with appropriate treatment facilities; no direct discharges to groundwater; floodplain working would be minimised as far as reasonably practicable; and temporary land-take includes adequate areas of land set aside for robust control measures, for example sustainable drainage control.

APPENDIX B - Assessment of conformity with other relevant and important considerations

B.1 Conformity of the Scheme with the National Planning Policy Framework

B.1.1.1 Paragraph 5 of the National Planning Policy Framework indicates 'The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision making framework in the Planning Act 2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are important and relevant (which may include the National Planning Policy Framework). National policy statements form part of the overall framework of national planning policy, and may be a material consideration in preparing plans and making decisions on planning applications.

B.1.1.2 Paragraph 1.18 of the NPSNN states that 'the NPPF will be an important and relevant consideration' 'but only to the extent relevant to [the] project'.

B.1.1.3 The NPPF was revised in 2018, but the specific requirements which are relevant to major projects infrastructures are addressed within the NPSNN. The NPSNN is the primary tool to guide decision making for the Scheme. NPPF policies which are considered relevant and important to the Scheme are addressed in Chapter 7 of the main body of this Case for the Scheme.

B.2 Conformity of the Scheme with local planning policy

B.2.1.1 The development plan for the area comprises the Wiltshire Core Strategy incorporating saved policies from district local plans, made Neighbourhood Plans and the Minerals Core Strategy and Waste Core Strategy produced jointly by Wiltshire and Swindon Council. The Wiltshire Core Strategy (WCS) was adopted on 20 January 2015. The plan provides a planning policy framework for Wiltshire for the period up to 2026.

B.2.1.2 The development plans which are described contain similar policy requirements to those which are set out within the National Policy Statement for National Networks (NPSNN), and considered in Appendix A. The requirements within the NPSNN are specific to Nationally Significant Infrastructure Projects, and generally relate more clearly to the Scheme. Where policy requirements are addressed within Appendix 1, cross references are provided. Where there are specific local policy requirements not covered within the NPSNN, these are addressed in full.

Table B-1: Relevent local planning policy

Document	Relevant policies
Wiltshire Council Core Strategy Development Plan Document adopted January 2015	Strategic objective 1: delivering a thriving economy Strategic objective 2: to address climate change Strategic objective 4: helping to build resilient communities Strategic objective 5: protecting and enhancing the natural, historic and built environment Strategic objective 6: to ensure that infrastructure is in place to support communities

Document	Relevant policies
	Core Policy 4 Spatial Strategy for the Amesbury Community Area Core Policy 6 Stonehenge Core Policy 41 Sustainable construction and low-carbon energy Core Policy 48 Supporting rural life Core Policy 50 Biodiversity and geodiversity Core Policy 51 Landscape Core Policy 52 Green infrastructure Core Policy 55 Air quality Core Policy 56 Contaminated Land Core Policy 57 Ensuring high quality design and place shaping Core Policy 58 Ensuring the conservation of the historic environment Core Policy 59 The Stonehenge, Avebury and Associated Sites World Heritage Site and its Setting Core Policy 62 Development impacts on the transport network Core Policy 66 Strategic transport network Core Policy 67 Flood Risk Core Policy 68 Water Resources Core Policy 69 Protection of the River Avon SAC
Saved policies of the Salisbury District Local Plan 2011 adopted in 2003	Policy C6 Special Landscape Area Policy C9 Loss of Woodland Policy C18 Development affecting rivers and river valleys Policy G7 Development restraint area
Wiltshire and Swindon Waste Core Strategy Development Plan Document 2006-2026 adopted June 2009	Policy WCS5: The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management Policy WCS6: Waste Reduction and Auditing
Wiltshire and Swindon Minerals Core Strategy Development Plan Document 2006-2026 adopted 2009	No mineral sites or safeguarding areas are located within the Order limits and therefore this plan is not considered relevant to the Scheme.
Wiltshire and Swindon Waste Development Control Policies Development Plan Document adopted September 2009	The Scheme is not a waste development and therefore policies within this document are not considered relevant.
Wiltshire and Swindon Waste Development Control Policies Development Plan Document adopted September 2009	The Scheme is not a minerals development and therefore policies within this document are not considered relevant.

Document	Relevant policies
Wiltshire and Swindon Waste Site Allocations Local Plan adopted February 2013	The Scheme does not directly affect any proposed waste site allocations and therefore policies within this document are not considered relevant.
Wiltshire and Swindon Aggregate Minerals Site Allocation Local Plan adopted May 2013	The Scheme does not directly affect any proposed mineral site allocations and therefore policies within this document are not considered relevant. It is noted that the Minerals Site Allocation Local Plan has been taken into account in preparing the baseline information for the materials section of the Environmental Statement submitted with the DCO application.

B.3 Scheme conformity with the Development Plan: Wiltshire Core Strategy

B.3.1.1 The WCS sets out a spatial vision to deliver stronger, more resilient communities in the County by 2026. The WCS outlines strategic objectives to deliver this vision as detailed in Table B.1. The Scheme aligns with the WCS's vision to deliver stronger and more resilient communities, in particular Strategic Objectives 1, 4, 5 and 6.

Strategic Objective 1: Delivering a thriving economy

B.3.1.2 Similar requirements are described within the NPSNN:

- Economic benefits of the Scheme are identified in Chapter 5 of the main body of this Case for the Scheme and summarised in Appendix A, Paragraph 2.6.

B.3.1.3 The Applicant considers that the Scheme would enable significant increases in traffic volumes using the A303 through increased capacity and a reduction in delays. These improvements would make the local area, and the South West, more attractive for businesses to locate and would help in promoting a competitive local economy

B.3.1.4 The Scheme would reunite the WHS, it would restore the tranquillity of the WHS landscape; reconnect the WHS with local communities; and improve provision for NMUs. It is expected to result in more visitors being attracted to the WHS and the local area.

B.3.1.5 The Scheme supports Strategic Objective 1 of the WCS.

Strategic Objective 2: To address climate change

B.3.1.6 Core Policy 41 encourages new development to incorporate design measures to reduce energy demand. The policy also requires high standards of sustainable construction in development. Core Policy 41 mainly relates to built development rather than infrastructure. However, the policy elements relating to climate change adaptation and the use of sensitive approaches and materials at heritage sites are relevant and are

addressed in Table B.2 on compliance with Core Policy 57, including for example a commitment to CEEQUAL standards.

Strategic Policy 4: Helping to deliver resilient communities

B.3.1.7 WCS Core Policy 4 Spatial Strategy for the Amesbury Community Area aims to deliver new housing and employment development in and around Amesbury over the plan period. The supporting text for the policy (Paragraph 5.19) identifies the A303 corridor as having an effect on the 'attractiveness of the area for business and tourism investment' due to the congestion experienced along this part of the road. It identifies that dualling of the A303 is necessary and states it would work collaboratively with delivery agencies to 'achieve an acceptable solution to the dualling of the A303 that does not adversely affect the Stonehenge World Heritage Site and its setting'.

B.3.1.8 Similar requirements are described within the NPSNN:

- Economic and tourism benefits of the Scheme are summarised in Appendix A, Paragraph 2.6;
- Beneficial effects of the Scheme on the WHS and its setting are as described in Chapter 5 of the main body of this Case for the Scheme and Appendix A, Paragraphs 5.131, 5.132 and 5.134.

B.3.1.9 WCS Core Policy 48 Supporting rural life seeks to improve access and infrastructure between towns and villages. It supports proposals which would deliver this where 'the development would not be to the detriment of the local environment or local residents'.

B.3.1.10 Similar requirements are described within the NPSNN:

- Benefits of the Scheme, including those which will improve access and infrastructure between towns and villages, are summarised in Appendix A, Paragraph 3.2;
- Mitigation and enhancement measures to reduce severance effects, improve accessibility and reduce amenity effects for local communities are described in Appendix A, Paragraphs 3.17 and 3.19;
- Mitigation and enhancement measures to improve access for Non Motorised Users to the benefit of local residents are described in Appendix A, Paragraph 5.184.

Strategic Objective 5: Protecting and enhancing the natural, historic and built environment

B.3.1.11 Core Policy 50 requires development to retain, buffer, and manage nature conservation and geological features of value. It adds that where such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity. The policy emphasises that major development must include measures to deliver biodiversity gains.

B.3.1.12 Similar requirements are described within the NPSNN:

- Mitigation which is embedded into the design to address adverse effects on biodiversity features and compensate for the loss of habitats is summarised within Appendix A, Paragraph 5.22 - 5.23 and 5.25;
- The Scheme achieves a net biodiversity gain. Habitat loss and gain is summarised within Appendix A, Paragraph 5.25.

B.3.1.13 This policy also states that 'development that would have an adverse effect on the integrity of a European nature conservation site would not be in accordance with the Core Strategy'. Furthermore, protection is given to local nature conservation sites, with damage or disturbance being unacceptable unless it can be demonstrated that impacts 'cannot reasonably be avoided, are reduced as far as possible; are outweighed by other planning considerations in the public interest; and where appropriate compensation measures can be secured through planning obligations or agreements'.

B.3.1.14 Section 8.9 in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1), indicates that the integrity of the River Avon SAC (incorporating the River Till SAC) and the Salisbury Plain SAC and SPA would not be adversely affected by the Scheme.

B.3.1.15 Similar requirements are described within the NPSNN:

- Effects on internationally, nationally designated sites and mitigation and enhancement measures are summarised in Appendix A, Paragraph 5.22, and Paragraph 5.26;
- Effects on locally designated sites are described in Appendix A, Paragraph 5.22-23 and 5.35;
- There are no geological SSSIs within the Scheme study area. Furthermore, there are no Local Geological Sites (LGS) within the Scheme study area, as described in Appendix A, Paragraph 5.24.

B.3.1.16 Core Policy 51 requires development to protect, conserve and where possible enhance Wiltshire's distinctive landscape character. In addition, the policy expects developments to demonstrate that account has been taken of the objectives, policies and actions set out in the relevant Management Plan for the WHS and AONB. With regard to the latter, development outside the AONB but visually prominent must also demonstrate that it would not adversely affect its setting.

B.3.1.17 The Scheme design has been heritage led, and the protection and enhancement of the WHS is an objective of the Scheme. As described in Paragraph 5.131 of Appendix A, the OUV of the WHS would be sustained overall by the construction of the Scheme.

B.3.1.18 Similar requirements are described within the NPSNN:

- Effects on local landscape character are considered in Appendix A, Paragraphs 5.144-5.146;

- Beneficial effects of the Scheme on the WHS and to the historic landscape are described in Appendix A, Paragraphs 5.131, 5.132, 5.134, and 5.137;
- There are no key views identified within the Cranborne Chase and West Wiltshire AONB Management Plan from which the Scheme would be visible, as described in Appendix A, 5.147-5.148.

B.3.1.19 Core Policy 52 aims to retain and enhance Wiltshire's green infrastructure network by ensuring that 'suitable links to the network are provided and maintained'.

B.3.1.20 The Scheme would create a network of green infrastructure, and the ecosystems benefits. Similar requirements are described within the NPSNN:

- Mitigation and enhancements relating to green infrastructure is described in Appendix A NPSNN Paragraph 5.180.

B.3.1.21 With regard to impacts on air quality, Core Policy 55 requires development to demonstrate that effective mitigation for emission levels is in place to 'protect public health, environmental quality and amenity' where development is likely to exacerbate existing areas of poor air quality. It adds that mitigation proposed needs to also demonstrate it would make a positive contribution to the aims of the Air Quality Strategy for Wiltshire and where relevant, the Wiltshire Air Quality Action Plan.

B.3.1.22 Similar requirements are described within the NPSNN:

- Local air quality effects are described in Appendix A, Paragraphs 5.6-5.9;
- Mitigation to protect public health, environmental health and amenity from air quality effects, including during the construction phase, is described in Appendix A, Paragraphs 5.14 - 5.15.

B.3.1.23 Core Policy 56 expects developers to demonstrate that measures can be taken to effectively mitigate the impacts on public health, environmental quality, the built environment and amenity where developments are likely to disturb contaminated land.

B.3.1.24 Similar requirements are described within the NPSNN:

- Contaminated land effects are described in Appendix A, Paragraphs 5.168;
- Mitigation to protect public health, environmental health and amenity from harmful emissions is described in Appendix A, Paragraphs 5.84 - 5.87;
- Mitigation to protect water quality is described in Appendix A, Paragraph 5.222.

B.3.1.25 Core Policy 57 requires new development to deliver a high standard of design and draw upon local context when designing development. Similar requirements are described within the NPSNN. To avoid duplication, Table B.2 identifies where the aspects identified within the policy criteria are

considered in Appendix A. It should be noted that the policy is largely focussed on the development of buildings, rather than infrastructure, and therefore not all elements of the criteria are considered to be directly relevant to the Scheme.

Table B-2: Core Policy 57

Policy 57 criteria	Compliance with criteria
i. enhancing local distinctiveness by responding to the value of the natural and historic environment, relating positively to its landscape setting and the existing pattern of development and responding to local topography by ensuring that important views into, within and out of the site are to be retained and enhanced	- Landscape and visual effects are described in Appendix A, Paragraphs, 5.144 - 5.146, 5.147-5.148, 5.149, 5.156, 5.160; - Mitigation to minimise landscape and visual effects is described in Appendix A, Paragraph 5.160; - Effects on the historic landscape are described in Appendix A, Paragraph 5.156; - Mitigation and enhancement which relate to the setting of heritage assets is described in Appendix A, Paragraph 5.137.
ii. the retention and enhancement of existing important landscaping and natural features, (e.g. trees, hedges, banks and watercourses), in order to take opportunities to enhance biodiversity, create wildlife and recreational corridors, effectively integrate the development into its setting and to justify and mitigate against any losses that may occur through the development	- Effects on internationally, nationally designated sites which are protected for their biodiversity interest, and also mitigation and enhancement measures which are proposed are described in Appendix A, Paragraph 5.22, and Paragraph 5.26; - Effects on locally designated sites and existing landscaping features are described in Appendix A, Paragraph 5.22-23 and 5.35; - Mitigation and enhancement measures regarding green infrastructure is described in Appendix A NPSNN Paragraph 5.180; - Mitigation and enhancement measures to improve connectivity are as described in Appendix A, Paragraph 5.22 - 5.23 and 5.33; - Net habitat gains and loss is summarised within Appendix A, Paragraph 5.25.
iii. responding positively to the existing townscape and landscape features in terms of building layouts, built form, height, mass, scale, building line, plot size, elevational design, materials, streetscape and rooflines to effectively integrate the building into its setting	- The approach to design, and consideration of heritage issues is described in Appendix A, Paragraphs 5.129 and 5.130; - Effects on landscape are as described in Appendix A, Paragraph 5.156.
iv. being sympathetic to and conserving historic buildings and historic landscapes	- The approach to design, and consideration of heritage issues is described in Appendix A, Paragraphs 5.129 and 5.130; - Effects on designated heritage and non designated assets, including those within the WHS are described in Appendix A, Paragraphs 5.134;

Policy 57 criteria	Compliance with criteria
	- Effects on the attributes of OUV of the WHS are as described in Appendix A, Paragraph 5.132, and 5.136; - Mitigation and enhancement which relate to the setting of heritage assets including the WHS is described in Appendix A, Paragraph 5.137.
v. the maximisation of opportunities for sustainable construction techniques, use of renewable energy sources and ensuring buildings and spaces are orientated to gain maximum benefit from sunlight and passive solar energy, in accordance with Core Policy 41 (Sustainable Construction and Low Carbon Energy)	- The approach to sustainable construction in design, including energy use is as described in Appendix A, Paragraph 4.29.
vi. making efficient use of land whilst taking account of the characteristics of the site and the local context to deliver an appropriate development which relates effectively to the immediate setting and to the wider character of the area	The Scheme has sought to minimise the land take for the Scheme and the Order limits for the Scheme are the maximum extent of land required for the Scheme. - The extent to which the Scheme has made efficient use of the land is described in the Statement of Reasons (Application Document 4.1) and Appendix A, Paragraph 5.149. The relationship between the Scheme and existing and future land use are also described in Appendix A: - Effects on open space are as described in Appendix A, Paragraphs 5.165 - 5.167, 5.175 and 5.180; - Effects on agricultural land are as described in Appendix A, Paragraphs 5.168 and 5.176; - Effects on proposed development are as described in Appendix A, Paragraph 5.173; - Effects on minerals resource are as described in Appendix A 5.182; - The Scheme is considered to address the historic landscape setting, mitigation and enhancement measures are described in Appendix A, Paragraph 5.129 and 5.130 - The Scheme is considered to address the landscape character setting and visual receptors, mitigation and enhancement measures are described in Appendix A, Paragraph 5.160.
vii. having regard to the compatibility of adjoining buildings and uses, the impact on the amenities of existing occupants, and ensuring that appropriate levels of amenity are achievable within the development itself, including the consideration of privacy,	- Effects from artificial lighting and signage are as per Appendix A Paragraph 5.84 - 5.87; - Mitigation to protect public health, environmental health and amenity from harmful emissions is as described in Appendix A, Paragraphs 5.84 - 5.87; - Amenity is also considered in Appendix A paragraph 5.144-5.146.

Policy 57 criteria	Compliance with criteria
overshadowing, vibration, and pollution (e.g. light intrusion, noise, smoke, fumes, effluent, waste or litter)	
viii. incorporating measures to reduce any actual or perceived opportunities for crime or antisocial behaviour on the site and in the surrounding area through the creation of visually attractive frontages that have windows and doors located to assist in the informal surveillance of public and shared areas by occupants of the site	- Landscape and visual mitigation and enhancement measures are described in Appendix A, Paragraph 5.160. - Mitigation and enhancement measures relating to accessibility for Non Motorised Users are described in Appendix A, Paragraph 3.17; - The approach to ensuring the Scheme is accessible and inclusive is described in Appendix A, Paragraph 3.19; - The approach to consideration of safety and measures relating to safety are described in Appendix A, Paragraph 4.61.
ix. ensuring that the public realm, including new roads and other rights of way, are designed to create places of character which are legible, safe and accessible in accordance with Core Policy 66 (Strategic Transport Network)	
x. the sensitive design of advertisements and signage, which are appropriate and sympathetic to their local setting by means of scale, design, lighting and materials	- Effects from artificial lighting and signage are as per Appendix A, Paragraphs 5.84 - 5.87; - The approach to design within the WHS, including measures to reduce the impacts of signage and lighting is described in Appendix A, Paragraph 5.130.
xi. taking account of the needs of potential occupants, through planning for diversity and adaptability, and considering how buildings and space will be used in the immediate and long term future	- Effects on existing agricultural holdings and land use are described in Appendix A, Paragraph 5.176; - Effects of the Scheme on road users, including through reduced congestion, and Driver Stress are as described in Appendix A, Paragraphs 2.16, 3.19 and 5.203-5.205; - Effects on Non Motorised Users of the Scheme, including effecting the accessibility of Non Motorised Users are described in Appendix A, Paragraph 5.184; - Effects on user groups, including those which have 'protected characteristics' under the Equalities Act 2010, are described within Appendix A Paragraph 3.20.
xii. the use of high standards of building materials, finishes and landscaping, including the provision of street furniture and the integration of art and	- Consideration of design, including materials and landscaping treatment is summarised in Appendix A, Paragraphs 4.28 to 4.35, 5.130 and 5.160.

Policy 57 criteria	Compliance with criteria
design in the public realm	

B.3.1.26 In each case, the effects and mitigation referred to in Table B-2 demonstrate that the Scheme complies with the relevant criteria of Core Policy 57.

B.3.1.27 Core Policy 58 sets out the Council's overarching policy for the conservation of the historic environment. It states 'development should protect, conserve and where possible enhance the historic environment' and that designated heritage assets and their settings will be conserved, and where appropriate enhanced in a manner appropriate to their significance', It also expects the conservation, and where possible enhancement, of 'distinctive elements of Wiltshire's historic environment, including non-designated heritage assets, which contribute to a sense of local character and identity'.

B.3.1.28 Similar requirements are described within the NPSNN:

- The Scheme has been 'heritage led' in its approach to design. The approach to design, and consideration of heritage issues is described in Appendix A, Paragraphs 5.129 and 5.130;
- Effects on designated and non designated heritage assets, including those within the WHS are described in Appendix A, Paragraphs 5.134 to 5.136;
- Mitigation and enhancement measures which relate to the setting of heritage assets including the WHS is described in Chapter 5 of the main body of this Case for the Scheme and Appendix A, Paragraph 5.137.

B.3.1.29 The effects and mitigation referred to in these points demonstrate that the Scheme complies with relevant criteria of Core Policy 58.

B.3.1.30 Core Policy 6 and Core Policy 59 specifically protect the OUV of the WHS. Core Policy 59 gives precedence to the protection of the World Heritage Site and its setting allowing development not adversely affecting the World Heritage Site and its attributes of OUV; and seeking opportunities to support and maintain the positive management of the World Heritage Site. Policy 59 requires developments 'to demonstrate that full account has been taken of their impact upon the World Heritage Site and its setting' and that there are no 'individual, cumulative or consequential adverse effect upon the site and its OUV. Consideration of opportunities for enhancing the World Heritage Site and sustaining its OUV should also be demonstrated'.

B.3.1.31 Similar requirements are described within the NPSNN:

- Effects on the attributes of OUV of the WHS are as described in Appendix A, Paragraph 5.132, and 5.136;
- Mitigation and enhancement measures which relate to the setting of heritage assets including the WHS are described in Appendix A, Paragraph 5.137.

Strategic Objective 6: to ensure that infrastructure is in place to support communities

B.3.1.32 In relation to transport impacts of construction and operation of the Scheme, Core Policy 62 expects appropriate mitigation measures to be provided to 'offset any adverse impacts on the transport network at both the construction and operational stages'.

B.3.1.33 Similar requirements are described within the NPSNN:

- Effects on road users of the Scheme, including through reduced congestion and driver stress are described in Appendix A, Paragraphs 2.16, 3.19 and 5.203-5.205;
- Mitigation measures to be specified within a Traffic Management Plan to address construction, operation and emergency situations are described in Appendix A, Paragraph 5.208;
- Mitigation measures relating to the operational safety of the transport network, including relating to accidents are described in Appendix A, Paragraph 4.66.

B.3.1.34 The effects and mitigation referred to in these points demonstrate that the Scheme complies with relevant criteria of Core Policy 62.

B.3.1.35 Core Policy 66 specifically promotes the development and improvement of the strategic transport network to support the objectives and policies in the WCS and Local Transport Plan.

B.3.1.36 Similar requirements are described within the NPSNN:

- Beneficial effects on road users, including through reduced congestion and driver stress, are described in Appendix A, Paragraphs 2.1, 2.16, 3.19 and 5.203-5.205.

B.3.1.37 WCS Core Policy 67 expects the sequential test to have been followed for developments within flood zones 2 and 3 and that new development includes sustainable urban drainage systems which include measures to reduce the rate of rainwater run-off and improve rainwater infiltration to soil and ground unless this is not possible due to site or environmental conditions.

B.3.1.38 Similar requirements are described within the NPSNN:

- A Flood Risk Assessment has been undertaken. The application of the sequential and exception tests is described in Appendix A, Paragraphs 5.91, 5.94, 5.98 and 5.99;
- The approach to design of SuDS are described in Appendix A, Paragraph 5.100;
- Mitigation and enhancement to manage water quantity, including drainage systems are described in Appendix A, Paragraphs 5.104, 5.112-5.115.

B.3.1.39 WCS Core Policy 68 requires development to contribute towards the delivery of the actions and targets of the relevant River Basin or Catchment Management Plan where possible. In addition, where development is

located within a Source Protection Zone, Safeguard Zone or Water Protection Zone an assessment of 'any risk to groundwater resources and groundwater quality' must be undertaken to 'demonstrate that these would be protected throughout the construction and operational phases of development'.

B.3.1.40 Similar requirements are described within the NPSNN:

- Effected river basin management plans are described in Appendix A, Paragraph 5.220;
- Conclusions of the Water Framework Directive assessment which has been undertaken, including effects on groundwater and surface water resources are described Appendix A, Paragraphs 5.225 and 5.226;
- The effects on groundwater resources, including Source Protection Zones are described in Appendix A, Paragraph 5.223.

B.3.1.41 The effects and mitigation referred to in these points demonstrate that the Scheme complies with relevant criteria of Core Policy 68.

B.3.1.42 Core Policy 69 protects the River Avon SAC and requires development to 'incorporate measures during construction and operation to avoid and prevent pollution and mitigate potential disturbance effects'. The policy highlights the potential measures which might be appropriate including 'buffer zones along watercourses, habitat enhancements and river access management measures'.

B.3.1.43 Similar requirements are described within the NPSNN:

- Effects on the River Avon SAC, and mitigation to address these effects are described in Appendix A, Paragraph 5.29.

B.3.1.44 The effects and mitigation referred to in this point demonstrates that the Scheme complies with relevant criteria of Core Policy 69.

B.4 Scheme conformity with saved policies of the Salisbury District Local Plan

B.4.1.1 Saved policy C6 protects the Special Landscape Area ('SLA'). The SLA covers the majority of the Scheme boundary, except for Countess Roundabout, Amesbury, Bulford and Larkhill. The policy acknowledges the landscape is not of such high quality as the AONB, but considers it worthy of being preserved and that only development which is essential to the rural economy or desirable for the enjoyment of its amenities will be permitted, and the location, scale and nature of such development will be carefully controlled in order to conserve the character of the SLA.

B.4.1.2 Similar requirements are described within the NPSNN:

- Effects on the landscape character, including within the Special Landscape Area are summarised in Appendix A, Paragraph 5.156.

B.4.1.3 The Scheme responds positively to the SLA by improving the enjoyment of the amenities of permissive open access land through removing the existing A303 from within the WHS. This is in combination with improving

the opportunities for greater amenity across the SLA by new NMU routes and connectivity across the dual carriageway by the green bridges and long bridge.

B.4.1.4 Saved policy C9 of the Salisbury Local Plan seeks to prevent the loss of woodland 'of landscape, historical or nature conservation value and to encourage the planting of indigenous tree species appropriate to the area'.

B.4.1.5 Similar requirements are described within the NPSNN:

- Mitigation to address landscape effects including through loss of woodland is described in Appendix A, Paragraph 5.160.

B.4.1.6 As described in Chapter 8 Biodiversity of the Environmental Statement (Application Document 6.1), within a total loss of approximately 16ha of semi natural habitat, the Scheme would result in a loss of approximately 6.38ha of undesignated deciduous woodland, a Habitat of Principal Importance (HPI). The establishment of the new planting is supported by Appendix 8.26 Outline Landscape and Ecology Management Plan (OLEMP) of the Environmental Statement Appendices (Application Document 6.3). There would be approximately 203ha of new habitats, mainly chalk grassland (162ha), but including approximately 17.05ha of woodland, which would be present and developing at year of opening (2026) and these would be more established by the assessment 15 years after opening. The benefits in terms of habitat creation therefore significantly outweigh the losses.

B.4.1.7 Rivers and river valleys are protected by the Salisbury Local Plan saved policy C18. This policy expects development to not adversely affect 'the water quality, amenity, visual quality or public enjoyment of a river or floodplain or its value as a wildlife habitat'.

B.4.1.8 Similar requirements are described within the NPSNN:

- The outcomes of the Water Framework Directive assessment, including effects on surface water resources are described Appendix A, Paragraphs 5.225 and 5.226;
- Effects on wildlife habitat, including designated sites within river valleys which are protected for their biodiversity interest, and also mitigation and enhancement measures which are proposed are described in Appendix A, Paragraph 5.22, and Paragraph 5.26;
- Amenity benefits of the Scheme, including to recreational walking are described in Appendix A, Paragraph 3.20 and 4.16.

B.4.1.9 The effects and mitigation referred to in these points demonstrate that the Scheme complies with relevant criteria of saved policy C18.

B.4.1.10 The Proposals Map of the Amesbury, Bulford and Durrington area (Inset Map 17) indicates that land to the east of the Countess Roundabout is a Development Restraint Site (Saved Policy G7 of the Salisbury District Local Plan). The policy notes that proposals for development within Groundwater Protection Areas would be referred to the Environment Agency and also refers to the Environment Agency's guidance on the protection of water quality.

B.4.1.11 The Development Constraint Site coincides with the proposed contractors' site compound to the east of Countess Roundabout. The Applicant has undertaken consultation with the Environment Agency and Wiltshire Council. No significant effects are noted in Appendix 11.4 Groundwater Risk Assessment of the Environmental Statement (Application Document 6.3) following the implementation of embedded mitigation and hence no additional mitigation measures are required. Risks are all low or very low, and there is potential for minor beneficial effects from the upgrade to the road drainage system, resulting in an improvement in the quality of the discharge of runoff from the new road.

B.5 Scheme conformity with the Development Plan: Wiltshire and Swindon Waste Core Strategy

B.5.1.1 Policies WCS5 and WCS6 of the Wiltshire and Swindon Waste Core Strategy Development Plan Document 2006-2026, adopted in June 2009, also set out requirements for the management of waste arising from new development.

B.5.1.2 Policy WCS5 expects developers to demonstrate that the most sustainable option for waste management has been promoted in accordance with the waste hierarchy. Policy WCS6 requires development proposals to prepare a waste audit, which identifies the type and volume of waste that the development would generate; how waste produced would be reduced, re-used and recycled; how the production of hazardous wastes would be reduced and how the use of hazardous materials would be reduced and the steps to be taken to minimise the use of raw materials in the development process and the pollution potential of unavoidable waste. In addition it expects the audit to also set out how the disposal of unavoidable waste in an environmentally acceptable manner would be undertaken and the proposals for the transport of waste created during the development process.

B.5.1.3 Similar requirements are described within the NPSNN:

- The approach to waste management, including hazardous wastes is as described in Appendix A, Paragraph 5.42.

B.5.1.4 Section 12.7, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) explains that as part of the OEMP, construction contractors will be required to produce a Site Waste Management Plan which will identify and record the types, quantities and destination of waste arisings from the Scheme and define measures to minimise waste arisings from the Scheme and to recover waste materials in accordance with the principles of the waste hierarchy. The OEMP also identifies approaches which will be followed to minimise waste generation and disposal including recovery targets and monitoring.

B.5.1.5 Section 12.1, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) indicates the Scheme would aim to prioritise waste prevention, followed by preparing for re-use, recycling, recovery and lastly disposal to landfill as per the internationally recognised waste hierarchy.

B.5.1.6 Section 12.9 describes the targets which are proposed for materials management including a 22% target for use of secondary and recycled aggregates, for those applications where it is technically and economically feasible to substitute these alternative materials for primary aggregates. In addition, Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) secures a target for an overall recovery rate for construction waste materials of 70%.

B.5.1.7 A SWMP will be developed by the contractor pursuant to the OEMP.

B.6 Scheme conformity with emerging Development Plans

Local Planning Policy

B.6.1.1 Wiltshire Council consulted on a review of the Core Strategy 2015 at the end of 2017. In addition, it consulted on the Swindon and Wiltshire Joint Spatial Framework, which with the updated local plan, would guide the overall scale and pattern of development looking to 2036. Work on emerging planning policy was paused, awaiting the publication of the revised NPPF. Given the early stage of the local plan review, and the fact that work had been paused, any suggested changes to the Core Strategy have not been considered in the discussion regarding the Scheme's conformity and are not considered further in this document.

Neighbourhood Plans

B.6.1.2 No neighbourhood plans have been made within the Order limits. It is noted that Shrewton Parish have designated neighbourhood plan status. The Parish produced an initial draft of their neighbourhood plan in 2016 and proposed to complete a final draft by summer 2017. However, no further publications have been made or consultations held. As a result, neighbourhood plans are not considered further in this document.

B.7 Summary of Development Plan compliance

B.7.1.1 The WCS sets out a spatial vision to deliver stronger, more resilient communities in the County by 2026. The Scheme aligns with the WCS's vision to deliver stronger and more resilient communities, in particular Strategic Objectives 1, 4, 5 and 6, as well as Core Policies 4 and 48.

B.7.1.2 Overall, the Scheme is closely aligned with the strategic objectives and core economic, community, environmental, heritage and infrastructure policies of the WCS, relevant saved policies of Salisbury Local Plan and relevant policies of the Wiltshire and Swindon Waste Core Strategy. In conclusion, the Applicant therefore considers that the Scheme conforms with relevant policies of the adopted development plan in respect of any other matters which are both important and relevant to the decision of the Secretary of State on the DCO application (Section 104(2) (d) of the Act (as amended)).

B.8 Conformity of the Scheme with the Wiltshire Local Transport Plan 3 2011-2026

B.8.1.1 The Wiltshire Local Transport Plan sets out the Council's objectives, plans and indicators for transport in Wiltshire. The third Wiltshire Local Transport Plan (LTP3) covers the period from March 2011 to March 2026. The LTP3 Strategy was published in March 2011. The vision for transport for Wiltshire is:

"To develop a transport system which helps support economic growth across Wiltshire's communities, giving choice and opportunity for people to safely access essential services. Transport solutions will be sensitive to the built and natural environment, with a particular emphasis on the need to reduce carbon emissions."

B.8.1.2 LTP3 sets out 18 goals. The compliance of the Scheme with the LTP3 goals is set out in Table C.3 below. Similar requirements to LTP3 are described within the NPSNN. Where compliance is addressed within Appendix A, Table B-3 identifies the relevant Paragraph.

Table B-3: Scheme Conformity with the Local Transport Plan

LTP goal - where these have similar implication for the Scheme, they are grouped	Compliance with LTP3 Goals
SO1: To support and help improve the vitality, viability and resilience of Wiltshire's economy and market towns;	- Economic benefits for communities, including supporting their vitality, are described in Appendix A, Paragraph 2.6; and - Benefits of the Scheme, including those which will improve accessibility and infrastructure between towns and villages, are summarised in Appendix A, Paragraph 3.2.
SO2: To provide, support and/or promote a choice of sustainable transport alternatives including walking, cycling, buses and rail; SO5: To improve sustainable access to a full range of opportunities particularly for those people without access to a car; SO13: To reduce the need to travel, particularly by private car. SO14: To promote travel modes that are beneficial to health. SO17: To improve sustainable access to Wilshire's countryside and provide a more useable public rights of way network;	- No effects on existing bus routes are anticipated, as described in Appendix A, Paragraph 2.25; - Consideration of alternative modes of transport to the Scheme, including buses and rail, are described in Appendix A, Paragraph 4.27; - Accessibility and safety benefits for Non Motorised Users, which would discourage the use of the private car, and are beneficial to health are described in Appendix A, Paragraph 3.17 and 3.19; - Enhancements to existing PRoW to improve access through the WHS and along and across the A303 are described in Appendix A, Paragraphs 3.17, 5.180 and 5.184.
SO4: To minimise traffic delays and	- Effects of the Scheme on road users,

LTP goal - where these have similar implication for the Scheme, they are grouped	Compliance with LTP3 Goals
disruption and improve journey time reliability on key routes; SO18: To enhance the journey experience of transport users	including through reduced congestion, and Driver Stress are as described in Appendix A, Paragraphs 2.16, 3.19 and 5.203-5.205; - Construction effects on the Scheme on traffic, and measures to manage construction traffic, are described in Appendix A, Paragraph 5.208.
SO6: To make the best use of the existing infrastructure through effective design, management and maintenance;	- The approach to sustainable construction in design, including re-use of materials, is as described in Appendix A, Paragraph 4.29.
SO7: To enhance Wiltshire's public realm and streetscene;	- Beneficial effects on landscape are described in Appendix A, Paragraph 5.156; - Mitigation and enhancement measures which will improve townscape are described in Appendix A, Paragraph 5.160.
SO8: To improve safety for all road users and to reduce the number of casualties on Wiltshire's roads;	- Safety benefits for all road users, including effects on accidents and casualties, are described in Appendix A, Paragraph 4.61.
SO9: To reduce the impact of traffic speeds in towns and villages;	- Quality of life benefits for towns and villages, including from reduced rat-running, are described in Appendix A, Paragraph 3.2.
SO10: To encourage the efficient and sustainable distribution of freight in Wiltshire	- Effects on freight are summarised in Appendix A, Paragraph 5.206.
SO12: To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts;	- Benefits of the Scheme for road users, including through reduced congestion, and Driver Stress are as described in Appendix A, Paragraphs 2.1, 2.16, 3.19 and 5.203-5.205; - Economic benefits of the Scheme, including its support for housing growth and jobs, are summarised in Appendix A, Paragraphs 2.6.
SO15: To reduce barriers to transport and access for people with disabilities and mobility impairment;	- Effects on user groups, including those which have 'protected characteristics' under the Equalities Act 2010, are as described within Appendix A Paragraph 3.20.
SO16: To improve the resilience of the transport system to impacts such as adverse weather, climate change and peak oil;	- The resilience of the Scheme to climate change and adverse weather is described in Appendix A, Paragraphs 2.7 and 4.43; - The potential for disasters or security issues to affect the Scheme are

LTP goal - where these have similar implication for the Scheme, they are grouped	Compliance with LTP3 Goals
	described in Appendix A, Paragraph 4.76 - 4.77.
SO3: To reduce the impact of traffic on people's quality of life and Wiltshire's built and natural environment	- Quality of life benefits for towns and villages, including from reduced rat-running, are described in Appendix A, Paragraph 3.2; - The approach to design, and to limiting effects on the environment, including consideration of heritage issues is described in Appendix A, Paragraphs 5.129 and 5.130.
SO11: To reduce the level of air pollutants and climate change emissions from transport.	- No significant effects on air quality are likely, local air quality effects are as described in Appendix A, Paragraphs 5.6-5.9; - Mitigation to protect public health, environmental health and amenity from air quality effects, including during the construction phase, are as described in Appendix A, Paragraphs 5.14 - 5.15. - Mitigation to protect public health, environmental health and amenity from harmful emissions is as described in Appendix A, Paragraphs 5.84 - 5.87; - No significant effects on climate change would be likely, Climate change emissions associated with the Scheme, and the Scheme's proposals to mitigate them are described in Appendix A, Paragraphs 5.17 and 5.19.

B.9 Conformity of the Scheme with relevant tourism policy

Department of Culture, Media and Sport, Tourism Action Plan (2016)

B.9.1.1 This Plan outlines how the Government will support the tourism industry and ensure the benefits of tourism will be felt across the United Kingdom. The Action Plan sets out five priority areas:

a. The tourism landscape: strengthening co-ordination and collaboration.

b. Skills: boosting apprenticeships and attracting more people to careers in tourism.

c. Common sense regulation: examining the scope for deregulation.

d. Transport: making it easier for visitors to explore by rail, bus and coach.

e. A GREAT Welcome: driving continuous improvements in the visa service.

B.9.1.2 The section on Transport notes that 'Further steps are being taken to modernise transport connections to the countryside. For example, the Government's £15 billion road investment strategy includes the A303 to the South West, which would offer 'mile a minute' driving whilst improving the environmental setting of the Stonehenge World Heritage Site'.

B.9.1.3 The Scheme will reduce congestion and improve journey times, making it easier for visitors to travel to the WHS or use the A303 to travel to other areas.

B.9.1.4 Similar requirements to the Action Plan priority are described within the NPSNN:

- Economic and tourism benefits of the Scheme are identified in Chapter 5 of the main body of this Case for the Scheme and summarised in Appendix A, Paragraphs 2.6 and 2.16;
- Benefits of the Scheme for road users, including through reduced congestion and improved journey times, and reduced Driver Stress are as described in Appendix A, Paragraphs 2.1, 2.16, 3.19 and 5.203-5.205;
- No effects on existing bus routes are anticipated, as described in Appendix A, Paragraph 2.25;

B.9.1.5 Other requirements, regarding coordination and collaboration, skills, regulations and visa services are not relevant to the Scheme.

Visit Britain, Delivering a Golden Legacy A Growth Strategy for Inbound Tourism to Britain from 2012 to 2020

B.9.1.6 Delivering a Golden Legacy, A Growth Strategy for Inbound Tourism to Britain from 2012 to 2020 was published by Visit Britain and aims to encourage the growth of inbound tourism. The strategy identifies an ambitious objective to attract an additional 9 million visitors a year by 2020, increase spending by £8.7 billion and support an additional 200,000 jobs a year.

B.9.1.7 Similar requirements to the Growth Strategy are described within the NPSNN:

- Economic, tourism and employment benefits of the Scheme identified in Chapter 5 of the main body of this Case for the Scheme and are summarised in Appendix A, Paragraphs 2.6 and 2.16.

Department for Business, Energy and Industrial Strategy, Industrial Strategy Green Paper (2017)

B.9.1.8 With regard to a Tourism Sector Deal, the following priorities have been identified:

f. Investment in tourism skills;

g. Improving productivity;

h. improving transport connectivity for international and domestic visitors;

i. Creating quality tourism products that meet visitors needs and expectations, extending the tourism season and fixing localised transport issues to improve the visitor experience.

B.9.1.9 Similar requirements to the Industrial Strategy are described within the NPSNN:

- Tourism, productivity and connectivity benefits of the Scheme identified in Chapter 5 of the main body of this Case for the Scheme and are summarised in Appendix A, Paragraphs 2.6, 2.16, 5.130 and 5.137, these tourism benefits include economic and heritage benefits brought about by improvements to the WHS;
- Benefits of the Scheme for road users, including through reduced congestion and improved journey times, and reduce Driver Stress are as described in Appendix A, Paragraphs 2.1, 2.16, 3.19 and 5.203-5.205.

B.9.1.10 Other requirements, regarding tourism skills and tourism products are not relevant to the Scheme.

Visit England 2011, England: a Strategic Framework for Tourism 2010-2020

B.9.1.11 Sets out four objectives,

j. To increase England's share of global visitor markets.

k. To offer visitors compelling destinations of distinction.

l. To champion a successful, thriving tourism industry.

m. To facilitate greater engagement between the visitor and the experience.

B.9.1.12 Similar requirements to the Strategic Framework are described within the NPSNN:

- Tourism benefits of the Scheme are summarised in Appendix A, Paragraphs 2.6 and 5.130, these include economic benefits brought about by improvements to the WHS.

B.10 Conformity of the Scheme with relevant waste policy

The Waste Management Plan for England

B.10.1.1 The Waste Management Plan for England (WMPE) was published by the Department for the Environment and Rural Affairs (DEFRA) in 2013. It provides an analysis of the current waste management situation in England and fulfils the mandatory requirements of article 28 of the revised Waste Framework Directive (rWFD). It states that the United Kingdom is committed to meeting its target under the Waste Framework Directive of recovering at least 70% by weight, of construction and demolition waste by 2020 and confirms that England and the UK are already achieving an estimated 93% recovery rate of construction and demolition waste. This already exceeds the 2020 target of recovering at least 70% by weight, of non-hazardous construction and demolition waste. The Scheme has the same 70% target.

B.10.1.2 Section 12.7, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) explains that as part of the OEMP, construction contractors will be required to produce a Site Waste Management Plan which will identify and record the types, quantities and destination of waste arisings from the Scheme and define measures to minimise waste arisings from the Scheme and to recover waste materials in accordance with the principles of the waste hierarchy. The OEMP also identifies approaches which will be followed to minimise waste generation and disposal including recovery targets and monitoring.

B.10.1.3 Section 12.1, Chapter 12 Materials of the Environmental Statement (Application Document 6.1) indicates the Scheme would aim to prioritise waste prevention, followed by preparing for re-use, recycling, recovery and lastly disposal to landfill as per the internationally recognised waste hierarchy.

B.10.1.4 Section 12.9 describes the targets which are proposed for materials management including a 22% target for use of secondary and recycled aggregates, for those applications where it is technically and economically feasible to substitute these alternative materials for primary aggregates. In addition, Appendix 2.2 OEMP of the Environmental Statement Appendices (Application Document 6.3) secures a target for an overall recovery rate for construction waste materials of 70%.

National Planning Policy for Waste (2014)

B.10.1.5 The National Policy for Waste was published by the Department for Communities and Local Government (DCLG) in 2014 and is read in line with the NPFF. It sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. Relevant aims of the policy include:

n. delivery of sustainable development and resource efficiency by driving waste management up the waste hierarchy;

o. ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport, recognising the

positive contribution that waste management can make to the development of sustainable communities;

p. helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment; and

q. ensuring the design and layout of new residential and commercial development and other infrastructure (such as safe and reliable transport links) complements sustainable waste management.

B.10.1.6 Section 8 of the National Policy for Waste expects non waste development to ensure that their likely impact on existing waste management facilities, and on sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the waste hierarchy and/or the efficient operation of such facilities; and that the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.

B.10.1.7 In complying with the National Policy for Waste, the materials strategy for the Scheme would ensure that mitigation measures would be implemented during the design and construction phases. The OEMP requires a Site Waste Management Plan (SWMP) to be prepared. Excavated material from the tunnelling operation would be processed to produce a material suitable for use on site to blend the new highway embankments into the existing topography, create new chalk grassland habitats and extend the existing Parsonage Down habitats. Use of the tunnel arisings to the east of Parsonage Down would remove the need to transport surplus material on the highway network to off-site disposal facilities. This would avoid the adverse environmental effects on people and communities living along the routes to the off-site disposal facilities. As secured in the OEMP, the Scheme's intention is to comply with the waste hierarchy.

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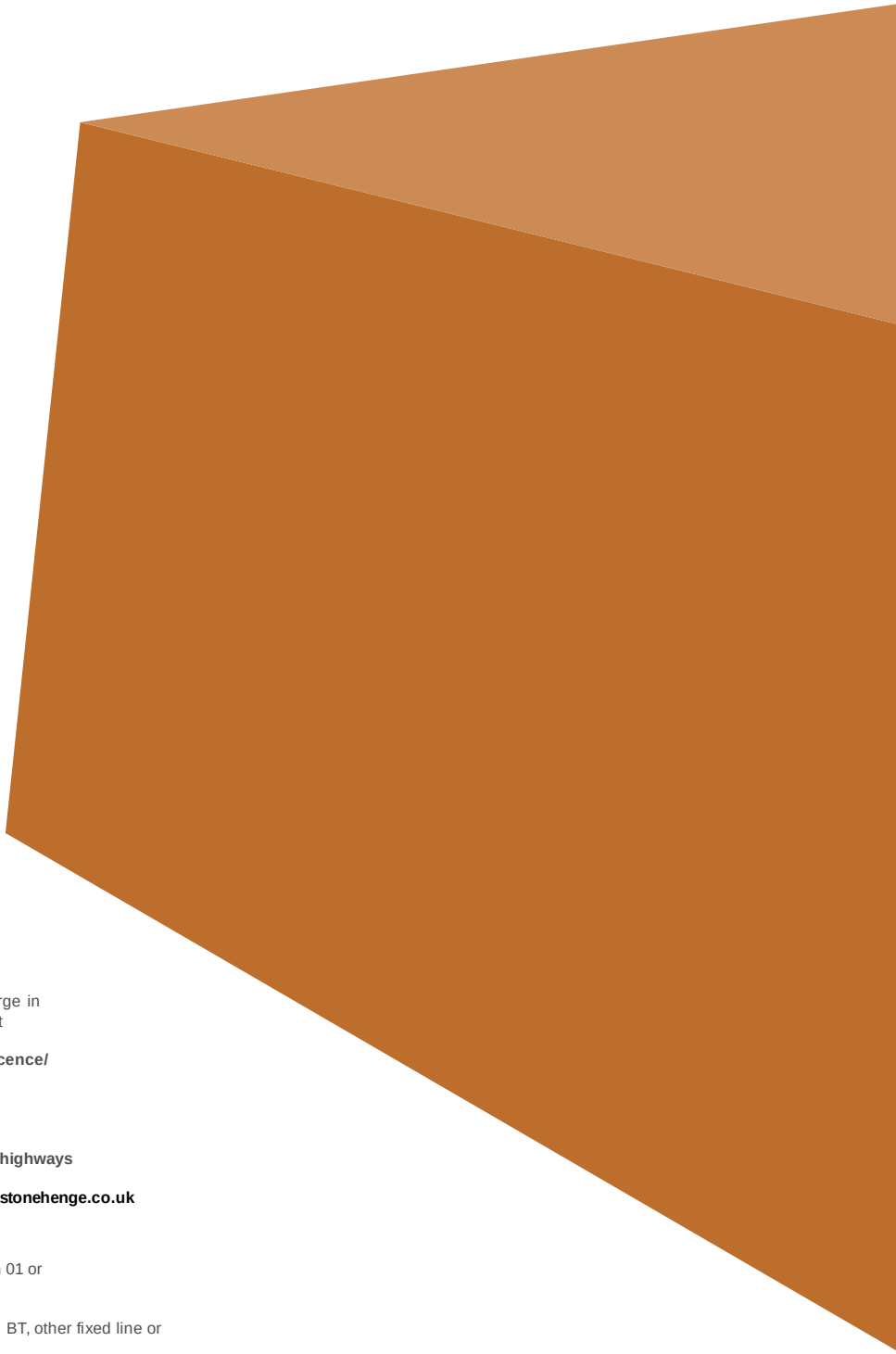

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