

A14

Cambridge to Huntingdon improvement scheme

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HE/A14/EX/21 Designation of the National Policy Statement for National Networks -

Update to the Case for the Scheme

APFP Regulation 5(2)(q)

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May 2015

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

**Designation of the National Policy Statement for National Networks -
Update to the Case for the Scheme (Document Reference HE/A14/EX/21).**

Following the designation of the National Policy Statement for National Networks ("the NPS") on 14 January 2015, the following updates apply to the Case for the Scheme (**Document 7.1**).

1. As the NPS has now been designated, sections 104(2) and (3) of the Planning Act 2008 (which require applications to be decided in accordance with a relevant NPS) apply to the application. Section 6.3 of the Case for the Scheme document should be read accordingly.
2. As has already been set out in Table 6.1 of the Case for the Scheme, the scheme is in conformity with the vision and strategic objectives set out in the NPS, but as referenced in paragraph 6.3.9 of the Case for the Scheme, a full assessment of how the scheme conforms with the NPS (including its assessment requirements) is now set out in the NPS Compliance Tracker appended to this document.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
2	THE NEED FOR DEVELOPMENT OF THE NATIONAL NETWORKS AND GOVERNMENTS 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.	<p>The needs of traffic growth on the network in the region of the A14 are set out in Sections 3.5 and 3.6 of the Transport Assessment (document ref 7.2).</p> <p>Chapter 3.1 of the Case for the Scheme (document ref 7.1) highlights economic growth as a key objective of the scheme, and this is detailed further in section 3.3 of the Case for the Scheme. Table 8.1 identifies how economic growth will be met and states that: "The scheme would improve the network along the A14 corridor to support local and regional growth (as analysed at sections 7 and 8.5 of the Transport Assessment, document ref 7.2) facilitating job creation. The scheme would also provide opportunities for further legacy benefits as to local economic growth and employment (see section 7.5 of the Case for the Scheme)". The resultant economic benefits are set out section 5 of the Case for the Scheme.</p>
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.	<p>The need to combat congestion is a key objective of the scheme as identified in section 3.1 in the Case for the Scheme (document ref 7.1). Congestion is addressed in detail within sections 2 and 3.2 of the Case for the Scheme and it is recognised that lack of journey time reliability and the impact of incidents are detrimental to the regional economy, as well as national operators who rely on the A14 as a strategic route between East Anglia and the Midlands.</p> <p>The ways in which congestion is addressed by the scheme is set out in table 8.1 in the Case for the Scheme which states that: The scheme has been designed to combat congestion and to provide a modern strategic high standard route with additional capacity and resilience. It achieves this by seeking to separate strategic through traffic and long distance commuters from local traffic and by the creation of additional lanes on the A14. The scheme provides for the free movement of strategic traffic by the use of modern grade separated junctions designed for that purpose. The route would benefit from increased resilience to incidents, as a consequence of the increase in number of lanes. The scheme has been designed to accommodate expected growth in traffic for up to 15 years after opening. All of this is evidenced by the forecasts in the Transport Assessment (document ref 7.2).</p> <p>The benefits of the scheme for quality of life are summarised in chapter 7 of the Case for the Scheme (document ref 7.10) and environmental factors are addressed in the Environmental Statement (document ref 6.1).</p>
2.4	The pressure on our networks is expected to increase even further as the long term drivers for demand to travel - GDP and population - are forecast to increase substantially over coming years. Under central forecasts, road traffic is forecast to increase by 30% and rail journeys by 40%, rail freight has the potential to nearly double by 2030.	<p>Chapter 2 of the Case for the Scheme (document ref 7.1) assesses the need for the scheme, considering existing issues as well as potential future issues. The needs of traffic growth on the network in the region of the A14 are set out in Sections 3.5 and 3.6 of the Transport Assessment. Notably, consideration is given to pressures arising as a consequence of predicted national and regional economic growth, together with associated growth in demand for housing. In the Department for Transport (DfT) report Road Transport Forecasts 2013 three key drivers for travel demand were identified as population growth, economic growth and fuel price/fuel efficiency.</p> <p>Section 2.3 of the Case for the Scheme references to the National Infrastructure Plan 2014 which estimates that 'by 2040 traffic in England will be between 27% and 57% higher than 2013 levels' and considers drivers for transport growth set out in the DfT Road Traffic Forecasts 2013.</p>
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.	<p>Chapter 3 of the Case for the Scheme (document ref 7.1) confirms one of the scheme's objectives as being to 'unlock growth: enabling major residential and commercial developments to proceed, leading to increased economic growth, regionally and nationally'. By improving efficiency of travel within the region, employers are better able to access a wider customer and employee base.</p> <p>Table 8.1 in the Case for the Scheme identifies how this objective will be met: Significant growth is forecast to occur in the Cambridge sub region as set out in sections 2.3 and 2.4 of the Case for the Scheme. If the A14 remains with the same levels of congestion and delay as set out in section 2.2 of the Case for the Scheme and resilience difficulties as set out in section 2.5 of the Case for the Scheme then that growth will be jeopardised. To allow that growth to occur investment in the transport network is vital.</p>
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.	As set out in the Environmental Statement Chapter 17 Road Drainage and Water (document ref 6.1) and Environmental Statement Appendix 17.1 Flood Risk Assessment (document ref 6.3) the scheme proposals have been designed against criteria set by, amongst others, the Environment Agency. This includes flood modelling to allow the sizing of river bridges and stream culverts (for example) to cater for extreme rainfall events, including additional allowance for climate change.

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2.8	There is also a need to improve the integration between the transport modes, including the linkages to ports and airports. Improved integration can reduce end-to-end journey times and provide users of the networks with a wider range of transport choices.	The A14 forms one of the country's strategic routes and is part of the Trans-European Transport Network; a transport network identified by the European Union as key to the efficient operation of businesses across and within country borders. It begins at Catthorpe near Rugby, where it connects with the M1 and M6 motorways, and continues east for approximately 209 km (130 miles) to the port town of Felixstowe. There it serves one of the largest container ports in Europe, and the biggest in Britain. As a key east-west route, it contributes to the connectivity of Birmingham, Coventry and East Midlands airports to the east and Stansted and Norwich airports to the west.
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 set out in Chapter 2 of the Case for the Scheme (document ref 7.1), the A14 has evolved over a prolonged period and through the connection of roads designed to meet local objectives, not those of the wider region. As a consequence the standard of design varies, with shortcomings in respect of current good practice. Under the scheme, by removing direct accesses and carrying out new works to current standards, safety would be improved. Approximately 30 km of new Non Motorised Users facilities would be provided as part of the scheme. Of this, over 12 km would be provided in a continuous facility. Two Non-Motorised Users bridges would also be provided and other Non-Motorised Users crossings provided. Full details of the Non-Motorised Users provision is set out at chapter 5 of the Transport Assessment (document ref 7.2) and Section 8 of the Case for the Scheme (document ref 7.1).
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.	Chapter 2 of the Case for the Scheme (document ref 7.1) sets out the need for the scheme and references key Government documents, including the National Infrastructure Plan 2014. It considers national, regional and local growth. It identifies issues experienced by the A14, both current as well as likely future issues based upon growth projections.
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.	As set out in the Transport Assessment (document ref 7.2) traffic counts carried out in 2014 by Highways England, assessing annual average daily traffic, identified that around 71,000 vehicles currently use the A14 between Swavesey and Bar Hill every day. This is forecast to rise to 86,000 vehicles per day by 2020, which is significantly above the design standard of 66,000 vehicles a day used when the road was built. Chapter 2 of the Case for the Scheme (document ref 7.1) sets out the need for the scheme and refers to the A14 Study, which identified that there is severe congestion at several sections and junctions of the A14 under normal conditions (i.e. during the typical day-to-day traffic conditions). Analysis during the morning and evening peak times showed that there are several locations where the average traffic speed is below 20mph.
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.	The A14 forms one of the country's strategic routes and is part of the Trans-European Transport Network; a transport network identified by the European Union as key to the efficient operation of businesses across and within country borders. Chapter 2 of the Case for the Scheme (document ref 7.1) sets out the need for the scheme and informs the scheme's objectives, set out in Chapter 3. These respond to needs at national, regional and local levels.
2.14	The Strategic Road Network, although only making up 2% of roads in England, carries a third of all road traffic and two thirds of freight traffic. Some 85% of the public use the network as drivers or passengers in any 12-month period. Even those that never drive on the Strategic Road Network are reliant on it to deliver many of the goods that they need.	The A14 trunk road provides a vital road transport corridor between the West Midlands and East Anglia and is of local, regional, national and international significance. The section of the route between Huntingdon and Cambridge carries a high level of commuter as well as long-distance traffic and, in addition, provides a strategic link between the A1 and the M11 motorway. It carries around 85,000 vehicles per day; it is frequently congested and traffic is often disrupted by breakdowns, accidents and roadworks. Chapter 2 of the Case for the Scheme (document ref 7.1) assesses traffic flows on the A14 and their impact on congestion and delay, as well as considering the impact of projected growth.

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2.16	<p>Traffic congestion constrains the economy and impacts negatively on quality of life by:</p> <ul style="list-style-type: none"> • 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. 	<p>Chapter 2 of the Case for the Scheme (document ref 7.1) sets out the need for the scheme and informs the scheme's objectives, set out in section 3. These are: to combat congestion, making the A14 more reliable and providing capacity for future growth; to unlock economic growth, both regionally and nationally; to improve local connectivity and improve the local network for all types of road-user; to improve safety for road-users and the community; and to recognise the wider benefits of road investment and leave a positive legacy in Cambridgeshire. The ways in which these objectives are addressed by the scheme are set out in table 8.1 in the Case for the Scheme.</p> <p>Chapter 7 of the Case for the Scheme addresses quality of life and paragraph 7.2.3 states that: "Five strands have been identified under the quality of life theme to which the scheme would contribute: opening up Huntingdon town centre; strong route-wide visual identity; green infrastructure; encouraging Non-Motorised Users and public transport; and community". Table 7.1 identifies the example of the physical legacy benefits.</p> <p>The Transport Assessment (document ref 7.2) assesses the impact of the scheme on the highway network, including routing through smaller communities.</p>
2.17	<p>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 estimated at £1.9 billion per annum.</p>	<p>Chapter 2 of the Case for the Scheme (document ref 7.1) assesses traffic flows on the A14 and their impact on congestion and delay, as well as considering the impact of projected growth. The A14 Study, referred to within the Case for the Scheme, identified that there is severe congestion at several sections and junctions of the A14 under normal conditions (i.e. during the typical day-to-day traffic conditions). Analysis during the morning and evening peak times showed that there are several locations where the average traffic speed is below 20mph.</p>
2.18	<p>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:</p> <ul style="list-style-type: none"> a. A 71% increase in the number of hours households spend delayed in traffic each year, from 45 hours in 2010 to 76 hours in 2040 b. A 150% increase in the number of working days lost to congestion each year (from 42 million in 2010 to 106 million in 2040). 	<p>Chapter 2 of the Case for the Scheme (document ref 7.1) assesses traffic flows on the A14 and their impact on congestion and delay, as well as considering the impact of projected growth. It references key strategic documents, including the National Infrastructure Plan and DfT Road Transport Forecasts. Chapters 6 and 7 in the Transport Assessment (document ref 7.2) take these matters into account.</p>
2.19	<p>Annex A demonstrates the current and forecast pressures on the road network in more detail. The maps in Annex A show that in general, pressure is likely to be greatest in and around areas of high population density and along key inter-urban corridors with high traffic volumes that support personal, commuting, business and freight movements. The maps are intended to illustrate congestion pressures across the Strategic Road Network, rather than provide exact locations of where development will be brought forward. Congestion is forecast to grow fastest on the Strategic Road Network.</p>	<p>Chapter 1 of the Case for the Scheme (document ref 7.1) describes the route: it extends from Ellington, on the western outskirts of Huntingdon, to Milton in the north east of Cambridge, and it includes both new highway construction and the widening and improvement of existing highways over a total length of 34 km (21 miles). Within Annex A of the NPS this section of the strategic network is identified as either regularly congested or severely congested.</p>
2.20	<p>Annex B sets out the Department's latest road traffic forecasts for all roads and the Strategic Road Network. Traffic forecasts are not a policy goal and do not in themselves generate a need for development - the need for development arises from the pressures created by increases in traffic. Increased traffic without sufficient capacity will result in more congestion, greater delays and more unpredictable journeys. As with the congestion forecasts, these traffic forecasts will change over time as our understanding improves and circumstances change. Updated forecasts will be published, generally on an annual basis. Local forecasts will be used for the assessment of any specific road scheme being assessed under the NN NPS.</p>	<p>Local traffic forecasts have been produced using a local transport model that has been produced in line with Department for Transport guidelines. Details are provided in the Transport Assessment (document ref 7.2). Predicted growth in the number of cars and other light vehicles is based on factors from the Trip End Model Presentation Program (TEMPro version 6.2, January 2013) in conjunction with the National Trip End Model (NTEM version 6.2, January 2013), which take account of forecast changes in population and employment across the UK. Predicted growth in goods vehicles has been based on the latest road transport forecasts, released in July 2013. This data provides the most up-to-date growth assumptions available endorsed by the Department for Transport at the time of preparing the application.</p>

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2	THE NEED FOR DEVELOPMENT OF THE NATIONAL NETWORKS AND GOVERNMENTS POLICY	
2.21	<p>There is a range of options to address the identified need. These options are described in more detail below. However, relying solely on alternatives (or a combination of alternatives as set out below) is not viable or desirable as a means of managing need.</p> <p>Maintenance and asset management A well maintained and managed national road network makes for safer roads with less congestion and ensures value for money on whole life costs. Maintenance and asset management are a high priority for funding and investment plans. However, they will do nothing to enhance capacity, tackle existing and future pressures on the network or unlock economic development and housing.</p> <p>Demand management Non-fiscal measures to influence the use of the national road network for journeys, including provision of information and traffic management are important. New technologies can also help improve and make more efficient use of capacity. However, demand management and technology can only make a contribution to alleviating the damaging effects of congestion across the network. Some areas have undertaken significant demand constraint measures or used smarter choices to reduce car use, which has resulted in reductions in urban traffic. However, this has not translated into significantly less pressure on the Strategic Road Network. The Government has ruled out the introduction of national road pricing to manage demand on the Strategic Road Network on deliverability and public acceptability grounds.</p> <p>Modal Shift Across Government, policies are being implemented and considered which encourage sustainable transport modes including public transport, significant improvements to rail capacity and quality, cycling and walking. However, it is not realistic for public transport, walking or cycling to represent a viable alternative to the private car for all journeys, particularly in rural areas and for some longer or multi-leg journeys. In general, the nature of some journeys on the Strategic Road Network means that there will tend to be less scope for the use of alternative transport modes. If rail use was to increase by 50% (in terms of passenger kilometres) this would only be equivalent to a reduction of 5% in all road use. If freight carried by rail was to increase by 50% (in terms of tonne kilometres) this would only be equivalent to a reduction of around 7% in goods carried by road.</p>	<p>Chapter 2 of the Case for the Scheme (document ref 7.1) highlights that the scheme has identified a need for the scheme based on a number of factors including high traffic flows leading to congestion and delay; national growth; local and regional growth; failure to meet current design standards, resilience to incidents and accidents; and environmental issues.</p> <p>As set out in the Case for the Scheme, the scheme is a development of the national road network that will support economic development and employment and will unlock and support housing. Beyond those matters, quality of life will separately be additionally improved by the benefits set out in Chapter 7 of the Case for the Scheme.</p> <p>As set out in section 2.1.5 of the Case for the Scheme, "The A14 Study (Department for Transport (DfT), December 2011) examined the transport issues current at the time on this section of the A14 corridor". In addition, Section 4.3.1 states that "The A14 Study also identified and appraised a range of potential multi-modal measures that included both public transport and rail freight measures, as well as highways measures". The scheme will improve the A14 and also provide alternative and inclusive methods of travel and is part of the wider package of transport measures set out in the Cambridge to Huntingdon Multi-Modal Study (CHUMMS).</p>
2.22	<p>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.</p>	<p>As set out in the Case for the Scheme (document ref 7.1), the scheme is a development of the national road network that will support economic development and employment and will unlock and support housing. Beyond those matters, quality of life will separately be additionally improved by the benefits set out in Chapter 7 of the Case for the Scheme.</p>
2.23	<p>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:</p> <ul style="list-style-type: none"> • 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 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. 	<p>The scheme incorporates variable message signing, lane control signing and an incident detection system. These will assist with the efficient flow of traffic as well as reduce the impact of incidents through early warning and lane control. The scheme involves widening of the A1 from the existing two lane dual carriageway to a three lane dual carriageway to increase capacity and improve performance.</p>
2.24	<p>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').</p>	<p>As set out in the Chapters 2 and 3 of the Case for the Scheme (document ref 7.1) the scheme tackles a number of issues other than just meeting future growth, including combatting severe peak-hour congestion and delay on the A14 with knock on effects on the adjacent network as people seek alternative routes; catering for a high proportion of heavy goods vehicles (significantly above the national average for a trunk road); high traffic flows significantly above the designed capacity of the road; making the A14 more reliable and resilient, improving local connectivity; improving the local network for all types of road-user; and improving safety for road-users and the community, particularly by removing the large number of direct local accesses and side roads.</p>

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2.25	<p>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.</p>	<p>One of the objectives of the scheme, set out in section 3 of the Case for the Scheme (document ref 7.1), is to place the right traffic on the right roads, freeing up local capacity for all types of road user, including pedestrians, cyclists and equestrians. This is achieved by combining improvements to the trunk road with improvement and extension of the local road network. Together these improvements benefit strategic users passing through the region as well as local users travelling shorter distances. The de trunked section of the A14 combined with improved local access roads provides opportunities for enhancing public transport in locations accessible to users.</p> <p>As set out in section 2.1.5 of the Case for the Scheme, "The A14 Study (Department for Transport (DfT), December 2011) examined the transport issues current at the time on this section of the A14 corridor". In addition, Section 4.3.1 states that "The A14 Study also identified and appraised a range of potential multi-modal measures that included both public transport and rail freight measures, as well as highways measures". The scheme will improve the A14 and also provide alternative and inclusive methods of travel and is part of the wider package of transport measures set out in the Cambridge to Huntingdon Multi-Modal Study (CHUMMS).</p>
2.26	<p>As stated above, measures to influence the use of the national road network for journeys - including provision of information and traffic management - can play an important part in the delivery of policy objectives, but the effectiveness will vary depending on location. Also, in most cases such measures will not by themselves be a total solution to transport problems on the Strategic Road Network. Widespread demand constraint, involving further costs to motorists, is not current Government policy.</p>	<p>The scheme incorporates variable message signing and an incident detection system. These will assist with the efficient flow of traffic as well as reduce the impact of incidents to oncoming traffic through early warning. Demand constraint mechanisms, such as tolling, are not part of the scheme proposals.</p>
2.27	<p>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.</p>	<p>Chapter 4 of the Case for the Scheme (document ref 7.1) sets out how the scheme has been developed over time and the key options that have been considered. Under the A14 Study, a long-list of 125 options was prepared, which included on-line widening of the existing trunk road, off-line highway improvements including northern and southern bypasses of Huntingdon and a southern bypass of Cambridge, junction modifications, public transport improvements, rail freight improvements, and travel demand management schemes.</p> <p>Based on the findings set out in the Transport Assessment (document ref 7.2) in order to meet the need for the scheme, the scheme requires a new alignment and corresponding links to create extra capacity and connectivity.</p>

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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.	<p>A comprehensive environmental impact assessment has been carried out, together with proposals for mitigation of likely significant environmental effects arising from the scheme. This is reported in the Environmental Statement (document refs 6.1 - 6.4). Environmental benefits have also been considered during the scheme design process, and have been incorporated where practicable. Significant environmental and quality of life benefits include removal of the Huntingdon rail viaduct, dedicated Non-Motorised Users crossings of the A14 at Swavesey and Bar Hill, provision of a local access road with dedicated cycle lane between Fen Drayton and Girton, and incorporation of noise barriers to deal with Noise Action Planning Important Areas. These benefits are set out in the Case for the Scheme (document ref 7.1).</p> <p>Chapter 14 (Noise and Vibration) of the Environmental Statement, notes that noise improvements result from the provision of a number of noise barriers along the modified sections of the existing A1 and A14, including the Cambridge Northern Bypass. Existing noise barriers would be enhanced by the scheme at a number of locations, particularly at Girton and Impington. During operation, over 2,900 dwellings along the existing A14 corridor through Huntingdon, Godmanchester and Fenstanton and many sensitive non-residential facilities, including Hinchingbrooke Hospital, Stukeley Meadow Primary School and Hemingford Nursery School would benefit from noise reductions as a result of the scheme. This greatly exceeds the 330 dwellings that would experience an increase in noise.</p>
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 reasonable opportunities to deliver environmental and social benefits as part of schemes. The Government's detailed policy on environmental mitigations for developments is set out in Chapter 5 of this document.	Each chapter of the Environmental Statement (document ref 6.1) sets out how environmental impacts of the scheme would be mitigated, in line with current relevant guidance and accepted principles. Reasonable opportunities for environmental and social benefits have also been considered as part of the EIA process, and would also be an ongoing aim of the detailed design process to deliver environmental and social benefits.
3.4	The Appraisal of Sustainability accompanying this NPS recognises that some developments will have some adverse local impacts on noise, emissions, landscape/visual amenity, biodiversity, cultural heritage and water resources. The significance of these effects and the effectiveness of mitigation is uncertain at the strategic and non-locationally specific level of this NPS. Therefore, whilst applicants should deliver developments in accordance with Government policy and in an environmentally sensitive way, including considering opportunities to deliver environmental benefits, some adverse local effects of development may remain.	Each chapter of the Environmental Statement (document ref 6.1) sets out how environmental impacts of the scheme would be mitigated, in line with current relevant guidance and accepted principles, and identifies any remaining adverse impacts. Reasonable opportunities for environmental and social benefits have also been considered as part of the EIA process, and would also be an ongoing aim of the detailed design process.
3.5	Outside the nationally significant infrastructure project regime, Government policy is to bring forward targeted works to address existing environmental problems on the Strategic Road Network and improve the performance of the network. This includes reconnecting habitats and ecosystems, enhancing the settings of historic and cultural heritage features, respecting and enhancing landscape character, improving water quality and reducing flood risk, avoiding significant adverse impacts from noise and vibration and addressing areas of poor air quality.	Wider Government policy in relation to specific environmental topics is addressed in the introductions for each Environmental Statement (document ref 6.1) chapter. The chapters that consider the environmental issues mentioned in para 3.5 of the NPS are: Chapters 11 Nature Conservation, Chapter 9 Cultural Heritage, Chapter 10 Landscape, Chapter 17 Road Drainage and the Water Environment, Chapter 14 Noise and Vibration and Chapter 8 Air Quality. Particular environmental benefits of the scheme itself are set out in Chapter 7 of the Case for the Scheme (document ref 7.1).
	Emissions	
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.	<p>Environmental Statement (document ref 6.1) Chapter 8 Air Quality, paragraph 8.5.57 states that the increase in emissions, for each assessed pollutant on a regional scale, as a result of the scheme is 0.01% or less of national emission totals.</p> <p>The findings of the Carbon Assessment (ES Appendix 13.2 document ref 6.3) indicate that the footprint of the construction phase of the scheme would be approximately 981,432 tonnes of CO2e, 1% of the annual emissions of the UK's construction industry, which emits approximately 101.1m tonnes of carbon dioxide equivalent gases (2011 data, ONS). Operationally, the assessment finds an increase of 34,263 tonnes per year of CO2 emissions between the do-minimum and do-something scenarios in 2020. This is estimated to rise to a difference of 68,238 tonnes per year of CO2 in 2035. To put these values into context: the annual road transport emissions for Cambridgeshire, as estimated through traffic levels, were 1,784ktCO2 in 2012 (DECC, 2014). Therefore the calculated increases in the do-something scenario for 2035 are roughly equivalent to 3.8% of Cambridgeshire's current road transport emissions.</p> <p>Chapter 6 of Appendix 13.2 Carbon Assessment sets out interventions during operation. An assessment against the government's Carbon Budgets was not set out in appendix 13.2 as this was not a requirement at the time the ES was completed. An assessment is currently underway and a full report will be provided in due course. The initial view is that the scheme impact will not compromise achievement of the national Carbon Budget.</p>

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
3	WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS	
3.8	<p>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:</p> <ul style="list-style-type: none"> • Carbon - the annual CO2 impacts from delivering a 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. 	<p>Environmental Statement (document ref 6.1) Chapter 8 Air Quality, paragraph 8.5.57 states that the scheme results in an increase in emissions, including greenhouse gas emissions represented by assessed CO2 emissions, on a regional scale. Factors that contribute towards the increase in emissions are the change in vehicle kilometres travelled, as the scheme is longer than the existing route, and the improvement of capacity along the network allowing greater volumes of traffic to travel through the scheme area as a result of the scheme. The likely magnitude of change to NOx and PM10 and greenhouse gas emissions on a regional scale would be negligible. The increase in emissions, for each assessed pollutants as a result of the scheme is 0.01% or less of national emission totals. The operational CO2 emissions from the scheme equate to approximately 0.01% of the total provided for in the Carbon Budget for 2023 -27.</p>
Safety		
3.10	<p>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 to 4.66, scheme promoters are expected to take opportunities to improve road safety, including introducing the most modern and effective safety measures where proportionate.</p>	<p>Achievement of the safety objectives for the scheme will contribute to the Department for Transport, Highways England and Cambridgeshire County Council Road Safety Targets - safety baselines and objectives are set out in the scheme Safety Plan - a Safety Management System (category B) has been selected, and a Project Safety Control Review Group set up. The Safety Plan and Report cover road user and road worker safety. Safety requirements carried forward from activities required by the SMS are listed in the Safety Report. A monitoring process for achievement of safety objectives is identified in the Safety Plan and Safety Report.</p> <p>Chapter 8 of the Case for the Scheme (document ref 7.1) sets out the ways in which road safety will be improved and this includes the following:</p> <p>"Due to the road's increased capacity, there would be reduced driver stress and the A14 would also be more resilient when accidents do occur, leading to less disruption on the network.</p> <p>By providing alternative routes for local traffic, removing direct accesses and by constructing grade separated junctions there would be less mixing of different types of road user. This would reduce risk of accident, making the network safer for all road users.</p> <p>The relocation of bus stops from the A14 to the local access road and the provision of segregated routes for Non-Motorised Users would also contribute to improved safety".</p> <p>Chapter 4 of the Transport Assessment (document ref 7.2) considers road safety benefits of the project. The Transport Assessment covers a wide network area, and has identified an overall net safety benefit across that wider network.</p>
Technology		
3.14	<p>Innovative transport technologies have the potential to revolutionise the way we travel, improving the safety and reliability of journeys, while reducing costs and environmental impacts. The Government will continue to monitor the potential benefits and risks associated with new and emerging technologies, working with industry to enable innovation and support new technologies that have the potential to improve transport as these developments come forward. Whilst advances in technology are important, they are not expected, in the foreseeable future, to have a significant impact on the need for development of the national networks. We need to address current congestion pressures and this will include utilising current technology. However future uncertainty means it is difficult to predict exactly how much of an impact new technology will have over the coming decades.</p>	<p>Chapter 3 of the Environmental Statement (document ref 6.1) section 3.6 identifies various innovative transport technologies to ensure users are better informed and make safer, more coordinated, and 'smarter' use of the transport network. These include a signage and gantry strategy, motorway incident detection and automatic signalling, closed circuit television and emergency roadside phones.</p>
Sustainable Transport		

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
3	WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS	
3.15	The Government is committed to providing people with options to choose sustainable modes and making door-to-door journeys by sustainable means an attractive and convenient option. This is essential to reducing carbon emissions from transport.	
3.16	As part of the Government's commitment to sustainable travel it is investing in developing a high-quality cycling and walking environment to bring about a step change in cycling and walking across the country.	Chapter 15 Effects on All Travellers of the Environmental Statement (document ref 6.1) notes that the scheme includes local access roads and Non-Motorised Users routes to support travel on foot, by bicycle and by bus. The segregation of shared use pedestrian/cyclist routes from other road traffic will make journeys more attractive and convenient. The assessment in chapter 15 predicts major beneficial effects for pedestrians and cyclists in some areas (notably Brampton, Swavesey - Girton) as a result of implementing the scheme. The scheme includes extensive new provision for walking and cycling. In addition, historic severance is addressed through new provision at Brampton across the A1 and improved access across the existing A14. The effects of this are captured in Chapter 15 of the Environmental Statement. Chapter 7 'A Positive Legacy' in the Case for the Scheme (document ref 7.1) which sets out the Non Motorised User facilities and Chapter 5 of the Transport Assessment (document ref 7.2) which sets out sustainable modes of 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 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.	Chapter 15 Effects on All Travellers of the Environmental Statement (document ref 6.1) notes that the scheme includes local access roads and Non-Motorised Users routes to support travel on foot, by bicycle and by bus. The segregation of shared use pedestrian/cyclist routes from other road traffic will make journeys more attractive and convenient. The assessment in chapter 15 predicts major beneficial effects for pedestrians and cyclists in some areas (notably Brampton, Swavesey - Girton) as a result of implementing the scheme. The scheme includes extensive new provision for walking and cycling. In addition, historic severance is addressed through new provision at Brampton across the A1 and improved access across the existing A14. The effects of this are captured in Chapter 15 of the Environmental Statement. Chapter 7 'A Positive Legacy' in the Case for the Scheme (document ref 7.1) sets out the Non Motorised User facilities and Chapter 5 of the Transport Assessment (document ref 7.2) which sets out sustainable modes of transport.
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.	Chapter 15 Effects on All Travellers of the Environmental Statement (document ref 6.1) notes that the scheme includes a shared Non-Motorised Users route which will improve access to bus stops for people with disabilities. Furthermore, there is provision for pedestrians and cyclists over new bridges. Ramps are provided in place of, or in addition to, steps. Chapter 7 'A Positive Legacy' in the Case for the Scheme (document ref 7.1) sets out the Non Motorised User facilities. Chapter 5 of the Transport Assessment (document ref 7.2) sets out sustainable modes of transport. The scheme will improve the A14 and also provide alternative and inclusive methods of travel and is part of the wider package of transport measures set out in the Cambridge to Huntingdon Multi-Modal Study (CHUMMS).
3.20	<p>The Government's strategy for improving accessibility for disabled people is set out in Transport for Everyone: an action plan to improve accessibility for all. In particular:</p> <ul style="list-style-type: none"> • The Government will continue to work to ensure that the bus and train fleets comply with modern access standards by 2020, and to improve rail station access for passengers with reduced mobility. The private car will continue to play an important role, providing disabled people with independence where other forms of transport are not accessible or available. • 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 will improve the resilience of the A14, providing a more reliable route for disabled persons using private cars. In addition as set out in Chapter 15 Effects on All Travellers of the Environmental Statement (document ref 6.1), the scheme includes a shared Non-Motorised Users route which will improve access to bus stops for people with disabilities. Furthermore, the provision for pedestrians and cyclists over new bridges will provide for better accessibility for disabled users. Ramps are provided in place of, or in addition to, steps. Chapter 7 'A Positive Legacy' in the Case for the Scheme (document ref 7.1) sets out the Non Motorised User facilities and Chapter 5 of the Transport Assessment (document ref 7.2) sets out sustainable modes of transport.
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.	See above.

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3	WIDER GOVERNMENT POLICY ON THE NATIONAL NETWORKS	
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.	<p>Paragraphs 3.4.7 and 3.4.8 and table 7.1 of the Case for the Scheme (document ref 7.1) addresses severance and identifies that:</p> <p>"The de-trunking of the existing A14 from Fen Drayton to Brampton Hut would provide an important opportunity to re-integrate communities such as Fenstanton and Hemingford which for many years have been separated by a busy through road.</p> <p>The bridge that carries the A14 over the East Coast Mainline, close to Huntingdon station would be removed in its entirety once the Huntingdon southern bypass is complete. This structure creates severance within Huntingdon and, as a result of recent essential maintenance work, imposes a height restriction on vehicles passing beneath it to access the town centre and the railway station. The new road network to be created would improve connectivity within the town and the environment in this location would improve due to a reduction in traffic".</p> <p>Paragraph 16.6.12 Chapter 16 Community and Private Assets of the Environmental Statement (document ref 3.1) states that, in general, settlements along online portions of the scheme are not likely to experience additional adverse effects. Settlements along the offline portions to the north of the scheme are also unlikely to experience significant adverse effects as access to the larger community of Huntingdon is not compromised, while settlements to south are also unlikely to experience significant adverse effects due to the provision of overpasses.</p> <p>Table 16.14 in Chapter 16 of the Environmental Statement provides a summary of effects on community severance.</p>

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
4	ASSESSMENT PRINCIPLES	
	General Principles of Assessment	
4.3	<p>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:</p> <ul style="list-style-type: none"> 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. 	<p>The Case for the Scheme (document ref 7.1) sets out the scheme's objectives and the benefits that the scheme would bring. The scheme objectives are to:</p> <ul style="list-style-type: none"> combat congestion: making the route between Huntingdon and Cambridge more reliable and providing capacity for future traffic growth; unlock growth: enabling major residential and commercial developments to proceed, leading to increased economic growth, regionally and nationally; connect people: by placing the right traffic on the right roads and freeing up local capacity for all types of road user, including pedestrians, cyclists and equestrians; improve safety: designing the proposed scheme to modern highway standards, introducing better lane control, and providing adequate capacity for predicted traffic levels; and create a positive legacy: recognising the wider benefits of the road improvement scheme for local communities and businesses. <p>An Environmental Impact Assessment has been undertaken. The findings of this assessment are reported in the Environmental Statement (document ref 6.1). The Environmental Statement identifies potential adverse and beneficial impacts, including cumulative impacts and recommends mitigation for identified adverse impacts.</p> <p>An assessment of the business Case for the Scheme document has been undertaken in accordance with the guidance set in the Highways Agency's Major Projects Project Control Framework (PCF) and Department for Transport's guidance on the assessment of major investments. The Case for the Scheme (document ref 7.1) summarises the business case and confirms the economic Case for the Scheme (Section 5 Economic Case) as being sound, with the scheme benefits outweighing the scheme costs, as well as confirming how the overall benefits of the scheme outweigh any adverse impacts.</p>
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 (document refs 6.1 to 6.5) reports on the Environmental Impact Assessment, which has been carried out with consideration for potential effects at national, regional and local levels.
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 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.	Chapter 5 of the Case for the Scheme (document ref 7.1) outlines the economic assessment of the scheme; it presents the anticipated benefits and dis-benefits associated with the scheme and the scheme's overall value for money. The Transport Assessment (document ref 7.2) provides key information on the highway network and has informed the economic Case for the Scheme document. The economic Case for the Scheme for the scheme concludes that it provides high value for money.
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.	<p>A local transport model has been produced in line with Department for Transport guidelines. Details are provided in the Transport Assessment (document ref 7.2).</p> <p>In addition to the 'core' scenario, sensitivity testing, in accordance with Department for Transport guidance, has been undertaken to assess the impact of the following:</p> <ul style="list-style-type: none"> a high growth scenario a low growth scenario <p>A programme of sensitivity tests has been undertaken in order to support the use of the traffic model and provide a range of sensitivities around the proposed scheme traffic forecasts as well as economic, environmental and operational appraisal. Additional sensitivity testing has included a test to assess the impact of full build-out (10,000 dwellings) of the proposed Northstowe development.</p>
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 (document ref 3.1) includes suggested draft necessary and relevant 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.	We do not at this stage anticipate the need for and have not proposed any legal obligations or associated legal agreements.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
4	ASSESSMENT PRINCIPLES	
4.12	In considering applications for linear infrastructure, decision-makers will need to bear in mind the specific conditions under which such developments must be designed. The generic impacts section of this NPS has been written to take these differences into account.	This is considered in relation to each condition set out below.
4.13	This NPS does not identify locations at which development of the road and rail networks should be brought forward. However, the road and rail networks provide access for people, business and goods between places and so the location of development will usually be determined by economic activity and population and the location of existing transport networks.	The Case for the Scheme (document ref 7.1) includes details in Chapter 2 on the need for the scheme with reference to economic activity and population and the location of existing transport links. The scheme involves the upgrade and enhancement of the existing A14 and as such, by definition is located in the corridor of that existing transport network.
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, 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.	The DCO is accompanied with an Environmental Statement (document ref 6.1 - 6.5) of which the scope and contents address the requirements of the European Union's Environmental Impact Assessment Directive.
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 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.	Chapter 18 of the Environmental Statement (document ref 6.1) 'Cumulative Effects and Impact Interactions' provides an assessment of the likely significant effects of the scheme in combination with other past, present and reasonably foreseeable development, as well as impact interactions. Past and present development is considered as part of the baseline and in some cases reflects the sensitivity of the receptors assessed. The developments considered in the assessment include those recommended for inclusion by the local planning authorities. Account is taken of the European Commission's 'Guidelines on the Assessment of Cumulative Impacts as well as Impact Interactions' (1999) as well as the Planning Inspectorate's Advice Note 9 'The Rochdale Envelope'. One of the key impact interactions identified is how impacts upon noise, air quality, physical activity etc. would interact to affect human health. This is assessed further in Environmental Statement Appendix 18.1 (document ref 6.3) which presents an assessment of impacts on human health. The assessment of human health has been prepared in consultation with local public health directors for South Cambridgeshire and Huntingdonshire District Council.
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 18 of the Environmental Statement (document ref 6.1) 'Cumulative Effects and Impact Interactions' considers all the identified residual effects of the scheme which have been assessed as greater than negligible. It therefore includes an assessment of how "slight" effects, which are not considered significant in terms of the project itself, might combine with "slight" effects of other projects to cause a significant cumulative effect. The results of the assessment indicate that most of the effects of other projects tend to be quite isolated from the scheme effects (either geographically or temporally), such that they are not likely to give rise to significant cumulative effects. However significant beneficial cumulative effects have been identified for the promotion of active travel. This is because the proposed Non-Motorised Users route that forms part of the scheme links with proposals for Non-Motorised Users routes for some of the other reasonably foreseeable development. The loss of agricultural land was assessed as a major adverse effect of the scheme, and also a major adverse effect in combination with other projects. Other significant cumulative effects predicted in Chapter 18 includes the urbanisation of the landscape (major adverse), disruption during construction (moderate adverse), reduced severance (moderate beneficial) and improved sense of place in Huntingdon (moderate beneficial).
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.	Environmental Statement (document ref 6.1) Chapter 3 Description of the Scheme and Chapter 4 Main Alternatives provides a summary of the scheme design.
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.	The approach to assessment is set out in Chapter 6 'Approach to the EIA' of the Environmental Statement (document ref 6.1). The assessment is based on the likely worst case scenario.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
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 application to change the consent may need to be accompanied by environmental information to supplement that which was included in the original environmental statement.	The draft requirements make provision where appropriate for consideration of elements of the detailed design of the project
Habitats Regulations Assessment		
4.22	Prior to granting a Development Consent Order, the Secretary of State must, under the Habitats Regulations, consider whether it is possible that the project could have a significant effect on the objectives of a European site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects. Applicants should also refer to paragraphs 5.20 to 5.38 of this national policy statement on biodiversity and geological conservation and to paragraphs 5.3 to 5.15 on air quality. 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.	
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.	A full assessment of implications for European sites concluding no likely significant effects is provided in Appendix 11.12 of the Environmental Statement (document ref 6.3). The report contains details of the ongoing consultation with Natural England.
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.	
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.	
Alternatives		
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: <ul style="list-style-type: none"> • 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 4 of the Case for the Scheme (document ref 7.1) sets out the issues that the scheme seeks to address and options considered before arriving at the preferred option, as detailed within the application. In considering options, the degree to which alternative modes of transport could address issues was considered, notably within the Cambridge to Huntingdon Multi Modal Study. The study considered improvements to public transport and rail networks and concluded that a combination of improvements to road, rail and public transport was needed to address issues. Chapter 4 of the Environmental Statement (document ref 6.1) sets out the main alternative scheme options that have been considered during development of the A14 Cambridge to Huntingdon improvement scheme. The options, key environmental issues and the reason for the decision are set out in table 4.1.
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.	Chapter 4 of the Case for the Scheme (document ref 7.1) sets out the development of the scheme and options considered. Chapter 4 of the Environmental Statement (document ref 6.1) sets out the main alternative scheme options that have been considered during development of the A14 Cambridge to Huntingdon improvement scheme. The options, key environmental issues and the reason for the decision are set out in table 4.1.
Criteria for 'good design' for National Network Infrastructure		

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4	ASSESSMENT PRINCIPLES	
4.28	Applicants should include design as an integral consideration from the outset of a proposal.	The Case for the Scheme (document ref 7.1) sets out how the design process was conducted and the design evolved. In particular, chapter 4 of the Case for the Scheme describes the scheme development and options considered. The Consultation Report (Document ref 5.0) sets out further design changes carried out as a result of consultation.
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.	<p>Environmental Statement (document ref 6.1) Chapter 13 Materials identifies that assessment tools have been used on the project, including CEEQUAL and Arup's SPeAR tool, to inform decision-making in the incorporation of sustainability measures into the design. Sustainability considerations will inform material selection, energy use and the use of natural resources.</p> <p>The Scheme and environmental mitigation proposals were designed with reference to guidelines in DMRB Volume 10 Environmental Design and Management. The engineering teams designed for aesthetic appearance as well as function and cost. In addition design options for structures and drainage, and route options for road design were assessed by Jacobs environmental specialists including the landscape team. They commented on aesthetic appearance as well as other qualities/effects and their recommendations informed the design choices. Landscape mitigation was designed not just to mitigate for or replace landscape features that would be lost and provide screening in affected views, but also for bio-diversity, for suitability in the landscape context, and for its own aesthetic qualities including variety of appearance in local views, and for sequential variety and contrast when viewed by travellers.</p>
4.30	It is acknowledged however, that given the nature of much national network infrastructure development, particularly SRFIs, there may be a limit on the extent to which it can contribute to the enhancement of the quality of the area.	Noted
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.	The design mitigation proposals outlined within the Environmental Statement (document ref 6.1) Chapter 3 Description of the Scheme endeavour to improve operational conditions and minimise adverse impacts where practicable. The Intelligent Transport System strategy and provision is designed to improve operational safety and resilience. Safety mitigation is provided through the safety management system, road safety audit and risk analysis of features against maintenance strategy, road user safety, operational safety and road worker safety.
4.32	Scheme design will be a material consideration in decision making. The Secretary of State needs to be satisfied that national networks infrastructure projects are sustainable and as aesthetically sensitive, durable, adaptable and resilient as they can reasonably be (having regard to regulatory and other constraints and including accounting for natural hazards such as flooding).	The design mitigation proposals outlined within the Environmental Statement (document ref 6.1) endeavour to improve operational conditions and minimise adverse impacts where practicable. The environmental design is described in Chapter 3 with topic specific mitigation described within the discipline chapters.
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.	The scheme has been designed to meet the project's objectives which include both functionality (reduce congestion, increase journey reliability) and aesthetic requirements (assessed as part of the environmental statement). The use of technology is an integral part of the scheme proposals. A consortium of Jacobs, Arup and Aecom has designed the scheme (ensuring good design principles are embedded into infrastructure proposals) and Highways England have reviewed the scheme. Furthermore, wide consultation has been carried out with statutory and non-statutory stakeholders (e.g. Cambridgeshire County Council, district and parish councils, Environment Agency, Natural England, Network Rail).

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4.34	<p>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.</p>	<p>Chapter 6 (Approach of the EIA) states in paragraph 6.2.5 that a key purpose of the EIA is to feed into the design process, in order to:</p> <ul style="list-style-type: none"> - facilitate the consideration of likely significant environmental effects and opportunities in the development of the design of the scheme; - enable the avoidance or reduction of likely significant adverse environmental effects through design, and the identification of environmental mitigation measures where required; and - identify opportunities for environmental improvements. <p>The EIA and design processes operate iteratively and in parallel. As likely environmental effects are recognised during the development of a design, the design can be adjusted to reduce the effects. Similarly, as the design evolves, the scope of environmental studies and the assessment of likely effects also evolves.</p> <p>The Case for the Scheme (document ref 7.1) sets out how the design process was conducted and the design evolved. In particular, chapter 4 of the Case for the Scheme describes the scheme development and options considered.</p> <p>The following chapters of the Environmental Statement (document ref 6.1) identify design and mitigation measures in relation to landscape and historical character and function, landscape permeability, landform and vegetation:</p> <ul style="list-style-type: none"> - Chapter 9: Cultural Heritage - Chapter 10: Landscape - Chapter 11: Nature Conservation - Chapter 12: Geology and Soils - Chapter 13: Materials - Chapter 17: Road drainage and the Water Environment <p>The Consultation Report (document ref 5.0) sets out further design changes carried out as a result of consultation.</p>
4.35	<p>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 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.</p>	<p>The Case for the Scheme (document ref 7.1) sets out how the design process was conducted and the design evolved. In particular, chapter 4 of the Case for the Scheme describes the scheme development and options considered. The Consultation Report (document ref 5.0) sets out further design changes carried out as a result of consultation. The evolution of the proposed design is described in the paragraphs above, including safety aspects at paragraph 3.10.</p>
Climate Change Adaptation		
4.36	<p>Section 10(3)(a) of the Planning Act requires the Secretary of State to have regard to the desirability of mitigating, and adapting to, climate change in designating an NPS.</p>	<p>The effects of climate change have been discussed with the Environment Agency and parameters agreed and built into the flood modelling (forming the basis of the Flood Risk Assessment). The Scheme design, in terms of flood risk mitigation proposals, accommodates the parameters required for the predicted effects of climate change.</p> <p>Climate change will result in a range of changes to the distribution and abundance of ecological features at a national scale (some beneficial and some adverse). Adaptation to these changes requires the protection of ecologically diverse sites and an increase in semi natural habitats and connectivity between them to facilitate successful adjustments of the range of species. Chapter 11 of the Environmental Statement demonstrates that the scheme protects all designated sites and provides a net increase in semi natural habitats and connectivity.</p> <p>The potential impacts of climate change on highway surfacing would influence the choice of surfacing composition in the detailed design but this is not critical in terms of the overall scheme design as periodic resurfacing would take place throughout the life of the scheme, allowing adaptations to be made if necessary.</p>

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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.	<p>Chapter 11 Nature Conservation of the Environmental Statement (document ref 6.1) identifies that climate change will result in a range of changes to the distribution and abundance of ecological features at a national scale (some beneficial and some adverse). Adaptation to these changes requires the protection of ecologically diverse sites and an increase in semi natural habitats and connectivity between them to facilitate successful adjustments of the range of species. Chapter 11 demonstrates that the scheme protects all designated sites and provides a net increase in semi natural habitats and connectivity.</p> <p>Environmental Statement Appendix 17.1 Flood Risk Assessment (document ref 6.3) confirms in paragraph 1.8.12 that the assessment of scheme impact has also considered the impact of climate change. In accordance with Environment Agency guidance to support the NPPF (2012) based on the output of the UK Climate Projections 2009 (CP09), peak 1% (1 in 100) Annual Exceedance Probability (AEP) flows in the fluvial models have been increased by 20% to accommodate uncertainty of the impact of climate change. Rainfall intensities for the drainage design have been increased by 20% for the 1% (1 in 100) AEP event based on a 60-year design life for the drainage infrastructure. In the event that the anticipated design life expectancy of the drainage exceeds year 2085 then further consultations with the Environment Agency and Cambridgeshire County Council (as the Lead local Flood Authority) shall be undertaken and a 30% climate change allowance shall be required. This approach was agreed with the Environment Agency through the Design Input Statement.</p> <p>Chapter 17 Road Drainage and the Water Environment of the Environmental Statement (document ref 6.1) states that mitigation for the operational phase would be provided by Sustainable Drainage Systems (SuDS), designed to manage flood risk and improve water quality. With these measures in place effects during scheme operation would range from neutral to slight adverse for all individual watercourses including the allowance for climate change referred to above. The scheme would be slightly beneficial to water quality in the river Great Ouse catchment as it would provide attenuation and treatment of road runoff for the existing road network where none currently exists.</p> <p>Table 7.1 in Chapter 7 of the Case for the Scheme (document ref 7.1) identifies the following green infrastructure to be provided as part of the scheme:</p> <ul style="list-style-type: none"> - Habitat creation and trees planted: Net gain (c271Ha) in more valuable semi-natural habitats, improvements in habitat connectivity, e.g. for dormice at Brampton Wood SSSI. - Borrow pits: Locally enhanced environs for Public Rights of Way. Habitat resilience where in close proximity to areas managed for wildlife. - 12km Non-Motorised Users facility (shared cycleway/footway) from Fenstanton to Girton alongside local access road: Linear corridor introducing new landscape treatments and habitat connectivity benefiting wildlife. - West Brook: Channel and alignment diversification enhancements alongside Potton Road improve diversity of habitat. - Removal of existing A14 and embankments across the area of grazing land known as Views Common: Return of area to grassland/planting, severance of area reduced, enhanced sense of place.
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 Flood Risk Assessment in the Environmental Statement Appendix 17.1 (doc ref 6.3) and Environmental Statement (doc ref 6.1). Chapter 17 on Road Drainage and the Water Environment sets out how the proposal takes account of predicted impacts of climate change.
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.	Flood Risk Assessment Appendix 17.1 in the Environmental Statement (document ref 6.3) refers specifically to the allowance that has been taken for climate change. In accordance with the Environment Agency guidance to support the NPPF (2012) based on the output of the UK Climate Projections 2009 (CP09), peak 1% (1 in 100) AEP flows in the fluvial models have been increased by 20% to accommodate uncertainty of the impact of climate change. This approach was agreed with the Environment Agency.
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. 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.	The application has taken into account climate change across the lifetime of the infrastructure as set out above using the latest UK Climate projection.
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.	<p>Sea level rise will not affect this part of East Anglia (including during the anticipated life-span of this project); the River Ouse is not tidal at the location of the scheme (UK Climate Projections 2009 - UKCP09).</p> <p>Table 23.1 of the Flood Risk Assessment demonstrates that the carriageway level for the scheme is above the 100-year flood level at all locations. More radical changes from climate change resulting in floods above the 100-year level could affect the scheme at Cock Brook but that affect will be mitigated by accommodation in the detailed design.</p>
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.	Adaptation measures have been based on the most recent UK Climate Change projections (following discussion with the Environment Agency). The adaptation measures described above have been assessed in the Environment Statement.
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).	Chapter 17 Road Drainage and the Water Environment of the Environmental Statement (doc ref 6.1) addresses the consequential environmental impacts of provision of flow and flood compensation.

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4.46	Adaptation measures can be required to be implemented at the time of construction where necessary and appropriate to do so.	Chapter 17 Road Drainage and the Water Environment of the Environmental Statement (doc ref 6.1) discusses how adaptation measures will be implemented at the time of construction as appropriate/ necessary to do so.
4.47	Where adaptation measures are necessary to deal with the impact of climate change, and that measure would have an adverse effect on other aspects of the project and/or surrounding environment (e.g. coastal processes), the Secretary of State may consider requiring the applicant to ensure that the adaptation measure could be implemented should the need arise, rather than at the outset of the development (e.g. reserving land for future extension, increasing the height of an existing sea wall, or requiring a new sea wall).	The Design Input Statement agreed with the Environment Agency states that if adaptation measures are required they will be accommodated. It is not expected at this time that they would give rise to consequential impacts.
Pollution Control and other Environmental Protection Regimes		
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.	Section 6 of the Case for the Scheme (document ref 7.1) sets out how the scheme conforms with planning policy and is an acceptable use of the land. The impacts of that use are considered throughout the Environmental Statement (document ref 6.1). Pollution control legislation will, in particular, be applicable where the proposed scheme would encroach on the boundary of Milton Landfill, which is subject to an Environmental Permit (reference: BV4584IU, Variation Notice Number: WP3237LF). This is described in paragraphs starting 12.3.70. The current installation boundary and some monitoring wells are already located within the existing A14 Highway verge. Highways England is in consultation with the landfill operators and the Environment Agency with regard to maintaining compliance with the permit requirements including the replacement of monitoring boreholes and any more detailed mitigation which would be required to maintain the landfill integrity. Details of the permitting of construction activities where applicable are to be found throughout the Code of Construction Practice in Appendix 20.2 of the Environmental Statement (document ref 6.3) topic areas covered in sections 6-15.
4.53	When an applicant applies for an Environmental Permit, the relevant regulator (the Environment Agency) requires that the application demonstrates that processes are in place to meet all relevant Environmental Permit requirements. In examining the impacts of the project, the Examining Authority may wish to seek the views of the regulator on the scope of the permit or consent and any management plans (such as any produced for noise) that would be included in an Environmental Permit application.	Details of the permitting of construction activities where applicable are to be found throughout the Code of Construction Practice Appendix 20.2 of the Environmental Statement (document ref 6.3) topic areas covered in sections 6-15.
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.	Dialogue with the Environment Agency was commenced in December 2013 and again on a regular basis from June until submission of the application in relation to flood risk and the Milton Landfill site. Paragraph 17.2.6 of Chapter 17 in the Environmental Statement (document ref 6.1) notes that that extensive dialogue has already been undertaken with the Environment Agency and will continue through the detailed design phase and up to (and including) submission. Consultation has been undertaken over specific methods and approaches (in December 2013 and again in June, July and August 2014) to fully clarify and agree the scope of the assessment. Section 4 of the Consents and Agreements Position Statement (document ref 3.3) identifies the permits that are proposed to be included, or addressed, within the DCO as permitted by various provisions of the Planning Act 2008 and those that will not. Discussions are continuing with the principal stakeholders.

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4.55	<p>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:</p> <ul style="list-style-type: none"> 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 relation to statutory environmental quality limits. 	<p>Section 17.3 of Chapter 17 of the Environmental Statement (document ref 6.1) and Environmental Statement Appendix 17.2 (document ref 6.3) notes that consultation has been ongoing with the Environment Agency regarding appropriate methods for assessing water quality for the scheme and the subsequent results. The Environmental Statement and supporting documentation demonstrate to the Regulator (the EA) how water quality impacts are being minimised/mitigated. A detailed HAWRAT assessment (Appendix 17.2) has been undertaken on all individual outfalls and for water bodies that have more than one discharge within a specified distance. From this assessment and by taking into consideration the existing road drainage situation, an impact assessment has been undertaken and where applicable mitigation has been identified and provided. Mitigation includes attenuation ponds, swales and oil interceptors which form an integral part of the drainage design, which has been fully discussed with the Environment Agency and will continue to be discussed as the design evolves.</p> <p>Section 4 of the Consents and Agreements Position Statement (document ref 3.3) identifies the permits that are proposed to be included, or addressed, within the DCO as permitted by various provisions of the Planning Act 2008 and those that will not. Discussions are continuing with the principal stakeholders.</p>
Common Law Nuisance and Statutory Nuisance		
4.58	<p>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.</p>	<p>This issue is specifically addressed in the Environmental Statement 'Statement Relating to Statutory Nuisance' (document ref 6.4). Section 2 of this document contains the following summary:</p> <p>2.1.1 This statement identifies the matters set out in Section 79 of the Environmental Protection Act 1990 in respect of statutory nuisances and considers whether the proposed development would engage one or more of those matters. Where any matters may be potentially engaged, this statement sets out its proposals for mitigating or limiting them.</p> <p>2.1.2 This statement concludes that, with the mitigation measures secured by the DCO in place, none of the statutory nuisances identified in Section 79 of the Environmental Protection Act 1990 is predicted to arise.</p>
Safety		
4.61	<p>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.</p>	<p>An assessment of road safety performance of the existing network surrounding the scheme has been undertaken. Additionally, a Safety Management System (SMS) has been chosen (category B) which defines how road user and road worker safety are managed within the project. Road user safety baselines have been set and road user and road worker safety objectives have been set for the scheme. These include objectives for the new local roads as well as for the Trunk Roads. A Project Safety Control Review Group has been set up.</p> <p>Chapter 4 of the Transport Assessment (document ref 7.2) relates to safety and provides details in relation to accident data and the scheme benefits. Paragraph 4.4.6 states that the overall accident results for the wider study area show that there would be an overall decrease in accidents over the 60-year assessment period when compared against a scenario in which the scheme is not constructed. An assessment of the anticipated non-monetised accident benefits and disbenefits of the scheme has been undertaken in accordance with Department for Transport's Transport guidance.</p> <p>All of the above has been carried out using the methodology in DfT (WebTAG) and Highways England guidance.</p>
4.62	<p>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).</p>	<p>A stage 1 road safety audit has been carried out, and the issues/proposed responses have been reviewed by CCC where their roads are affected.</p>
4.64	<p>The applicant should be able to demonstrate that their scheme is consistent with the Highways Agency's Safety 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:</p> <ul style="list-style-type: none"> 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. 	<p>The Safety Plan and Safety Report deal with the methodology and activities to date, respectively, to manage road user and road worker safety in the scheme. Safety baselines and targets have been agreed in the Safety Plan in discussion with Highways England Services, Customer Operations and Network Development and Delivery, and the Project Safety Control Review Group (PSCRG). Rigorous risk assessment and mitigation of hazards has been carried out in the furtherance of managing road user, road worker and risk from construction. A traffic management plan has been developed for the safe management of traffic during construction. The Construction Design Management Co-ordinator has been involved in the design process throughout and is a core member of the PSCRG, and has contributed to the safety plan, safety report and maintenance and repair strategy. A stage 1 road safety audit has been carried out and items raised have been dealt with in discussion with HA and (in the case of issues raised on local roads), Cambridgeshire County Council.</p>
4.65	<p>They will also wish to demonstrate that:</p> <ul style="list-style-type: none"> 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. 	<p>A Project Safety Control Review Group was set up early in the project development, has had five meetings and continues to meet the Development Consent Order design freeze. It will evaluate ongoing further preliminary design proposals.</p> <p>A Safety Management Strategy is in place and agreed for the scheme. A Safety Plan has been agreed, and a Safety Report documents actions taken in furtherance of the safety objectives. A monitoring process is identified which will highlight short, medium term and longer term evaluation of incident reports and casualties arising from injury collisions.</p>

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4	ASSESSMENT PRINCIPLES	
4.66	<p>The Secretary of State should not grant development consent unless satisfied that all reasonable steps have been taken and will be taken to:</p> <ul style="list-style-type: none"> • minimise the risk of road casualties arising from the scheme; and • contribute to an overall improvement in the safety of the Strategic Road Network. 	<p>The Design Manual for Roads and Bridges (DMRB) is the standard which sets desirable minimum criteria for the proposed scheme geometry - for example horizontal and vertical radii, forward visibility and junction layouts. The existing road has many features that are substandard when compared against it, such as low standard junction and layby layouts and short spacing between junctions. The scheme would remove many of these low standard features and has been designed to comply with the DMRB. This 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 Strategic Road Network.</p> <p>A Safety Management System is in place and agreed for the scheme. A Safety Plan has been agreed, and a Safety Report documents actions taken in furtherance of the safety objectives (generally a 10% reduction in KSI casualties); a stage 1 Road Safety Audit has been carried out; senior Road Safety Audit trained staff are embedded in the design team to enable day to day interface and involvement in design decisions.</p> <p>There is currently limited provision for travel between settlements along the A14 corridor between Cambridge and Huntingdon by transport modes other than motor vehicle. The scheme has been designed to improve safety for Non-Motorised Users by providing the following measures:</p> <ul style="list-style-type: none"> - Non-Motorised Users will be banned from a significant length of the main carriageway of A14; - extensive separated NMU facilities are proposed as part of the scheme, including two Non-Motorised Users bridges and around 12 km of new NMU network; and - special attention paid to convenience and safety for NMUs of proposals for signalised crossings of new link roads in Huntingdon. <p>The ways in which the scheme will have an overall improvement on road safety are set out in Chapter 4 of the Transport Assessment (document ref 7.2) and section 8 of the Case for the Scheme (document ref 7.1).</p>
Security Considerations		
4.76	<p>Where national security implications have been identified, the applicant should consult with relevant security experts from CPNI and the Department for Transport, to ensure that physical, procedural and personnel security measures have been adequately considered in the design process 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.</p>	<p>No national security issues have been identified in developing the scheme.</p>
Health		
4.81	<p>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.</p>	<p>Chapters 8 to 17 of the Environmental Statement (document ref 6.1) assess different elements of the environmental effects of the project. For some of these issues such as air quality and noise, the assessment criteria are based upon human health related thresholds. Chapter 18 sets out an assessment of cumulative effects whilst appendix 18.1 of the Environmental Statement (document ref 6.3) provides further detail on the interaction of impacts upon human health and wellbeing. This appendix reports on the effects the scheme might have on communities in terms of various health determinants including noise, air, road safety, physical activity, community severance and climate change. Both positive and negative effects are discussed as well as mitigation measures where relevant.</p>

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4.82	<p>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.</p>	<p>Appendix 18.1 of the Environmental Statement (document ref 6.3) sets out the potential effects on human health of the proposed scheme. Table 6.3 provides an assessment for health issues relevant to the scheme's geographic area and sets out the proposed mitigation measures.</p> <p>Appendix 18.1 concludes that the scheme would have beneficial effects on health. No significant adverse effects were identified. Accessibility and connectivity, especially for Non-Motorised Users would likely see significant beneficial improvements, and improved transport links would help business opportunities, improve road safety and reduce traffic flows on many local roads. Traffic air emissions are predicted to decrease in areas currently affected by air pollution from traffic, especially in Huntingdon town centre and along the de-trunked A14. Air emissions would increase in areas alongside new or improved sections of the A14 but would remain within EU limits. Overall the scheme would reduce noise in the vicinity of residential properties. Noise levels would increase for some communities although these effects would be mitigated by identified measures including, low-noise road surfacing, landscaped earthworks and the use of noise barriers where appropriate. The health assessment findings support the proposed restoration aim for some of the scheme borrow pits to provide for quiet, informal recreation because this would encourage access to green space and physical activity within adjacent communities such as Brampton.</p> <p>Paragraph 18.6.38 of Chapter 18 (Cumulative effects and impact interactions) of the Environmental Statement states that the following impact interactions have been predicted:</p> <ul style="list-style-type: none"> • Improved human health and wellbeing from changes to air quality, traffic noise, access to green space, improved facilities for walking and cycling, changes in visual amenity and changes to landscape character.

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5	GENERIC IMPACTS	
	Air Quality	
5.7	<p>The Environmental Statement should describe:</p> <ul style="list-style-type: none"> 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. 	<p>The method of baseline assessment is included in Chapter 8 Air Quality section 8.2 of the Environmental Statement (document ref 6.1). The future baseline has been assessed in the Air Quality ES chapter. It is commonly referred to as the 'do minimum' scenario which takes into account what the 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 reduced pollutant emissions from motor vehicles and other sources. The results of the air quality assessment have been included in section 8.5, this includes construction effects, operational effects. Mitigation for the scheme is outlined in section 8.6.</p>
5.8	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 8 Air Quality paragraph 8.5.17 states that the assessment takes into account the DEFRA future year predictions of emissions. Interim Advice Note 170/12 v3 of the Design Manual for Roads and Bridges has been used to assess how long term trends in emission rates will have an impact on the air quality.</p>
5.9	<p>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.</p>	<p>The scheme does not affect the UK's ability to comply with the Air Quality Directive. The Environmental Statement (document ref 6.1) Chapter 8 paragraphs 8.5.58 to 8.5.61 sets out how the scheme complies with the Air Quality Directive. Paragraph 8.5.61 states that the results of the compliance testing indicated the scheme to be low risk as defined within the Interim Advice Note referred to above. None of the links were at risk of becoming non-compliant, the date for achieving compliance would not be affected and there would be no increase in the length of roads in exceedance in the zone.</p>
5.10	<p>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.</p>	<p>The study area for the air quality assessment is defined in section 8.2.4 in Chapter 8 of the Environmental Statement (Document Ref 6.1). The wider study area includes the Affected Road Network (ARN) within the traffic model covering a wide area around the scheme.</p> <p>The assessment of the operational phase of the scheme showed predicted concentrations of nitrogen dioxide (NO2) and fine particulate matter (PM10) were below UK objective levels in all future modelled scenarios, at all modelled receptors. No exceedances of EU limit values being predicted across the study area as a result of the proposed scheme.</p>
5.12	<p>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.</p>	<p>Results of compliance with the EU Air Quality Directive are presented in the Environmental Statement (document ref 6.1) Chapter 8 Air Quality paragraphs 8.5.58 - 8.5.61. No significant impacts or exceedances of the EU limit values are predicted. There is no indication the scheme would result in the UK Eastern Zone not achieving compliance within the predicted date set out by Defra.</p>
5.13	<p>The Secretary of State should refuse consent where, after taking into account mitigation, the air quality impacts of the scheme will:</p> <ul style="list-style-type: none"> 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. 	<p>Results of compliance are in the Environmental Statement (document ref 6.1) Chapter 8 Air Quality paragraphs 8.5.58 - 8.5.61. No significant impacts or exceedances of the EU limit values are predicted. There is no indication the scheme would result in the zone not achieving compliance within the predicted date.</p> <p>Paragraph 8.5.61 of Chapter 8 (Air Quality) of the Environmental Statement states that the results of the compliance testing indicated the scheme to be low risk. None of the links were at risk of becoming non-compliant, the date for achieving compliance would not be affected and there would be no increase in the length of roads in exceedance in the zone.</p>
5.14	<p>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.</p>	<p>Results of all areas and significance is provided in the Environmental Statement (document ref 6.1) Chapter 8 Air Quality section 8.5. - No receptors experience a breach in the EU limit value, no significant impacts have been recorded at modelled receptor locations.</p>
	Carbon Emissions	

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5	GENERIC IMPACTS	
5.16	The Government has a legally binding framework to cut greenhouse gas emissions by at least 80% by 2050. As stated above, the impact of road development on aggregate levels of emissions is likely to be very small. Emission reductions will be delivered through a system of five year carbon budgets that set a trajectory to 2050. Carbon budgets and plans will include policies to reduce transport emissions, taking into account the impact of the Government's overall programme of new infrastructure as part of that.	The carbon footprint of the construction and use of the A14 is considered in Appendix 13.2. The assessment of the Carbon Budget is considered as set out in row 5.17.
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.	The carbon footprint of the construction and use of the A14 is evidenced in Appendix 13.2 of the Environmental Statement (document ref 6.3). The operational CO2 emissions from the scheme equate to approximately 0.01% of the total provided for in the Carbon Budget for 2023 -27. An assessment against the carbon budget (which was not required at the time of the preparation of the ES) is currently underway and a full report will be provided in due course.
5.18	The Government has an overarching national carbon reduction strategy (as set out in the Carbon Plan 2011) which is a credible plan for meeting carbon budgets. It includes a range of non-planning policies which will, subject to the occurrence of the very unlikely event described above, ensure that any carbon increases from road development do not compromise its overall carbon reduction commitments. The Government is legally required to meet this plan. Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.	As set out at 3.6, 3.8, 5.16 and 5.17 the increase in carbon emission generated by the scheme are not so significant that it would have a material impact on the ability of the government to reach its carbon reduction targets. This would be further demonstrated in the full report to be provided pursuant of 5.17.
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.	Mitigation measures are presented in the mitigation sections of Appendix 13.2 of the Environmental Statement (document ref 6.3); Section 4 "Suggested interventions for construction" and Section 6 "Suggested interventions for the operational phase".
Biodiversity and Ecological Conservation		
5.20	Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part. Government policy for the natural environment is set out in the Natural Environment White Paper (NEWP). The NEWP sets out a vision of moving progressively from net biodiversity loss to net gain, by supporting healthy, well-functioning ecosystems and establishing more coherent ecological networks that are more resilient to current and future pressures. Geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance.	Chapter 11 Nature Conservation, paragraph 11.1.4 of the Environmental Statement (document ref 6.1) states that all roles of ecosystems are underpinned by biodiversity, (as directly taken from the Government's Natural Environment White Paper (NEWP)); the level and stability of ecosystem services generally improve with increasing levels of biodiversity (NEWP). Chapter 11 Nature Conservation of the Environmental Statement considers effects on biodiversity in detail.
5.22	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.	Chapter 12 Geology and Soils, paragraph 12.3.17 in the Environmental Statement (document ref 6.1) identifies that there are no designated sites for geological conservation within the area of the scheme. Environmental Statement Chapter 11 Nature Conservation outlines the effects on sites, habitats and species.
5.23	The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.	Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation demonstrates that the scheme protects all designated sites and provides a net increase in semi natural habitats and connectivity. The restoration of the borrow pits would also provide short to medium term positive effects and possibly long term benefits on biodiversity dependent on the eventual management. The assessment took a worst case approach, however, since publication of the Environmental Statement, a 10 year management commitment has been secured allowing for longer term positive effects." Environmental Statement Chapter 12 Soils and Geology confirms that impacts to geologically important sites are considered negligible as no significant sites are identified within 500m of the scheme.

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5	GENERIC IMPACTS	
5.25	<p>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 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.</p>	<p>Chapter 11 Nature Conservation, Section 11.7 of the Environmental Statement (document ref 6.1) shows that the scheme has aimed to avoid significant harm and provide net habitat gain.</p> <p>The strategy to reduce the impact of the scheme on ecology is identified in Chapter 11. This involves seeking to avoid impacts in the first instance, through carefully siting infrastructure away from sensitive habitat and timing works to avoid sensitive periods. Other principles adopted in the mitigation strategy are to ensure no net loss of valued habitats; maintain dispersal corridors across the scheme using culverts and structural planting (in conjunction with fencing and sensitive lighting); increase connectivity along the scheme with new landscaping using native locally appropriate species and minimise culverting of watercourses where practicable. Mitigation would reduce the potential for adverse effects and provide some potential positive effects. Chapter 11 also details appropriate compensation measures including the creation of new habitats along the highways estate in order to achieve net habitat gain along the scheme.</p> <p>A summary of the residual effects of the scheme is given in section 11.7 of the ES. The scheme would lead to a net gain of 271ha of semi-natural habitat. Permanent positive effects are anticipated for most ecological receptors, including some positive effects for bats and breeding birds. However likely residual adverse effects anticipated on grasshopper warbler and Cetti's warbler and barbastelle bats through increased disturbance and mortality near to the new road sections are identified in Chapter 11. These are an inevitable result of a new off-line road and cannot be mitigated effectively within a narrow scheme corridor; therefore an off-site solution was identified as being required to fully compensate the risk of significant effects.</p> <p>The assessment took a worst case approach and therefore did not include the positive effects that would occur through the restoration of the borrow pits. However since the publication of the ES, a 10 year management commitment has been secured for the restoration of the borrow pits which would allow time for habitats to establish. The borrow pit restoration would address the residual impacts identified in the ES by providing additional habitat at some distance from the road that would not be subject to noise disturbance or increased mortality risks and overall there would be no significant harm to biodiversity interests once the replacement habitat is robustly established.</p>
5.27	<p>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:</p> <ul style="list-style-type: none"> • 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. 	<p>An assessment of implications on European sites (AIES) (Appendix 11.12 of the Environmental Statement (document ref 6.1) associated with the scheme has been undertaken following guidance in the Design Manual for Roads and Bridges (DMRB) HD 44/09: Assessment of implications (of highways and/or roads projects) on European sites (including appropriate assessment) (Highways England et al., 2009a).</p>
5.28	<p>Many Sites of Special Scientific Interest (SSSIs) are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of SSSIs not covered by an international designation, should be given a high degree of protection. All National Nature Reserves are notified as SSSIs.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation, section 11.2 Assessment Methodology takes into account the importance of SSSIs. Table 11.32 summarises the assessment of residual effects for each ecological feature of value, in light of the mitigation measures.</p>
5.29	<p>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 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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation concludes there are no residual significant effects on SSSIs.</p>
5.31	<p>Sites of regional and local biodiversity and geological interest (which include Local Geological Sites, Local Nature Reserves and Local Wildlife Sites and Nature Improvement Areas) have a fundamental role to play in meeting overall national biodiversity targets, in contributing to the quality of life and the well-being of the community, and in supporting research and education. The Secretary of State should give due consideration to such regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation, section 11.2 Assessment Methodology takes into account the relative importance of receptors having different designations.</p>

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5	GENERIC IMPACTS	
5.32	<p>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.</p>	<p>The scheme will not adversely affect any ancient woodland.</p> <p>Environmental Statement (Document Ref 6.1) Chapter 11 Nature Conservation identifies that the loss of mature oaks and elm trees would be mitigated for via the inclusion of oak and English elm in landscaping and mitigation area planting mixes will offset any slight adverse effects on species using these trees.</p> <p>Environmental Statement (Document Ref 6.1) Chapter 10 Landscape identifies veteran trees that would be removed within Huntingdon. These would be mitigated through the inclusion of a number of specimen trees in the mitigation planting that would establish to become landscape features.</p> <p>Overall, the applicant is of the view that the need for and benefits of the scheme outweigh the limited effect (as mitigated) on aged and veteran trees.</p>
5.33	<p>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 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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation identifies a range of positive effects on ecological features. The executive summary states that beneficial effects are anticipated from habitat created for groups/species including aquatic and terrestrial invertebrates, fish, great crested newt, breeding birds, bats and water vole.</p> <p>Scheme of planting and creation ecological mitigation areas would provide a diverse range of new habitats.</p>
5.35	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation considers all ecological features; identifies those that are of principal importance and assesses the residual effect appropriately. For most species the scheme will be neutral or beneficial, but for some species of bats and birds there will be both adverse and beneficial effects. The executive summary for Chapter 11 of the Environmental Statement states that mitigation measures to reduce these effects include habitat creation, provision of bat boxes and additional roost sites, timing of works to avoid sensitive periods, and the provision of culverts, bat hop-overs and linear planting. Beneficial effects are anticipated from habitat created for groups/species including aquatic and terrestrial invertebrates, fish, great crested newt, breeding birds, bats and water vole.</p> <p>Mitigation for the scheme includes restoration of some of the borrow pits to provide habitat for bats and breeding birds. Highways England is committed to a 10 year management programme and overall there would be no significant harm to biodiversity interests from the scheme once this replacement habitat is robustly established.</p>
5.36	<p>Applicants should include appropriate mitigation measures as an integral part of their proposed development, including identifying where and how these will be secured. In particular, the applicant should demonstrate that:</p> <p>during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</p> <p>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);</p> <p>habitats will, where practicable, be restored after construction works have finished;</p> <p>developments will be designed and landscaped to provide green corridors and minimise habitat fragmentation where reasonable;</p> <p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 11 Nature Conservation identifies the mitigation measures, which are also summarised in the register of environmental actions and commitments. Environmental Statement (document ref 6.2) Figure 11.13 Ecological Mitigation Plans illustrates both the proposed landscaping scheme, plus additional areas proposed for ecological mitigation that have been designed into the scheme, for use to meet specific habitat and species requirements.</p> <p>Environmental Statement Appendix 20.1: Register of environmental actions and commitments (document ref 6.3) identifies mitigation measures including:-</p> <ul style="list-style-type: none"> - exclusion zones will be installed around protected habitat areas, designated sites and known sensitive receptors to avoid accidental damage. - river restoration and enhancement techniques will be incorporated to increase opportunities for habitats and species when realigning watercourses. - key existing north-south wildlife dispersal corridors across the scheme are to be maintained as far as practicable using bridges, culverts, underpasses and structural planting within the design. - where practicable, habitat creation/enhancement opportunities will be included within landscape and visual, noise and drainage design. <p>Appendix 20.2 (Code of construction practice) also includes mitigation measures. For instance, paragraph 12.1.2 of the ES states that the main contractors will reduce habitat loss within the land provided for the scheme by keeping the working area to the minimum necessary for construction of the scheme and where this area has been agreed installing appropriate exclusion measures to prevent accidental incursion.</p>

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
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.	Environmental Statement Appendix 20.1: Register of environmental actions and commitments (document ref 6.3) identifies how the mitigation measures will be secured.
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.	Measures for managing waste and materials are proposed and information on the implementation, measuring and monitoring of these measures is detailed within Chapter 13 (Materials) of the ES. Information on local waste facilities has been identified within Appendix 13.1 of the ES. Generally, primary waste management will be carried out within local site compounds or soil storage areas, thereby minimising impacts on local waste management infrastructure. - Chapter 13 Materials of the Environmental Statement (document ref 6.1) and Chapter 11 Material Resources of Appendix 20.2 of the Environmental Statement (document ref 6.3). Table 13.11 of Chapter 13 (Materials) of the Environmental Statement states that methods to minimise waste would be incorporated into the SWMP including the provision of facilities to separate out recyclable wastes such as metals, plastics, oils, green wastes and surplus/rejected aggregates etc. for export to the appropriate local recycling/treatment facilities.
5.43	<p>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:</p> <ul style="list-style-type: none"> • 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 is, or is likely to be, available. Such waste arising's should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arising's in the area; and • adequate steps have been taken to minimise the volume of waste arising's, and of the volume of waste arising's sent to disposal, except where an alternative is the most sustainable outcome overall. 	<p>These points have been largely addressed in the Code of Construction Practice and would be the responsibility of the contractor, although recommendations based on best practice/compliance are detailed within the Environmental Statement. Information on the location of waste management facilities has been identified in the Environmental Statement. Generally, primary waste management would be carried out within local site compounds or soil storage areas. The scheme would apply the waste hierarchy in order to move waste management practices as far up the hierarchy as possible minimising disposal and maximising re-use and recycling. Minimising the production of waste has been considered throughout the design process of the scheme. Any contamination identified may require soils to be treated on-site or taken off-site for treatment and/or disposal. Any asphalt waste containing coal tar waste identified when removing old road and hard standing sections would be taken off-site for disposal at a suitably licensed facility. It has been identified that there is one hazardous waste management site within 10km of the scheme. Appendix 12.2 of the Environmental Statement (document ref 6.3), Chapter 13 Materials of the Environmental Statement (document ref 6.1) and Chapter 11 Material Resources of Appendix 20.2 of the Environmental Statement (document ref 6.3).</p> <p>Arrangements for the management of hazardous and non-hazardous wastes are set out in the Code of Construction Practice, which includes provisions for Site Waste Management Plans and the safe identification, classification, handling, storage and disposal of all wastes.</p> <p>Appendix 13.1 of the ES provides information to demonstrate the availability of suitable regional waste management infrastructure. This appendix includes information on the location of waste management facilities, their capacity, waste types received and approximate distance from the Scheme.</p> <p>As required by the Code of Construction Practice, the contractors would be required to implement site specific waste management plans and to maximise diversion from landfill by re-use, recycling and recovery. The contractors would record and monitor their environmental performance and compliance with regulatory controls.</p>
5.44	Where necessary, the Secretary of State should use requirements or planning obligations to ensure that appropriate measures for waste management are applied.	The Code of Construction Practice is secured within the Requirements in Schedule 2 of the draft Development Consent Order.
5.45	Where the project will be subject to the Environment Agency's environmental permitting regime, waste management arrangements during operations will be covered by the permit and the considerations set out in paragraphs 4.48 to 4.56 will apply.	All necessary waste management permits will be obtained as set out in the Code of Construction Practice (Appendix 20.02 of the Environmental Statement (document ref 6.3)) and the Consents and Agreements Position Statement (document ref 3.3)

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5	GENERIC IMPACTS	
5.49	The certified safeguarding maps depicting the OLS and other criteria (e.g. to minimise "birdstrike" hazards) are deposited with the relevant local planning authorities. Circular 1/200384 provides advice to planning authorities on the official safeguarding of aerodromes and includes a list of the aerodromes which are officially safeguarded. The Circular and CAA guidance also recommends that the operators of aerodromes which are not officially safeguarded should take steps to protect their aerodrome from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities.	The Ministry of Defence (MoD), Civil Aviation Authority (CAA) and NATS were consulted on the Scoping report as part of the EIA process. No comments were received from CAA or MoD. NATS commented as follows: NATS does not anticipate an impact from the development and has no comments to make on the Environmental Statement. Cambridge Airport were consulted. A bird hazard risk assessment has been carried out in Environmental Statement (document ref 6.3), Appendix 16.1 and the initial conclusions discussed with Cambridge Airport. The airport are happy with the conclusions. Further consultation with the airport will be carried out as part of the detailed design process, and if required a further risk assessment would be undertaken.
Civil and Military Aviation and Defence Interests		
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.	The MoD, CAA and NATS were consulted on the Scoping report as part of the EIA process. No comments were received from CAA or MoD. NATS commented as follows: NATS does not anticipate an impact from the development and has no comments to make on the Environmental Statement. Cambridge Airport were consulted. A bird hazard risk assessment has been carried out in Environmental Statement (document ref 6.3), Appendix 16.1 and the initial conclusions discussed with Cambridge Airport. The airport are happy with the conclusions. Further consultation with the airport will be carried out as part of the detailed design process, and if required a further risk assessment would be undertaken.
5.57	Any assessment on aviation or other defence 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.	The Ministry of Defence were consulted on the Scoping Report. No response was received from the MoD and it is therefore assumed that there would be no potential impacts on defence interests. There are no known active MoD sites close to the scheme. A bird hazard risk assessment has been carried out and is in Environmental Statement (document ref 6.3) Appendix 16.1. The initial conclusions have been discussed with Cambridge Airport. The airport are happy with the conclusions. Further consultation with the airport will be carried out as part of the detailed design process, and if required a further risk assessment would be undertaken.
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 regard to interests of defence and national security.	See above.
5.60	If there are conflicts between the Government's national networks policies and military interests in relation to the application, the Secretary of State expects the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions to the conflicts. In so doing, the parties should seek to protect the aims and interests of the other parties as far as possible.	No known conflicts with military interests in relation to the application.
5.61	There are statutory requirements concerning lighting to tall structures. Where lighting is requested on structures that go beyond statutory requirements by any of the relevant aviation and defence consultees, the Secretary of State should be satisfied of the necessity of such lighting taking into account the case put forward by the consultees. The effect of such lighting on the landscape, local residents and ecology may be a relevant consideration, depending on the particular circumstances be a relevant consideration.	The scheme does not include any tall structures that require lighting under statutory requirements.
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: <ul style="list-style-type: none"> • 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. 	None of these bullet points apply to the application.
5.63	Where a proposed national networks infrastructure project would significantly impede or compromise the safe and effective use of civil or military aviation or defence assets and or significantly limit military training, the Secretary of State may consider the use of 'Grampian conditions' or other forms of requirement which relate to the use of future technological solutions to mitigate impacts. Where technological solutions have not yet been developed or proven, the Secretary of State will need to consider the likelihood of a solution becoming available within the time limit for implementation of the development consent.	Not applicable.

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5	GENERIC IMPACTS	
5.66	Mitigation for effects on radar and navigational systems may include reducing the scale of a project, although in some cases it is likely to be unreasonable to require mitigation by way of a reduction in the scale of development, for example where this would result in a material reduction in capacity or where operations would be severely constrained. However, there may be exceptional circumstances where a small reduction in capacity or other small change to a project will result in proportionately greater mitigation. In these cases, the Secretary of State may consider that the benefits of the mitigation outweigh the marginal loss, for example, of capacity.	No effects on radar or navigational systems.
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.	<p>Construction dust impacts have been considered within chapter 8 Air Quality of the Environmental Statement (document ref 6.1), in the construction assessment sections and mitigation measures have been included in the Code of Construction Practice to ensure no significant impacts occur.</p> <p>The landscape and visual effects of artificial lighting are considered as part of the landscape and visual impact assessment reported in ES Chapter 10 Landscape and visual effects schedules Appendices 10.2 - 10.6.</p> <p>Paragraph 10.4.12 states that the impact of road lighting, where deemed essential, would be minimised through careful placement. The use of modern, controllable light sources with sharp cut-off properties, coupled with dynamic systems of operation, would reduce the effect of lighting on the surrounding environment.</p> <p>Artificial lighting is also covered within Chapter 11 Nature Conservation.</p>
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 at a level that is acceptable.	<p>Paragraph 11.5.216 states that impacts to lighting during construction would be mitigated through use of hoods and shields to limit light spill onto adjacent habitats; downward directional lighting to the area to be illuminated; and lighting to be the minimum brightness required for health and safety.</p> <p>Paragraph 11.5.217 states that construction impacts would be limited to relatively localised areas, would be temporary and are not anticipated to have a significant effect on bat populations.</p>
5.84	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.	

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5.85	<p>In particular, the assessment provided by the applicant should describe:</p> <ul style="list-style-type: none"> 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. 	<p>Chapter 8 Air Quality, Chapter 10 Landscape and Visual Effects and 11 Nature Conservation of the Environmental Statement (document ref 6.1) covers the following aspects:</p> <ul style="list-style-type: none"> Type and quantity of emissions Sources of emissions during each development stage Sensitive receptors potentially affected by emissions including properties Effects of identified emissions Mitigation measures
5.87	<p>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 artificial light on local amenity, intrinsically dark landscapes and nature conservation.</p>	<p>Mitigation details for dust are provided in Environmental Statement (document ref 6.1) Chapter 8 Air Quality section 8.6 . Mitigation details for light pollution are provided in paragraphs 3.5.1 - 3.5.6 of Chapter 3 Description of the Scheme of the Environmental Statement</p>
5.88	<p>If development consent is granted for a project, the Secretary of State should consider whether there is a justification for all of the authorised project (including any associated development) being covered by a defence of statutory authority against nuisance claims. If the Secretary of State cannot conclude that this is justified, then the defence should be disapplied, in whole or in part, through a provision in the Development Consent Order.</p>	<p>The draft Development Consent Order (document ref 3.1) does not presently disapply the defence of statutory authority. The applicant does not believe that there is any need or justification for doing so.</p>
5.89	<p>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.</p>	<p>Mitigation details for dust are provided in Environmental Statement (document ref 6.1) Chapter 8 Air Quality section 8.6. All air quality mitigation is included in the Code of Construction Practice (Appendix 20.2). None is required for the operational phase.</p>
Flood Risk		
5.91	<p>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.</p>	<p>Table 23.1 of the Flood Risk Assessment in Appendix 17.1 of the Environmental Statement (document ref 6.3) demonstrates that while the road is located within Flood Zone 3 it has been made safe for the future users as the carriageway levels are higher than the predicted 1% AEP peak flood level. The FRA includes the assessment of the new roads impact upon all sources of flood risk and has found that it does not increase flood risk to others with (Eillington Brook, Brampton Brook and the river Great Ouse), in respect of which the Environment Agency are satisfied that this flood risk is acceptable as it does not affect property. Highways England is also in the course of confirming this with relevant landowners.</p>
5.92	<p>Applications for projects in the following locations should be accompanied by a flood risk assessment (FRA):</p> <ul style="list-style-type: none"> Flood Zones 2 and 3, medium and high probability of river and sea flooding; 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. 	<p>A Flood Risk Assessment has been developed in support of the Environmental Statement (document ref 6.3) and is appended to it as Appendix 17.1.</p>
5.93	<p>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.</p>	<p>Environmental Statement (document ref 6.3) Appendix 17.1 Flood Risk Assessment considers all forms of flooding to and from the development and its impact on existing levels of flood risk, as well as setting out how these risks will be managed. As agreed with the Environment Agency the design incorporates an allowance for climate change for culverts and floodplain compensation areas of an additional 20% for the 1% (1 in 100) Annual Exceedance probability (AEP) event. Similarly the highway drainage design incorporates an additional 20% in rainfall intensity for the 1% (1 in 100) AEP event. In the event that the anticipated design life expectancy of the drainage exceeds year 2085 then further consultations with the Environment Agency and Cambridgeshire County Council (as the Lead local Flood Authority) shall be undertaken and a 30% climate change allowance shall be required.</p>

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5.94	<p>In preparing an FRA the applicant should:</p> <ul style="list-style-type: none"> 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 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. 	<p>Environmental Statement (document ref 6.3) Appendix 17.1, Flood Risk Assessment, includes a detailed assessment of flood risk from all sources, including:</p> <ul style="list-style-type: none"> fluvial (Sections 4-19) Surface Water (Section 21) Groundwater flooding (Section 22) Sewer flooding (Section 23.1) Dam failure (Section 23.2) Flood defence infrastructure failure (Section 23.3) <p>Each of these sections details the mitigation measures (if required) to ensure no deleterious impact upon flood risk for the lifetime of the development.</p> <p>The FRA details the predicted impact of climate change and mitigation measures include an allowance for the predicted change to rainfall and river flow. The EA have also agreed to the Design input Statement which states that in the event that the anticipated design life expectancy of the drainage exceeds year 2085 then further consultations with EA and CCC shall be carried out and a 30% climate change allowance shall be required.</p> <p>Section 29.8 of the FRA demonstrates that the road will be safe for users during a flood event. Peak water levels on all watercourses do not exceed the carriageway level. Section 27.2 of the FRA summarises the residual flood risk and that the road will remain safe for users and will not deleteriously affect third parties.</p> <p>The carriageway levels will not be exceeded by a 1% Annual Exceedance Probability flood event.</p> <p>Section 25 of the FRA provides a summary of the evidence to apply the Sequential and Exception Tests.</p>
5.96	<p>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.</p>	<p>Ongoing consultation and engagement with the Environment Agency and other key statutory bodies has been undertaken with regards to the flood risk aspect of the scheme. The Flood Risk Assessment has been developed in support of the Environmental Statement (document ref 6.3) and is appended to it as Appendix 17.1. Information on consultation undertaken is set out in that appendix.</p>
5.97	<p>For local flood risk (surface water, groundwater and ordinary watercourse flooding), local flood risk management strategies and surface water 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.</p>	<p>Environmental Statement (document ref 6.3) Appendix 17.1 presents the Flood Risk Assessment which considers all forms of flooding (including flow routes) and relevant management plans to develop an appropriate baseline and subsequently assess the impact on existing levels of flood risk.</p>
5.98	<p>Where flood risk is a factor in determining an application for development consent, the Secretary of State should be satisfied that, where relevant:</p> <ul style="list-style-type: none"> 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). 	<p>A Flood Risk Assessment has been developed in support of the Environmental Statement (document ref 6.3) and is appended to it as Appendix 17.1. The appropriate tests have been applied with a detailed methodology provided in the FRA appendix.</p>

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5.99	<p>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:</p> <ul style="list-style-type: none"> • 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. 	<p>Environmental Statement (document ref 6.3) Appendix 17.1 presents the Flood Risk Assessment developed in support of the Environmental Statement and is appended to it as Appendix 17.1. The scheme has been the design to be appropriately flood resilient and resistant providing safe access during times of flood.</p> <p>Appendix 17.1 (Flood Risk Assessment) paragraph 25.4.1 of the ES states that due to the linear nature of the scheme and the essential requirement that it runs parallel with the existing A14 the road cannot be relocated to avoid the areas of highest flood risk. Highways England has been through a lengthy options stage and has considered all environmental impacts and constraints.</p> <p>Appendix 17.1 (Flood Risk Assessment) paragraph 25.4.2 of the ES states that the FRA demonstrates that all parts of the scheme would be safe for the users of the road and provide safe access during a flood event) and would have no deleterious impact upon existing flood risk. The one exception to this is the A1 at Cock Brook, although there is some uncertainty regarding the predicted flood levels which are based on dated information. If flood risk is confirmed, appropriate resilience measures could be incorporated during detailed design.</p> <p>Where a potentially deleterious impact on flood risk has been identified measures are proposed to mitigate for the increase in predicted water levels. There are a few exceptions (see paragraph 25.4.3 of the FRA) where further consultation with the Environment Agency and South Cambridgeshire District Council would be required to investigate alternative mitigation measures.</p> <p>Appendix 17.1 (Flood Risk Assessment) paragraphs 27.2.2 and 27.2.3 of the ES refer to residual risk. The FRA has highlighted a potential risk of flooding to the existing A1 from the Cock Brook but if this exists, it can be safely managed as set out above.</p> <p>The attenuation ponds and swales have to date been designed with a minimum freeboard of 150mm, providing additional storage beyond their design capacity. If they became overtopped by an extreme event they would do so over a longer length due to the low longitudinal gradient resulting in a low velocity. The ponds would be located at low points and therefore would overtop into areas already at risk of fluvial flooding, rather than into new risk areas.</p> <p>The highway drainage scheme incorporates SuDS measures such as swales and ponds where appropriate.</p>
5.100	<p>For construction work which has drainage implications, approval for the project's drainage system will form part of any development consent 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. 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.</p>	<p>Paragraph 17.1.19 of the Environmental Statement (document ref 6.1) Chapter 17 Road Drainage and the Water Environment notes that the drainage scheme has been designed according to national SuDS best practice. Highways England will be responsible (as necessary) for maintenance of these features. The draft Development Consent Order includes in the Requirements (Schedule 2) draft requirements as to drainage.</p>
5.102	<p>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 others. However, the nature of linear infrastructure means that there will be cases where:</p> <ul style="list-style-type: none"> • 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. 	<p>The linear nature of the scheme means that it does cross a number of watercourses. The Flood Risk Assessment (ES appendix 17.1) provides details of how measures have been incorporated into the design to avoid, limit and reduce the risk of flooding. Highway drainage design would not increase existing flows (including an allowance for climate change). The design also incorporates areas of floodplain compensation to ensure that flood water displaced by the scheme is managed and stored safely.</p>
5.103	<p>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.</p>	<p>Environmental Statement (document ref 6.3) Appendix 17.1 Flood Risk Assessment predicts some positive benefits in the form of minor reductions in water levels on Utton's Drove Drain and the drainage system generally provided in connection with the scheme significantly improves on the existing surface water drainage of the highways network in the area.</p>

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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.	<p>Environmental Statement (document ref 6.3) Appendix 17.1 Flood Risk Assessment addresses Flood Risk and within the assessment, mitigation measures are described for each of the Main Rivers where necessary. Mitigation measures include flood compensation areas.</p> <p>Table 23.1 of the Environmental Statement (document ref 6.3) Appendix 17.1 Flood Risk Assessment demonstrates that carriageway levels are above the peak predicted water level for all watercourses for the 1% (1 in 100) Annual Exceedance Probability Event.</p>
5.109	In addition, any project that is classified as 'essential infrastructure' and proposed to be located in Flood Zone 3a or b should be designed and constructed to remain operational and safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows.	The scheme crosses areas identified as Flood Zone 3a and 3b as defined in Section 3.2.9 of the Environmental Statement (document ref 6.3) Appendix 17.1 Flood Risk Assessment. Floodplain compensation is proposed on all watercourses where the unmitigated scheme would result in a loss of floodplain. Consequently there is no net loss in floodplain. Culverts have been designed so as to not impede flow as detailed for each watercourse in the Flood Risk Assessment.
5.112	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.	Appendix 17.1 (Flood Risk Assessment) paragraph 27.2.3 of the Environmental Statement (document ref 6.1) states the attenuation ponds and swales have to date been designed with a minimum freeboard of 150mm, providing additional storage beyond their design capacity. If they became overtopped by an extreme event they would do so over a longer length due to the low longitudinal gradient resulting in a low velocity. The ponds would be located at low points and therefore would overtop into areas already at risk of fluvial flooding, rather than into new risk areas.
5.113	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.	Paragraph 17.5.14 of the Environmental Statement (document ref 6.1) Chapter 17 Road Drainage and the Water Environment addresses this paragraph as follows: The runoff from the new sections of carriageway will be stored in attenuation ponds and the discharge rates from them limited to Greenfield Rates to ensure that the peak runoff rate does not exceed the existing situation.
5.115	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.	<p>Section 25 of the FRA states how the Sequential approach has been followed and the Test applied.</p> <p>Vulnerable users are considered to be road users and will be at a level above the 1% Annual Exceedance Probability flood level on all watercourses.</p> <p>The scheme includes the provision of flood water storage through the provision of floodplain compensation areas and the Borrow Pits will potentially provide an amenity and ecological benefit.</p>
Land Instability		
5.116	The effects of land instability may result in landslides, subsidence or ground heave. Failing to deal with this issue could cause harm to human health, local property and associated infrastructure, and the wider environment. They occur in different circumstances for different reasons and vary in their predictability and in their effect on development.	A response on how land instability has been addressed is provided below in rows 5.117 to 5.119.
5.117	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.	Desk based assessments have been carried out which cover the development and these are reported upon in the following three Preliminary Sources Study Reports (PSSR) which are listed in Chapter 12 Geology and Soils in the Environmental Statement (document ref 6.1) : (i) A14 Improvement Ellington to Fen Ditton, Preliminary Sources Study Report (Atkins, 2004), (ii) A14 Ellington to Fen Ditton Phase 1a, Preliminary Sources Study Report (Huntingdon Local Connections) (Atkins, 2009) and (iii) A14 Cambridge to Huntingdon Improvement Scheme, Preliminary Sources Study Report Addendum (Atkins, 2013). The Landmark Information Group Ltd Envirocheck Reports contained within each of the PSSRs indicate that the development is not located in an area affected by coal mining or in an area affected by natural cavities formed by ground dissolution. Consequently there should be no risk of subsidence from either man-made or natural underground cavities. The Envirocheck Reports also indicate the potential for Landslide Ground Stability Hazards to be "very low" or "low" and the potential for Compressible Ground Stability Hazards to vary between "No Hazard" and "Moderate hazard". The design, construction, operation and maintenance of the scheme will ensure that any unacceptable risks related to unstable natural or man-made slopes, or related to ground compression, will be mitigated. Embankment and cutting side slopes will be designed to ensure long-term stability and ground improvement works will be carried out where necessary.

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5.118	<p>A preliminary assessment of ground instability should 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.</p>	<p>Chapter 12 (Geology and Soils) paragraph 12.3.52 of the Environmental Statement (document ref 6.1) states that excavated soils would be screened, segregated and treated as necessary in order to achieve the remediation criteria. Measures are proposed to ensure excavation stability and groundwater ingress, and may include the use of temporary sheet piling and battered slopes.</p>
5.119	<p>Applicants have a range of mechanisms available to mitigate and minimise risks of land instability. These include:</p> <ul style="list-style-type: none"> • Establishing the principle and layout of new development, for example avoiding mine entries and other hazards. • Ensuring proper design of structures to cope with any movement expected, and other hazards such as mine and/or ground gases; or • Requiring ground improvement techniques, usually involving the removal of poor material and its replacement with suitable inert and stable material. <p>For development on land previously affected by mining activity, this may mean prior extraction of any remaining mineral resource.</p>	<p>As indicated in the response on Row 5.117 the development is not located in an area affected by coal mining or in an area affected by natural cavities formed by ground dissolution and consequently there should be no risk of subsidence from either man-made or natural underground cavities that needs to be mitigated. Ensuring the proper design of structures to cope with any movement expected and making use of ground improvement techniques, where necessary, is a routine part of geotechnical engineering design and is subject to design certification under Volume 4 of the Design Manual for Roads and Bridges.</p>
The Historic Environment		
5.124	<p>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.</p>	<p>Table 9.2. in paragraph 9.2.13 of Chapter 9 Cultural Heritage in the Environmental Statement (document ref 6.1) addresses this by presenting the criteria to assess the value of archaeological remains; in DMRB terminology value equates to significance in NPS.</p>
5.125	<p>The Secretary of State should also consider the impacts on other nondesignated 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.</p>	<p>Tables 9.3 and 9.4. in paragraph 9.2.13 and 9.2.14 respectively of Chapter 9 Cultural Heritage in the Environmental Statement (document ref 6.1) addresses this by presenting the criteria to assess the value of historic buildings and historic landscape; in DMRB terminology value equates to significance in NPS.</p>
5.126	<p>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.</p>	<p>Sections 9.4 and 9.5 of Chapter 9 Cultural Heritage in the Environmental Statement (document ref 6.1) addresses this by presenting the assessment of the impact of the scheme during construction and operation.</p>
5.127	<p>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.</p>	<p>Section 9.3 Baseline of Chapter 9 Cultural Heritage in the Environmental Statement (document ref 6.1) addresses this as the text provides information on the value/significance of each heritage asset. The response on the setting is proportionate to the potential impact on the heritage asset. Data on each asset, including information on setting is, presented in Appendix 9.1 - Gazetteer.</p> <p>The study has been informed by a number of sources including the Historic Environment Record, county archives/local studies centres and archaeological surveys including geophysical survey, trial trenching and Unmanned Aerial Vehicle survey. This information is presented in the Environmental Statement Appendices 9.1 - Gazetteer and 9.3 - Desk Based Study (document ref 6.3).</p>
5.128	<p>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:</p> <ul style="list-style-type: none"> • relevant information provided with the application and, where applicable, relevant information 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. 	<p>Section 9.3 Baseline of Chapter 9 Cultural Heritage in the Environmental Statement (document ref 6.1) , and Environmental Statement Appendices 9.1 - Gazetteer and 9.3 - Desk Based Study (document ref 6.3) addresses this by presenting data from a number of sources; Appendix 9.3 Desk Study provides information on the heritage assets in their regional context. Consultation has been undertaken with English Heritage, Cambridgeshire County Council Archaeology Team, and Huntingdon District Council Conservation Officer.</p>

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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.	Section 9.3 Baseline of Chapter 9 in the Environmental Statement (document ref 6.1) describes the value/significance of each heritage asset considered in the EIA.
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 distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials, use and landscaping (for example, screen planting).	Sections 9.3 Baseline and 9.4 and 9.5 impacts assessment of Chapter 9 in the Environmental Statement (document ref 6.1) addresses this providing information on the value/significance of each heritage and the potential adverse and beneficial impacts.
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.	Paragraph 9.2.3 of Chapter 9 of the Environmental Statement states that adverse effects on heritage assets are understood to result in harm to the value of a heritage asset. Paragraph 9.2.21 of Chapter 9 of the Environmental Statement states that residual effects on designated assets of large and very large adverse significance are taken to be commensurate with substantial harm as defined under the NPPF (DCLG, 2012) and the NPS (DIT, 2013). The ES concludes that there will be a range of impacts on individual cultural heritage assets. Some are beneficial and some are adverse. Residual moderate adverse, very large beneficial, large beneficial and moderate beneficial effects are predicted for eight historic buildings during operation. Slight adverse, neutral and slight beneficial residual effects are also predicted during operation for other historic buildings. Overall it is concluded in paragraph 9.8.4 that the scheme will not cause substantial harm to cultural heritage assets. The applicant is of the view that the slight adverse harm to certain assets as identified is justified by the benefit to the other assets and by the value of the scheme as a whole.
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 needed for any loss.	See above.
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: <ul style="list-style-type: none"> • 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. 	Paragraphs 9.1.16, 9.1.17 and 9.2.18 of Chapter 9 in the Environmental Statement (document ref 6.1) note the requirements as defined in NPPF and NPS regarding substantial harm; paragraph 9.8.4 provides concluding remarks with regard to the scheme not having substantial harm on cultural heritage assets.
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 weighed against the public benefits of the proposal, including securing its optimum viable use.	Paragraphs 9.1.16, 9.1.17 and 9.2.18 of Chapter 9 in the Environmental Statement (document ref 6.1) note the requirements as defined in NPPF and NPS regarding substantial harm; paragraph 9.8.4 provides concluding remarks with regard to the impact on the designated assets in Huntingdon, discussing the adverse and beneficial impacts. Reference is made in paragraph 9.8.4 to the chapters that discuss the public benefit of the scheme. The executive summary of Chapter 9 of the Environmental Statement states that residual moderate adverse, very large beneficial, large beneficial and moderate beneficial effects are predicted for eight historic buildings during operation. Slight adverse, neutral and slight beneficial residual effects are also predicted during operation for historic buildings.

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5	GENERIC IMPACTS	
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 significance of different areas of a Conservation area is given in paragraph 9.3.44 of Chapter 9 in the Environmental Statement (document ref 6.1) where positive and negative aspects of the elements (buildings and open spaces) that form the Conservation Area are discussed. The scheme does not require the loss of a building or element of the building in a Conservation Area. There are no World Heritage Sites within the study area.
5.136	Where the loss of significance of any heritage asset has been justified by the applicant based on the 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.	Section 9.6 Mitigation in the Environmental Statement (document ref 6.1) addresses this paragraph by presenting a programme of archaeological investigation, building recording and landscape survey to be included in the scheme programme.
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.	Section 9.6 Mitigation in the Environmental Statement (document ref 6.1) addresses this paragraph by noting the changes made to the design to reduce impact and improve the design elements in Huntingdon Conservation Area and notes a programme of landscape mitigation works in the form of hard and soft landscaping; the latter is presented in further detail in Chapter 10 of the Environmental Statement. The removal of the viaduct is assessed as a beneficial impact on Huntingdon Conservation Area.
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.	There has been and will be no deliberate neglect or damage by Highways England.
Landscape and Visual Impacts		
5.144	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 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.	Chapter 10 Landscape of the Environmental Statement (document ref 6.1) includes a landscape and visual impact assessment and addresses this paragraph as follows: Paragraph 10.3.29 and Table 10.8 include reference to published landscape character assessments. Paragraphs 10.1.5 - 10.1.12, Table 10.1 and Appendix 10.1 include reference to relevant landscape policies.
5.145	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).	Chapter 10 Landscape of the Environmental Statement (document ref 6.1) and Appendix 10.2 - 10.5 addresses this paragraph as follows: A landscape and visual impact assessment is reported which includes effects during construction and operation (during both short and long term). During construction there would be significant adverse effects on 12 of the 21 landscape character areas assessed, although this would reduce to 3 of the 21 during operation in the long term. 1 of the 21 landscape character areas would experience significant beneficial effects during operation in the long term. 640 visual receptors out of 1213 assessed would experience significant adverse visual effects during construction, although this would reduce to 108 during operation in the long term. 240 visual receptors would experience significant beneficial visual effects during operation in the long term. The visual effects reported in Chapter 10 incorporate impacts on local amenity and rural tranquillity and impacts caused by lighting. Impacts on noise are reported in Chapter 14 of the Environmental Statement and impacts on nature conservation are reported in Chapter 11 of the Environmental Statement.
5.146	The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation.	
5.147	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	The Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
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 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.	Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: Paragraphs 10.3.1 - 10.3.85 describe the baseline landscape conditions and the nature of the existing landscape against which landscape effects have been assessed. Landscape effects are described in paragraphs 10.5.1 - 10.5.80. The scheme design and landscape mitigation aim to minimise landscape effects as far as possible, as described in paragraphs 10.4.4 - 10.4.14.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
5.150	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 Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
5.151	<p>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:</p> <ul style="list-style-type: none"> • 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 <p>any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</p>	The Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
5.152	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.	The Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
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.	The Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
5.154	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, 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 Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect any nationally designated landscape.
5.155	The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.	The Executive Summary of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) addresses this paragraph as follows: The scheme would not affect or be visible from any nationally designated landscape.
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.	Paragraphs 10.5.81, Table 10.12 and Appendix 10.1 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) address this paragraph as follows: Whilst the scheme would not directly affect most local landscape designations, the river Great Ouse viaduct would adversely affect part of the Great Ouse valley, which is endorsed by Huntingdonshire District Council as an area of strategic green infrastructure (Huntingdonshire Local Development Framework Core Strategy, adopted September 2009, Policy CS 9 Strategic Green Infrastructure Enhancement). Whilst the promoted Ouse Valley Way Long Distance Path would be retained along the river Great Ouse and beneath the viaduct, and the Ouse would remain navigable, the amenity value of this part of the valley would inevitably be adversely affected. However, the river Great Ouse viaduct has been carefully designed to limit impacts on the Great Ouse valley and to support the views of key stakeholders who indicated that the aesthetic quality of the structure should be a priority consideration. An options design process has been carried out, and a design has been generated to minimise visual intrusion and to maintain views along the valley floor. Mitigation planting would soften the abutments in the long term. It is not therefore considered that the long term impacts on the Great Ouse valley would be significant.
5.157	In taking decisions, the Secretary of State should 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.	Paragraphs 10.4.4 - 10.4.14 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) address this paragraph as follows: landscape mitigation measures include environmental bunds and extensive planting. The scheme has been designed to minimise landscape and visual effects wherever possible, through various options design processes (including for the Great Ouse viaduct) and through amendment to retain valued vegetation in places.
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. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast, especially those defined as Heritage Coast.	Paragraphs 10.5.82 - 10.5.114 and Appendices 10.2 - 10.5 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) address this paragraph as follows: There would be visual effects of high significance on highly sensitive receptors in some areas of the scheme, in the short term before mitigation planting has established. However, the scheme design and landscape mitigation would reduce most visual effects in the long term. There would also be some beneficial visual effects on highly sensitive receptors as a result of the scheme. Any adverse visual effects would not outweigh the significant benefits of the development. Coastal areas and the Heritage Coast would not be affected by the scheme.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
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.	Paragraphs 10.4.4 - 10.4.14 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) address this paragraph as follows: landscape mitigation measures include environmental bunds and extensive planting. The scheme has been designed to minimise landscape and visual effects wherever possible, through various options design processes (including for the Great Ouse viaduct), through amendment to retain valued vegetation in places. The removal of the A14 viaduct in Huntingdon would benefit townscape and some views. It is not considered that any of the landscape mitigation would cause any loss of scale or function of the scheme.
5.160	Adverse landscape and visual effects may be 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.	Paragraphs 10.4.4 - 10.4.14 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) address this paragraph as follows: landscape mitigation measures include environmental bunds and extensive planting. The scheme has been designed to minimise landscape and visual effects wherever possible, through various options design processes (including for the Great Ouse viaduct) and through amendment to retain valued vegetation in places.
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.	This paragraph is not applicable because off site planting does not form part of the DCO process. The proposed planting mitigation illustrated on Figure 3.2 of the Environmental Statement (document ref 6.2) is considered to be adequate and it is not considered that additional off-site planting is essential.
Land use including open space, green infrastructure and Green Belt		
5.165	The applicant should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the 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.	Section 16.3 of Chapter 16 Community and Private Assets in the Environmental Statement (document ref 6.1) identifies existing land uses near the project. Tables 16.13 of Chapter 16 in the ES summarise potential impacts on development plans. In most cases the effects on development land would be beneficial as a result of improvements to access during operation of the scheme.
5.166	Existing open space, sports and recreational buildings and land should not be developed unless the land is surplus to requirements or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location. Applicants considering proposals which would involve developing such land should have regard to any local authority's assessment of need for such types of land and buildings.	Paragraphs 16.1.13 of Chapter 16 Community and Private Assets in the Environmental Statement (document ref 6.1) addresses this paragraph as follows: In line with the above guidance, the scheme design has taken existing land use into account and avoids existing public open space, sports and recreational buildings and land, including playing fields. Paragraph 16.3.46 finds: As the alignment is based on the existing A14 corridor where it passes through the Cambridge Green Belt, some impact on the green belt is unavoidable. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within this part of the green belt. This use is not considered to be inappropriate as it is an existing major transport route and overall the effect on the green belt is predicted not to be significant. Paragraph 10.6.2 of Chapter 10 (Landscape) of the Environmental Statement states that within certain areas of Huntingdon the scheme would have an urbanising effect, by reducing the extent of privately owned green space at Views Common and, in particular, Mill Common. Views Common, notwithstanding the name, is neither common land nor open space as defined by section 131 of the Planning Act 2008, but is privately owned land crossed by linear public rights of way. The status of Mill Common is the same as that of Views Common save for a small triangular area which (possibly through historical anomaly or administrative error) is registered common land. A small amount (171 square metres) of the common land within Mill Common is required for the scheme. As it is required for highway widening and because the area is less than 200 square metres, the statutory protections for special category land (commons and open space) are not engaged. However, the section of the existing A14 embankment to the east of the Views Common roundabout would be removed as part of the scheme, and this removal would create new green space within Views Common and reduce severance of Views Common caused by the existing A14. The removal of the existing A14 viaduct and its associated traffic, embankment and sign gantries would cause localised beneficial landscape and visual effects of high significance. The scheme will also affect recreational land coming within the definition (in the Planning Act 2008) of open space, in that it would require the acquisition of a strip of land at the edge of a golf course set within the grounds of the Menzies Hotel, located to the south of the existing A14 at Bar Hill. This land is required to facilitate highway drainage in connection with the widening of the existing A14. It is land along the perimeter boundary of the golf course (adjacent to the existing A14) and as it does not comprise any part of the practice area, tees, fairways or greens of the golf course, its replacement would be unnecessary. As such, it comes within the exemptions to the statutory protections for open space land. Further explanatory detail regarding the effect of the scheme on common land and open space land (as outlined above) is provided in the Statement of Reasons (document ref 4.1) at section 11.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
5.168	<p>Applicants should take into account the economic and other benefits of the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification). Where significant development of agricultural land is demonstrated to be necessary, applicants should seek to use areas of poorer quality land in preference to that of a higher quality. Applicants should also identify any effects, and seek to minimise impacts, on soil quality, taking into account any mitigation measures proposed. Where possible, developments should be on previously developed (brownfield) sites provided that it is not of high environmental value. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination and how it is proposed to address this.</p>	<p>Paragraph 16.5.4 of Chapter 16 Community and Private Assets in the Environmental Statement (document ref 6.1) addresses this paragraph with regards agricultural land use as follows: Where possible, the loss of agricultural land, particularly that in the best and most versatile category, would be minimised by keeping the footprint to a practical minimum and by appropriate soil handling and earth work procedures to protect fertile soils. Although the design of the scheme reduces the land take required from the best and most versatile agricultural land, due to the high quality of agricultural land in the surrounding area, some loss is unavoidable. Restoration of land temporarily used for construction activities to agricultural use would occur where possible. Impacts on soil quality will be minimised by mitigation measures outlined within Appendix 12.2 of the Environmental Statement (document ref 6.3) (the Soil Management Strategy).</p> <p>Whilst the scheme will pass through areas generally unaffected by land contamination there are some areas where potentially contaminative land uses (current and historic) have been identified, including landfills and fuel stations/depots. These are outlined within Environmental Statement Chapter 12 Geology and Soils of the scheme, with a site by site list presented in Appendix 12.1 in the Environmental Statement (document ref 6.3). The potential for contamination to impact upon land contamination conditions has been assessed within the ES following methodology outlined within CLR: 11 Model Procedures for the Management of Land Contamination (Environment Agency, 2004). The assessment has been based on desk based study and site visits as well the results of intrusive investigation which has included chemical laboratory testing of soil and groundwater samples. Further data has been collated from the operators of landfills adjacent to the scheme in order to provide a robust assessment of likely impacts. In addition, further ground investigation is on-going which will be used during detailed design to ensure that risks to human health and the environment are minimised during construction and operation of the scheme.</p> <p>Paragraph 1.1.6 of Appendix 12.2 (Soil Management Strategy) of the Environmental Statement states that 1.1.6 there are limited opportunities for the scheme to avoid affecting high quality agricultural land and soil. The majority of the surrounding landscape within Cambridgeshire supports valuable agricultural land. The implementation of the soil management strategy would reduce the risk of losing, damaging and contaminating valuable soil resources during construction.</p>
5.169	<p>Applicants should safeguard any mineral resources on the proposed site as far as possible.</p>	<p>Environmental Statement (document ref 6.1) Chapter 3 Description of the Scheme and Environmental Statement Chapter 4 Main Alternatives identifies that the nature of the scheme limits the scope to avoid large mineral resource areas of search on the line of the scheme.</p> <p>Paragraph 6.6.10 of Chapter 6 Policy Context in the Case for the Scheme (document ref 7.1) states that the primary aggregates required for the scheme would be obtained from borrow pits located within the scheme's footprint. Some of which are within allocated areas for mineral extraction.</p>
5.170	<p>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.</p>	<p>Paragraphs 16.3.46 of Chapter 16 Community and Private Assets in the Environmental Statement (document ref 6.1) addresses this paragraph as follows: As the alignment is based on the existing A14 corridor where it passes through the Cambridge Green Belt, some impact is unavoidable. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within this part of the green belt. This use is not considered to be inappropriate as it is an existing major transport route and overall the effect on the green belt is predicted not to be significant, despite some localised impact on the openness of the green belt, as described in the Environmental Statement Chapter 10 Landscape.</p> <p>The green belt of Cambridge is considered but as the scheme is online through this section the effect is minimal and considered an appropriate use. Although the offline sections of the scheme are predominantly through agricultural land, the scheme would result in some severance of the existing green infrastructure resource. The substantial belts of woodland planting proposed would however, largely mitigate this and serve to reinforce the existing resource as well as creating new green infrastructure.</p>
5.171	<p>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.</p>	<p>Paragraphs 16.3.46 of Chapter 16 Community and Private Assets in the Environmental Statement (document ref 6.1) addresses this paragraph as follows: As the alignment is based on the existing A14 corridor where it passes through the Cambridge Green Belt, some impact is unavoidable. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within this part of the green belt. This use is not considered to be inappropriate as it is an existing major transport route and overall the effect on the green belt is predicted not to be significant, despite some localised impact on the openness of the green belt, as described in the Environmental Statement Chapter 10 Landscape.</p>
5.173	<p>Where the project conflicts with a proposal in a development plan, the Secretary of State should take 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.</p>	<p>Chapter 18 Cumulative Effects of Environmental Statement (document ref 6.1) : No conflict with proposals in the development plan have been identified. No major conflict identified, scheme appears beneficial in most cases due to improved access. Chapter 6 of the Case for the Scheme provides a high level assessment of the scheme's strategic alignment with current national and local planning policies.</p>

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
5.174	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 16 Communities and Private Assets and paragraph 16.1.13 states that "the scheme design has taken existing land use into account and avoids public open space, sports and recreational buildings and land, including playing fields".</p> <p>Paragraph 10.6.2 of Chapter 10 (Landscape) of the Environmental Statement states that within certain areas of Huntingdon the scheme would have an urbanising effect by reducing the extent of privately owned green space at Views Common and, in particular, Mill Common. Views Common, notwithstanding the name, is neither common land nor open space as defined by section 131 of the Planning Act 2008, but is privately owned land crossed by linear public rights of way. The status of Mill Common is the same as that of Views Common save for a small triangular area which (possibly through historical anomaly or administrative error) is registered common land. A small amount (171 square metres) of the common land within Mill Common is required for the scheme. As it is required for highway widening and because the area is less than 200 square metres, the statutory protections for special category land (commons and open space) are not engaged. However, the section of the existing A14 embankment to the east of the Views Common roundabout would be removed as part of the scheme, which would create new green space within Views Common and reduce severance of Views Common caused by the existing A14. The removal of the existing A14 viaduct and its associated traffic, embankment and sign gantries would cause localised beneficial landscape and visual effects of high significance. The scheme will also affect recreational land coming within the definition (in the Planning Act 2008) of open space, in that it would require the acquisition of a strip of land at the edge of a golf course set within the grounds of the Menzies Hotel, located to the south of the existing A14 at Bar Hill. This land is required to facilitate highway drainage in connection with the widening of the existing A14. It is land along the perimeter boundary of the golf course (adjacent to the existing A14) and as it does not comprise any part of the practice area, tees, fairways or greens of the golf course, its replacement would be unnecessary. As such, it comes within the exemptions to the statutory protections for open space land. Further explanatory detail regarding the effect of the scheme on common land and open space land (as outlined above) is provided in the Statement of Reasons (application document ref 4.1) at section 11.</p>
5.175	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 10 Landscape refers to the Cambridgeshire Green Infrastructure Strategy June 2011 which identifies the network of green infrastructure across Cambridgeshire. The strategy is made up of a group of overarching themes including:</p> <ul style="list-style-type: none"> - Biodiversity - Climate change - Green Infrastructure gateways - Heritage - Landscape - Publicly Accessible Open Space - Rights of Way <p>These themes are addressed in the various chapters of the Environmental Statement. The Cambridgeshire Green Infrastructure Strategy identifies a large are of Cambridgeshire as part of its Strategic Green Infrastructure Network, including much of the land around the scheme. The scheme has been designed to minimise impact on green infrastructure with mitigation including landscape planting, wildlife corridors and non-motorised vehicle routes which help to maintain and enhance the green infrastructure network.</p>
5.176	<p>The decision-maker should take into account the economic and other benefits of the best and most 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.</p>	<p>Paragraphs 16.5.4 of Chapter 16 in the Environmental Statement (document ref 6.1) addresses this paragraph as follows: Where possible, the loss of agricultural land, particularly that in the best and most versatile category, would be minimised by keeping the footprint to a practical minimum and by appropriate soil handling and earth work procedures to protect fertile soils. Although the design of the scheme reduces the land take required from the best and most versatile agricultural land, due to the high quality of agricultural land in the surrounding area, some loss is unavoidable. Restoration of land temporarily used for construction activities to agricultural use would occur where possible.</p>
5.178	<p>When located in the Green Belt national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development.</p>	<p>Paragraphs 16.3.46 of Chapter 16 in the Environmental Statement (document ref 6.1) addresses this paragraph as follows: As the alignment is based on the existing A14 corridor where it passes through the Cambridge Green Belt, some impact is unavoidable. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within this part of the green belt. This use is not considered to be inappropriate as it is an existing major transport route and overall the effect on the green belt is predicted not to be significant, despite some localised impact on the openness of the green belt, as described in Chapter 10.</p> <p>The green belt of Cambridge is considered but as the scheme is online through this section the effect is minimal and considered an appropriate use. Although the offline sections of the scheme are predominantly through agricultural land, the scheme would result in some severance of the existing green infrastructure resource. The substantial belts of woodland planting proposed would however, largely mitigate this and serve to reinforce the existing resource as well as creating new green infrastructure.</p>

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5.181	The Secretary of State should also consider whether 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.	Paragraphs 10.4.4 - 10.4.14 of Chapter 10 Landscape of the Environmental Statement (document ref 6.1) describe the landscape mitigation that is illustrated on Environmental Statement (document ref 6.2) Figure 3.2. It has not been considered necessary to secure mitigation of any adverse effects on green infrastructure by means of planning obligation.
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.	Mineral safeguarding policies for the area are set out in the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan (July 2011). The scheme does encroach upon some of these areas and this is acknowledged in the Case for the Scheme (document ref 7.1). The Development Plan policy requires that the Mineral Planning Authority (Cambridgeshire County Council) are consulted about proposed development within the safeguarded area. With respect to the proposed A14 scheme they have been consulted and they do not raise any objections on this issue. Primary aggregates required for the scheme would be obtained from borrow pits located within the scheme's footprint. Some of which are within allocated areas for mineral extraction.
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.	Chapter 10 Landscape of the Environmental Statement (document ref 6.1) states that restoration plans for the borrow pits would provide for sensitive restoration of the borrow pits into the surrounding topography in keeping with the surrounding landscape character. Appendix 3.3 of the Environmental Statement (document ref 6.3) sets out further information on the restoration proposals for the borrow pit sites which include landscaping areas and nature conservation habitat creation.
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 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.	Chapter 15 Effects on All Travellers of the Environmental Statement (document ref 6.1) confirms that the scheme design seeks to mitigate effects on rights of way and national trails by including bridges or types of crossing points to cross the new highway and landscaping to minimise landscape effects. In many locations the access to public rights of way is improved as the proposed new shared use cycle track/pedestrian route links rights of way that were historically truncated or severed by the A14 dualling. Consideration has also been given in the assessment to the amenity for Non-Motorised Users. The DCO submission includes new cycle tracks where widths have been agreed with Cambridgeshire CC, taking into account edge shyness. In some locations in Huntingdon where new road links would otherwise cause barriers to pedestrian/cycle movement, it has been agreed with CCC that there will be priority for Non-Motorised Users over vehicular travellers. This will help to protect convenience for active travel. The environmental bunds and tree planting will help in some locations to mitigate the intrusiveness of the new highway infrastructure on existing rural public rights of way. Chapter 10, Landscape, considers the effect of the scheme on public rights of way and regional/national trails as visual receptors. Chapter 15 describes the mitigation included as part of the design and further measures to be implemented as part of the code of construction practice. Section 7 'A Positive Legacy' in the Case for the Scheme (DCO ref 7.1) sets out the Non-Motorised Users facilities. Section 5 of the Transport Assessment (document ref 7.2) Sets out sustainable modes of transport.
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.	Effects of impacts on wildlife and biodiversity from noise has been assessed in full in the Environmental Statement (document ref 6.1) Chapter 11 Nature conservation, in section 11.5 Impacts, mitigation and significance of effects.

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5.189	<p>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:</p> <ul style="list-style-type: none"> • 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. • 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: <ul style="list-style-type: none"> o In the shorter term such as during the construction period; o in the longer term during the operating life of the infrastructure; o 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. 	<p>Environmental Statement (document ref 6.1) Chapter 14 Sound Noise and Vibration - The assessment has been in accordance with DMRB, HD213/11 which covers the various aspects required by NPS NN 5.189. Specifically, the assessment covers daytime and night-time periods using Calculation of Road Traffic Noise prediction modelling for the scheme operation.</p> <p>Sensitive receptors have been identified using Ordnance Survey address data supplemented by consultation responses and on-site observation.</p> <p>The characteristics of the existing environment are described in Chapter 14 and Appendix 14.2.</p> <p>Construction and operation noise have been assessed, for day/evening/night as appropriate to the sources</p> <p>The effect of predicted changes in the noise environment on any noise sensitive premises and noise sensitive areas are assessed in Chapter 14 and Appendices 14.4, 14.5 and 14.6 and illustrated in Figures 14.3-14.7. 14.2.7. Assessment of operational noise change uses a comparison of traffic data projected with and without the scheme, both in the opening year (2020), and in the future assessment year (2035), i.e. the year of maximum projected traffic flow within 15 years of opening. The following scenarios have been considered:</p> <ul style="list-style-type: none"> • existing environment (2014); • baseline year (2016); • do-minimum (without the scheme) in the opening year (2020); • do-minimum (without the scheme) in the future assessment year (2035); • do-something (with the scheme) in the opening year (2020); and • do-something (with the scheme) in the future assessment year (2035). <p>To simplify reporting the assessment has focused on the long term noise effects (i.e. with-scheme 2035 vs without-scheme 2020) as required by DMRB HD213/11 (Highways England et al., 2011). The do-minimum 2035 was also considered to ensure that any significant effects identified were not a consequence of traffic growth.</p> <p>Mitigation of significant effects of the base scheme is described for construction and operation in Chapter 14, Appendix 14.4 and 14.6. The assessment includes assessment of the effect of predicted changes in the noise environment on noise sensitive premises and noise sensitive areas.</p> <p>With reference to the policy and guidance itemised in response to 5.172 it is considered that the assessment is appropriate and proportionate.</p>
5.190	<p>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.</p>	<p>The study area for operational noise (see Figure 14.1) is defined in accordance with DMRB HD213/11 (Highways England et al., 2011), as 600m around new or altered highways and sections of existing roads within 1km of the new works that are predicted to be subject to a change in noise level of more than 1dB(A) as a result of the scheme on opening in 2020. Environmental Statement Chapter 14 Noise and Vibration paragraph 14.2.3 states that operational adverse effects have been assessed outside the study area. No significant effects outside the study area have been identified arising from the scheme. For completeness, the assessment of adverse effects outside the study area is described qualitatively in Environmental Statement Appendices 14.5 and 14.6 (document ref 6.3).</p>
5.191	<p>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. The prediction of noise from new railways should be based on the method described in Calculation of Railway 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 strategies</p>	<p>Design Manual for Roads and Bridges Volume 11, Section 3 was followed. Calculation of Road Traffic Noise was followed. The assessment followed BS5228-1 and 2, the guidance within TRL Report 429, ANC guidelines for the assessment of groundborne noise and vibration, BS7385-2, BS6472-1 and BS ISO 4866.</p>
5.192	<p>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.</p>	<p>Effects on wildlife/ecology including noise (and vibration) are described in the Environmental Statement Chapter 11 Nature Conservation (document ref 6.1) and Chapter 10 Landscape covers tranquillity.</p>
5.193	<p>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.</p>	<p>Section 14.1.9 to 14.1.30 of the Environmental Statement (document ref 6.1) Chapter 14 Sound Noise and Vibration identifies the legislation, policy, regulations, guidance and standards that are relevant to this assessment. Section 14.1.12 to 14.1.19 specifically addresses national policy.</p> <p>As stated in section 14.1.18 the thresholds adopted for noise policy adverse effect levels have been applied following the precedent set on recent major infrastructure schemes (e.g. High Speed 2 and the Thames Tideway Tunnel).</p> <p>Section 14.1.26 confirms that The scope and methodology (section 14.2) sets out how likely significant effects, in terms of the EIA Regulations, have been identified for noise and vibration taking account of government noise policy and all other relevant regulations, guidance and standards.</p> <p>As detailed in the executive summary in Chapter 14 Sound Noise and Vibration, there would be around 330 dwellings with a minor adverse or greater noise impact predominantly along the new bypass section of the scheme between Brampton interchange and Fen Drayton. The magnitude of noise increases and the number of people adversely affected by them has been minimised by noise mitigation integrated into the scheme, in line with the aim of government noise policy to minimise as far as sustainable adverse impact on health and quality of life.</p>

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5.194	<p>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.</p>	<p>Noise mitigation has been developed from a multidisciplinary view. Environmental Statement (document ref 6.1) Chapter 14 Sound, Noise and Vibration presents mitigation measures at Section 14.5</p> <p>To ensure that additional mitigation is sustainable, the provision has been subject to the following tests:</p> <ul style="list-style-type: none"> • Benefit (monetised benefit of noise reduction evaluated using WebTAG) compared to cost of the mitigation; • Engineering practicability; • Other environmental effects potentially caused by the mitigation (for example landscape or visual effects); and • Stakeholder engagement and consultation responses.
5.195	<p>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:</p> <ul style="list-style-type: none"> • 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. 	<p>The assessment criteria for the Environmental Statement (document ref 6.1) Chapter 14 Sound Noise and Vibration have been. In respect of this test, the key matters that have been central to the assessment of the A14 Improvement Scheme are:</p> <ul style="list-style-type: none"> • Adverse effects on health and quality of life have been minimised by maximising on-site mitigation as far as is sustainable (second aim of 5.195), significant adverse effects on health and quality of life has been avoided by the combination of on-site and off-site mitigation (the first aim of 5.195) [DL 70, 75] - refer to Chapter 14 Section 14.2 and Appendix 14.3 of the ES; and • The need to take better account of effects on the external environment [ExA Report 12.181 and DL 59] - refer to Section 14.2 and Appendix 14.3 of the ES. <p>The Executive Summary of Chapter 14 of the ES sets out how the three aims of Government noise policy (and hence 5.195 of the NPSNN) are met by the proposed scheme.</p> <p>Noise insulation would be provided for qualifying properties close to construction activities where noise would otherwise be disruptive. When the scheme is operational, a small number of residential properties situated close to the scheme would qualify for noise insulation under the Government's regulations. Noise insulation combined with mitigation integrated into the scheme would avoid any significant adverse impact on health and quality of life, consistent with Government noise policy.</p> <p>The Code of Construction Practice in Appendix 20.2 of the Environmental Statement defines the how best practicable means will be employed to minimise noise and how site specific noise controls would be agreed with the local authorities before construction is started. There would be around 330 dwellings with a minor adverse or greater noise impact when the road is operational. These are predominantly located along the new bypass section of the scheme between Brampton interchange and Fen Drayton. The magnitude of noise increases and the number of people adversely affected by them has been minimised by noise mitigation integrated into the scheme, in line with the aim of Government noise policy to minimise as far as sustainable adverse impact on health and quality of life. Mitigation measures designed into the scheme to reduce noise impacts during operation include careful design of the alignment and cuttings, the use of low noise road surfacing, landscaped earthworks and installation of noise fence barriers at a number of locations along the scheme.</p> <p>During operation, over 2,900 dwellings along the existing A14 corridor through Huntingdon, Godmanchester and Fenstanton and many sensitive non-residential facilities, including Hinchingbrooke Hospital, Stukeley Meadow Primary School and Hemingford Nursery School would benefit from noise reductions as a result of the scheme. These improvements would result mainly from the re-routing traffic out of town and along the new bypass. Noise improvements also result from the provision of low noise road surfacing, and a number of noise barriers along the modified sections of the existing A1 and A14, including the Cambridge Northern Bypass. Existing noise barriers would be enhanced by the scheme at a number of locations, particularly at Giron and Impington. These noise reductions are in line with the aim of Government noise policy (NPS NN 5.195) to improve health and quality of life, where possible.</p>
5.196	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 14 Sound, Noise and Vibration covers noise impacts during construction and operation and identifies appropriate mitigation where necessary. The general approach relating to construction is set out in Environmental Statement Appendix 20.2 Code of Construction Practice (document ref 6.3).</p>
5.197	<p>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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 14 Sound, Noise and Vibration covers noise impacts during construction and operation and identifies appropriate mitigation where necessary. The general approach relating to construction is set out in ES Appendix 20.2 Code of Construction Practice (document ref 6.3).</p>
5.198	<p>Mitigation measures for the project should be proportionate and reasonable and may include one or more of the following:</p> <ul style="list-style-type: none"> • 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). 	<p>Environmental Statement (document ref 6.1) Chapter 14 Sound, Noise and Vibration covers noise impacts during construction and operation and identifies appropriate mitigation where necessary. The general approach relating to construction is set out in ES Appendix 20.2 Code of Construction Practice (document ref 6.3). Mitigation measures designed into the scheme to reduce noise impacts during operation include careful design of the alignment and cuttings, the use of low noise road surfacing, landscaped earthworks and installation of noise fence barriers at a number of locations.</p>
5.199	<p>For most national network projects, the relevant Noise Insulation Regulations will apply. These place a duty 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.</p>	<p>Environmental Statement (document ref 6.1) Chapter 14 Sound, Noise and Vibration covers noise impacts during construction and operation and identifies appropriate mitigation where necessary including noise insulation. The general approach relating to construction is set out in Environmental Statement (document ref 6.3) Appendix 20.2 Code of Construction Practice (document ref 6.3). The Environmental Statement has not identified any residual unacceptable effects.</p>

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5.200	Applicants should consider opportunities to address the noise issues associated with the Important Areas as identified through the noise action planning process.	The Important Areas in the scheme noise study area have been considered during the EIA process and as an integral part of the scheme, and are presented in Figure 14.1 Environmental Statement (document ref 6.2). For Important Areas in the on-line improvement sections of the scheme, the use of low noise road surfacing's has been included as Highways England would have completed installation of low noise surfacing's in these areas by 2021. Additionally earthworks and (fence) noise barriers have been considered as part of the EIA and included as appropriate. The Huntingdon Southern Bypass would mitigate noise at a number of the Important Areas on the A14.
Impacts on transport networks		
5.202	Development of national networks can have a variety of impacts on the surrounding transport infrastructure including connecting transport networks. Impacts may include economic, social and environmental effects. The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development.	<p>The consideration and mitigation of transport impacts has been assessed using local traffic forecasts produced using a local transport model that has been produced in line with Department for Transport guidelines. Details are provided in the Transport Assessment (document ref 7.2). Details of economic effects are outlined in the Case for the Scheme (document ref 7.1). Details of social and environmental effects are outlined in the Environmental Statement (document ref 6.1)</p> <p>Chapter 16 of the Environmental Statement paragraph 16.6.14 states that when the scheme is in operation, traffic would be diverted onto the new offline section of the A14 which would result in reductions in traffic levels on the existing local road network and the current A14 route. This would provide relief from existing severance issues between communities and community facilities by easing congestion and reducing hazards. In addition, the de-trunking of the A14 in Huntingdon would ease severance within the town.</p>
5.203	Applicants should have regard to the policies set out in local plans, for example, policies on demand management being undertaken at the local level.	The consideration of policies set out in local plans is Chapter 2 Policy Context of the Transport Assessment (document ref 7.2) and section 6 of the Case for the Scheme (document ref 7.1)
5.204	Applicants should consult the relevant highway authority, and local planning authority, as appropriate, on the assessment of transport impacts.	In accordance with government guidance on the assessment of development proposals, pre-application discussions have been held to agree the scope of the Transport Assessment for the scheme. This has been agreed in consultation with local authorities, notably Cambridgeshire County Council which is also the Local Highway Authority for the Cambridge-Huntingdon area.
5.205	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.	Details on the provision for Non-Motorised Users is outlined in sections 7 and 8 of the Case for the Scheme (document ref 7.1), Chapter 5 Sustainable Transport of the Transport Assessment (document ref 7.2) and the Environmental Statement (document ref 6.1 - 6.5)
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.	<p>The consideration and mitigation of transport impacts has been assessed using traffic forecasts produced using a transport model that has been produced in line with Department for Transport guidelines. This is reflected in the construction of the model networks and zoning system for the traffic model; with skeletal network detail and larger, more aggregate zones for the whole of Great Britain with progressively greater network detail and smaller, more disaggregate zones in the proximity of the scheme</p> <p>Chapter 15 (Effects on all travellers) of the Environmental Statement paragraph 15.20.3 states that during operation, the proposed Huntingdon southern bypass would permanently alter the public rights of way network in the rural area south of the existing A14 between the Offords and Conington. New routes, footbridges and footways would be provided to ensure continued connectivity in the public rights of way network north and south of the new road.</p>
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.	The consideration and mitigation of transport impacts has been assessed using local traffic forecasts produced using a local transport model that has been produced in line with Department for Transport guidelines. Details are provided in the Transport Assessment (document ref 7.2).
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 set out in local plans is Chapter 2 Policy Context of the Transport Assessment (document ref 7.2) and section 6 of the Case for the Scheme (document ref 7.1). The Cambridge to Huntingdon A14 Road Model (CHARM) used to assess the scheme, is underpinned by data from the Cambridge Sub-Regional Model (CSRM), which is widely used for strategic planning and major transport/development schemes in the county. The current published draft local plans for the area have been used as the starting point to derive the 'core' scenario. However, household and employment projections have been reviewed, as outlined in preceding paragraphs, by planning officers from Cambridge City, Huntingdonshire and South Cambridgeshire District Councils
5.215	Mitigation measures for schemes should be proportionate and reasonable, focussed on promoting sustainable development.	Mitigation measures are outlined in the Environmental Statement (document ref 6.1 to 6.5)

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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.	Details of proposed measures to improve access by public transport and sustainable modes where relevant are included in both the Environmental Statement (document ref 6.1) chapter 15 and the Transport Assessment [document ref 7.2], section 5, sustainable transport] Section 7 'A Positive Legacy' in the Case for the Scheme (document ref 7.1) sets out the Non-Motorised User facilities. Section 5 of the Transport Assessment (document ref 7.2) sets out sustainable modes of transport.
5.217	Mitigation measures may relate to the design, lay-out or operation of the scheme.	Mitigation measures are outlined in the Environmental Statement (document ref 6.1 - 6.5)
Water quality and resources		
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 impacts of the proposed project on water quality, water resources and physical characteristics as part of the environmental statement.	Consultation undertaken to date for the scheme is detailed in Chapter 5: Consultation of the Environmental Statement (document ref 6.1) including consultation with the Environment Agency. Environmental Statement (document ref 6.1) Section 17.4 of Chapter 17 Road drainage and the water environment assesses the potential impacts to both surface and groundwater for both construction and operational impacts. In addition, a Water Frameworks Directive (WFD) Compliance Assessment in Appendix 17.3 of the Environmental Statement (document ref 6.3) has been undertaken to assess the potential impacts related to biological quality, physico-chemical quality and hydromorphological elements for all WFD surface waterbodies in the study area.
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.	Chapter 17 (Road drainage and the water environment) paragraph 17.7.10 of the Environmental Statement (document ref 6.1) states that many of the watercourses along the existing A1 and A14 are likely to be receiving untreated and un-attenuated discharge at present. These watercourses would receive discharge that has been subject to attenuation and treatment by the scheme. In addition, there would be fewer vehicles travelling along the de-trunked A14 between Brampton interchange and the tie in to the existing A14; as a result, the pollutant loads entering a number of the watercourses along the proposed de-trunked A14 would be reduced. Therefore, as a result of the scheme, there would be an improvement on the current baseline conditions for water quality of the river Great Ouse catchment as a whole and on these individual watercourses. Overall the effect to the water quality of the river Great Ouse catchment as a result of the scheme is assessed as slight beneficial.
5.223	Any environmental statement should describe: <ul style="list-style-type: none"> • 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; • 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. 	Environmental Statement (document ref 6.1) Chapter 17 Road Drainage and the Water Environment addresses this paragraph as follows: Road drainage and the water environment of the ES describe the: <ul style="list-style-type: none"> - existing quality of surface and groundwater's affected by the A14 Cambridge to Huntingdon improvement scheme. - the existing surface and groundwater resources affected by the proposed project and the impacts of the proposed project on these surface and groundwater sources - 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. Environmental Statement (document ref 6.3) Appendix 17.3 addresses this paragraph as follows: In addition a WFD Compliance Assessment (see Appendix 17.3) has been undertaken to assess the potential impact related to hydromorphological elements for all WFD surface waterbodies in the study area. Environmental Statement (document ref 6.1) Chapter 17 addresses this paragraph as follows: As detailed in Chapter 17 of the Environmental Statement, based on the Environment Agency's website, the route does not lie within any groundwater SPZ. Environmental Statement (document ref 6.1) Chapter 18: Cumulative effects and impact interactions of the ES, address the cumulative effects of the proposed project.
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.	Environmental Statement (document ref 6.1) Paragraph 17.5.17 of Chapter 17 Road Drainage and the Water Environment addresses this paragraph as follows: Road drainage and the water environment of the Environmental Statement, all necessary consents and licences would be in place prior to commencement of any works. The works would be carried out in accordance with any conditions imposed.

NPS Paragraph Number	Requirement of the National Policy Statement for National Networks (NPS)	Compliance with the NPS
5	GENERIC IMPACTS	
5.225	The Secretary of State will generally need to give 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.	<p>Environmental Statement (document ref 6.1) Chapter 17 Road Drainage and the Water Environment addresses addressees the potential impacts to both surface and groundwater for both construction and operational impacts.</p> <p>Environmental Statement Appendix 17.3 (document ref 6.3) addresses this paragraph as follows: In addition a Water Frameworks Directive (WFD) Compliance Assessment (see Appendix 17.3) has been undertaken to assess the potential impact related to Biological quality, elements, Physico-chemical quality and Hydromorphological elements for all WFD surface waterbodies in the study area. The assessment summary and conclusion is set out in chapter 7 and has indicated that if all mitigation measures and best practices are implemented during the detailed design, the impact of the scheme on the seven water bodies would be compliant with WFD.</p> <p>Chapter 17 (Road drainage and the water environment) paragraphs 17.7.6 and 17.7.7 of the ES states that key mitigation measures detailed for the WFD water bodies would include following best practice guidelines in the design of any structures, reducing the length/size of any culverts or headwalls where possible and ensuring that the lateral and longitudinal connectivity of the water bodies is maintained as far as practicable. Integration of planting as part of the landscaping of the scheme would also help enhance the surrounding riparian area. As a result, it is anticipated that there would be no deterioration in the ecological status of any of the seven WFD water bodies within the study area. The impacts would be localised and not impact at the water body scale. The significance of effect has therefore been assessed to be neutral.</p>
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. The Secretary of State should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans, Shoreline/Estuary Management Plans and Marine Plans.	Chapter 17 (Road drainage and the water environment) paragraphs 17.7.6 and 17.7.7 of the Environmental Statement (document ref 6.1) states that key mitigation measures detailed for the WFD water bodies would include following best practice guidelines in the design of any structures, reducing the length/size of any culverts or headwalls where possible and ensuring that the lateral and longitudinal connectivity of the water bodies is maintained as far as practicable. Integration of planting as part of the landscaping of the scheme would also help enhance the surrounding riparian area. As a result, it is anticipated that there would be no deterioration in the ecological status of any of the seven WFD water bodies within the study area. The impacts would be localised and not impact at the water body scale. The significance of effect has therefore been assessed to be neutral.
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 Environment Agency to try to resolve the concerns, and that the Environment Agency is satisfied with the outcome.	Annex A of Appendix 17.1 (Flood Risk Assessment) of the ES is a response from the Environment Agency on flood risk design criteria. The Environment Agency agree with the proposals to provide floodplain compensation on site, on a level for level basis, and on land that is currently outside of the floodplain.
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.	Section 17.5 in the Environmental Statement (document ref 6.1) in Chapter 17 Road Drainage and the Water Environment addresses this paragraph as follows: Mitigation the design of the highway drainage for the A14 has followed this philosophy using Standards contained in the Design Manual for Roads and Bridges Volume 4 (Section 2) Part 3. These Standards include: <ul style="list-style-type: none"> • HD 33/06 – Surface and Sub-surface Drainage Systems for Highways (to be updated as HD33/12). • HD 45/09 - Road Drainage and the Water Environment (Highways England, 2009).