

A14 Cambridge to Huntingdon improvement scheme

Development Consent Order Application
Response to Relevant Representations

HE/A14/EX/25

01 June 2015

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1 Introduction

1.1 Purpose of this report

1.1.1 The report provides a response to the key issues raised by the relevant representations submitted by interested parties. A total of 707 relevant representations were submitted to the Examining Authority as set out below.

- Eight from local authorities;
- Fourteen from other statutory organisations;
- Twenty eight from Parish Councils;
- Thirty two from non-statutory organisations;
- Six hundred and twenty three from members of the public and businesses; and
- Two late relevant representations accepted by the Examining Authority.

1.1.2 The report provides Highways England's response to the principal issues raised, thereby providing a reference document to all interested parties and the Examining Authority.

1.1.3 While all relevant representations have been reviewed and considered, the purpose of this report is not to provide a direct response to each individual relevant representation. Instead, the report identifies key issues on a thematic basis and provide a response to these issues, while also identifying the interested parties who have raised them.

1.1.4 There were a number of relevant representations made that, although they referred to certain topic areas, did not make any specific and detailed point requiring a response. In addition, some relevant representations made reference to points that only apply to the relevant interested party - e.g. site-specific accommodation works – that are being progressed via direct discussions with those parties. For each of those cases, those interested parties are not identified in the tables following in this report. However, the report does state the total number of interested parties that raised an issue at the introduction of each topic section, in order to provide an indication of the level of interest in each topic.

1.2 Structure of this report

1.2.1 The relevant representations raised a wide range of issues, which the report addresses in line with the principal issues identified in Annex C of the Rule 6 letter. The report addresses the relevant representations in the following chapters.

- **Chapter 2 Air Quality and Emissions:**

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- Construction period, including dust, and operational period.
 - **Chapter 3 Biodiversity and Ecological Conservation**
 - Impacts on habits and species.
 - **Chapter 4 Carbon Emissions:**
 - Assessment against the Government's carbon budgets.
 - **Chapter 5 Compulsory Acquisition:**
 - Justification for compulsory acquisition of the land, rights and powers that are sought by draft Development Consent Order.
 - Statutory undertaker land and apparatus.
 - Funding and compensation including blight.
 - Access issues.
 - **Chapter 6 Design and Engineering Standards:**
 - Design concept and process.
 - Road alignment; carriageway design; junctions strategy and design; crossings and elevations.
 - **Chapter 7 Development Consent Order:**
 - Adequacy of the draft Development Consent Order and requirements.
 - Protective provisions and indemnities.
 - **Chapter 8 Economic and Social Effects:**
 - Effects on local and wider economy.
 - Effects on local community.
 - Effects on loss of land.
 - Alternatives to the submitted scheme.
 - **Chapter 9 Environmental Impact Assessment:**
 - Cumulative effects including the effects of other planned developments.
 - **Chapter 10 Landscape and Visual Effects:**
 - Effects of the Great Ouse viaduct structure and artificial lighting.
 - **Chapter 11 Noise and Vibration:**
 - Effects during construction and operational period.
 - **Chapter 12 Planning Policy Context**
 - **Chapter 13 Transportation and Traffic**

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- Soundness of traffic flow predictions and their consequences for the local environment in locations including Brampton, Hilton and Huntingdon town centre.
 - Impact of travel times, traffic volumes and road safety on the surrounding highway network.
 - Effects on public transport.
 - Severance and access issues relating to public rights of way, non-motorised users, agriculture and countryside.
 - Effects of movement of materials and personnel during construction.
 - Effects during construction and operational period.
 - **Chapter 14 Water Issues:**
 - Impact on water quality, local drainage, and ground water during construction and operational periods.
 - Effects on Flood risk.
 - **Chapter 15 Borrow Pits**

1.2.2 The report provides an overview of each issue and reference to the relevant application documentation, making it clear where the issue is covered.

1.2.3 Chapter 15 provides a response to issues raised concerning borrow pits. Borrow pits were not specifically identified as a principal issue in the Rule 6 letter, however as the issue was raised by several interested parties it is covered specifically in this report.

1.3 Statements of common ground

1.3.1 Highways England is in the process of preparing Statements of Common Ground (SoCGs) with over 100 organisations as set out in Highways England's letter to the Planning Inspectorate dated 11 May 2015. This includes local authorities, parish councils and other statutory and non-statutory organisations as well as some land interests. In accordance with Government guidance, the purpose of working with these parties is to agree SoCGs, which identify the principal areas of agreement and disagreement, so that the examination is able to focus on the material differences between the main parties. Many of the issues set out within this report, attributable to the relevant representations submitted by third parties, will therefore be addressed through the process of preparing and agreeing SoCGs.

2 Air quality and emissions

2.1 Overview

- 2.1.1 Forty-nine interested parties raised issues of air quality and emissions in their relevant representations.
- 2.1.2 The Rule 6 letter, Annex C, raises air quality and emissions as a principal issue, including matters concerned with the construction period and the operational period.
- 2.1.3 2.1 provides a summary of the key issues raised regarding air quality, alongside a response from Highways England.

2.2 Where are these issues dealt with in the application documentation?

- 2.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 8 of the *ES (Document reference 6.1)* sets out the likely significant effects of the scheme on air quality (both positive and negative) and a description of mitigation measures proposed to reduce any negative impacts.
- 2.2.2 Within this, Section 8.5 sets out the potential impacts on air quality during the construction and operational phases of the scheme, whilst Section 8.6 highlights the mitigation proposed during these phases.

2.3 Key issues

Table 2-1: Air quality, construction, and operational period

Relevant representation	Key issue	Highways England response
A Yeldham (rep no. 35), Alison Wood (rep no. 603), Andrea Petts (rep no. 662), David Slanley (rep no. 701), Dr David Legge (rep no. 604), Frances Whittaker-Wood (rep no.605), Mrs Hilary Joy Elvery Garth (rep no.231), Josephine Fisher (rep no.576), Marcie Paul (rep no.162), Nigel Wood (rep no.602)	Impacts on Air Quality Management Areas (AQMA) including Fenstanton and Brampton. What actions will be taken to mitigate effects of pollutants from the proposed road?	<p>Impacts on air quality as a result of the scheme (including at all relevant AQMAs) are assessed as part of the environmental impact assessment and are reported, along with proposals for mitigation, in Chapter 8 of the <i>Environmental Statement (ES)</i> (document reference 6.1). Within this chapter, Table 8.9 provides a summary of the modelled results in the AQMAs.</p> <p>The scheme is predicted to improve air quality in the Huntingdon, Fenstanton to Hemingford and Brampton AQMAs.</p> <p>No mitigation is required for the operational phase of the scheme as no significant impacts are predicted. For the construction phase, mitigation measures have been proposed as set out within the <i>Code of Construction Practice</i> (document reference 6.3). These would include measures such as monitoring of dust emissions and control of emissions from site equipment.</p>
Amy Burbidge (rep no. 607), Andrew Boswell (rep no. 199), Daniel Burbidge (rep no. 606)	Impacts on existing poor air quality in East England as a region.	Air quality impacts were assessed across an area defined by the Design Manual for Roads and Bridges (DMRB) screening criteria. Impacts on PCM ¹ links in the Eastern Zone have been assessed to check the scheme's impact upon compliance with European Union (EU) limit values. No significant impacts were predicted on PCM links or across the whole modelled area, which is wholly located within the Eastern Zone. The Eastern Zone covers the whole of the east of England as a region, extending from London eastwards to the coast and north past Peterborough.

¹ Within each zone, air quality modelling is carried out by Defra using the Pollution Climate Mapping (PCM) model in order to predict the concentrations of nitrogen dioxide at 4 metres from the roadside. Where the PCM model predicts that the limit value will be exceeded, then this would be reported to the European Commission as a non-compliance.

Relevant representation	Key issue	Highways England response
<p>Brampton A14 Campaign Group (rep no. 680), David Slanley (rep no.701), Emma Kenyon (rep no.591), Heather Broster (rep no.678), Ian Howkins-Griffiths (rep no. 594), Andrew Boswell (rep no. 199), Ramune Mimiene (rep no. 212), Sandra Walmsley (rep no. 219), Andrea Petts (rep no. 662), Barry Fox (rep no. 241), Barry Jenkin (rep no.206), Campaign for Better Transport (rep no. 275), Mrs Elizabeth Olding (rep no.230), Graeme Gribbin (rep no. 365), Josephine Fisher (rep no. 576), Kate Magill (rep no. 407), Linda Otridge (rep no. 161), Russel Waring (rep no. 346)</p>	<p>Concerns regarding impacts of air pollution on human health, particularly children including: references to the Gauderman Report; schools and communities located close to the scheme that may be affected by air pollution; and the Lancet Oncology study, which found that living near a busy road, can increase the risk of lung cancer.</p>	<p>Impacts from air quality all relate to objectives or limit values set by the Government and the EU at concentrations which are set to protect human health and in particular the health of sensitive individuals such as children.</p> <p>Impacts at all communities where changes in traffic could impact air quality along the scheme have been assessed in the air quality modelling. The scheme results in improvements in air quality in the main urban areas affected by the scheme. Huntingdon in particular would experience an improvement in air quality in the town and around the AQMA area.</p> <p>More importantly, as the scheme does not breach any UK/EU air quality standards and as it generally improves air quality in urban areas the overall impact of the scheme is an improvement in air quality particularly in the urban areas. As Gauderman noted in a later study², improved air quality resulted in improvements in lung-function growth in children and consequently we expect that the scheme has an overall benefit to health as pollutant concentrations will reduce in the more populated urban areas.</p>
<p>G D Williams (rep no. 15), Matthew Petts (rep no. 564), Brampton A14 Campaign Group (rep no. 680), Nicholas Warner (rep no.703)</p>	<p>The scheme does not comply with the EU Health Strategy (Unconditional Protection of Children's Health), the World Health Organisation's (WHO) 'Children's Environment and Health Action Plan' and EU Air Quality Directives.</p>	<p>The EU Health Strategy and WHO reports do not set air quality limits, which are more stringent than those in the EU Directive, which were used to assess air quality impacts from the scheme.</p> <p>Impacts from air quality comply with air quality objectives or limit values set by the Government and the EU; these are set at concentrations that protect human health and in particular the health of sensitive individuals such as children.</p> <p>No exceedances of the health based objectives or limit values are predicted as a result of the scheme, the scheme is predicted to improve air quality in</p>

² Gauderman, W.J. et al, Association of Improved Air Quality with Lung Development in Children, The New England Journal of Medicine, Vol 372 (10), p905-913

Relevant representation	Key issue	Highways England response
		the main urban areas currently impacted by air pollution from the A14. There is no risk of non-compliance with the EU limit values.
Amy Burbidge (rep no. 607), Daniel Burbidge (rep no. 606), Dr David Legge (rep no. 604), Histon & Impington Parish Council (rep no.657), John Farrel (rep no. 612), Mr Dan Jenkins (rep no. 706)	Speed limits would mitigate impacts on air quality.	No significant impacts were predicted during the operational phase of the scheme, therefore no mitigation is required as detailed in section 8.6 of the air quality chapter (8) of the ES.
Histon & Impington Parish Council (rep no. 657), John Farrell (rep no. 612), Dr Dan Jenkins (rep no. 706), Andrew Boswell (rep no. 199), Sandra Walmsley (rep no. 219), Dr David Legge (rep no. 604)	Concerns regarding an increase of NO ₂ , PM _{2.5} and PM ₁₀ s. PM _{2.5} s and PM ₁₀ s have not been properly assessed and there are concerns with the lack of baseline data for PM ₁₀ s and PM _{2.5} s.	<p>Information from the scheme specific monitoring and existing long term local authority monitoring was used to establish baseline conditions for the main pollutants of concern for the assessment NO₂ and PM₁₀, across the scheme area. Full results of all monitoring used in the assessment are provided in ES Appendix 8.1 (<i>document reference 6.3</i>), this provides a robust assessment of the baseline conditions for these pollutants.</p> <p>The assessment of PM_{2.5} is not required as part of the DMRB methodology. A review of PM_{2.5} monitoring data from the Defra run Automatic Urban and Rural Network stations across the UK indicates no exceedances of the PM_{2.5} pollutant threshold. As such, no exceedances of PM_{2.5} threshold would occur in this area and consequently no baseline assessment for PM_{2.5} was undertaken. The air quality impacts for the scheme have been properly assessed in accordance with relevant guidance and national policy.</p>
Dr Jan Axmacher (rep no. 444)	The scheme does not include sufficient air quality mitigation measures. Highways England have not provided any details as to how they intend to minimise the impact and protect communities along the route. In particular, Station Cottages need an appropriate barrier to minimise air pollution.	No significant impacts are predicted during the operational phase of the scheme, therefore no mitigation is required, as detailed in section 8.6 of the air quality chapter (8) of the ES. Barriers are an unproven mitigation method for air quality impacts.

Relevant representation	Key issue	Highways England response
Mr A G Peacock (rep no. 592), Mrs Elisabeth Olding (rep no. 230), Mr B Quail (rep no. 714), Brampton A14 Campaign Group (rep no. 680), Victoria Curtis (rep no. 692)	Impacts of borrow pits on air pollution, including road and cement processing plant and gravel extraction that would significantly damage health of Brampton residents.	Impacts of the construction phase have been assessed in chapter 8 of the ES; including the impacts from borrow pits and road construction near to Brampton. Mitigation measures to control any impacts have been included within the <i>Code of Construction Practice</i> (Appendix 20.2, document reference 6.3). As noted within section 8.6 of the ES, experience across a range of construction sites has shown that application of best practice mitigation measures will reduce dust impacts to a negligible level.

3 Biodiversity and ecological conservation

3.1 Overview

- 3.1.1 Fifteen interested parties raised issues concerned with biodiversity and ecological conservation in their relevant representations.
- 3.1.2 The Rule 6 letter, Annex C, includes biodiversity and ecological conservation as a principal issue, including matters concerning impacts on habitats and species.
- 3.1.3 Table 3.1 provides a summary of the key issues raised regarding biodiversity and ecological conservation alongside a response from Highways England.

3.2 Where are these issues dealt with in the application documentation?

- 3.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 11 of the *ES* (document reference 6.1) sets out the likely significant effects of the scheme on ecology and nature conservation (both positive and negative) and a description of mitigation measures proposed to reduce any negative impacts on ecology.
- 3.2.2 Within this, Section 11.5 of Chapter 11 of the *ES* sets out the ecological habitats and species, as set out below, and the impacts that have been assessed.
 - Portholme Special Area of Conservation (SAC) /Site of Special Scientific Interest (SSI).
 - Ouse Washes SAC/Special Protection Area (SPA) /Ramsar Site/SSSI.
 - Eversden and Wimpole Woods SAC/SSSI.
 - SSSIs.
 - County Wildlife Sites, County Important Wildlife Sites, Road Side Verges.
 - Phase 1 Habitats:
 - broadleaved woodland, semi-natural;
 - broadleaved woodland, plantation;
 - trees;
 - hedge, species-poor intact;

-
- running water;
 - standing water;
 - wet ditch;
 - swamp and marginal inundation;
 - aquatic invertebrates;
 - terrestrial invertebrates;
 - fish;
 - great crested newt;
 - breeding birds;
 - barn owl;
 - wintering birds;
 - bats;
 - otter; and
 - water vole.

3.3 Key issues

Table 3-1: Impacts on habitats and species

Relevant representation	Key issue	Highways England response
<p>Dr Jeremy Bartlett (rep no. 207), Andrew Boswell (rep no. 199), Campaign for Better Transport (rep no. 275), Heather Marshall (rep no. 89), Penny Edwards (rep no. 246)</p>	<p>A new road across the Great Ouse floodplain will damage biodiversity including an important wildlife habitat and corridor.</p>	<p>The scheme would pass directly over the River Great Ouse via a viaduct; however, there would be no in-channel works such as support piers or bed structures required.</p> <p>There would be no habitat loss in the River Great Ouse, although some adjacent habitat would be lost during construction. This would be mitigated through restoration of the habitats damaged and enhancement of the habitats in the adjacent county wildlife site.</p> <p>The residual effect on the county wildlife site was assessed as neutral. Other potential impacts via changes to the environmental conditions including water quality, dust, noise, air quality, and shading were also considered to have a neutral significance during operation. Although there would be a possibility of significant residual effects on Cetti's and grasshopper warblers in this area, the <i>Environmental Statement</i> reports that there would be neutral or beneficial effects on all other habitats and species.</p> <p>Restoration of the borrow pits and management thereafter (subject to ongoing discussion) would provide compensation for the residual effects on the two warbler species.</p>
<p>William George Topham (rep no.637), Miss Jean Mary Papworth (rep no. 641), Environment Agency (rep no. 669)</p>	<p>Who will be responsible for the management and maintenance of proposed habitat and ecological mitigation areas? A financially supported long-term monitoring and maintenance plan is required to ensure successful mitigation.</p>	<p>The receptor sites for water voles and great crested newts, along with the biodiversity mitigation areas and landscaping would be managed as part of the Highways estate in perpetuity by Highways England's managing agents. The management and maintenance would be carried out according to a Handover Management Plan prepared at the end of the five-year maintenance period during which the scheme will be maintained by the construction contractors.</p>

Relevant representation	Key issue	Highways England response
		The habitats created in the restoration of the borrow pits would be managed for a five year maintenance period after the end of construction. The management of the borrow pits thereafter is subject to ongoing discussion with Cambridge County Council.
Miss Jean Mary Papworth (rep no. 641), William George Topham (rep no.637), Swansley Wood Partnership (rep no. 642)	The extent of habitat mitigation areas is unclear. Does it include the proposed tree and shrub planting?	Yes, all proposed tree and shrub planting is included in the habitat mitigation. The area of habitat being created as part of the scheme (and therefore considered as mitigation for habitat loss during construction) includes all the landscape planting, the receptor sites for water voles and great crested newts, along with the biodiversity mitigation areas. Combined, these form the permanent habitats that would be managed in the long term as part of the Highways estate. The tree and shrub planting for landscaping purposes will be designed for the benefit of wildlife in the same way that the biodiversity-specific habitat creation will be. The only difference is that the biodiversity habitat areas have been added to the scheme as an additional requirement over and above the planting already required for landscaping.
Environment Agency (rep no. 669)	The proposed biodiversity mitigation areas need to be linked as part of a network of wildlife corridors.	The biodiversity areas have been designed to connect to the linear landscape plantings. Wherever possible, sites have been selected due to their proximity to existing biodiverse habitats, such as woodlands and wetlands, to increase the ecological network connectivity in this predominantly arable landscape.
Environment Agency (rep no. 669)	Concerns regarding ecological implications of the diversion of the West Brook and Alconbury Brook.	The diversions to the West Brook and Alconbury Brook are required. The design of the new channels would include site specific enhancements to the existing structure and habitats of each watercourse. The result of the enhancements would aim to improve the overall ecological quality of the realigned sections of river. Where protected species such as water vole are present these will be trapped and trans-located to the newly created habitats nearby to the diverted channels to ensure a net gain of habitat for these species. Highways England is in the process of preparing a statement of common ground with the Environment Agency, which will address these issues.
Environment Agency (rep no. 669), Mrs Christina Sheppard	Concerns regarding loss of long-term sustainability of water vole	The water voles in the area have been surveyed as part of the environmental impact assessment, as reported in the ES, and there would be pre-construction surveys prior to the commencement of any works on the

Relevant representation	Key issue	Highways England response
(rep no. 301), Natural England (rep no. 660)	populations and direct impacts on water vole.	<p>watercourses. The population has been evaluated as of the local ecological value, as it is widespread but at low densities due to the limited availability of suitable habitat in this highly managed arable landscape.</p> <p>There would be an increase in suitable habitat for water vole as a result of the scheme because of enhancements to watercourses and water vole-specific habitat creation.</p> <p>Three small colonies of water vole have been identified within or near the footprint of the scheme. Mitigation for these and draft applications for conservation licenses to disturb them are currently with Natural England for consultation. A requirement for the licenses is the demonstration that the favourable conservation status of the species will not be adversely affected.</p>
Natural England (rep no. 660)	Further resolution is required on potential impacts on European Protected Species (EPS).	Consultation with Natural England on draft European protected species licence applications for great crested newt and bats is ongoing as part of the preparation of statement of common ground (SoCG) between Highways England and Natural England. The SoCG will be issued to the Examining Authority as per the Examination timetable. This will detail the impact assessment and proposed mitigation.
Natural England (rep no. 660), Environment Agency (rep no. 669)	The impacts on Great Crested Newt populations and mitigation and monitoring details will need to be provided in a draft licence submission.	A draft European protected species licence application has been submitted to Natural England and comments received from them. It is planned that a second draft will be issued in June 2015, following incorporation of Natural England's advice. It is anticipated that Natural England would then issue a letter of no impediment to the Examining Authority, when it is satisfied that the draft licence application demonstrates that the legal tests could be met prior to the start of construction.
Natural England (rep no. 660)	Further information is requested on the culvert/tunnel design and lighting strategy to justify neutral impact on severance of bat habitats.	There is sufficient detail in the ES on the approach to the design of the culvert/tunnel and lighting strategy to assess the likely significant impacts on bat habitats and to make the appropriate recommendations for mitigation. Further detail of that mitigation, including lighting and approach planting and fencing will be consulted upon with Natural England during the detailed design process following (if the application is granted) the development consent order being made.

Relevant representation	Key issue	Highways England response
Natural England (rep no. 660)	Further surveys are required in 2015, concentrating on high potential and known bat roost features to be affected by the development, so that data is up to date for bat licence applications.	<p>Surveys of bat roosts necessary to provide an acceptable draft licence application to Natural England for the purposes of issuing a letter of no impediment during the examination period are planned for 2015. Further pre-construction surveys are planned for the season before the start of construction for each section to provide the most up to date information as possible. For sections 1 to 4 (see below), these will be carried out in 2016 and findings incorporated into the final licence application in July 2016.</p> <p>Section 1: A1 Alconbury to Brampton Hut 4 Section 2: A1/A14 Brampton Hut to East Coast mainline railway. Section 3: A14 East Coast mainline railway to Swavesey Section 4: A14 Swavesey to Girton</p>
Natural England (rep no. 660)	A detailed field survey of agricultural land is recommended so that the grades of affected land can be accurately identified.	Consultation with Natural England on detailed field surveys of agricultural land is ongoing as part of the statement of common ground (SoCG) between Highways England and Natural England. As a result of the ongoing consultation with Natural England, Highways England has agreed to include additional survey work in the Soils Management Strategy before any soils are stripped by the contractor.
Natural England (rep no. 660)	Design and management details are required for the ecological mitigation area on land to the west of Brampton Meadow SSSI.	The specification for this work will be developed in consultation with Natural England during the detailed design phase. Ongoing consultation will enable Natural England to have input into the integration of the habitat creation with the SSSI.
Natural England (rep no. 660)	The DCO must secure mitigation measures for nationally protected species, non-statutory sites (e.g. CWS), priority and UK BAP Habitats through work plans and any management contracts.	Delivery of mitigation will be subject to detailed design and will be incorporated into the Construction Environmental Management Plan (to be prepared under the Code of Construction Practice), which will include Ecological Mitigation Tables as requested by Natural England. Specific mitigation and monitoring plans will be produced as necessary. Detailed design and delivery of mitigation will be subject to ongoing consultation with Natural England.

4 Carbon emissions

4.1 Overview

- 4.1.1 Twenty-three interested parties raised concerns with carbon emissions.
- 4.1.2 The Rule 6 letter, Annex C, raises carbon emissions as a principal issue, in particular in relation to the assessment against the Government's carbon budgets. In addition, Sustrans also raised this specific issue in their relevant representation (rep no 147).
- 4.1.3 Table 4.1 provides a summary of the key issues raised regarding carbon emissions alongside a response from Highways England.

4.2 Where are these issues dealt with in the application documentation?

- 4.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 8 of the *ES* (document reference 6.1) sets out the likely significant effects of the scheme on air quality (both positive and negative) including carbon emissions. *Appendix 13.2 of the ES* (document reference 6.3) provides the Carbon Assessment.
- 4.2.2 In particular, the relationship between the scheme and low carbon economy is considered in the *ES* at section 8.5.57.

4.3 Key issues

Table 4-1: Assessment against the Government's carbon budget

Relevant representation	Key issue	Highways England response
Sustrans (rep no. 147)	Insufficient consideration is given to national forecasts for road traffic relating to changing fuel costs, changes in vehicle technology (e.g. driverless cars) and the government's commitment to a reduction of carbon dioxide emissions.	<p>In order to assess against a realistic worst case scenario the carbon analysis uses DfT/Defra published emission factors, in accordance with agreed methodologies (WebTAG and GHG reporting) which do not include changing fuel costs, changes in vehicle technology (e.g. driverless cars) and other such other initiatives. The emissions levels reported in the carbon analysis are therefore conservative worst-case estimates.</p> <p>The methodology used to calculate the mass emissions does not incorporate the potential reductions that would come about as a result of the policies that are described in the UK Carbon Plan – Delivering Our Low Carbon Future (HM Government, 2011) (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47613/3702-the-carbon-plan-delivering-our-low-carbon-future.pdf) and the supporting documents. For example, assumptions regarding uptake of Ultra Low Emission Vehicles (ULEVs) in the model for the A14 scheme result in the proportion of ULEVs being in line with conservative estimates currently presumed and remaining constant after approximately 2030. The only assumptions that are used regarding ULEVs and progress in the Carbon Plan are those regarding the uptake of ULEVs up to 2030, as published by the Department for Transport.</p>
Sustrans (rep no. 147), Andrea Needham (rep no.615)	Concerns regarding carbon emissions as a result of the construction of the scheme. Does the assessment consider emissions generated by impacts on traffic outside of the scheme boundary?	<p>Yes, the assessment does consider carbon emissions of traffic generated outside of the scheme boundary as a result of construction of the scheme. This is detailed in the Environmental Statement - Appendix 13.2 Carbon Assessment.</p> <p>Consideration is given to “embodied” emissions (emissions due to processes occurring outside the site boundary), transport emissions (the movement of</p>

Relevant representation	Key issue	Highways England response
		material from presumed depots to the site), and workers commuting to and from the surrounding region.
Sustrans (rep no. 147)	Evidence is required to demonstrate that the scheme and its associated climate change effects are justifiable when taking into account other trends e.g. high fuel costs, technological innovations, changes in work and lifestyle patterns and better rail access between the eastern ports and the Midlands.	<p>These factors are considered within TR010018: 7.1 Case for the Scheme</p> <p>The limited additional carbon emissions growth currently identified within the Environmental Statement - Appendix 13.2 Carbon Assessment - produced a monetised environmental cost of £207.8 million over the 60-year assessment period. The economic impacts, which include benefits to business road users and agglomeration benefits that accrue due to improved connectivity, amounted to a benefit of between £1039.4 million and £1550.9 million over that 60-year period. The social impacts, including benefits to road using commuters and leisure users, and reductions in accidents amount to between £930.2 million and £1356.7 million over the 60-year assessment period.</p> <p>Including the required investment costs to enable the scheme, the Case for the Scheme therefore concludes that the scheme's Benefit Cost Ratio (including the cost resulting from greenhouse gas emissions) is between 1.7 and 2.7, and therefore qualifies as high value for money, having considered monetised environmental impacts.</p>
Andrea Boswell (rep no.199), Penny Edwards (rep no. 246), Sandra Walmsley (rep no. 219), Amy Burbidge (rep no. 607), Brampton A14 Campaign Group (rep no. 680), Daniel Burbidge (rep no. 606), Nita Tinn (rep no. 524), Roderick Fisher (rep no. 577)	The scheme conflicts with national legislation and policy to reduce carbon emissions, including the National Planning Policy Framework and the Climate Change Act 2008.	<p>The scheme does not conflict with national legislation and policy to reduce carbon emissions. The UK Government has published a Carbon Plan (2011) and five-year carbon budgets to deliver against the obligations established by the Climate Change Act. There is no contradiction between any individual road scheme and the policy and legislative context for carbon emissions.</p> <p>Reference can be made to the National Policy Statement for National Networks 2014 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387223/npsnn-web.pdf).</p> <p>This states (para 5.17) that:</p>

Relevant representation	Key issue	Highways England response									
		<p data-bbox="1084 312 1989 371"><i>“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.”</i></p> <p data-bbox="1084 405 2029 647">As noted in the Environmental Statement - Appendix 13.2 Carbon Assessment, the forecast impact is currently estimated to deliver an additional 68,238 tCO₂ in 2035 and at worst case in 2041 (not accounting for enhanced penetration by reduced emission vehicles) up to 81, 827t CO₂/year. The Carbon Plan 2011 indicates that by 2030 the UK government considers that current policies could mean that annual transport emissions reduce to around 116 MtCO₂e; this individual scheme is therefore not at odds with the overall target to reduce emissions as defined by policy as noted in the NPS.</p> <p data-bbox="1084 681 1917 708">The National Policy Statement for National Networks 2014 also states:</p> <p data-bbox="1084 742 2007 895"><i>“However, for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government’s carbon budgets”</i> This is to be provided in a further document to be submitted by Highways England to the examination: Assessment of Carbon Impact of the scheme against UK Government Carbon Budget.</p> <p data-bbox="1084 928 1536 956">That document indicates the following</p> <table border="1" data-bbox="1104 956 2022 1316"> <thead> <tr> <th data-bbox="1104 956 1279 1114">Budget</th> <th data-bbox="1283 956 1581 1114">UK Government Carbon budget level</th> <th data-bbox="1585 956 2022 1114">Additional operational emissions (tCO₂ / % of budget)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1104 1114 1279 1217">3rd Carbon budget (2018-22)</td> <td data-bbox="1283 1114 1581 1217">2,544 MtCO₂e</td> <td data-bbox="1585 1114 2022 1217">160,980 tCO₂ / 0.0043%</td> </tr> <tr> <td data-bbox="1104 1217 1279 1316">4th Carbon budget (2023-27)</td> <td data-bbox="1283 1217 1581 1316">1,950 MtCO₂e</td> <td data-bbox="1585 1217 2022 1316">227,941 tCO₂ / 0.012%</td> </tr> </tbody> </table>	Budget	UK Government Carbon budget level	Additional operational emissions (tCO ₂ / % of budget)	3rd Carbon budget (2018-22)	2,544 MtCO ₂ e	160,980 tCO ₂ / 0.0043%	4th Carbon budget (2023-27)	1,950 MtCO ₂ e	227,941 tCO ₂ / 0.012%
Budget	UK Government Carbon budget level	Additional operational emissions (tCO ₂ / % of budget)									
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4th Carbon budget (2023-27)	1,950 MtCO ₂ e	227,941 tCO ₂ / 0.012%									

Relevant representation	Key issue	Highways England response		
		2030 projected transport emissions	116 MtCO ₂ e	56,913 tCO ₂ / 0.049%
Andrea Needham (rep no. 615), Emma Kenyon (rep no. 591), Ian Howkins-Griffiths (rep no. 594), Josephine Fisher (rep no. 576), Robert Amos (rep no. 234)	The scheme will contribute to climate change due to a major increase in carbon emissions.	<p>The methodology used to calculate these emissions does not incorporate potential reductions that would come about as a result of the policies that are described elsewhere in the Carbon Plan (2011) and the supporting documents: for example, assumptions regarding uptake of Ultra Low Emission Vehicles (ULEVs in the model result in the proportion of Ultra Low Emission Vehicles (ULEVs) being in line with conservative estimates currently presumed, and remaining constant after approximately 2030.. This means that the reported emissions levels are considered conservative worst-case estimates.</p> <p>The scheme has been designed to reduce carbon emissions associated with construction and operation. The additional emissions resulting from the scheme are small compared to the UK target for emissions from transport and the Government's carbon budget, as explained above</p>		

5 Compulsory acquisition

5.1 Overview

- 5.1.1 One hundred and five interested parties raised issues relating to compulsory acquisition in their relevant representations.
- 5.1.2 The Rule 6 letter, Annex C, includes compulsory acquisition as a principal issue, including various specific matters, as set out in the following tables.
- 5.1.3 Tables 5.1, 5.2, 5.3, 5.4, 5.5, and 5.6 provide a summary of the key issues raised regarding compulsory acquisition, alongside a response from Highways England.

5.2 Where are these issues dealt with in the application documents?

- 5.2.1 Compulsory acquisition information is provided in Volume 4 of the DCO application. This includes the *Statement of Reasons* (document reference 4.1), the *Funding Statement* (document reference 4.2), and *Book of Reference* (document reference 4.3).
- 5.2.2 Since the submission of the DCO application, an updated *Statement of Reasons* (document references HE/A14/EX/16) and *Book of Reference* (document reference HE/A14/EX/02) have been submitted, to reflect updates in land interest information.

5.3 Key issues

Table 5-1: Justification for powers of (1) compulsory acquisition of the interests in and rights over land and (2) temporary possession, set out in the draft DCO

Relevant representation	Key issue	Highways England response
<p>William George Topham (rep no.637), Alan Wilderspin (rep no. 257), Mr Angus Lammie (rep no. 253), C Cooper & Sons (rep no. 511), Cambridge Regional College (rep no. 73), Miss Jean Mary Papworth (rep no. 641), Chivers Farm Limited (rep no. 277), Church Commissioners for England (rep no. 554), Dry Drayton Estate Ltd and P.X.Farms Ltd (rep no. 671), Derek Wilderspin (rep no. 261), Dareway Properties Ltd (rep no. 276), Ms Eleanor Disney (rep no. 423), Mrs E.A. Ruston (rep no. 568), Mr and Mrs Everdell (rep no. 558), G B Sewell & Partners (rep no.492), G B A Wilderspin Limited (rep no. 259), Mrs E.A. Ruston and C.King as Trustees of the George Lenton Trust (rep no. 565), Graham Wedd & Marie Anne Wedd (rep no. 387), A14 Agents Association (rep no. 632), J A J Winter (rep no. 679), Melanie Sadler (rep no. 254), F B Rule & Son and R W Eayrs & Partners T/A Hilgrave (rep no.</p>	<p>Highways England has failed to show that the scale of land sought for environmental mitigation measures (including flood alleviation works) is necessary. In particular, there is a lack of evidence regarding the need for flood compensation areas.</p>	<p>The location and size/scale of land sought for environmental mitigation has been identified through an extensive process of environmental impact assessment, and has been determined by that assessment to be necessary to avoid the scheme having significant adverse effects on the environment. The process of determining the size, scale, and location of these environmental mitigation areas is explained in detail in the <i>Environmental Statement</i> (document reference 6.1).</p> <p>In relation to flood compensation areas specifically, these have been designed based on the water levels predicted by the hydraulic models used to assess the impact of the scheme. They are necessary as they are required by the Environment Agency to provide compensation storage volumes for all flood events up to and including the design event of 1% (1 in 100-years) Annual Exceedance Probability (plus an allowance for climate change), where the scheme proposals remove floodplain. Therefore they need to connect to the relevant watercourse at levels below that design event.</p> <p>By way of an example flood compensation area 18 (plus areas 16 and 17) provides compensation for the loss of floodplain on the Cock Brook as a result of the widening of the A1. The widened road removes floodplain above 13.26 metres Above Ordnance Datum (AOD). The design flood level on this watercourse is 15.36 metres AOD; consequently, the flood compensation area needs to be provided between this level and 13.26 metres AOD. In accordance with Environment Agency guidance, this has been calculated for each 100 millimetre 'slice' within this range. The compensation volume required is provided by the proposed flood compensation areas, which need to operate at all return periods and the excavation, would therefore extend back to the watercourse so that floodwaters can flow freely in and out for all flood</p>

Relevant representation	Key issue	Highways England response
474), David Sinfield (rep no. 567), National Farmers Union (rep no. 476), Extra MSA Cambridge Limited (rep no. 84)		<p>events up to the design event. This therefore dictates the scale of land needed.</p> <p>More detail for each catchment and flood compensation area is contained in the Flood Risk Assessment for the scheme, <i>Environmental Statement Appendix 17.1</i> (document reference 6.3).</p>
<p>William George Topham (rep no.637), Alan Wilderspin (rep no. 257), C Cooper & Sons (rep no. 511), Miss Jean Mary Papworth (rep no. 641), Lafarge Aggregates Limited (rep no. 233), Chivers Farm Limited (rep no. 277), Church Commissioners for England (rep no. 554), Ms Eleanor Disney (rep no. 423), Derek Wilderspin (rep no. 261), Mrs E.A. Ruston (rep no. 568), Mr and Mrs Everdell (rep no. 558), G B Sewell & Partners (rep no.492), G B A Wilderspin Limited (rep no. 259), A14 Agents Association (rep no. 632), Mrs E.A. Ruston and C.King as Trustees of the George Lenton Trust (rep no. 565), J A J Winter (rep no. 679), David Sinfield (rep no. 567), F B Rule & Son and R W Eayrs & Partners T/A Hilgrave (rep no. 474), National Farmers Union (rep no. 476)</p>	<p>The excavation of minerals as part of the borrow pit works should be excluded from the DCO. The DCO should be amended to provide for the payment of compensation for the excavation and removal of the minerals in connection with the use of the temporary possession powers.</p> <p>Compensation is due in connection with the sterilisation of minerals along the proposed road line and the adjacent land proposed to be acquired.</p>	<p>There are no temporary possession plots that are required for the extraction of minerals in this Scheme. (In any event, owners of interests in temporary possession plots will be able to claim compensation for any loss or damage arising from the exercise of temporary possession powers in relation to the land.)</p> <p>Landowners of plots compulsorily acquired for use for the extraction of minerals (i.e. borrow pits) will be eligible for compensation. Article 21 of the draft DCO states:</p> <p><i>Parts 2 and 3 of Schedule 2 to the Acquisition of Land Act 1981 (minerals) are incorporated into this Order subject to the modifications that—</i></p> <p><i>(a) paragraph 8(3) is not incorporated; and</i></p> <p><i>(b) for “the acquiring authority” substitute “the undertaker”.</i></p> <p>The most relevant provision of the Acquisition of Land Act 1981 is paragraph 2 of Schedule 2, which constitutes 'part 2' of that Schedule. This states that:</p> <p><i>(1)The acquiring authority shall not be entitled to any mines under the land comprised in the compulsory purchase order unless they have been expressly purchased, and all mines under the land shall be deemed to be excepted out of the conveyance of that land unless expressly named and conveyed.</i></p> <p><i>(2)Sub-paragraph (1) above shall not apply to minerals necessarily extracted or used in the construction of the undertaking.</i></p>

Relevant representation	Key issue	Highways England response
		<p>The usual effect of subsection (1) is that an acquiring authority (such as Highways England for the purposes of this Scheme) has the ability to acquire the surface of the land without purchasing the underlying minerals. The owner of the minerals can thus still work them (subject to giving notice to Highways England) with no compensation payable to the owner as a result. This is the case for the majority of the plots required to be compulsorily acquired.</p> <p>However, this is subject to subsection (2) which sets out that subsection (1) does not apply where minerals are extracted or used in the construction of the undertaking.</p> <p>Schedule 1 to the draft DCO for this Scheme sets out that Works 4.1 to 4.15 (and thus the plots affected by those works as set out in the Statement of Reasons, Document Reference HE/EX/16) of the Scheme involve the <i>'excavation, working and restoration of borrow pits to win material required for the construction of the A14 Cambridge to Huntingdon Improvement Scheme'</i>. Various Works contained in Schedule 1 to the draft DCO also involve the construction of <i>'flood compensation areas'</i> for which excavation of materials will also be required. As such the plots contained within those works as set out in the Statement of Reasons will be subject to such excavation, with the minerals compulsorily acquired, and compensation payable, accordingly.</p> <p>The extraction of minerals is therefore required for the construction of the Scheme in these instances and thus fall within subsection (2) above. Highways England is therefore entitled to the minerals of the plots that are identified as being necessary for use as borrow pits.</p> <p>However, this also means that Highways England is required to compensate landowners for the loss of minerals that it has taken for the purposes of the Scheme.</p> <p>Subsection (1) will still apply to all plots and to all minerals which are not required for the construction of the Scheme.</p>

Relevant representation	Key issue	Highways England response
<p>Mary Mansfield (rep no. 70), Sally Williams (rep nos. 72, 73 and 543), Extra MSA Cambridge Limited (rep no. 84), R W Pearson (rep no. 121), Magpas (rep no. 126) Mr Christopher Behagg, (181), Thomas Galon Charity (rep no. 200), Barratt Eastern Counties and The North West Cambridge Consortium of Landowners (rep no. 201), Anthony William Carr and David Gordon Carr (rep no. 229), Georgina Grey (rep no. 255), Alan Winderspin (rep no. 257), NIAB Trust (rep no. 273), Chivers Farm Limited (rep nos. 274 and 277), Dareway Properties Limited (rep no. 276), Welney Farms Property (rep no. 372), R W Eayrs (rep no. 396), R W Eayrs and Partners (rep no. 403), K P Papworth, C Papworth, M P Papworth (rep no. 406), Mr Kevin Roe (rep no. 412), Mrs Eleanor Disney (re no. 423), Trinity College (rep no. 424), Ann Marion Looker, William John Looker and Charles William Looker (rep no. 470), Peter Mann (rep no. 473), Wood Green, The Animals</p>	<p>Accommodation Works and Commitments requested by Landowners.</p>	<p>A number of landowners have requested accommodation works and commitments such as fencing provision on stopped-up highways, provision for protection of soils, continued drainage supply, and minor design changes, or simply seek clarity on how their land will be affected.</p> <p>Highways England is committed to working with landowners to address their concerns, and to configure the Scheme to their liking through the detailed design process. Accommodation works and related commitments will therefore be agreed in Statements of Common Ground where appropriate.</p> <p>Any necessary changes to application documentation such as to the DCO Schedules and Land Plans will be presented through the Examination process.</p>

Relevant representation	Key issue	Highways England response
<p>Charity (rep no. 479), George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481), Mr R S Lenton (rep no. 487), GB Swell and Partners (rep no. 492), Robert Lenton Limited (rep no.500), Ms Gillian Burgess and Mrs Judith Steath (rep no. 527), JJ Gallagher Limited (rep no. 542), Mr N D'Agati (rep no. 552), Huntingdon Freeman's Trust (rep no. 553), Church Commissioners for England (rep no. 554), Chancellor Masters and Scholars of The University of Cambridge (rep no. 555), Mr and Mrs Everdell (rep no. 558), Mrs E.A. Ruston and C.King as Trustees of the George Lenton Trust (rep no. 565), Lenton Brothers Limited (rep no. 567), Mrs E A Ruston (rep no. 568), Mr and Mrs Everdell (rep no. 558), JS & KW Burgess (rep no. 569), IAC and NIC Wright (rep no. 575), Mrs Anne Brawn, Mr Tim Brawn & Ms Sarah Brawn (rep no. 580), Fen Drayton Parish Council (rep no. 611), William George Topham (rep no. 637), Network Rail Infrastructure Limited (rep no. 639), Miss Jean Mary Papworth (rep no. 641), Swansley Wood</p>		

Relevant representation	Key issue	Highways England response
<p>Partnership (rep no. 642), Mr P & Mrs R Burton (rep no. 647), Coif Nominees Limited (rep no. 649), Dry Drayton Estate Ltd and P.X.Farms Ltd (rep no. 671), J A J Winter (rep no. 679), Timothy Rose (rep no. 693), Office of the Police and Crime Commissioner for Cambridgeshire (rep no. 700), Townlands Trust (rep no. 710)</p>		
<p>Anthony William Carr and David Gordon Carr (rep no. 229), Mr Angus Lammie (rep no. 253) Georgina Grey (rep no. 255), R W Eays (rep no. 396), R W Eays and Partners (rep no. 403), Mr Kevin Roe (rep no. 412), Ann Marion Looker, William John Looker and Charles William Looker (rep no. 470), George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481), Mr R S Lenton (rep no. 487), Robert Lenton Limited (rep no.500), Messers John and James Witherow (rep no. 502), Mr and Mrs Everdell (rep no. 558), JS & KW Burgess (rep no. 569), Mrs Anne Brawn, Mr Tim Brawn & Ms Sarah Brawn (rep no. 580), Agents Association (rep no. 632),</p>	<p>Concerns regarding the provisions for appropriate fencing alongside highway boundaries.</p> <p>Concerns regarding the management and control of land take outside of the highway boundary utilised for mitigation purposes.</p>	<p>Highways England does not provide fencing on the strategic road network. The effect of section 137 of the Highways Act 1980 is that it is incumbent on neighbouring landowners to ensure that there is no obstruction to the highway.</p> <p>The Environmental Statement (Document Reference 6.1) sets out why Borrow Pits, Flood Compensation Areas and Landscaping Mitigation areas are required for the Scheme to ensure that it has a neutral to positive environmental effect and to ensure accordance with the National Networks National Policy Statement (as set out in Document Reference HE/EX/21). They are therefore a key part of the Scheme.</p> <p>These documents explain that there is a responsibility for ensuring that the Scheme mitigation is continuing (such as maintenance of landscape mitigation, and the restoration and aftercare of borrow pits) and as such, Highways England will therefore continue to hold responsibility for the management and control of that land.</p> <p>Where there is space between the highway boundary and the DCO boundary within the application plans that is not utilised for environmental mitigation, this is to allow complex aspects of the scheme to be built with sufficient space for effective working, such as for the construction of embankments. Highways England will continue to hold responsibility for the management and control of that land following completion of construction.</p>

Relevant representation	Key issue	Highways England response
Spencer James Daniels on behalf of Milton Football Club (rep no. 137), Napp Pharmaceutical Holdings Limited (rep no. 670)	Relevant Representations received from landowners who will not be affected by Scheme	Relevant representations have been received from parties where the red line boundary of the Scheme borders their land. Highways England is in on-going discussions with these landowners to demonstrate that their land will not be affected by the Scheme.
Anthony William Carr and David Gordon Carr (rep no. 229), R W Eayrs (rep no. 396), R W Eayrs and Partners (rep no. 403), Trinity College (rep no. 424), Mrs E.A. Ruston and C.King as Trustees of the George Lenton Trust (rep no. 565), JS & KW Burgess (rep no. 569), Agents Association (rep no. 632), William George Topham (rep no. 637), Miss Jean Mary Papworth (rep no. 641) Angus Lammie (rep no. 253)	Noted the general assumption that existing highways (non-Trunk) belong to the county council whereas the experience of association members is that the underlying freehold belongs to the adjoining frontages. This is of particular relevance to the context of stopped up highways, which potentially revert to adjoining landowners. Mr Lammie holds the underlying freehold of an adjacent river held by the landowner as riparian owner.	The results of Highways England's diligent inquiry processes informed the application Book of Reference, Land Plans and Crown Land Plans. However, as negotiations continue with landowners throughout the Examination process and they inform Highways England of changes to the nature and details of ownership and interests in the land affected by the Scheme, updates to the Book of Reference, Land Plans, and Crown Land Plans will be presented through the Examination process as necessary. If affected landowners can provide sufficient proof that the <i>ad medium filum</i> or riparian owner rules do apply, these application documents will be amended accordingly. However, it should be noted that for those frontages who hold land adjacent to highways that are to be stopped up, land would revert to them, and this may affect the compensation due to them as a result of the Scheme.
William George Topham (rep no.637), Alan Wilderspin (rep no. 257), Mr Angus Lammie (rep no. 253), C Cooper & Sons (rep no. 511), Miss Jean Mary Papworth (rep no. 641), Chivers Farm Limited (rep no. 277), Church	The breakdown of land take areas has not been quantified. What portion of the permanent land take areas are, for example, the proposed Borrow Pits, the potential landscaping and habitat	The breakdown of land take areas will vary for each affected landowner. This information is being provided to each landowner during discussions with them.

Relevant representation	Key issue	Highways England response
<p>Commissioners for England (rep no. 554), Melanie Sadler (rep no. 254), F B Rule & Son and R W Eayrs & Partners T/A Hilgrave (rep no. 474), David Sinfield (rep no. 567), J A J Winter (rep no. 679), National Farmers Union (rep no. 476), Mrs E.A. Ruston (rep no. 568), Mr and Mrs Everdell (rep no. 558), Derek Wilderspin (rep no. 261), G B Sewell & Partners (rep no.492), G B A Wilderspin Limited (rep no. 259), A14 Agents Association (rep no. 632)</p>	<p>areas and the flood and water management areas.</p>	
<p>Mr T Leathes, Urban & Civic (rep no. 635)</p>	<p>It is unclear from a preliminary review of the transport documentation why the DCO boundary extends along the A14 north of Spittals Interchange up to the Megatron roundabout. Clearly, this would be of interest to U&C given the proximity to Alconbury Weald.</p>	<p>The DCO boundary extends along the A14 from Spittals Interchange to the Megatron roundabout to enable the de-trunking provisions contained in Schedule 3 to the DCO to take effect.</p> <p>Highways England can confirm that there are no works associated with this area of land.</p>

Table 5-2: Statutory undertaker land and apparatus

Relevant representation number	Key issue	Highways England response
Anglian Water (rep no. 64), South Staffordshire Water Plc. (trading as Cambridge Water) (rep no. 629), Network Rail Infrastructure Limited (rep no. 639), National Grid (rep no. 698)	Statutory undertakers' land and apparatus and potential detriment to the carrying out of an undertaking and any need for replacement land in that context	Highways England can confirm that any replacement land considered necessary for statutory undertakers and their apparatus has been provided for by the Scheme. Discussions with statutory undertakers are on-going, and land issues will be contained within the Statements of Common Ground that are agreed with the statutory undertakers and presented to the Examining Authority through the Examination.

Table 5-3: Access issues

Relevant representation	Key issue	Highways England response
Mary Mansfield (rep no. 70), Sally Williams (rep no. 73 and 540), R W Pearson (Rep no. 121), Mr Christopher Behagg, (181), Thomas Galon Charity (rep no. 200), Barratt Eastern Counties and The North West Cambridge Consortium of Landowners (rep no. 201), Anthony William Carr and David Gordon Carr (rep no. 229), Mr Angus Lammie (rep no. 253) Georgina Grey (rep no. 255), Alan Winderspin (rep no. 257), Chivers Farm Limited (rep nos. 274 and 277), Dareway Properties Limited (276), Mr Michael Richards (280), LRG HI Limited (rep no. 285), Welney Farms Property (372), R W	A number of Landowners identified concerns with the provision made for private means of access in various locations across the Scheme.	Highways England is in on-going negotiations with landowners to ensure that appropriate private means of access are provided to them as part of the Scheme, and will be recorded in Statements of Common Ground. Where these commitments will involve the creation of private means of access not currently provided for within the application DCO and Rights of Way and Access Plans, updated versions of these plans and the DCO will be presented through the Examination process.

Relevant representation	Key issue	Highways England response
<p>Eayrs (rep no. 396), R W Eayrs and Partners (rep no. 403), K P Papworth, C Papworth, M P Papworth (rep no. 406), Mr Kevin Roe (rep no. 412), Mrs Eleanor Disney (re no. 423), Trinity College (rep no. 424), Ann Marion Looker, William John Looker and Charles William Looker (rep no. 470), Peter Mann (rep no. 473), George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481), Mr R S Lenton (rep no. 487), GB Swell and Partners (rep no. 492), Robert Lenton Limited (rep no.500), Ms Gillian Burgess and Mrs Judith Steath (rep no. 527), Mr N D'Agati (rep no. 552), Huntingdon Freemen's Trust (rep no. 553), Church Commissioners for England (rep no. 554), Chancellor Masters and Scholars of The University of Cambridge (rep no. 555), Mr and Mrs Everdell (rep no. 558), Mrs E.A. Ruston and C.King as Trustees of the George Lenton Trust (rep no. 565), Lenton Brothers Limited (rep no. 567), Mrs EA Ruston (rep no. 568), JS & KW Burgess (rep no. 569), IAC and NIC Wright (rep no. 575), Mrs Anne Brawn, Mr Tim Brawn & Ms</p>		

Relevant representation	Key issue	Highways England response
<p>Sarah Brawn (rep no. 580), Mercury Instruments Ltd (rep no. 595), Fen Drayton Parish Council (rep no. 611), Hinchingsbrooke Health Care NHS Trust (rep no. 634), Miss Jean Mary Papworth (rep no. 641), Swansley Wood Partnership (rep no. 642), Mr P & Mrs R Burton (rep no. 647), Dry Drayton Estate Ltd and P.X.Farms Ltd (rep no. 671), J A J Winter (rep no. 679), Timothy Rose (rep no. 693), National Grid plc (rep no. 698) Office of the Police and Crime Commissioner for Cambridgeshire (rep no. 700), Townlands Trust (rep no. 710)</p>		
<p>Chivers Farm Limited (rep no. 274) George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481) Ms Gillian Burgess and Mrs Judith Steath (rep no. 527) William George Topham (rep no. 637), Miss Jean Mary Papworth (rep no. 641), Swansley Wood Partnership (rep no. 642)</p>	<p>A number of Landowners requested that existing accesses should be able to be utilised during construction of the Scheme and restored to their original condition once construction had completed.</p>	<p>Highways England's commitment to working with affected landowners during construction of the Scheme is contained within the Code of Construction Practice (<i>ES Appendix 20.2</i>). This sets out the arrangements for managing and monitoring construction activities to ensure that there are minimal impacts to agricultural and business activities during construction. Individual concerns will also be dealt with in Statements of Common Ground.</p>
<p>Alan Wilderspin (rep no. 257), William George Topham (rep no. 637), Miss Jean Mary Papworth (rep no. 641), Swansley Wood Partnership (rep no. 642)</p>	<p>Landowners expressed concern that, because of the removal of the viaduct over Huntingdon, they would be unable to take agricultural vehicles from one side of Huntingdon to the other, and to be able to utilise the A1 and A14.</p>	<p>Part 5 of Schedule 3 to the Draft DCO and the Traffic Regulation Measures (Clearways and Weight Limits) Plans (Application Document Reference 2.10) explain that the existing weight limits on the A14 and A1 at Brampton and Hilton are to be removed, and that access to Huntingdon by heavy vehicles will be permissible where a licence is granted by the local highway authority, Cambridgeshire County Council.</p>

Relevant representation	Key issue	Highways England response
JS and KW Burgess (rep no. 569)	Plot 15/18a is not identified as stopped up on Sheet 15 of the Rights of Way and Access Plans and as there is no requirement for this to remain highway in connection with the DCO the Rights of Way Map and Schedule need to be amended.	<p>Plot 15/18a is a temporary possession plot required for the Scheme to provide working space and temporary access for works associated with the stopping up of an adjacent section of Conington Road and the construction of the new Conington Road.</p> <p>This plot is not identified as stopped up on the Rights of Way Plans, as there is no justification relevant to this Scheme for the stopping up of this remaining section of Conington Road. Any future stopping up of this section of Conington Road would be brought forward by the local highway authority, Cambridgeshire County Council.</p>
LRG HI Limited (rep no. 285)	Schedule 5 to the draft DCO lists 27/8 and 27/18a being a new right to construct and maintain a new track to drainage attenuation ponds and areas of flood compensation and to access with or without vehicles plant and machinery for the benefit of the Secretary of State for Transport. However there are no such drainage attenuation ponds or flood compensation areas shown being served by the said track.	<p>Highways England can confirm that this description of the right contained in Schedule 5 to the draft DCO is incorrect.</p> <p>This right is required to construct and maintain a new track to access overhead gantries with or without vehicles, plant, and machinery for the benefit of Highways England.</p> <p>This amendment will be contained within the next submission of the draft DCO.</p>

Table 5-4: Open space

Relevant representation	Key issue	Highways England response
Darwin Green Development (rep no. 201)	Loss of land within the Country Park, the relocation of which has not been demonstrated as achievable within the Country Park. Potential loss of residential land at Darwin Green development due to the need to incorporate uses displaced within the Country Park.	Highways England can confirm that no Country Park land is proposed to be taken by the Scheme. It is Highways England's understanding that the Darwin Green development currently only has outline planning permission and reserved matters for permission for access roads, pedestrians and cycle paths, public open space, services across the site and one allotment site.
Spencer James Daniels on behalf of Milton Football Club (rep no. 137)	The scheme includes an area of Sycamore Recreation Ground and there is already a lack of recreational land in Milton.	Highways England can confirm that no land at Sycamore Recreational Ground is proposed to be taken by the Scheme. Highways England will be liaising with the football club to ensure that any concerns arising from the nearby aspects of the development are alleviated, and will make a commitment with the football club not to impact on their land or operations.

Table 5-5: Compensation

Relevant representation number	Key issue	Highways England response
Peter Houston (rep no. 120), Gary Almeida (rep no. 167), Judy Almeida (rep no. 168), A Almeida (rep no. 169), Tracey Priestman (rep no.178), Helen Nicholson (rep no. 202), J C Coslett (rep no. 314), Thomas James Ellicock (rep no. 329), Welney Farms Property (rep no. 372), Kate Magill (rep no. 407), A D Sutcliffe (rep no. 425), Aino Telaranta – Keerie (rep no. 578), Maya Orme on behalf of Coif Nominees Limited (rep no. 649), Hugh Liam Small (rep no. 653),	Compensation should be sought for the increase in flood risk, noise, and pollution, devaluation of property, land devaluation, visual intrusion and severance of access.	If the DCO for the A14 Cambridge to Huntingdon improvement scheme is made by the Secretary of State, compensation and blight procedures will be those contained in the Compensation Code created by the Compulsory Purchase Act 1965, the Land Compensation Acts 1961 and 1973 and case law. Principles such as disturbance, severance, injurious affection, home loss, basic loss, occupier's loss, blight and property devaluation will apply. Affected parties will be eligible for compensation following the vesting

Relevant representation number	Key issue	Highways England response
		date of a General Vesting Declaration, or the date of service of a Notice to Treat.

6 Design and engineering standards

6.1 Overview

- 6.1.1 Nine interested parties raised issues concerned with the design concept and process in their relevant representations and 24 interested parties raised issues concerned with road alignment, carriageway design, junction strategy and design and crossings and elevations.
- 6.1.2 The Rule 6 letter, Annex C, raises design and engineering standards as a principal issue, including matters concerned with design concept and process, road alignment, carriageway design, junction strategy and design, crossings and elevations.
- 6.1.3 Tables 6.1 and 6.2 provide a summary of the key issues raised regarding air quality, alongside a response from Highways England.

6.2 Where are these issues dealt with in the application documentation?

- 6.2.1 Information regarding the design of the proposed scheme is contained within the following volumes of the DCO application:
- Volume 2 contains the plans, drawings, and sections that illustrate the location of the scheme, the proposed works and provide local geographical information.
 - Volume 7 contains the *Case for the Scheme* (document reference 7.1) which sets out the need for the scheme (section 2), the objectives that it seeks to address (section 3), options, and alternatives considered (section 4) and an explanation of the scheme over time (section 7). It sets out how the scheme meets its objectives and how it aligns with government policy (section 6).
 - An update to the *Case for the Scheme* (document references HE/A14/EX/20 *Covering Letter* and HE/A14/EX/21 *Update to the Case for the Scheme*) contains a full review of the National Policy Statement for National Networks which the government designated on the 14 January 2015.

6.3 Key issues

Table 6-1: Design concept and process

Relevant representation	Key issue	Highways England response
<p>Cheska Hodder (rep no. 446), David Ruddy (rep no. 319), Gillian Earl (rep no. 398), Helen Ruddy (rep no. 320), K J Williams (rep no. 421), Liann Hunter (rep no. 310), Michael Bond (rep no. 371), Robert Ruddy (rep no. 321), G R Fleming (Rep no. 374), Michael Carrington (rep no. 307), Rachel Wood (rep no. 252)</p>	<p>Evidence is required to justify recent design changes following the pre-application consultation. In particular, including the increased height of the bridge near Hilton from 9.7m to 11m, the River Ouse viaduct, and the realignment of the road closer to Hilton.</p>	<p>Following the pre-application statutory consultation period (7 April 2014 to 15 June 2014), consultation responses were taken into account and in some cases, this resulted in a change to the scheme design. In addition, technical assessments were concluded following the statutory consultation period that resulted in some design changes. These design changes are explained in the <i>Consultation Report (document reference 5.1)</i>, with descriptions of the design change and how it relates to comments made and assessment work.</p> <p>Where appropriate, targeted consultation was undertaken on the design change. This included an information exercise on the change to the proposed Great Ouse crossing, and letters to consultees, notifying them of specific design changes relevant to their land. This is reported in chapters 19 (Additional land interest consultation) and 20 (Non-statutory design change consultation and engagement) of the <i>Consultation Report (document reference 5.1)</i>.</p> <p>In regard to the specific design changes referred to in the relevant representations, responses are provided as follows.</p> <p>Neither the height of the A14 mainline, Potton Road nor Hilton Roads have changed since the pre-application consultation. The height of the proposed bridge near Hilton has not changed. The horizontal alignment of the A14 in the vicinity of Hilton is the same as presented at the pre-application consultation.</p> <p>The River Great Ouse viaduct was changed due to the results of the flood risk assessment (reported in Appendix 17.1 of the <i>Environmental Statement and Related Documents - Volume 6</i>), which was completed after the pre-application statutory consultation, and ongoing engagement with the Environment Agency. This showed that the previous solution, which was an embankment across the</p>

Relevant representation	Key issue	Highways England response
		<p>eastern half of the floodplain, would lead to unacceptable rises in maximum water level in times of flood. This is reported in chapter 20 (Non-statutory design change consultation and engagement) of the <i>Consultation Report (document reference 5.1)</i>.</p> <p>None of these changes was assessed as causing any material change in environmental impacts.</p>
Suffolk County Council (rep no. 503)	The scheme design appears to be predetermined before the revised traffic model (CHARM (2)) was validated. How has this influenced the scheme?	As set out in our letter to the Planning Inspectorate dated 12th May, following revised traffic modelling the design of the junction layouts as submitted with DCO application was tested to check the adequacy of the proposals against the revised traffic figures. Alterations of layout at some junctions are required to deal with some adjusted predicted flows, for example widening and lengthening of approach lanes, but these are all minor and can be carried out within the limits of deviation and other constraints of the draft Order without any change to the description of the scheme.
South Cambridgeshire District Council (rep no. 471)	Highways England were previously asked to include missing movements at Girton interchange, between the A428 and the A14 and M11. It is understood that Highways England will be considering the need for this in the A428 Route Based Strategy and future work on the A428 Expressway. Is this the case?	Yes. The linkages between the A428 and M11 will be considered as part of the work to look at the possible Expressway between Oxford and Cambridge as identified in the Roads Investment strategy published in the 2014 Autumn Statement.
Hilton Parish Council (rep no. 180)	It appears that the choice of route is predetermined in that it passes close to the village of Hilton.	The development of the scheme and route options considered is set out in the Case for the Scheme (Chapter 4) (document reference 7.1). The choice of route arises from the multiple consultations on options that have been undertaken. The route has been carefully designed to meet modern standards for safe and efficient roads that do not result in unacceptable environmental impacts.

Relevant representation	Key issue	Highways England response
215, Graeme Gribbin (rep no. 365)	How has the scheme evolved over time to the current design?	The Cambridge to Huntingdon Multi Modal Study (CHUMMS) considered means of addressing traffic congestion on the A14 between Cambridge and Huntingdon and was published in 2001. In addition to recommendations for rail and public transport improvements it recommended the widening of the A14, together with a new bypass to the south of Huntingdon, local road and junction improvements. These recommendations were developed further through the Ellington to Fen Ditton Scheme and, following removal of that scheme from the roads programme, the A14 Study. Chapter 4 of the Case for the Scheme (document reference 7.1) provides an account of the development of the scheme.
Andrew Coggin (rep no. 172), Cambridge Cycling Campaign (rep no. 620), Camilla Horsfall (rep no. 641), Dr Peter Alan Johnson (rep no. 719), Ekins Trustees (rep no. 34), Frances Whittaker-Wood (rep no. 605), Gregory Hunstone (rep no. 173), Hugh Liam Small (rep no. 653), Jan Axmacher (rep no. 444), Michael Carrington (rep no. 307), Mark Rix (rep no. 728), Nigel Wood (rep no. 602), Robert Amos (rep no. 234), Stewart Bottoms (rep no. 368), Tom MacLennan (rep no. 236)	Concerns that alternatives to the scheme have not been considered. Further information is requested regarding which alternative route options have been considered and why they were discounted.	The development of the scheme and route options considered is set out in the Case for the Scheme (Chapter 4) (document reference 7.1).

Table 6-2: Road alignment, carriageway design, junction strategy and design crossings, and elevations

Relevant representation	Key issue	Highways England response
Rob Leach (rep no. 14)	The new road should not be any higher than the existing A14.	<p>In the area to the south of Fenstanton and north of Hilton, the existing A14 is generally on low embankment, in the order of 1m above the adjacent ground. The proposed new A14 as it passes north of Hilton would be on an embankment 1m to 3m above the adjacent ground. The proposed design for the new A14 is thus higher than the existing A14 relative to existing ground levels. This is due to drainage requirements to ensure that the alignment is a suitable height (allowing for factors such as the size of culverts – noting current requirements for design storms, climate change allowance and including freeboard above maximum water level – the thickness of structures and the depth of new road pavement) above existing watercourses/drainage channels that are a significant part of the local land drainage system, and maintaining the connectivity of this existing system.</p> <p>The alignment height is also governed by the requirements of the carriageway drainage system and pavement design, including compliance with current design standards. The height is required to provide effective drainage to the foundation layers of the pavement, which is required for the longevity of the pavement, and to provide sufficient height and falls to achieve outfalls by gravity</p> <p>In relation to the side roads where they pass over the A14, the elevation of these is governed by the A14 mainline levels, as above, plus headroom and the depth of the bridge construction.</p> <p>If the mainline alignment were any lower, there would be impact on the existing watercourses (diversions and flood risks) and increased operational risks for the highway operation.</p> <p>The vertical alignment of the new A14 as proposed has been taken into account in the environmental assessment reported in the environmental statement. Appropriate mitigation is proposed to mitigate impacts to acceptable levels.</p>

Relevant representation	Key issue	Highways England response
Mr. Simon Tucker on behalf of Extra MSA Cambridge Limited (rep no. 84)	The Swavesey (J28) Junction design should be amended to simplify the layout and improve access to the service area.	<p>Swavesey junction provides connections between several routes including the proposed A14, the local access roads, the de-trunked A14, several other local roads as well as serving Cambridge services.</p> <p>The proposed layout limits conflict between principal traffic flows heading between the de-trunked A14 and the new A14, local traffic travelling via the local access road and traffic bound for Cambridge Services. The layout would be straightforward to sign and there would be little confusion for motorists as to the route to take.</p> <p>As a result of consultation a dedicated west bound diverge to the Cambridge Services has been added to provide direct access from the east. Access to the services from the west would be slightly more complicated than at present however, flows on the route would be largely un-impeded by principal traffic flows between the de-trunked A14 and the A14.</p>
Swansley Wood Partnership (rep no. 642)	Silver Street Bridge should be made suitable for agricultural machinery.	Silver Street bridge will allow for appropriate agricultural machinery in terms of physical dimensions and weight. Further discussions will be held at the detailed design stage (after (if the application is granted) the making of the development consent order) with local interest holders to confirm specific requirements. Overbridges carrying internal farm routes would typically be at least 4.7 metres wide between parapets.
NIAB Trust (rep no. 273)	Attenuation pond FCA24 should be relocated to the east of Longstanton Brook to reduce the loss of good quality agricultural land.	As a result of the Flood risk assessment studies it has been concluded that FCA24 would no longer be required and has therefore not been included in the proposed flood plain mitigation for Longstanton Brook (shown in Document 6.3 ES appendix 17.1 and Figure 17.2)
A14 NMU (rep no. 501)	The Scheme should include parallel provision, with safe crossing points, along the detrunked A14 between Swavesey and Huntingdon. It is understood that the	Part of the A14 scheme is the provision of a new high standard NMU route between Fenstanton and Huntingdon Road Cambridge. Extension of this route between Swavesey and Huntingdon on the detrunked section of A14 would be a matter for Cambridge County Council if considered appropriate.

Relevant representation	Key issue	Highways England response
	<p>County Council take responsibility for the detrunked section of the A14, however there is a risk that finance would not be available. It is therefore requested that the project funds these NMU provisions.</p>	
<p>Hilton Parish Council (rep no. 180), Jeff Shaw (rep no. 383), Jennifer Griffiths (rep no. 211), M N Laughton (rep no. 499), Michael Boyles (rep no. 182), Nigel Glenn (rep no. 674), Offords A14 Action Group (rep no. 222), Phil Wood (rep no. 360)</p>	<p>Upgrading the A428 and A1 North would be a more sensible cost effective solution.</p>	<p>The Roads Investment Strategy published as part of the Autumn Statement of 2014 indicated a government commitment to upgrading the remaining single carriageway section of the A428 subject to such a scheme offering value for money and proceeding through statutory processes. This scheme, together with any upgrade to the A1 in Bedfordshire, which is also the subject of a feasibility study, would be complementary to the A14 improvement. It would not replace the need for the A14 scheme.</p>
<p>Suffolk County Council (rep no. 503)</p>	<p>It is unlikely that the following links will have sufficient capacity to accommodate flows in the event of a major incident on the improved A14:</p> <ul style="list-style-type: none"> - A428 between Cambridge and St Neots; - the A1198 between the A428 and; - Godmanchester; and the existing 	<p>Highways England has agreed strategic and tactical diversions for all sections of the national road network, including the existing A14. The technology proposed for the A14 enables greater lane management and control of traffic by variable message signs, and thus assists in the management of incidents.</p> <p>New diversion routes have been developed in draft for the new sections of route, making use of existing agreed diversion routes. None of these involve the new local access roads or routes through Huntingdon.</p> <p>The likelihood of complete blockage of the new sections of A14 is reduced as the new alignment would be dual 3 lane (compared with dual 2 lane existing), but in the case of certain types of incident (such as collisions resulting in casualties with life-threatening or fatal injuries) then closure of affected carriageways may be required whilst incidents are cleared.</p>

Relevant representation	Key issue	Highways England response
	D2AP A1 between St Neots and Brampton Hut.	Management of the broader regional network by the Regional Control Centre enables use of variable message signing on a broader geographical basis, and this would enable reduction of through traffic on the section of the route affected by the incident, thus limiting the volume of traffic requiring to divert at the point of closure.
Michael Boyles (rep no. 182), Buckden Parish Council (rep no. 411)	The objectives of the scheme would be better achieved if the option of retaining the Huntingdon viaduct and building the new Huntingdon bypass between Ellington and Swavesey as a D2 Dual 2 lane carriageway is proposed. A full comparative cost analysis of this option is needed.	The option of retaining the viaduct at Huntingdon and a reduced standard Huntingdon southern bypass has been investigated as part of the scheme proposal development. Although initially cheaper than the proposed scheme, traffic flow over the dual 2-lane carriageway would continue to deteriorate to the extent that congestion would return and further widening would be needed. The environmental benefits to the town of Huntingdon from removing the viaduct would not be realised.
Francis Burkitt (rep no. 80)	Request for confirmation that the cycle track alongside the Local Access Road, alongside the new embankment by the Girton Interchange, and then onwards to join the Huntingdon Road is at least 3m wide, physically separated by a wide verge and a good quality surface.	<p>Yes this is confirmed.</p> <p>The shared footway/cycleway/equestrian track running alongside the Local Access Road between Dry Drayton and Huntingdon Road is to be 4m wide, with an additional 1.8m margin (including 1m wide carriageway hard strip) between the edge of carriageway and edge of NMU path. This path is to be surfaced with a high quality asphalt surfacing. There will also be a 2 m wide verge at the rear of the path. North of Dry Drayton bridge, a similar cross section would be provided, except the width of the NMU path would be 3 metres. This matter has been discussed with CCC and during consultation with other Authorities and NMU groups.</p> <p>The bridleway running alongside the Girton loop embankment is to be 4.5m wide and is to be surfaced with a high quality compacted granular surfacing, to enable comfortable use by all users, including equestrians. This matter has been discussed with CCC and during consultation with NMU groups.</p>

Relevant representation	Key issue	Highways England response
		<p>Discussions have taken place with CCC regarding the level of NMU provision throughout the scheme and these details will be documented in the Statement of Common Ground.</p>
<p>Liann Hunter (rep no. 310), G R Fleming (rep no. 374),</p>	<p>The new and existing A14 should be realigned closer together.</p>	<p>The development of the scheme and route options considered is set out in the Case for the Scheme (Chapter 4) (document reference 7.1). The choice of route arises from the multiple consultations on options that have been undertaken.</p> <p>Options for the route of the Huntingdon Southern Bypass (HSB) were presented during the 2006 Further Public Consultation. The Ellington to Fen Ditton scheme drew on the results of this consultation and developed the alignment.</p> <p>The proposed route (the “Orange Route” as per the 2006 Further Public Consultation) was chosen because:</p> <ul style="list-style-type: none"> - It had the best economics in terms of the Benefit to Cost Ratio as determined in previous studies. - The route follows an alignment that is further from a greater number of people - The majority of statutory consultees expressed a preference for the Orange Route in 2006. The preference of the public, as expressed during the 2006 Further Public Consultation, was strongly for the Orange Route (62% of people in favour). <p>It was concluded in the assessment that alternative routes nearer to the existing A14 (the “Blue”/“Blue Variation 1” route in the 2006 Further Public Consultation) would:</p> <ul style="list-style-type: none"> - Be closer to Godmanchester and have increased effects thereon - Increase effects on Wood Green Animal Shelter - Be closer to farm houses - Be closer to houses south of the existing A14 in Fenstanton in particular Pear Tree Close and thus increased effects on these properties - Impact on Fenstanton Air Quality Management Area - Have lower economic performance as determined in previous studies.

Relevant representation	Key issue	Highways England response
		<p>A route with online widening of the A14 from west of Fenstanton (the “Blue Variation 2” route in the 2006 Further Public Consultation) would in addition to the above:</p> <ul style="list-style-type: none"> - Pass through Fenstanton and so have a significant impact on this community, including the need to demolish a number of private properties. - Further impact on the Fenstanton Air Quality Management Area. - Have lower than desirable minimum standard geometric alignment in the vicinity of Fenstanton where new route would follow the alignment of the existing A14. - The economic performance calculated was lower than for the other route options in previous studies. - There was very low public support (2%) for this route option from the 2006 Further Public Consultation. - It would be more complex to construct due to the additional length of on-line improvement, including the constraints associated with on-line widening through Fenstanton, the diversion of BT fibre optic cables and proximity to Conington landfill <p>These alternatives were therefore rejected.</p> <p>The A14 Study (2012) Output 2 comprised the identification and review of possible transport options in the A14 corridor, the initial sifting of these options, the shortlisting of more suitable options and the production of a strategic outline business case. 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 scheme.</p> <p>Output 3 shortlisted 6 options which were developed and consulted on in Autumn 2013, and resulted in the scheme route essentially as proposed in the current DCO submission.</p>

7 Development Consent Order

7.1 Overview

- 7.1.1 Fifty-six interested parties raised issues concerned with the draft Development Consent Order (DCO) in their relevant representations.
- 7.1.2 The Rule 6 letter, Annex C, includes DCO as a principal issue, specifically the adequacy of the draft DCO and requirements, and protective provision and indemnities.
- 7.1.3 Tables 7.1 and 7.2 provide a summary of the key issues raised regarding the DCO, alongside a response from Highways England.

7.2 Where are these issues dealt with within the application documents?

- 7.2.1 Volume 3 of the DCO application contains the *Draft Development Consent Order and Related Documents*. This comprises the following items:
 - Document reference 3.1 Draft Development Consent Order sets out the powers that the Highways Agency is seeking to enable it to construct and maintain the scheme.
 - Document reference 3.2 Explanatory Memorandum to Draft Development Consent Order explains the purpose and effect of each provision in the draft order including why it is considered necessary.
 - Document reference 3.3 Consents and Agreements Position Statement sets out the Highways Agency's proposed approach to obtaining the various consents and agreements required separately to the DCO.

7.3 Key issues

Table 7-1: Adequacy of the draft Development Consent Order including the proposed Requirements

Relevant representation	Key issue	Highways England response
<p>Angus Lammie (rep no. 253), M W Hamilton on behalf of Melanie Sadler (rep no. 254), Georgina Grey (rep no. 255), Tony Wilderspin (rep no. 256), Alan Wilderspin (rep no. 257), GBA Wilderspin Ltd (rep no. 259), Derek Wilderspin (rep no. 261), Chivers Farm (rep no. 277), St Johns College (rep no. 278), Alan Neale (rep no. 343), R Newman (rep no. 416), Eleanor Disney (rep no. 423), Lookers (rep no. 470), Peter Mann (rep no. 473), National Farmers Union (rep no. 476), G B Sewell & Partners (rep no. 492), Robert Lenton Limited (rep no. 500), C Cooper & sons (rep no. 511), Church Commissioners for England (rep no. 554), University of Cambridge (rep no. 555), Everdell (rep no. 558), George Lenton Trust, Mrs E</p>	<p>Object to the fact that construction areas, Borrow Pits, flood and landscaping mitigation areas are not matters for which powers of compulsory acquisition under article 20 and/or powers of temporary possession of land under article 30 can lawfully be included within the DCO.</p> <p>There is no power in the Planning Act 2008 by which a DCO may include powers of temporary use and possession of land.</p>	<p><u>Use of the DCO for Borrow Pits, flood and landscaping mitigation areas through compulsory acquisition</u></p> <p>The Environmental Statement (Document Reference 6.1) sets out why Borrow Pits, Flood Compensation Areas, and Landscaping Mitigation areas are required for the Scheme to ensure that it has a neutral to positive environmental effect and to ensure accordance with the National Networks National Policy Statement (as set out in Document Reference HE/EX/21). These areas are therefore a key part of the Scheme.</p> <p>These documents explain that there is a responsibility for ensuring that the Scheme mitigation is continuing (such as maintenance of landscape mitigation, and the restoration and aftercare of borrow pits) throughout the operation of the Scheme. It is therefore important that Highways England is able to ensure that the land taken for these areas is utilised as mitigation. This could only be achieved through ownership of the affected land or of appropriate rights over it. The land or suitable interests in it must therefore be compulsorily acquired.</p> <p>Article 20 of the draft DCO sets out that land can be compulsorily acquired if it is "<i>required for the authorised development, or to facilitate or is incidental to it</i>"</p> <p>The "authorised development" is defined within Schedule 1 to the draft DCO. This Schedule makes provision for Borrow Pits, Flood Compensation Areas, Landscaping Mitigation and Construction areas throughout the various works that constitute the authorised development but also specifically makes provision for them in the 'catch all' provisions found at the end of the Schedule. This incorporates the following elements within the "authorised development", which are therefore suitable for compulsory acquisition under article 20:</p>

Relevant representation	Key issue	Highways England response
<p>A Ruston and Mrs C King (rep no. 565), Lenton Bros Ltd (rep no. 567), Elizabeth Ruston (rep no. 568), Christopher Monk on behalf of IAC and NIC Wright (rep no. 575), Michael Alexander on behalf of Mrs Anne Brawn, Mr Tim Brawn & Ms Sarah Brawn (rep no. 580), A14 Agents Association (rep no. 632), William George Topham (rep no. 637), Swansley Wood Partnership (rep no. 642), Mr & Mrs R Burton (rep no. 647), Andrew Meikle (rep no. 665), Dry Drayton Estate Ltd & P.X. Farms Ltd (rep no. 671), J Winter (rep no. 679)</p>		<p><i>(i) landscaping, noise barriers, works associated with the provision of ecological mitigation, and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised development;</i></p> <p><i>(m) construction compounds and working sites, storage areas, temporary vehicle parking, construction fencing, perimeter enclosure, security fencing, construction-related buildings, welfare facilities, construction lighting, haulage roads and other buildings, machinery, apparatus, works and conveniences; and</i></p> <p><i>(n) such other works, of whatever nature, including works of demolition and borrow pits to provide a source of construction material, as may be necessary or expedient for the purposes of, or for purposes ancillary to, the construction of the authorised development.</i></p> <p><u>Temporary Possession within the DCO and use for Construction Areas and Soil Storage Areas</u></p> <p>The statutory provisions setting out what can be included in a DCO are contained in the Planning Act 2008 (the Act). There are no express provisions for including powers of temporary possession of land in a DCO. However, section 120(3) of the Act states:</p> <p style="text-align: center;"><i>"An order granting development consent may make provision relating to, or to matters ancillary to, the development for which consent is granted."</i></p> <p>This wording of this provision is extremely wide, and has the scope to include a variety of provisions, including the power to take temporary possession of land. Taking temporary possession of land to either construct or maintain a development for which a DCO is required (the Development is one such development) is clearly a matter relating to, or ancillary to that development.</p>

Relevant representation	Key issue	Highways England response
		<p>Section 120(4) of the Act states that provision that may be made under section 120(3) "<i>includes in particular</i>" provision for any matters in Schedule 5 to the Act. In that Schedule, one of the matters listed includes:</p> <p style="text-align: center;"><i>"The creation, suspension or extinguishment of, or interference with, interests in or rights over land...compulsorily or by agreement."</i></p> <p>Highways England considers that this wording encompasses the temporary possession of land, as powers of temporary possession can be regarded as the compulsory interference with interests in or rights over land. However, even if this was not the case, it is clear from the use of the word '<i>includes</i>' in section 120(3) that the list of matters in Schedule 5 to the Act is not exhaustive. As a result, notwithstanding the passage set out above, the absence from Schedule 5 to the Act of any reference to temporary possession powers does not prevent including such powers in a DCO.</p> <p>Linked to this, under section 38 of the Act (which has now been repealed), the Secretary of State could, by order, prescribe 'model provisions' to be included in DCOs (although there was no obligation on applicants to include such provisions in their draft DCOs). Pursuant to this, the Secretary of State made the Infrastructure Planning (Model Provisions) (England and Wales) Order 2009 ("the Model Provisions"). These included provisions granting powers to take temporary possession of land for both the carrying out and maintenance of a development.</p> <p>Whilst the Model Provisions no longer have any statutory status as a result of the repeal of section 38 of the Act, the inclusion of temporary possession powers in the Model Provisions clearly indicated Parliament's intention that temporary possession powers fell within the scope of what the Act authorises to be included in a DCO.</p> <p>Indeed, the vast majority of DCOs made to date include temporary possession powers. These include some of the largest schemes to have gone through the DCO process, including the Thames Tideway Tunnel and the Hinkley Point C Nuclear Power Station, as well as all highway projects, including two Highways England schemes. This evidences that the Secretary of State is content that there is sufficient</p>

Relevant representation	Key issue	Highways England response
		<p>legal basis for temporary possession powers to be included in DCOs. Indeed, this issue was carefully examined by the Examining Authority in respect of the Thames Tideway Tunnel DCO and powers of temporary possession were included in the made DCO following this.</p> <p>This reflects the approach taken in orders ("TWAOs") made under the Transport and Works Act 1992. A large number of TWAOs made to date include powers relating to the temporary possession of land. As with the Act, there is no express provision allowing for TWAOs to include powers relating to the temporary possession of land. However, there is similar broad wording to the Act – for example, there is a list of matters which can be included in a TWAO but this is not exhaustive. Indeed, the regime under the Act was based broadly on the regime contained in the Transport and Works Act 1992. As such, TWAOs provide a useful and robust precedent for including temporary possession powers in DCOs.</p>
<p>R W Pearson (rep no. 121), Christopher Behagg (rep no. 181), Anthony William Carr and David Gordon Carr (rep no. 229), Angus Lammie (rep no. 253), Melanie Sadler (rep no. 254), Tony Wilderspin (rep no. 256), Alan Wilderspin (rep no. 257), GBA Wilderspin Ltd (rep no. 259), Derek Wilderspin (rep no. 261), Chivers Farm (rep nos. 274 and 277), St Johns College (rep no. 278), Mr Michael Richards (rep no. 280), R W Eayrs (rep no. 396) R W Eayrs & Partners (rep no.</p>	<p>The plans and maps relied on by the Applicant are not accurate and should not be used for the purposes of land acquisition, whether by the DCO itself, a notice to treat or a general vesting declaration.</p> <p>Errors were also identified by landowners and their agents within the Book of Reference</p>	<p>The plans and maps upon which the Application are based and to which these representations relate are the Land Plans and the Crown Land Plans. These plans have been developed, in conjunction with the Book of Reference, as a result of Highways England's diligent inquiry process. This process was as follows:</p> <p>Registered title data was obtained from HM Land Registry for the area of the proposed scheme as defined by the "red line boundary" (RLB) which is shown on the proposed scheme General Arrangement Plans (Document Reference 2.11) and which represents the limits within which detailed land referencing was carried out (in addition to the referencing of category 3 persons).</p> <p>Registered title data was used to identify the details of owners and other interests and the extent of their land interest. Verification of registered title data was carried out by means of Land Interest Questionnaires and site visits as described below.</p> <p>Site visits were made for the purpose of making direct door-to-door / face-to-face inquiries, and Land Interest Questionnaires have been issued to parties revealed by those site visits and to parties identified as having registered interests. The Land</p>

Relevant representation	Key issue	Highways England response
<p>403) R Newman (rep no. 416), Eleanor Disney (rep no. 423), Trinity College (rep no. 424) Ann Marion Looker, William John Looker and Charles William Looker (rep no. 470), National Farmers Union (rep no. 476), George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481), Mr R S Lenton (rep no. 487) G B Sewell & Partners (rep no. 492) Robert Lenton Limited (rep no. 500), Messers John and James Witherow (rep no. 502), C Cooper & sons (rep no. 511), Ms Gillian Burgess and Mrs Judith Steath (rep no. 527), Huntingdon Freeman's Trust (rep no. 553) Church Commissioners for England (rep no. 554), University of Cambridge (rep no. 555), Mr and Mrs Everdell (rep no. 558) George Lenton Trust, Mrs E A Ruston and Mrs C King (rep no. 565), Lenton Bros Ltd (rep no. 567), Elizabeth Ruston (rep no. 568), JS and KW Burgess</p>		<p>Interest Questionnaires were used in order to confirm the detail of interests identified from HM Land Registry data and by site visits, and also to reveal any additional interested parties. Additional interested parties so identified were also contacted directly to confirm the scope and nature of their interests.</p> <p>Unregistered land and land in relation to which it was not possible to identify an owner, tenant, lessee or occupier, or the owner of any other interest in such land ("unknown land") within the referencing boundary (RLB) was identified, and inquiries were made to establish the identity of persons with an interest in that land. This process of investigation included the following:</p> <ul style="list-style-type: none"> • web research to identify any occupiers for the land; • inquiries on site (made during the course of site visits) by talking with any occupiers to confirm their details and to obtain details of any freehold or leasehold interests in the land; • posting of notices on the land in question inviting owners / tenants / lessees / occupiers to contact Highways England to identify the scope and nature of their interest in the land; and • issuing Land Interest Questionnaires to registered freeholders and leaseholders. <p>Additional enquiries were also made with the Councils (in whose administrative areas the proposed scheme is situated), utility providers, Companies House, director report data and electoral register data.</p> <p>Enquiries were made with the Canal and Rivers Trust and the Inland Waterways Association to identify private rights of navigation on navigable waterways likely to be affected by the proposed scheme. Enquiries have also included an investigation into the ownership of mooring rights at marinas within the vicinity of the proposed scheme.</p> <p>The results of this work informed the application Book of Reference, Land Plans and Crown Land Plans. However, as negotiations continue with landowners throughout the Examination process and they inform Highways England of changes to the nature and</p>

Relevant representation	Key issue	Highways England response
<p>(Rep no. 569) Mrs Anne Brawn, Mr Tim Brawn & Ms Sarah Brawn (rep number 580), A14 Agents Association (rep no. 632), William George Topham (rep no. 637), Camilla Horsfall (Rep no. 641), Swansley Wood Partnership (rep no. 642)</p>		<p>details of ownership and interests in the land affected by the Scheme that has been accumulated by Highways England, updates to the Book of Reference, Land Plans and Crown Land Plans will be presented through the Examination Process. This has already occurred through Highways England's submission of a Book of Reference alongside the s.59 certificates and errata documentation, and will continue throughout the process.</p> <p>It is Highways England's view that any changes required to be made to the Book of Reference do not affect the environmental impact assessment that was carried out for the purposes of this Scheme. This is because the environmental impact assessment was carried out in respect of the same land that was referenced. Further, no representation has suggested that the use of any land affected by the Scheme has changed - rather, just the identity of the person who is affected by it. The land use presumptions that informed the environmental impact assessment have therefore not changed.</p>
<p>Tony Wilderspin (rep no. 256), Alan Wilderspin (rep no. 257), GBA Wilderspin Ltd (rep no. 259), Derek Wilderspin (rep no. 261), Chivers Farm (rep no. 277), St Johns College (rep no. 278), R Newman (rep no. 416), Eleanor Disney (rep no. 423), National Farmers Union (rep no. 476), C Cooper & sons (rep no. 511), Church Commissioners for England (rep no. 554), Everdell (rep no. 558), George Lenton Trust, Mrs E A Ruston and Mrs C King (rep no. 565), Lenton Bros Ltd (rep no.</p>	<p>The incorporation of the Mining Code to the Acquisition of Land Act 1981 means that minerals (within the meaning of the Code) will be excluded from the powers of acquisition under the DCO and cannot be compulsorily acquired, and therefore cannot be removed from any affected land.</p>	<p>Article 21 of the draft DCO states:</p> <p><i>Parts 2 and 3 of Schedule 2 to the Acquisition of Land Act 1981 (minerals) are incorporated into this Order subject to the modifications that—</i></p> <p><i>(a) paragraph 8(3) is not incorporated; and</i></p> <p><i>(b) for “the acquiring authority” substitute “the undertaker”.</i></p> <p>The most relevant provision of the Acquisition of Land Act 1981 is paragraph 2 of Schedule 2 which constitutes 'part 2' of that Schedule. This states that:</p> <p><i>(1)The acquiring authority shall not be entitled to any mines under the land comprised in the compulsory purchase order unless they have been expressly purchased, and all mines under the land shall be deemed to be excepted out of the conveyance of that land unless expressly named and conveyed.</i></p> <p><i>(2)Sub-paragraph (1) above shall not apply to minerals necessarily extracted or used in the construction of the undertaking.</i></p>

Relevant representation	Key issue	Highways England response
<p>567), Elizabeth Ruston (rep no. 568), A14 Agents Association (rep no. 632), William George Topham (rep no. 637), Camilla Horsfall (Rep no. 641),</p>		<p>The usual effect of subsection (1) is that an acquiring authority (such as Highways England for the purposes of this Scheme) has the ability to acquire the surface of the land without purchasing the underlying minerals. The owner of the minerals can thus still work them (subject to giving notice to Highways England) with no compensation payable to the owner as a result. This is the case for the majority of the plots required to be compulsorily acquired.</p> <p>However, this is subject to subsection (2) which sets out that subsection (1) does not apply where minerals are extracted or used in the construction of the undertaking.</p> <p>Schedule 1 to the draft DCO for this Scheme sets out that Works 4.1 to 4.15 (and thus the plots affected by those works as set out in the Statement of Reasons, Document Reference HE/EX/16) involve the <i>'excavation, working and restoration of borrow pits to win material required for the construction of the A14 Cambridge to Huntingdon Improvement Scheme'</i>. Various works contained in Schedule 1 to the draft DCO also involve the construction of <i>'flood compensation areas'</i> for which excavation of materials will also be required. As such the plots contained within those works as set out in the Statement of Reasons will be subject to excavation, with the minerals compulsorily acquired and compensation paid, accordingly.</p> <p>The extraction of minerals is therefore required for the construction of the Scheme in these instances and thus falls within subsection (2) above. Highways England is therefore entitled to the minerals within the plots that are identified as being necessary for use as borrow pits and flood compensation areas.</p> <p>However, this also means that Highways England is required to compensate landowners for the loss of minerals that it has taken for the purposes of the Scheme.</p> <p>Subsection (1) will still apply to all plots and to all minerals which are not required for the construction of the Scheme.</p>
<p>Chivers Farm (rep no. 277)</p>	<p>It is unnecessary for Highways England to DCO minerals land, as both clay and aggregate are</p>	<p>Highways England has given extensive consideration to the location of the proposed borrow pits. This has involved considering groundwater, the need for earthworks, and</p>

Relevant representation	Key issue	Highways England response
	<p>available locally to supply the A14 requirement and there is no evidence from suppliers that this local source of material has been investigated.</p>	<p>environmental factors including heritage, air quality, landscape, ecology, geology and soils, travellers, community, land and assets, and local planning policy.</p> <p>The locations of borrow pits have been selected with regard to their proximity to the works areas where the fill material would be used, in order to minimise haul distances and the amount of construction traffic using the existing A14 and local roads and reducing the carbon footprint of the earthworks construction. Borrow pit locations were selected to maximise the likelihood of winning material suitable for the earthworks, based on the available geotechnical data. They were also selected to minimise different land owner plots and so to minimise disruption to land boundaries. A brief description of the reasoning of the location of each of the borrow pits is explained below:</p> <p><u>Borrow Pit 1</u></p> <ul style="list-style-type: none"> • The location of borrow pit 1 primarily targets the River Terrace Deposits, which overlie the Oxford Clay. • The River Terrace Deposits are expected to be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. Some of the River Terrace Deposits may also be suitable for use as aggregate or pavement foundation materials in the works. This is being investigated as part of the current ground investigation and will be assessed at detailed design stage. • The location of borrow pit 1 is partly within a Cambridgeshire County Council ('CCC') allocation area known as M2D. The most northern cell of the borrow pit is positioned outside of the CCC allocation area, as this was considered a more desirable location, in order to maximise the size of the cell. An alternative position was considered for this cell to the south of the other three cells (within the CCC M2D allocation area); however, this was discounted due to the primary constraints of proximity to Brampton Lodge and existing services which would have constrained the size.

Relevant representation	Key issue	Highways England response
		<ul style="list-style-type: none"> • The individual cells proposed within borrow pit 1 have been defined primarily by a 150m offset from Brampton Lodge and Rectory Farm, in order to avoid disturbance to existing trees/hedgerows of importance, bridleway 'Brampton 19', Brampton Brook and existing underground services. <p><u>Borrow Pit 2</u></p> <ul style="list-style-type: none"> • The location of borrow pit 2 primarily targets the River Terrace Deposits, which overlie the Glacial Till and Oxford Clay. • The River Terrace Deposits are expected to be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. Some of the River Terrace Deposits may also be suitable for use as aggregate or pavement foundation materials in the works. This is being investigated as part of the current ground investigation and will be assessed at detailed design stage. • The location of borrow pit 2 is within CCC development plan M2C allocation area. • The individual cells proposed within borrow pit 2 have been defined primarily by a 150m offset from the housing to the north-east of the site and in order to avoid disturbance to existing trees/hedgerows between the two cells. Any known ecological constraints were also taken in to account. <p><u>Borrow Pit 3</u></p> <ul style="list-style-type: none"> • The location of borrow pit 3 primarily targets the River Terrace Deposits, which overlie the Oxford Clay. • The River Terrace Deposits are expected to be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. Some of the River Terrace Deposits may also be suitable for use as aggregate or pavement foundation materials in the works. This is being investigated as part of the current ground investigation and will be assessed at detailed design stage. • The location of borrow pit 3 is within the CCC development plan M2A and M2B allocation areas.

Relevant representation	Key issue	Highways England response
		<ul style="list-style-type: none"> • Consideration was also given to an alternative site, adjacent to its current location, west of Potton Road at Woolpack Farm. This location was proposed by the landowners during the consultation process. The alternative location has benefits in terms of impact on land owners and the potential to combine the excavation of the borrow pit with that also needed for flood compensation at the West Brook. However, the historical ground investigation data available for the area indicates a thinning out of the sand and gravel deposits in the alternative area. As the sands and gravels are potentially a source of pavement capping material, this would have meant considering a larger borrow pit area in order to win the same quantity of this material. In addition, the introduction of a revised borrow pit location would have had major implications to the overall scheme Development Consent Order programme. It was therefore concluded to maintain the current position. • The individual cells within borrow pit 3 have been defined in order to avoid existing utilities and West Brook. Any known ecological constraints and proximity to trees/hedgerows of importance were also taken in to account. <p><u>Borrow Pit 5</u></p> <ul style="list-style-type: none"> • The location of borrow pit 5 targets the Glacial Till and Kimmeridge Clay based on information available from the British Geological Survey (BGS) Map. • There is no previous ground investigation data at this location so actual depths and engineering properties of materials are not known. The current ground investigation includes investigation of this area, to provide this data. • It is expected that the Glacial Till and Kimmeridge Clay will be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. • The shape of the borrow pit has been designed to accommodate the current ground levels and contours. The depth profile has been designed to maintain a positive fall for drainage purposes, so that the land can be returned to agriculture on completion of the works. • There is a public bridleway which runs along the south west boundary of the borrow pit which was considered in the borrow pit location. Any known ecological

Relevant representation	Key issue	Highways England response
		<p>constraints and proximity to trees/hedgerows of importance were also taken in to account.</p> <ul style="list-style-type: none"> The original borrow pit, Boxworth End Farm, North of Trinity Foot Junction, was identified in the CCC development plan in allocation area M7B, as a clay and general fill borrow pit for any future improvements of the A14. It was discounted as it would be excavated into the Ampthill Clay, which would be undesirable: The Ampthill Clay has poorer engineering properties, which would require slacker side slopes for embankments, which would lead to a larger material volume required and a larger land-take footprint. <p><u>Borrow Pit 6</u></p> <ul style="list-style-type: none"> The location of borrow pit 6 targets the Gault Clay. The Gault Clay is expected to be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. The Gault Clay is expected to have better engineering properties (i.e. allow slightly steeper slope angles and therefore require less fill and require a smaller footprint of land) than the Ampthill Clay (which is where some of the other development plan allocations for borrow pit sites are defined – these were discounted for these reasons). The Gault Clay overlies the Woburn Sand formation which is a primary aquifer. The depth of the borrow pit has been designed to avoid excavation into the Woburn Sand formation, based on the current limited GI information available – this will be further checked and refined as necessary following receipt of the current ground investigation results and liaison with the Environment Agency. The size of borrow pit 6 was increased to better accommodate the quantities of fill required in the nearby area, and to offset the decrease in material won from this borrow pit due to depth restrictions to avoid excavation in to the Woburn Sands formation (as a primary aquifer). The individual cells within borrow pit 6 have been defined in order to avoid significant existing overhead power lines, an underground C&W utility and an

Relevant representation	Key issue	Highways England response
		<p>access road. Any known ecological constraints and proximity to trees/hedgerows of importance were also taken in to account.</p> <p><u>Borrow Pit 7</u></p> <ul style="list-style-type: none"> • Borrow pit 7 was introduced slightly later than the others, following a consultation with CCC. CCC identified it as a previous site of mineral extraction suitable for consideration for the A14 works. It was included to help provide additional material around the Brampton Hut area where quantities have increased due to design development of the route. It also has the potential benefit to provide River Terrace Deposit sands and gravels. • The location of borrow pit 7 primarily targets the River Terrace Deposits, which overlie the Oxford Clay. Alluvium may also be present at the surface. • The River Terrace Deposits are expected to be suitable for constructing highway and mitigation embankments, as well as for use as fill in restoration of borrow pits and other landscaping. Some of the River Terrace Deposits may also be suitable for use as aggregate or pavement foundation materials in the works. This is being investigated as part of the current ground investigation and will be assessed at detailed design stage. • The location of borrow pit 7 is within the CCC development plan M2E allocation area. • The individual cells proposed within borrow pit 7 have been defined primarily by existing overhead power lines (running between the two cells) and an existing underground service. Any known ecological constraints and proximity to trees/hedgerows of importance were also taken in to account.
660 (Natural England) and 669 (Environment Agency)	The Environment Agency and Natural England have suggested a number of items for potential inclusion within the requirements of the draft DCO.	Highways England is in on-going discussions with the Environment Agency and Natural England as to potential requirements and/or protective provisions to be included within the draft DCO. Both of these will be submitted into the Examination process in due course, together with Statements of Common Ground with both bodies.

Relevant representation	Key issue	Highways England response
A14 Agents Association (rep no. 632)	There are significant changes between the DCO proposals and the April 2014 consultation documents.	<p>The history of the design development of the Scheme is set out in part 4 of the <i>Case for the Scheme</i> (Document Reference 7.1).</p> <p>Consultation ensures that all views are taken into account when finalising the outline design of the Scheme and, indeed, this is a legal requirement under the Planning Act 2008. The Consultation Report (Document Reference 5.1) sets out how the responses received in the statutory consultation changed the Scheme.</p> <p>Further to this consultation, on-going engagement with the Environment Agency on technical matters informed the development of the scheme in respect of the Great Ouse Viaduct and flood compensation areas. Relevant stakeholders and residents were informed (for further details please see the Consultation Report) and changes were made to ensure that there would be no increased flood risk as a consequence of the scheme.</p> <p>The <i>Transport Assessment</i> was undertaken using an updated traffic model to assess the impact of the scheme on the highway network, leading to minor design changes at key junctions and links.</p> <p>Continued engagement with landholders has resulted in multiple minor amendments to the scheme in order to ensure satisfactory access and these are incorporated within the Application design.</p>
John Moore (rep no. 556)	Lack of cross-referencing and insufficient process definition in the complex DCO documentation makes the application difficult to evaluate.	The documentation to be provided in support of an application for a Development Consent Order under the Planning Act 2008 is set out by that Act, the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended), and Advice Notes 6, 13, 14, and 15 prepared by the Planning Inspectorate. Highways England has provided all documents required by these statutory requirements and non-statutory advice, and other documents which help explain the proposals contained within the draft Development Consent Order.

Relevant representation	Key issue	Highways England response
		Highways England has provided a high level summary of the documents and their interrelationship within its application in its 'Introduction to the Scheme' (Document Reference 1.1) document.
Robert Amos (rep no. 234)	The planning regime is unlawful as the Planning Inspectorate Inquiry was opened and abandoned (when the scheme was 'cancelled') in 2010, on the same proposal, under the former planning regime. Query whether it is lawful to re-launch the same scheme under a new planning regime where the hurdles it must pass have been reduced. The 2010 Inquiry should be reopened, under the same rules.	<p>The history of the development of the Scheme following the cancellation of the A14 Ellington to Fen Ditton scheme is set out in part 4 of the Case for the Scheme (Document Reference 7.1). This outlines the extensive consultation and scheme development that has taken place prior to the submission of the DCO application in December 2014.</p> <p>The 2010 public inquiry in relation to the A14 Ellington to Fen Ditton scheme was the culmination of a process that had been begun under the Highways Act 1980, prior to the commencement of the Planning Act 2008.</p> <p>The A14 Cambridge to Huntingdon improvement scheme is required to be examined through the Planning Act 2008 process as, following the commencement of that Act, it is a 'nationally significant infrastructure project' as defined by sections 14 and 22 of that Act (as amended). This is because it is the construction and alteration of a highway over an area of more than 12.5 hectares where it is expected the speed limit for any class of vehicle will be 50 miles per hour or greater, and the improvement of a highway where Highways England, as a strategic highway authority, will be the highway authority of the road upon its completion.</p>
Jonathan Dooley (rep no. 439)	The reintroduction of the Scheme, following its cancellation after the last election, has not followed the legal requirements of Consultation and Inquiry.	<p>The history of the development of the Scheme following the cancellation of the A14 Ellington to Fen Ditton scheme is set out in part 4 of the Case for the Scheme (Document Reference 7.1). This outlines the extensive consultation that has taken place prior to the submission of the DCO application in December 2014.</p> <p>The legal requirements for consultation in respect of applications for DCOs are set out in and under the Planning Act 2008. The Consultation Report (Document Reference 5.1) explains how the development of this Scheme has complied with these requirements.</p>
Tom MacLennan (rep no. 236)	Concerns regarding the methodology of the process that led to this decision. After the	A cost/benefit analysis of the application scheme has been carried out and is contained within part 5 of the Case for the Scheme (Document Reference 7.1).

Relevant representation	Key issue	Highways England response
	2010 road scheme was abandoned, this road scheme seems to have failed to meet the requirements for looking at benefits versus costs.	

Table 7-2: Protective provisions and indemnities

Relevant representation number	Key issue	Highways England response
64 (Anglian Water), 639 (Network Rail) and 669 (Environment Agency)	Anglian Water, the Environment Agency and Network Rail have raised a number of issues that they wish to be contained within the DCO.	Highways England is in on-going discussions with Anglian Water, Network Rail and the Environment Agency to ensure that all of their concerns about the Scheme are alleviated. Updates of these discussions will be contained within Statements of Common Ground that will be submitted to the Examination process, and in protective provisions that will form part of the final draft of the DCO.

8 Economic and social effects

8.1 Overview

- 8.1.1 One hundred and seventy one interested parties raised issues with economic and social effects in their representations.
- 8.1.2 The Rule 6 letter, Annex C, raises the following economic and social principal issues of:
- effects on the local and wider economy;
 - effects on the local community;
 - effects on loss of land; and
 - alternatives to the scheme submitted.
- 8.1.3 Tables 8.1, 8.2, 8.3 and 8.4 provides a summary of the key issues raised regarding economic and social effects alongside a response from Highways England.

8.2 Where are these issues dealt with in the application documents?

- 8.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 16 of the *ES (document reference 6.1)* includes an assessment of the likely significant effects (both positive and negative) of the scheme on people and communities. The assessment has regard for likely impacts on agricultural land, farms, community facilities, private property, development land, community severance and socioeconomic impacts on labour from the construction of the scheme.
- 8.2.2 Further information on the economic context and effects of the scheme are contained within the *Compulsory Acquisition Information (Volume 4)* and the *Case for the Scheme (document reference 7.2)*.

8.3 Key issues

Table 8-1: Effect of local and wider economy

Relevant Representation	Key issue	Highways England response
David Pulley (rep no. 208), Anthony Digby (rep no. 345), Edward Hillier (rep no. 296), Ann Hawkins (rep no. 376), Ben Strutt (rep no. 160), Sallie Crawley (rep no. 327), Ashley-John Charman (rep no. 344)	Effects on property including devaluation, potential inability to sell homes in the future and overall reduction in desirability to potential buyers/tenants	<p>Part I of the Land Compensation Act 1973 allows compensation to be claimed by people who own and also occupy property that has been reduced in value by physical factors caused by the use of a new or altered road.</p> <p>These physical factors are; noise, vibration, smell, fumes, smoke and artificial lighting and the discharge on to the property of any solid or liquid substance.</p> <p>Further information, including qualifying criteria and details on how to make a claim, are detailed in the booklet <i>How to claim for the effects on your property of new or altered roads</i> (Highways England, 2015).</p>
Alison Wood (rep no. 603), Nigel Wood (rep no. 602), Oscar Hughes (rep no. 176), Penny Edwards (rep no. 246)	Poor use of public money and poor value for money. Concern that the estimated cost of the A14 scheme is £1.5 billion, which is not considered an economic benefit.	<p>The economic assessment of the scheme, including methodology and results of the assessment, is covered in the <i>Case for the Scheme</i>, document reference 7.1.</p> <p>The economic assessment concludes that the scheme in its present form has a high value for money benefit to cost ratio. The breakdown of this calculation is available in Table 5.1 of the <i>Case for the Scheme</i>.</p>
Suffolk County Council (rep no. 503)	The Environmental Statement (ES) does not appear to fully assess the socio-economic and transport impacts during construction. In particular, the impact of the development on the labour market and concern that there are a number of major infrastructure	<p>In order to consider some of the impacts of the scheme upon the labour market within the environmental impact assessment framework, the scope of Chapter 16 Communities and Private Assets (<i>Environmental Statement, document reference 6.1</i>) was expanded from current DMRB guidance to include a socio-economic assessment of the additional local employment from construction of the scheme.</p> <p>The socio-economic assessment follows the approach set down in the <i>Additionality Guide</i> (English Partnerships, 2008). The baseline has considered</p>

Relevant Representation	Key issue	Highways England response
	<p>projects in the wider region, where there may be interactions in the labour market. Evidence is requested to support the ES in regard to the distribution of workers, relevance of the study area, definition of the labour market and impact on the wider labour market, and the impacts of construction worker movements.</p>	<p>the level of unemployed and employment within the construction sector within the study area of Cambridgeshire.</p> <p>The economic situation of regional economies neighbouring Cambridgeshire was not considered in detail as impacts are expected to be concentrated in Cambridgeshire and any residual economic impacts from employment would likely be dispersed among the surrounding various counties, and therefore would not be of a significant level in any one neighbouring county's economy.</p> <p>Highways England's assessment is that the labour market within the large travel to work catchment area across South and East England is sufficient to support the project and the other major infrastructure projects in the wider region. There are significant populations of both construction workers and unemployed in Cambridgeshire and the neighbouring counties from which the project will draw (Lincolnshire to the north, Norfolk to the north-east, Suffolk to the east, Essex and Hertfordshire to the south, and Bedfordshire and Northamptonshire to the west). As an example, neighbouring Hertfordshire has approximately 30,000 people currently working in construction.</p> <p>Highways England is preparing a statement of common ground with Suffolk County Council, which also deals with these issues.</p>
Suffolk County Council (rep no. 503)	<p>How has the application considered potential impacts on tourist accommodation by construction workers, with a resulting economic impact?</p>	<p>It is anticipated that between 2017 and 2020 there would be sufficient on-site accommodation for 500 workers. Given the anticipated workforce, and the availability of accommodation within Cambridgeshire, this provision is considered sufficient to mitigate potential impact of workers from outside of the region on tourist accommodation.</p>
John Moore (rep no. 556)	<p>Highways England should include a contingency cost to enable corrective measures for problems identified within a minimum period</p>	<p>Highways England recognises that a number of communities have concerns regarding impacts of the scheme, particularly around increases in traffic levels on local roads and in increases in noise levels from traffic on the A14. However the traffic models produced for the scheme show that increases in traffic on local roads that are a result of the scheme are not significant and the</p>

Relevant Representation	Key issue	Highways England response
	of 12 months following the completion of the scheme.	Environmental Statement concludes that any increases in noise levels are minimised as far as sustainable. Therefore a contingency cost of this sort is not justified as part of the application for the scheme.

Table 8-2: Effect on local communities

Relevant representations	Key issue	Highways England response
Dave Skelly (rep no. 375)	What steps will be taken by the contractors to reduce impacts of construction on local communities?	<p>The main contractors would consult with the local highway authority regarding routes that may be used by the main contractors to access the construction sites. Access routes for construction traffic would be limited, as far as reasonably practicable, to the trunk road network and main roads on the local road network. Traffic management plans for the construction works would be submitted to Highways England which would be reviewed with the local authorities. Further information on the contents of a Traffic Management plan is contained in document 6.3 Environmental Statement Appendix 20.2, section 15.1. Also the requirement to produce traffic management plans after consultation with the relevant planning authority is set out at paragraph 8 of Part 1 of Schedule 2 of the Draft Development Consent Order (application document reference 3.1). These would include details of proposals for traffic management and the routing of construction vehicles, to be described in a Traffic Management Plan. Main contractors would liaise with the local authorities and the police to implement traffic management plans and measures to seek to reduce disruption to journeys for all types of travellers, including pedestrians, cyclists and equestrians.</p> <p>A Code of Construction Practice has been prepared for the scheme which sets out mitigation measures and standards of work to be used by Highways England and its contractors. The Code of Construction Practice and the further management plans described in it are designed to control impacts on people, businesses and the natural and historic environment resulting from the scheme.</p>

Relevant representations	Key issue	Highways England response
		<p>Additionally, mitigation in regard to air quality and noise and vibration will be applied, reducing the impacts from construction on communities. See ES chapters 8 and 14 respectively for further information</p>
<p>Dave Skelly (rep no. 375), Keith Anderson (rep no. 184), Brampton Parish Council (rep no. 655), David Busfield (rep no. 532)</p>	<p>How have impacts on Brampton primary school been considered?</p>	<p>Brampton Primary School was not identified as a specific receptor in the air quality assessment carried out for the Environmental Statement (ES) as it is located beyond the area of influence as set out in the relevant guidance and therefore considered unlikely to be significantly impacted. Other receptors which were located closer to the scheme are not predicted to be significantly impacted. Air quality at all receptors in Brampton, including those closest to the scheme and Brampton Primary School, is predicted to be much better than the air quality objectives set to protect human health.</p> <p>Following the completion of the ES, further air quality sensitivity testing was undertaken for Brampton Primary School. This showed that the increase in NO₂ and PM₁₀ annual mean results would be negligible in 2020 at this location.</p> <p>The primary school was not identified as a receptor in the noise assessment, as it is located 700m from the proposed scheme. The ES, working on a precautionary basis did not identify any likely significant noise effect on the school (section 14.6 of Volume 6.1, Chapter 14 of the ES and Appendix 14.6).</p> <p>The school was also not identified in the Community and Private Assets assessment contained in the ES as being likely to be significantly impacted due to its distance from the scheme and likely negligible severance impact.</p>
<p>Helen Ruddy (rep no. 320), Hilton Parish Council (rep no. 180), Michael R Burnhan (rep no. 227)</p>	<p>Why is the route close to Hilton when it could be further north with less impacts on villages and residential areas? Volume 7.1 Case for the Scheme does not provide an understanding of this matter.</p>	<p>A process of identification and selection of a range of potential options has led to the scheme as presented in the DCO application.</p> <p>The development of the scheme and route options considered is set out in the Case for the Scheme (Chapter 4) (document reference 7.1). The choice of route arises from the multiple consultations on options that have been undertaken.</p>

Relevant representations	Key issue	Highways England response
		<p>Options for the route of the Huntingdon Southern Bypass (HSB) were presented during the 2006 Further Public Consultation. The Ellington to Fen Ditton scheme drew on the results of this consultation and developed the alignment.</p> <p>The proposed route (the “Orange Route” as per the 2006 Further Public Consultation) was chosen because:</p> <ul style="list-style-type: none"> • It had the best economics in terms of the Benefit to Cost Ratio as determined in previous studies. • The route follows an alignment that is further from a greater number of people. • The majority of statutory consultees expressed a preference for the Orange Route in 2006. The preference of the public, as expressed during the 2006 Further Public Consultation, was strongly for the Orange Route (62% of people in favour). <p>It was concluded in the assessment that alternative routes nearer to the existing A14 (the “Blue”/“Blue Variation 1” route in the 2006 Further Public Consultation) would:</p> <ul style="list-style-type: none"> • Be closer to Godmanchester and have increased effects thereon. • Increase effects on Wood Green Animal Shelter. • Be closer to farm houses. • Be closer to houses south of the existing A14 in Fenstanton in particular Pear Tree Close and thus increased effects on these properties. • Impact on Fenstanton Air Quality Management Area. • Have lower economic performance as determined in previous studies. <p>A route with online widening of the A14 from west of Fenstanton (the “Blue Variation 2” route in the 2006 Further Public Consultation) would in addition to the above:</p>

Relevant representations	Key issue	Highways England response
		<ul style="list-style-type: none"> • Pass through Fenstanton and so have a significant impact on this community, including the need to demolish a number of private properties. • Result in further impact on the Fenstanton Air Quality Management Area. • Have lower than desirable minimum standard geometric alignment in the vicinity of Fenstanton where new route would follow the alignment of the existing A14. • Produce an lower economic performance calculated than for the other route options in previous studies. • receive very low public support (2% for this route option from the 2006 Further Public Consultation). • Be more complex to construct due to the additional length of on-line improvement, including the constraints associated with on-line widening through Fenstanton, the diversion of BT fibre optic cables and proximity to Conington landfill <p>These alternatives were therefore rejected.</p> <p>The A14 Study (2012) Output 2 comprised the identification and review of possible transport options in the A14 corridor, the initial sifting of these options, the shortlisting of more suitable options and the production of a strategic outline business case. 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 scheme.</p> <p>The Option Generation and Initial Sifting Report conducted by Atkins in 2012 for the Department for Transport (Dft) included three southern alignment routes that bypass Huntingdon to the south and pass to the north of Hilton. These included Option ID 45, 46 and 47 all including slightly different variations of</p>

Relevant representations	Key issue	Highways England response
		<p>routes running north of Hilton and Conington and joining the existing A14 to the south of Fen Drayton.</p> <p>Options 46 and 47 were not recommended for further consideration in part due to environmental reasons. Option 46 was rejected by the Environment Agency for passing through Buckden Landfill Site. It was also thought that Option 46 would have a high impact on Godmanchester due its close proximity to this community. Option 47 was not considered further due in part to its close proximity to Brampton and Godmanchester. Option 46 and 47 also received relatively low public support from the 2006 further public consultation responses (19% and 11% respectively).</p> <p>Ultimately these three options were dropped as the Early Contractor Involvement (ECI) route for Huntingdon Southern Bypass was seen as preferable.</p> <p>The A14 Study: Output 3 Package Testing and Appraisal Report conducted by Atkins in 2012 for the Dft investigated further highways options. Highway Option 6 from this study involved a route to the south of Hilton and Papworth Everard. However, traffic modelling concluded that reduced traffic on the existing A14 would have resulted in some additional traffic to or from it, i.e. to or from Hilton.</p> <p>Output 3 shortlisted 6 options, which were developed and consulted on in Autumn 2013, and resulted in the scheme route essentially as proposed in the current DCO submission.</p>
Hilton Parish Council (rep no. 180)	There is a lack of consideration of impact on quality of life of residents of Hilton. This contradicts the stated objective of creating a positive legacy for the residents of Hilton.	<p>An assessment on community and private assets has been undertaken and is reported in Chapter 9 of the ES (document reference 6.1).</p> <p>Overall effects on villages and community facilities, including Hilton, are not expected to be significant. Where adverse effects are likely to occur as a result of the scheme, a range of mitigation measures would be implemented.</p> <p>During construction, this would include adherence to the CoCP (Document reference 6.3 Appendix 20.2), which outlines the standards of work for the</p>

Relevant representations	Key issue	Highways England response
Cambridge City Council (rep no. 11)	The A14 works as currently proposed impact upon the land within the Crematorium and there are concerns about potential impacts upon the operation of the Crematorium.	<p>construction workforce including general site operations, traffic and environmental considerations. During operation, this would include the use of cuttings, low-noise road surfacing and landscaped earthworks.</p> <p>The existing access to the crematorium is substandard and unsatisfactory. The only access is directly off the nearside lane of the westbound A14 carriageway, just after traffic merges from Girton junction and just before Dry Drayton junction traffic diverges. There is also a very low standard junction with The Avenue immediately before the crematorium. The frontage is shared with entrances to domestic properties and Hackers fruit farm. In addition the area is often used for HGV parking.</p> <p>The proposed new access would be off the Local access road, a far more suitable approach to the Crematorium for local traffic. Access directly off the A14 would be removed in line with the policy to reduce the number of junctions, remove all private and low standard accesses, and traveller laybys. Discussions regarding impacts on and potential works to the internal layout of the site have been held with Cambridge City Council and will continue as part of ongoing dialogue.</p>
Offord Cluny and Offord Darcy Parish Council (rep no. 51)	Concerns are the visual impact, noise, additional traffic and pollution. Initial screening plans have been removed from the revised scheme and the Council would like alternative screening - perhaps in the form of a line of trees along the railway. These trees would also help with noise and pollution.	<p>The proposed A14 between the railway and the River Great Ouse in the 2009 Environmental Statement and in earlier versions of the current scheme was designed on embankment with dense screen planting. However the embankment in that section was replaced with an extended viaduct in order to maintain flood retention/storage capacity of the floodplain to the satisfaction of the Environment Agency.</p> <p>The scheme now proposes intermittent screen planting with fast and large growing trees such as poplar and willow on the floodplain either side of the viaduct. This planting would be intermittent to provide flight paths for bats to fly under the viaduct. Dense planting linking with an existing hedgerow is proposed around the outer embankment slopes of a proposed drainage retention pond east of the river. Part of the earthworks for this would rise to</p>

Relevant representations	Key issue	Highways England response
<p>June Wood (rep no. 217), Karen Covell (rep no. 712)</p>	<p>There are alternative options with the route of the scheme at a greater distance from Brampton village. These should be reconsidered in response to concerns with impacts of noise, air and light pollution on Brampton village.</p>	<p>road level with tree planting at a point next to a proposed gantry. Also there would be a small portion of planted embankment at the western abutment of the proposed bridge over the railway. These short sections of planted embankment would serve to break up the views of the viaduct at an early stage before the trees planted on the flood plain would have grown tall enough to be effective as a screen. East of the railway, the highway would be on embankment with dense screen planting on a false cutting to 1m above the road.</p> <p>Off-site planting which would be subject to agreement from affected land owners, could be discussed and investigated as part of the Statement of Common Ground being prepared with Highways England and the Offords Parish Council.</p> <p>With regards to noise effects, taking account of the baseline levels and the existing sound levels from the B1043 and East Coast Main Line, the ES reports that there are no likely significant noise effects forecast at the Offords. There is a large body of published research, which shows that trees have a negligible effect in reducing noise. They do however provide a visual screen, which may influence the perception of noise, even though they do not reduce the decibel level.</p> <p>Overall a process of identification and selection of a range of potential options has led to the scheme as presented in the DCO application.</p> <p>The Option Generation and Initial Sifting Report conducted by Atkins in 2012 for the Department for Transport (DfT) provided options to alleviate transport problems in the A14 corridor around Cambridge and Huntingdon. As part of these options, two options (Option 45 and Option 46) were considered where the proposed A14 scheme was routed further west of Brampton. These options were discounted in part due to environmental reasons. Option 45 was rejected as it would pass through Buckden Landfill Site and have a high impact to the Godmanchester community. Option 46 was rejected due to the visual impacts and increased requirement for land acquisition/relocation of electricity infrastructure and proximity to Godmanchester and Brampton communities.</p>

Relevant representations	Key issue	Highways England response
		<p>As a result of this evaluation process six highways options for the scheme emerged and are outlined in the A14 Study: Output 3 Package Testing and Appraisal Report, conducted by Atkins in 2012. This provided six options, of which Options 2 - 6 involved a two or three lane Huntingdon Southern Bypass running to the south-west of Brampton. Further appraisal of these options against economic, environmental and social and community criteria was carried out as part of the study. Option 3 and Option 5 were identified as offering the best overall solutions. Due to the need to provide a scheme that performed well in economic, environmental and social terms, the best performing aspects of Options 3 and 5 were combined to provide a seventh option.</p> <p>Option 7 was further refined and modelled as per the previous six options and emerged from the A14 Study as the preferred option to be taken forward into more detailed development. Following further refinement Option 7B emerged. This preferred option was subject to a value engineering exercise to explore modifications which would offer improvement in certain key areas. This option was further refined to include a different layout at the Brampton Interchange whereby the A14 crossed the A1 near Brampton Hut on an elevated section of road.</p> <p>A comparison of the potential environmental impacts of the two alternative Brampton Interchange layouts was carried out as part of the design review process. This concluded that for most environmental topics the effects would be of similar significance with both layouts. It identified potential reduced adverse impacts with regard to noise, landscape, nature conservation and all travellers arising from the revised layout, with potential for increased adverse impact on materials due to an increased fill requirement. Overall it was considered that the setting of Brampton, and other settlement areas would also benefit from less disturbance associated with reduced traffic on the existing A14.</p> <p>Other advantages of the alternative layout included construction benefits (by making the best use of the existing A1 infrastructure), safer construction traffic</p>

Relevant representations	Key issue	Highways England response
		management arrangements, improved safety and reliability and improved connections for pedestrians, cyclists and equestrians between Brampton, Brampton Hut and Brampton Woods. Therefore, on balance the positioning of the Huntingdon Southern Bypass in relation to Brampton was considered justified in the context of the other options.

Table 8-3: Effect of loss of land

Relevant representations	Key issue	Highways England response
Alan Wilderspin (rep no. 257), Derek Wilderspin (rep no. 261), Tony Wilderspin (rep no. 256), GBA Wilderspin Ltd (rep no. 259)	The DCO will compulsorily acquire 90% of plot 19/4, leaving the balance unviable and uneconomic as a farming unit.	Land take has been assessed within the Community and Private Assets chapter of the Environmental Statement. The design process has attempted to minimise land take where possible. Agricultural land loss is assessed within the Community and Private Assets chapter of the Environmental Statement.
Tony Wilderspin (rep no. 256), Alan Wilderspin (rep no. 257), GBA Wilderspin Ltd (rep no. 259), Derek Wilderspin (rep no. 261)	Farm buildings which lie outside of the area to be acquired will become redundant once severed from the remaining farm land. This will result in financial loss to the tenant company and land owners.	Scheme wide the loss of agricultural land is assessed as a major adverse impact of the scheme. Land take from high quality agricultural land has been avoided where possible, but due to the abundant high quality nature of the land in the area surrounding the scheme, land take from this asset has been largely unavoidable.
Camilla Horsfall (rep no. 641), Trevor Lee (rep no. 127)	The flood alleviation/compensation areas take a large amount of land out of agricultural production, leaving the area and surrounding areas uneconomical to farm.	Highways England has been, and continues to, liaise with land owners to both minimise land that is to be compulsory purchased and to minimise the impact of the scheme on their retained land.
William George Topham (rep no. 637), Camilla Horsfall (rep no. 641)	The quantum of land required for accesses to all the balancing ponds is excessive.	Where land is to be compulsory purchased, compensation will have regard to the viability (or not) of any retained land. Additional compensation mechanisms will also apply for losses suffered as a result of our scheme. Further information, including qualifying criteria and details on how to make a claim, is detailed in the booklet <i>How to claim for the effects on your property of new or altered roads</i> (Highways England, 2015).
Darwin Green Development, Barratt Eastern Counties and the North West Cambridge	Concerns about loss of land between Huntingdon Road, Histon Road and South of the A14,	

Relevant representations	Key issue	Highways England response
Consortium of Landowners (rep no. 201)	Cambridge. Particular reference to land loss within the Country Park and DG2 and DG2/3 residential land.	Highways England is currently discussing Statements of Common Ground with a large number of landowners to seek to identify and respond to their all concerns.
R W Eayrs (rep no. 396), R W Eayrs and Partners (rep no. 403)	Loss of access to retained land south of the new road and west of the Offord Road. Access is required through plot 10/2b and 10/2a during the construction works to ensure access to the retained land for farming purposes.	Highways England is liaising with landowners regarding all aspects of the scheme, including access both during construction and when the road is operational.
Swansley Wood Partnership (rep no 642)	Mitigation measures should set out how valuable and productive soil will be protected during the construction period.	A soil management plan would outline procedure for handling and storage of productive soil to mitigate against impact on the valuable resource. This is documented in the Soil Management Strategy in Appendix 12.2 of the Environmental Statement.

Table 8-4: Alternatives to the submitted scheme

Relevant representations	Key issue	Highways England response
H Powney (rep no. 325), various	Investment should be focused on alternative transport modes such as rail freight links, which is a more sensible economic solution.	<p>The A14 scheme is already part of a multi-modal solution including alternative transport modes such as rail freight links.</p> <p>In 2011 the Department for Transport commissioned <i>the A14 Study</i> to look at multi-modal transport solutions in response congestion in the trunk road corridor between Huntingdon.</p> <p>It identified a range of interventions, which comprised a public transport package, a rail-freight package and a road package. It concluded that packages in isolation would not solve the problems but that all packages were needed.</p>

Relevant representations	Key issue	Highways England response
		<p>The public transport package was forecast to result in only a modest increase in net public transport demand in the study area (150 passengers in the three-hour morning peak period by 2031). This equates to a 1 to 2 per cent increase in public transport trips in the study area.</p> <p>The freight package aimed to reduce HGV traffic on the A14 by encouraging a transfer of freight movements from road to rail. This centred on traffic moving between the Haven Ports and the Midlands. It also concentrated on measures for improving the Felixstowe to Nuneaton route to achieve shorter journey times and to enable longer trains and additional freight paths to be introduced. The rail freight package was forecast to reduce HGV traffic on the A14 in the core study area by up to 11 per cent, which would offset 60 to 80 per cent of the forecast growth in HGV traffic on the A14 between 2011 and 2031.</p> <p>Rail freight proposals within the <i>A14 Study</i> have either been completed or are programmed to be carried out within the current control period which runs until March 2019.</p> <p>The road package included the widening of the A14, together with a new bypass to Huntingdon, as well as additional local roads and junction improvements. These measures have been developed and are incorporated within the proposed scheme.</p> <p>Further detail on the above can be found in the <i>Case for the scheme</i>, document reference 7.1, section 4.</p>
Robert Amos (rep no. 234)	Have alternative low cost options been considered? E.g. road widening and improvements and traffic managements such as HGV restrictions.	The <i>Cambridge to Huntingdon Multi-Modal Study(CHUMMS)</i> considered the contribution that low cost measures could make to addressing the problems and issues on the A14. All multi-modal studies were tasked with doing this and the conclusions were much the same. In the CHUMMS case, the conclusion was that low cost options alone could not provide a satisfactory solution, but could make a useful contribution to the solution. Hence the recommendation to invest in public transport measures (the guided busway and the Felixstowe to Nuneaton rail upgrade), traffic calming in local villages and demand restraint in Cambridge

Relevant representations	Key issue	Highways England response
		<p>city centre. But providing more capacity on the strategic trunk road remained essential.</p> <p>The A14 provides a key strategic route between the Haven ports and the Midlands and, consequently, it would not be appropriate to restrict HGV use.</p> <p>Further discussion on the above can be found in the Case for the Scheme, document 7.1.</p>
Phil Wood (rep no. 360), Hilton Parish Council (rep no. 180)	Instead of creating a new road, investment should be focused on updating existing roads such as the A428.	The Roads Investment Strategy published as part of the Autumn Statement of 2014 indicated a Government commitment to upgrading the remaining single carriageway section of the A428 subject to such a scheme offering value for money and proceeding through statutory processes. This scheme, which is the subject of a feasibility study, would be complementary to the A14 improvement. It would not replace the need for the A14 scheme as the road caters for different traffic movements.
Neill Kimbrey (rep no. 311), Jennifer Griffiths (rep no. 211)	Evidence is required on the cost benefit analysis of the scheme, in comparison to alternative schemes. In particular, improvement to the A428 between Caxton and the A1 Blackcat.	<p>Pages 56 and 57 of the document titled <i>Technical Review of Options, September 2013</i> and provided in support of the options consultation held in September and October 2013 provides a comparison of six options brought forward from the <i>A14 Study</i> and states benefit cost ratios for each.</p> <p>The BCR of the proposed scheme, which evolved from a combination of the best performing elements of options 3 and 5, is set out at section 5 of the <i>Case for the Scheme</i>, document 7.1.</p> <p>Following the decision by Government not to toll the road, the proposed scheme was re-evaluated and this exercise confirmed that it remained high value for money, i.e. that it had a BCR of over 2.</p> <p>The BCR for improvement of the A428 was not assessed as this is not an option which would meet the objectives of the scheme.</p>
Ms Felicity Wright (rep no. 715)	An additional lane and re-modelling of the junctions on the existing	To keep the existing route for all traffic would require the retention of the Huntingdon viaduct. Whilst in the short term this may appear an attractive option, in the longer term congestion would return. In addition, widening the viaduct or

Relevant representations	Key issue	Highways England response
	route would be a more economical solution than the proposed scheme.	building a parallel structure is not considered a viable option because of the environmental impact to the town of Huntingdon and the possible need to demolish a number of properties close to the line of the viaduct and route. In the longer term therefore a dual 3 lane Huntingdon southern bypass would be necessary. Retention of the viaduct even for the short term would require continual maintenance, the current repair deals with a potential failure of the half-joint but the remainder of the viaduct is over 40 years old. Retention of the viaduct is also not supported by the local authorities; it is considered a blight on the economic development of the town and environmentally damaging.
Buckden Parish Council (rep no. 411)	Cost benefit analysis information is required in regard to retaining the Huntingdon viaduct and building the new Huntingdon bypass between Ellington and Swavesey as a D2 Dual two-lane carriageway.	The option of retaining the viaduct at Huntingdon and a reduced standard Huntingdon southern bypass has been looked at. Although initially cheaper than the proposed scheme, traffic flow over the dual 2 lane carriageway would continue to deteriorate to the extent that congestion would return and the Huntingdon Southern Bypass would require further widening. The environmental benefits to the town of Huntingdon would not be realised.
John Moore (rep no. 556)	Cost benefit analysis information is required in regard to constructing the new Grafham Road A14/A1 over-bridge before demolishing the existing A1 over-bridge.	The existing over-bridge across the A1 has to be demolished to cater for a new bridge to span the new A1, the A14 and two slip roads. A cost-benefit analysis is not justified because it is not possible to deliver the scheme whilst retaining the existing bridge.
Alan Eve (rep no.10)	The existing road should be kept in place as an alternative route in the event of an incident on the new road. By keeping the existing road open for northbound traffic flows, there would be no need to upgrade the A1 between Brampton and Alconbury resulting in a significant cost saving.	<p>It is not Highways England's policy to construct and maintain parallel roads in order to provide for potential blockages.</p> <p>Through the inclusion of an additional lane the proposed route provides greater resilience to incidents; a full blockage is less likely. Although traffic is likely to use alternative routes in the event of a blockage, the ability for lightweight traffic to pass through Huntingdon will be retained through the introduction of a local road, making use of the Brampton Road bridge to cross the railway line.</p> <p>To keep the existing road open for northbound traffic would require the retention of the Huntingdon viaduct. Whilst in the short term this may appear an attractive option, in the longer term congestion would return. In addition, widening the viaduct or building a parallel structure is not considered a viable option because</p>

Relevant representations	Key issue	Highways England response
		<p>of the environmental impact to the town of Huntingdon and the possible need to demolish a number of properties close to the line of the viaduct and route. In the longer term therefore a dual 3 lane Huntingdon southern bypass would be necessary. Retention of the viaduct even for the short term would require continual maintenance, the current repair deals with a potential failure of the half-joint but the remainder of the viaduct is over 40 years old. Retention of the viaduct is also not supported by the local authorities; it is considered a blight on the economic development of the town and environmentally damaging.</p>
<p>Teresa Moore (rep no. 185), Robert Amos (rep no. 234)</p>	<p>How have the alternative schemes submitted by local communities been evaluated, in particular the scheme submitted by the Brampton A14 Campaign Group?</p>	<p>The proposal submitted by the Brampton A14 Campaign Group does not contain an alternative scheme, but rather a collection of measures and interventions which are offered as an alternative. Many of the measures put forward were considered by the <i>Cambridge to Huntingdon Multi-Modal Study (CHUMMS)</i> and indeed incorporated into the recommendations of the study (such as further investment in the rail network, investment in public transport along the corridor and traffic restraint measures). But CHUMMS also recognised the importance of the need for further road capacity. It considered a number of options for providing this additional capacity, including upgrading part of the A428, but concluded that the most appropriate solution was the scheme that became the Ellington to Fen Ditton Scheme. Other options were again looked at in the <i>A14 Study</i>, carried out by the Department for Transport in 2011/12, and this concluded that the route of the Ellington to Fen Ditton Scheme was the most appropriate.</p> <p>Further detail on the development of the scheme can be found in section 4 of the <i>Case for the Scheme</i>, document reference 7.1, section 4.</p>

9 Environmental impact assessment

9.1 Overview

- 9.1.1 Seven interested parties raised issues concerned with cumulative effects including the effects of other planned developments in their relevant representations.
- 9.1.2 The Rule 6 letter, Annex C, included Environmental Impact Assessment as a principal issue, including matters concerned with cumulative effects
- 9.1.3 These issues are summarised in Table 9.1 alongside a response from Highways England.


9.2 Where are these issues dealt with in the application documents?

- 9.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. The *ES (document reference 6.1)* includes an assessment of the likely significant effects (both positive and negative) of the scheme on the environment and a description of mitigation measures proposed to reduce any negative impacts.
- 9.2.2 Chapter 18 of the *ES (document reference 6.1)* sets out the cumulative effects and impact interactions of the scheme in combination with other reasonably foreseeable developments in the area.

9.3 Key issues

Table 9-1: Cumulative effects including the effects of other planned developments

Relevant representation	Key issue	Highways England response
Hinchingsbrooke Healthcare NHS Trust (rep no. 634)	The Police and Crime Commissioner for Cambridgeshire and the Hospital Trust are jointly proposing a health campus on land adjacent to the new A14 Views Common Link. Co-ordination of scheme interfaces is still required, including environmental mitigation matters. In particular, Plot 34/3, which is proposed for tree planting, should be removed from the land acquisition schedule as it conflicts with the proposed health campus scheme.	<p>To the west of the Hinchingsbrooke link road the scheme includes an area of 15 individual trees to be planted along the permissive footpath route running north/south between the hospital and policy site. The trees are proposed to mitigate the loss of mature high quality trees as a result of the scheme.</p> <p>Highways England is engaging with both the Hospital Trust and the Police and Crime Commissioner regarding the proposed Health Campus and is in the process of preparing statements of common ground. As part of this process, Highways England is exploring potential alternative options for the proposed tree planting.</p>
Alex Riley (rep no. 600), Robert Amos (rep no. 234)	How have proposed developments at Bourn Airfield, Cambourne, Longstanton, Northstowe, and other major development proposals been taking into account in the environmental impact assessment?	Account has been taken of these developments through the traffic model where they were assessed as reasonably foreseeable, as agreed with local planning authorities. Major development within 5km was considered in relation to other non-traffic related cumulative effects as reported in Chapter 18 of the ES.

Relevant representation	Key issue	Highways England response
Chris Todd (rep no. 129), Brampton A14 Campaign Group (Rep no. 680)	How have the cumulative effects of the borrow pits been assessed in regard to air, pollution and visual effects?	The impacts from borrow pits were considered as part of the cumulative impact assessment as part of the footprint of the scheme in general. The interaction of impacts during construction has been described within Chapter 18 of the ES as disruption during construction. The southern and western extents of Brampton have been identified as adversely affected (minor adverse) by disruption during construction (Table 18.7). Interaction of borrow pit impacts (disruption) has not been identified as significant for other locations since the borrow pits would be sited away from sensitive receptors where possible.
Marcia Whitehead on behalf of Barratt Eastern Counties and the North West Cambridge Consortium of Landowners (Darwin Green) (rep no. 201)	Impacts on the proposed Darwin Green development. The scheme proposes a bland landscape of balancing ponds with little scope for landscaping detracting from the green belt edge of Cambridge. The scheme prevents the creation of acoustic and landscape mounds along the A14 which would impact on the ability to secure planning permission for elements of the Darwin Green development. In addition, the impact of displaced flood water would reduce the capacity of the Country Park and residential land.	<p>This response begins by setting out some background information on the proposed development, including the reference to the land being a country park. It then goes on to set out how the issue is covered in the ES.</p>  <p>Drawing taken from Darwin Green Two Exhibition Boards (Monday 18 March 2013) Available at http://www.darwingreen-consultation.co.uk/resources.aspx</p> <p>Both the adopted South Cambridgeshire Site Specific Policies Development Plan Document (2010) and the emerging South Cambridgeshire Local Plan (submitted for examination March 2014) allocate the land coloured yellow and blue on the</p>

Relevant representation	Key issue	Highways England response
		<p>above drawing for a housing led urban extension to Cambridge. The remainder of the land (coloured green above) is designated as Green Belt and should be retained as such through the development of a Countryside Enhancement Strategy to provide landscape, biodiversity and public access enhancements.</p> <p>A Scoping Request for the development of this land, known as Darwin Green Two, for a residential led development was submitted to South Cambridgeshire District Council in 2013; however no planning application has been submitted to date. A planning application for the formation of landscaped mound adjacent to and south of the A14, adjacent to the A14/B1049 junction (to be formed from excess spoil from the Darwin Green One development) was submitted in March 2014, however this has since been withdrawn.</p> <p>The information provided in the Scoping Opinion request, as well as information provided in public exhibition boards (available online at http://www.darwingreen-consultation.co.uk/resources.aspx) indicate the land coloured green is proposed to be public open space and Country Park. Country Parks are areas for people to visit and enjoy recreation in a countryside environment. Country Parks can be designated by Local Authorities under the Countryside Act 1968 and managers can apply to Natural England for accreditation for their country parks. At present the land at Darwin Green is not designated as a Country Park.</p> <p>The proposed A14 scheme would result in the loss of some land directly adjacent to the existing A14 that is proposed to be public open space/Country Park. Table 16.13 in Chapter 16 of the ES states that there is likely to be a neutral effect on the viability of the site but also acknowledges that there is likely to be an adverse impact on the proposed landscaped mound adjacent to and south of the A14.</p> <p>In relation to displaced flood water, there are no extents of Flood Zone 2 or 3 designated in the vicinity of the Darwin Green development between Girton and</p>

Relevant representation	Key issue	Highways England response
		<p>Histon junctions. The scheme does not include works to widen the carriageway footprint between Girton and Histon consequently there will be no displacement of floodwater that would affect the Darwin Green development. Additional surface water runoff from the scheme will be attenuated and restricted to greenfield rates to ensure no change to existing flows.</p>
<p>King Hedges Investment Limited (rep no.66)</p>	<p>The proposed scheme will have negative environmental impacts upon residential and mixed use development sites that Kings Hedges Investments Limited owns at Orchard Park, to the north of Cambridge and immediately adjacent to the A14. How has this been considered and mitigated?</p>	<p>The relevant representation is concerned that the proposed gantry adjacent to Orchard Park would be visually intrusive and may cause light pollution. Any lighting associated with the gantries would be directional, focused on the sign itself. The sign would therefore shield the lighting from illuminating a wider area, which is unlikely to be significant in an area already urbanised, such as Orchard Park. The existing 3m noise fencing would be re-erected and landscaping proposals include hedge planting, trees where space allows and tree and shrub planting (Refer to the Environmental Statement, Figure 3.2, page 23).</p> <p>Table 16.3 of Chapter 16 of the Environmental Statement (<i>Community & Private Assets</i>), states that "Widening of online section of A14 on the northern side of Cambridge to north of development is unlikely to affect the viability of the development." and assesses effect as neutral.</p> <p>By way of background please note that KHIL submitted a planning application in December 2014 (S/2975/14/OL), which was refused on 30 March 2015, after this relevant representation was made.³</p>

3

<http://plan.scambs.gov.uk/swiftlg/apas/run/WPHAPPDETAIL.DisplayUrl?theApnID=S/2975/14/OL&theTabNo=2&backURL=%3Ca%20href=wphappcriteria.display%3ESearch%20Criteria%3C/a%3E%20%3E%20%3Ca%20href=%27wphappsearchres.displayResultsURL?ResultID=986780%26StartIndex=1%26SortOrder=rgndat:desc%26DispResultsAs=wphappsresweek1%26BackURL=%3Ca%20href=wphappcriteria.display%3ESearch%20Criteria%3C/a%3E%27%3ESearch%20Results%3C/a%3E>



10 Landscape and visual effects

10.1 Overview

- 10.1.1 Fifty interested parties raised issues concerned with the effects of the Great Ouse viaduct structure in their relevant representations and six interested parties raised issues concerned with artificial lighting in their relevant representations.
- 10.1.2 The Rule 6 letter, Annex C, raises landscape and visual effects as a principal concern including matters concerning the effect of the Great Ouse Viaduct structure and artificial lighting.
- 10.1.3 Tables 10.1 and 10.2 provide a summary of the key issues raised regarding landscape and visuals effects alongside a response from Highways England.

10.2 Where are these issues dealt with in the application documents?

- 10.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 10 of the *ES* (document reference 6.1) presents the landscape and visual impact assessment and the mitigation measures which have been incorporated into the scheme to lessen the landscape and visual impact.

10.3 Key issues

Table 10-1: Effects of the Great Ouse viaduct structure

Relevant representations	Key issue	Highways England response
<p>Alan Neale (rep no. 343), Allan Nott (rep no. 361), Mr Andrew Farrell (rep no. 447), Angela Elliott (rep no. 465), Anne Hamilton (rep no. 478), B Croft (rep no. 737), Barry Tucker (rep no. 349), Belinda Hudson (rep no. 686), Brian J Townsend (rep no. 353), Cameron Brook (rep no. 443), Mrs Carol Lewis (rep no. 630), Chris Redburn (rep no. 392), Christopher Chant (rep no. 441), Cindy King (rep no. 464), Dave Robert Squires (rep no. 449), Mr David Barker (rep no. 560), David Freer (rep no.386), David Hamilton (rep no. 480), Mr David Longville (rep no. 570), David May (rep no. 682), Deb Leighton (rep no.704), Eileen Pelosi (rep no.418), Mrs Sue Ashwell on behalf of Mrs Emma-Jane Roberts (rep no.435), Prof Geoff Ashwell (rep no. 431), Gillian Prior (rep no.362), Graham Craker (rep no.382), Heather Hampson</p>	<p>The viaduct would spoil the view over the Great Ouse floodplain. It would be visually intrusive as it would be visible from most viewpoints.</p>	<p>The River Great Ouse viaduct has been carefully designed to reduce impacts on the Great Ouse valley and to support the views of key stakeholders (Offord Cluny and Offord D'arcy Parish Councils – page 132 of Consultation Report TR010018 Dec.2014) who indicated that the aesthetic quality of the structure should be a priority consideration in this sensitive landscape.</p> <p>Whilst mitigation planting would filter and reduce the extent of visibility of traffic on the viaduct, it is recognised that both the viaduct and its traffic would remain as noticeable features. The island and drainage attenuation pond would be out of character with the landform of the shallow valley and the space under the viaduct and immediately to either side would remain as a maintenance access area. As such, a moderate adverse residual magnitude of impact within this character area would remain in year 15. The significance of effect on the landscape would remain large adverse, as the A14 crossing would remain at considerable variance with the scale and landform of the landscape. However the substantial areas of woodland planting within the valley and across the fields to the east would not be out of character and would mask the detail of the embankments, drainage lagoons and much of the movement of traffic.</p> <p>Once the mitigation planting has become established, it would soften the engineering form of much of the viaduct and new highway earthworks, restore the vegetated character to the new edges of the former gravel pits and help to integrate the scheme into the generally well vegetated and partially enclosed character of the floodplain landscape.</p>

Relevant representations	Key issue	Highways England response
<p>(rep no.388), Irene Bleakley (rep no.379), James Shepherd-Barron (rep no.528), Mr John Barry Ackrill (rep no.381), John Hammond (rep no. 395), Julia Redburn (rep no. 436), Justin Lomas (rep no. 417), Mr Karl Speed (rep no.547), Kevin Ford (rep no. 539), Lisa Davis (rep no. 619), Marcus Hedley (rep no. 455), Marie Baker (rep no. 681), Mark Wells (rep no. 389), 326, 463, 419, 627, 683, 468, Mark Williams (rep no. 548), Ms Joanna Longville (rep no. 572), Nicholas Hamilton (rep no. 409), Nigel Ragg (rep no. 390), Pamana Limited (rep no. 448) , Offord Cluny and Offord Darcy Parish Council (rep no. 51)</p>		<p>In addition key consideration in the selection of the preferred structure for the viaduct was the appearance within the valued landscape of the river Great Ouse Valley. It was concluded that solutions with long spans and deep beams would not sit well in the landscape. Furthermore, to avoid conflicting with the landscape and increasing visual impact, dominant features such as arches or tall towers for cable-stayed bridges should be avoided. An options design process has been carried out, and a design has been generated which aims to minimise visual intrusion and to maintain views along the valley floor.</p> <p>Specifically in relation to Buckden marina, the proposed river Great Ouse viaduct would be approximately 610m to the north of Buckden Marina at the nearest point. Views from residential properties on the northern edge of Buckden Marina of the viaduct and traffic flow would be concealed during the summer in the long term by intervening mature vegetation along the Ouse Valley. There might be distant, intermittent, glimpses in the long term through established vegetation in leaf of the river Great Ouse viaduct and traffic flow from parts of the wider Buckden Marina. However, there would be no significant adverse residual visual effects from any part of Buckden Marina.</p>
<p>B Croft (rep no. 737)</p>	<p>What visual mitigation is proposed to mitigate impacts of the viaduct structure on the Great Ouse floodplain?</p>	

Relevant representations	Key issue	Highways England response
Gerard Galligan (rep no. 43)	Concerns about the height of the viaduct over the Great Ouse.	
<p>Alan Neale (rep no. 343), Allan Nott (rep no. 361), Mr Andrew Farrell (rep no. 447), Angela Elliott (rep no. 465), Anne Hamilton (rep no. 478), B Croft (rep no. 737), Barry Tucker (rep no. 349), Belinda Hudson (rep no. 686), Brian J Townsend (rep no. 353), Cameron Brook (rep no. 443), Mrs Carol Lewis (rep no. 630), Chris Redburn (rep no. 392), Christopher Chant (rep no. 441), Cindy King (rep no. 464), Dave Robert Squires (rep no. 449), Mr David Barker (rep no. 560), David Freer (rep no.386), David Hamilton (rep no. 480), Mr David Longville (rep no. 570), David May (rep no. 682), Deb Leighton (rep no.704), Eileen Pelosi (rep no.418), Mrs Sue Ashwell on behalf of Mrs Emma-Jane Roberts (rep no.435), Prof Geoff Ashwell (rep no. 431), Gillian Prior (rep no.362), Graham Craker (rep no.382), Heather Hampson (rep no.388), Irene Bleakley (rep no.379), James Shepherd-Barron (rep no.528), Mr John</p>	<p>Poor architectural merit of the proposed viaduct structure, which would not pass the 'beauty test' for new roads recently announced by the Secretary of State for Transport.</p>	<p>The design of the scheme and consultation on design options has adhered to Highway Agency guidance and industry best practice in place during the period of its development. The environmental design is based upon the principles set out in <i>DMRB Volume 10: Environmental Design - Good Roads Guide DfT 1992</i></p> <p>DMRB Volume 10 provides guidance on the integration of new roads in the landscape, including outlining the principles for crossing valleys. It advocates a balance between embankments and viaducts in low lying valleys; the former allowing opportunities for planting for integration and screening and the latter allowing long views beneath the viaduct to allow views along a valley that would otherwise be blocked.</p> <p>The design of the viaduct deliberately keeps it as low in the landscape as possible while clearing the railway, and maintaining the Great Ouse as a navigable river. Its widely spaced piers would provide open views through and beneath the structure. The spacing of the piers would be regular and the thickness of the deck would be consistent across the length of the structure. The photomontage on Sheet 6 of Figure 10.6 in the Environmental Statement demonstrates the scale and position of the structure. The opportunity to further refine the architectural merit of the proposal will arise at detailed design following (if the application is granted) the making of the development consent order.</p>

Relevant representations	Key issue	Highways England response
Barry Ackrill (rep no.381), John Hammond (rep no. 395), Julia Redburn (rep no. 436), Justin Lomas (rep no. 417), Mr Karl Speed (rep no.547), Kevin Ford (rep no. 539), Lisa Davis (rep no. 619), Marcus Hedley (rep no. 455), Marie Baker (rep no. 681), Mark Wells (rep no. 389), 326, 463, 419, 627, 683, 468, Mark Williams (rep no. 548), Ms Joanna Longville (rep no. 572), Nicholas Hamilton (rep no. 409), Nigel Ragg (rep no. 390), Pamana Limited (rep no. 448)		

Table 10-2: Artificial lighting

Relevant representations	Key issue	Highways England response
Jeremy Procter on behalf of Mr N D'Agati (rep no. 552), Michael Alexander on behalf of Robert Lenton Limited (rep. no. 500) and Jeremy Procter on behalf of Eleanor Disney (rep no. 423)	Impacts of lighting (from the road and vehicles) on residents and nearby properties, including Depden Farm at Godmanchester, have not been given sufficient consideration.	The landscape and visual effects of artificial lighting and traffic 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. The design for the scheme does not include road lighting in the majority of the rural parts of the scheme, but lighting is proposed at major junctions and in urban situations such as the junctions in Huntingdon and the proposed link roads at Mill Common in Huntingdon. There is no road lighting proposed at or near Godmanchester, however road lighting at the Ermine Street Junction would be visible from Depden Farm. Depden Farm (RR 500) is located approximately 165m from the centreline of the scheme and is assessed as experiencing a large adverse visual effect at the year of opening, taking account of the lighting associated with the proposed Ermine Street junction.

Relevant representations	Key issue	Highways England response
		<p>This reduces to a moderate adverse effect by year 15 as proposed planting establishes and softens views. Similarly Beacon Field Equine Centre (RR 552) is assessed as experiencing a moderate adverse effect in year 1, reducing to slight by year 15.</p> <p>Rectory Farm (RR 423) is located approximately 100m from the centreline and would experience a very large adverse visual effect from the scheme including views of light columns and light spill at Ellington junction. This would reduce to a moderate adverse visual effect by year 15 when views of traffic movement would be largely screened by established mitigation planting. Tops of lighting columns/light spill would remain visible at Ellington junction to the north-west.</p> <p>Chapter 10 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>
English Heritage (rep no. 677)	How have impacts of lighting on heritage assets in Huntingdon and Godmanchester been considered?	<p>Impacts as a result of street lighting were based on data in the Chapter 10 Landscape.</p> <p>Impacts of lighting from road traffic were included in the assessment of the impact on setting; which included a number of visual intrusions such as new infrastructure. This assessment included consideration of the predicted increases or decrease in traffic movements in the relevant areas.</p> <p>There would be no impact from road lighting on heritage assets at Godmanchester as part of the proposed scheme. The existing A14 near Godmanchester is not lit. In the proposed scheme this section of the existing A14 would be downgraded to serve as a local arterial road and the decision on whether to provide lighting would be the responsibility of Cambridgeshire County Council.</p>

Relevant representations	Key issue	Highways England response
		Text under the last bullet point of Section 10.5.112 on page 10/85 of the Environmental Statement describes the effects of proposed road lighting in Huntingdon. Effects of lighting are also mentioned in ES Chapter 9 Cultural Heritage, section 9.5.5.
Natural England (rep no. 660)	A Lighting strategy needs to be agreed with Natural England to minimise potential ecological impacts.	In discussion with the A14 ecology team Natural England have requested that a lighting strategy should be produced and agreed with them. Discussions with NE on this are ongoing and will be captured in the SoCG submitted at Deadline 3.
Robert Miller (rep no. 685)	Further details of lighting are required including, amount, height and brightness in particular in regard to the proposed roundabout at Mill Common.	Although previous versions of the scheme included a roundabout at Mill Common the current proposed scheme does not include a roundabout. Road lighting is proposed along the Pathfinder Link through the edge of Mill Common and along Mill Common Link on the route of the existing A1 around Mill Common. Lights on 8-10m high columns would probably be required. Details of the type and character of the lighting would be developed during detailed design following (if the application is granted) the making of the development consent order, subject to further consultation with Cambridgeshire County Council and Huntingdonshire District Council.

11 Noise and Vibration

11.1 Overview

- 11.1.1 Three hundred and eighty five interested parties raised issues of noise and vibration in their relevant representations.
- 11.1.2 The Rule 6 letter, Annex C, raises noise and vibration during construction and operation as a principal issue.
- 11.1.3 Table 11.1 provides a summary of the key issues raised regarding noise and vibration alongside a response from Highways England.

11.2 Where are these issues dealt with in the application documents?

- 11.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 14 of the *ES* (document reference 6.1) sets out the likely significant noise and vibration effects of the scheme arising from construction and operation (both positive and negative) and a description of the mitigation measures proposed to reduce any negative impacts.

11.3 Key issues

Table 11-1: Noise and vibration during construction and operation

Relevant Representation	Key issue	Highways England response
A Yeldham (rep no. 35)	Additional noise mitigation measures are requested in Fenstanton e.g. higher bunding, vegetation, and noise reducing road surfaces.	<p>The proposed scheme would provide material improvements to the health and quality of life through Fenstanton by substantially reducing road traffic, and associated noise, from the existing A14 and retaining the existing noise barriers.</p> <p>Noise impacts as a result of the proposed new Bypass are minimised through its alignment, the use of low noise road surfacing and bunding to reduce visual and noise impact.</p> <p>The Environmental Statement (Volume 6.1, Chapter 14 and appendix 14.6) sets out the proposed noise mitigation measures. These are proposed in accordance with the Noise Policy Statement England, paragraph 5.195 of the National Policy Statement for National Networks and the Planning Practice Guidance on Noise.</p> <p>The proposed mitigation is designed to prevent unacceptable adverse noise effects, and in the context of Government Noise Policy within the context of Government policy on sustainable development:</p> <ul style="list-style-type: none"> • avoid significant adverse noise effects (on health and quality of life); • mitigate and minimise adverse effects (on health and quality of life); and • where possible, contribute to the improvement of health and quality of life through the effective management and control of noise.
Mr A. G Peacock (rep no. 592), Clare Waring (rep no. 518), Elisabeth Olding (rep.no 230), Linda Otridge (rep no. 161), Mr	How have the noise impacts of the borrow pits and cement processing plant been considered?	The assessment of potential noise impact from construction associated with the borrow pits and cement processing plant is reported in Chapter 14 of Volume 6.1 and Appendix 14.4 of Volume 6.3 of the Environmental Statement (ES).

Relevant Representation	Key issue	Highways England response
B Quail (rep no. 714), Russell Waring (rep no. 346)		Mitigation is identified in the Code of Construction Practice (CoCP) (Appendix 20.2 of the ES) to minimise impacts. However, based on worst-case assumptions, significant temporary noise effects are reported for the homes closest to the two borrow pits to the south west of Brampton Barracks. However, the impacts are not so great as to cause a significant adverse impact in noise policy terms.
Aino Telaranta-Keerie (rep no. 578)	<p><i>“In the Environmental Statement Chapter 14, the low level (day 65 dBL, eve 55dBL, night 45 dBL) and significant (day 75 dBL, eve 65dBL, night 55 dBL) observed adverse effect levels of noise are explained. The current levels of noise close to our house at the Northern edge of the village have been measured as day 56 dBL, night 52 dBL. Right now, the 4-lane A14 lies around 3km from my house; the proposed scheme will reduce this distance to about 1/3rd – the new A14 will also run closer to the house in length. The Environmental Statement states that the new road will not bring significant noise effects to dwellings between ECMC and Swavesey, and no noise mitigation measures are in place. I do not believe this to be true – the increased number of lanes, and the much closer location of the A14 to the village, together</i></p>	<p>The levels quoted from Chapter 14 refer to thresholds for potential effects due to construction noise at residential buildings.</p> <p>Operational noise is assessed against more onerous criteria as presented in Chapter 14 of Volume 6.1 and Appendices 14.3 and 14.6 of Volume 6.3 to the ES.</p> <p>As set out in these ES documents mitigation measures have been designed into the scheme to minimise as far as sustainable adverse effects on health and quality of life, and no likely significant noise effects have been identified on the north side of Hilton.</p> <p>We would be grateful if the results of the independent baseline measurements referred to in the representation could be shared.</p>

Relevant Representation	Key issue	Highways England response
	<p><i>with lack of noise mitigation has a very high likelihood of significantly increasing noise levels to dwellings on the North side of Hilton, affecting quality of life and health of its residents.”</i></p>	
<p>Alan Charles Welsh (rep no. 258), Alconbury Parish Council (rep no. 477)</p>	<p>How has the assessment considered increased noise pollution as a result of extra traffic diverted from the old A14 spur, affecting both sides of the A14 as it passes Alconbury village?</p>	<p>Changes in traffic patterns through Alconbury arising from the proposed scheme are reported in Chapter 6 of Volume 6.1 of the ES. This traffic information has been used as the basis for the noise assessment.</p> <p>In that Chapter, operational noise levels have been assessed as required by Design Manual for Roads and Bridges (DMRB HD213/11) including the assessment of predicted traffic changes on all relevant road links.</p> <p>The assessment also takes account of the ‘Important Area’ at Alconbury identified in Government’s 2014 Noise Action Plan for Roads.</p> <p>The scheme includes the improvement of the existing noise barriers through Alconbury (see section 14.5, of chapter 14 of volume 6.1 to the ES). Taking account of the improved barriers section 14.6 of Chapter 14 and Figure 14.7 of the ES show that no significant effects from noise are likely to occur from the operation of the proposed scheme.</p>
<p>Alan Neale (rep no. 343), Allan Nott (rep no. 361), Mr Andrew Farrell (rep no. 447), Angela Elliott (rep no. 465), Anne Hamilton (rep no. 478), B Croft (rep no. 737), Barry Tucker (rep no. 349), Belinda Hudson (rep no. 686), Brian J Townsend (rep no. 353), Cameron Brook (rep no. 443), Mrs Carol Lewis (rep no. 630), Chris Redburn (rep no. 392), Christopher</p>	<p>How have noise impacts on Buckden Marina Complex (including 81 residential lodgings) been considered? It is requested that additional mitigation is proposed, including noise barriers and landscaping.</p>	<p>The marina and the adjacent timber lodges are located at their closest point just over 600m from the proposed scheme. As described in Chapter 14 of Volume 6.1 to the ES, road traffic noise levels decrease with distance and hence the Design Manual for Roads and Bridges –DMRB - (HD213/11) defines a calculation area that only extends to 600m from the new or altered roads. As part of the noise assessment long term baseline noise monitoring was undertaken at Buckden Marina, at a location agreed with the Marina, using a method agreed with the local authority. This baseline information is reported in Appendix 14.3 of Volume 6.1 of the ES.</p> <p>The representation seeks additional mitigation including noise barriers and landscaping. Barriers or landscaped bunds will not provide any benefit over</p>

Relevant Representation	Key issue	Highways England response
<p>Chant (rep no. 441), Cindy King (rep no. 464), Dave Robert Squires (rep no. 449), Mr David Barker (rep no. 560), David Freer (rep no.386), David Hamilton (rep no. 480), Mr David Longville (rep no. 570), David May (rep no. 682), Deb Leighton (rep no.704), Eileen Pelosi (rep no.418), Mrs Sue Ashwell on behalf of Mrs Emma-Jane Roberts (rep no.435), Prof Geoff Ashwell (rep no. 431), Gillian Prior (rep no.362), Graham Craker (rep no.382), Heather Hampson (rep no.388), Irene Bleakley (rep no.379), James Shepherd-Barron (rep no.528), Mr John Barry Ackrill (rep no.381), John Hammond (rep no. 395), Julia Redburn (rep no. 436), Justin Lomas (rep no. 417), Mr Karl Speed (rep no.547), Kevin Ford (rep no. 539), Lisa Davis (rep no. 619), Marcus Hedley (rep no. 455), Marie Baker (rep no. 681), Mark Wells (rep no. 389), 326, 463, 419, 627, 683, 468, Mark Williams (rep no. 548), Ms Joanna Longville (rep no. 572), Nicholas Hamilton (rep no. 409), Nigel Ragg (rep no.</p>		<p>distances in the order 600 metres. The Government's Calculation of Road Traffic Noise methodology states that the calculated level of noise should only allow for either the reduction provided by a noise barrier or the reduction for the absorption provided by soft ground cover between the road and the receiver. The reduction provided by soft ground increases with increasing distance from the road. The calculated net benefit of a noise barrier therefore decreases with increasing distance from the road being considered.</p> <p>Volume 6, Chapter 14 of the ES addresses tranquillity, It specifically addresses 'quiet areas' designated under the Environmental Noise Regulations and areas designated as being 'prized for providing tranquillity' (as noted in the National Planning Policy Framework) in the relevant local plan or any neighbourhood development plan. The marina and area around it are not designated as either a quiet area or one prized for tranquillity. Wider consideration of tranquillity is reported in Chapter 10 of Volume 6 of the ES.</p> <p>The representation refers to independent baseline noise measurements, and Highways England would be grateful if this information was shared.</p> <p>Highways England is seeking to engage with the marina management company and any independent professional advisors to discuss noise measurements, the assessment and to prepare a statement of common ground.</p>

Relevant Representation	Key issue	Highways England response
390), Pamana Limited (rep no. 448)		
Alan Rodger (rep no. 56), Alan Neale (rep no. 343), Alison Wood (rep no. 603), Frances Whittaker-Wood (rep no.605), Nigel Wood (rep no. 602)	The noise impact assessment does not take account of wind direction and vertical temperature profile. In particular, in regard to Brampton village.	<p>Noise levels have been calculated using the Government's Calculation of Road Traffic Noise (CRTN). This is a long established and well verified calculation method, and the Design Manual for Roads and Bridges (DMRB) and the National Policy Statement for National Networks confirm this approach should be used.</p> <p>As noted in DMRB "In paragraph 4, CRTN contains the statement '<i>...noise propagation conditions are consistent with moderately adverse wind velocities...</i>'. <i>...During the development of the algorithms used for CRTN, measurements were undertaken to develop the relationship between traffic flow and noise level. In order to provide a robust relationship these measurements were undertaken during adverse wind conditions (i.e. a wind from the source to the receiver)</i>".</p> <p>Noise levels to the side of a road can also be influenced by positive vertical temperature profile in the air (where noise propagating up into the sky is 'bent' down to the ground). These conditions typically occur on still nights with clear skies or foggy mornings (i.e. when there is little wind). CRTN's allowance for '<i>adverse wind</i>' conditions therefore also makes allowance for these types of atmospheric condition.</p>
Alconbury Parish Council (rep.no 477)	Concerns that the five houses in the south of Alconbury village will not benefit from any noise mitigation.	The five properties at the south-eastern edge of Alconbury are currently screened by a 'V' shaped bund that extends beyond the end of the existing noise (fence) barrier. A meeting was held with Alconbury Parish Council on 26 May and it was agreed to review whether it would be sustainable to extend the barrier further south. That review is ongoing.
Mrs Alison Hutchinson on behalf of Mr & Mrs D Ridley (rep no. 608)	The ES identifies Important Areas around Brampton Hut in Chapter 14 section 2, but fails to acknowledge the dwellings that are located to the east of the A1.	There is likely to be an adverse significant effect on the community that lies to the east of the A1. As per Section 14.5 of the ES, substantial noise mitigation is incorporated into the proposed scheme to minimise as far as sustainable adverse noise effects on the closest homes in Brampton (including the dwellings which lie to the east of the A1). These include:

Relevant Representation	Key issue	Highways England response
		<ul style="list-style-type: none"> • Low noise surfacing on the A14 Huntingdon Southern Bypass; • Low noise surfacing on the realigned A1; • Realignment of the A1 further away from Brampton; • Using the new A14 embankment to screen the western edge of Brampton from noise coming from the A1; and • Provision of landscape bunding adjacent to the Brampton Barracks and the western edge of Brampton (will contribute to noise reduction).
Andrea Petts (rep no. 662), Andrew Coggin (rep. no 172), Caroline Sheffield (rep no. 357), Dave Skelly (rep no. 375), David Busfield (rep no. 532), Dr Howard Denton (rep no. 358), Jane Coggin (rep no. 171), John Boylan (rep no. 266)	How have noise impacts on Brampton village school (which is proposed to be extended) been assessed?	Brampton Primary School is located 700 metres away from the proposed scheme. The ES, working on a precautionary basis did not identify any likely significant noise effect on the school (section 14.6 of Volume 6.1, Chapter 14 of the ES and Appendix 14.6).
Andrew Chatten (rep no. 364)	An additional 4m noise barrier is requested to be installed from the existing screening to the junction of the current A1.	<p>The provision of further mitigation is not sustainable taking account of the tests set out in section 14.5 of Chapter 14 in Volume 6 of the ES:</p> <ul style="list-style-type: none"> • Benefit (monetised benefit of noise reduction evaluated using Government's WebTAG methodology) 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
Benjamin Leigh-Brown (rep no. 250), G R Fleming rep no. 374), Mark Shuker (rep no. 351), Mr Guy Dolby (rep no.	Noise impacts on Hilton village have not been sufficiently considered.	As described in Chapter 14 of Volume 6.1 to the <i>Environmental Statement (ES)</i> , road traffic noise levels decrease with distance and hence the Design Manual for Roads and Bridges – DMRB - (HD213/11) defines a calculation area that extends to 600m from the new or altered roads. Figures 14.4 to 14.7 in Volume 6.1 of the

Relevant Representation	Key issue	Highways England response
59), Nick Bradford (rep no. 438), Mr Steven Sheppard (rep no. 434)		ES show calculated noise levels considerably beyond this 'calculation area' defined by DMRB to include areas such as Hilton. The ES did not identify any likely significant noise effect at Hilton village.
Brampton Parish Council (rep no. 655)	How has the noise assessment taken into account changes in traffic movements? Including additional traffic coming south and passing through Brampton once the viaduct has been removed.	Changes in traffic patterns through Brampton arising from the proposed scheme are reported in Chapter 6 of Volume 6.1 of the ES. This traffic information has been used as the basis for the noise assessment in Chapter 14 of Volume 6.1 of the ES. In that Chapter, operational noise levels have been assessed as required by Design Manual for Roads and Bridges (DMRB HD213/11) including the assessment of predicted traffic changes on all relevant road links.
Richard Baker on behalf of C Cooper and Sons (rep no. 511)	The proposed earth bund along the southern boundary of the road between Fenstanton Road and the B1040 adjoining C Cooper and Sons' Land is proposed to assist with noise reduction but requires extensive land take and will only have a very limited effect. This should be replaced with modern acoustic sound barrier which would be more effective, require less land and be of significant benefit to both Oxholme Farm and the residents of Hilton.	The proposed earth bund discussed by the relevant representation is primarily for landscape and visual reasons although would offer some limited noise mitigation.
Caroline Huxley (rep no. 48), Daniel Burbidge (rep no. 606), Dr David Legge (rep no. 604), Histon and Impington Parish Council (rep no. 657), John Farrell (rep no. 612), Mrs MJ	Speed limits should be used to reduce noise effects.	Speed limits would affect the operation of the scheme and have not been considered within the noise mitigation hierarchy. Neither is it considered that the scale of the impacts and effects reported in the ES would justify speed restrictions as a noise control measure. The noise assessment in the ES has taken account of the design speed limits.

Relevant Representation	Key issue	Highways England response
Small (rep no. 651), Mr Dan Jenkins (rep no. 706)		
Chris Potter (rep no. 291), Mrs Christina Sheppard (rep no. 301), Christopher Cummings (rep no. 294), David Ruddy (rep no. 319), Duncan Mackirdy (rep no. 341), Helen Ruddy (rep no. 320), Joyce Buthfer (rep no. 331), Liann Hunter (rep no. 310), Lisa Seeley (rep no. 338), Dave Robert Squires (rep no. 499), G R Fleming (rep no. 374), Robert Ruddy (rep no. 321)	The Potton Road to St Ives travels over a bridge that has increased to 11m above the existing road, rather than 9.7m as shown in a previous plan. How will this affect noise impacts on Hilton?	The increase in this bridge height would not affect noise at Hilton because the change in the height is negligible compared to the separation distance between the road and the village, which is approximately 600m at its closest point.
Claire Sunderland (rep no. 521), Clive Robinson (rep no. 271), Mr Guy Dolby (rep no. 59), Mr Steven Sheppard (rep no. 434)	There is a lack of detail regarding noise mitigation for Hilton village.	As set out in Volume 6, Chapter 14 and appendix 14.6 of the ES mitigation measures have been designed into the scheme to minimise as far as sustainable adverse effects on health and quality of life, and contribute to the improvement of health and quality of life. The Huntingdon Southern Bypass substantially improves the existing significant adverse effects through Huntingdon, Godmanchester, Fenstanton and the northern edge of Brampton. Noise mitigation incorporated in the new Bypass relevant to Hilton village includes its alignment, landscape earthworks and low noise road surfacing.
Dr David Legge (rep no. 604), Histon and Impington Parish Council (rep no. 657), John Farrell (rep no. 612), Dr Dan Jenkins (rep no. 706)	Lack of and/or inaccurate baseline noise data in regard to residential areas around Histon and Impington.	The ES – at Appendix 14.2 of Volume 6.1 – notes that baselines at Histon and Impington (like all locations along the existing A14 / A1) - are defined by noise road traffic calculations supported by both short term and long term baseline noise monitoring at various locations. The methodology, including the monitoring locations, and the data obtained has been agreed with the Cambridge City Council, South Cambridgeshire District Council and Huntingdonshire District Council.

Relevant Representation	Key issue	Highways England response
Dr David Legge (rep no. 604)	Why does the assessment not use World Health Organisation Standards?	The assessment does use the WHO guidelines. Volume 6, Chapter 14 and Appendix 14.3 explain that the assessment is consistent with UK and EU policy and guidance; the interpretation of Government noise policy is consistent with other major infrastructure assessments; and that the World Health Organisation (WHO) guidance on noise has been used as part of the assessment. In particular, the WHO guidelines have been used to define thresholds for the onset of adverse impacts.
Dr Howard Denton (rep no. 358), John Boylan (rep no.266)	How has the noise assessment considered the major housing development to the west of Brampton at the former RAF site?	The Environmental Statement (ES) Chapter 14 reports the assessment effects on the proposed development at Brampton Barracks (identified as CD15 on Figure 14.1 of the ES) in Appendices 14.5 and 14.6.
Fenstanton Parish Council (rep no. 284)	The scheme proposes a bund on the Fenstanton side of the A14 that is 2m high with trees. This level of mitigation is inadequate and a higher bund of 3 to 4 metres is required to protect the village.	<p>Overall the community at Fenstanton benefit substantially from the proposed scheme as it reduces traffic and noise along the existing A14 – an Important Area as defined by the Government’s 2014 Noise Action Plan for Roads. The mitigation measures designed into the Huntingdon Southern Bypass—as reported in the ES, reduce noise impacts during operation as far as is sustainable⁴. At Fenstanton the mitigation includes low noise surfacing and landscaped earthworks to mitigate visual impact and also reduce noise. Increasing the height of the barrier further is not sustainable taking account of the tests set out in section 14.5 of Chapter 14 in Volume 6 of the ES and in particular:</p> <ul style="list-style-type: none"> • Benefit (monetised benefit of noise reduction evaluated using Government’s WebTAG methodology) compared to cost of the mitigation; and • Other environmental effects potentially caused by the mitigation (for example landscape or visual effects).

⁴ Please see the response to relevant representation 35 in Table 11-1 for further explanation of the use of this term in the context of noise policy.

Relevant Representation	Key issue	Highways England response
Georgina Grey (rep no. 255)	Concerns regarding noise impacts on the dwelling at 'Lazy Acre' , additional noise mitigation is requested.	Lazy Acre is not in an Important Area defined by the Government's 2014 Noise Action Plan for Roads. As described in Chapter 14 of Volume 6.1 to the ES, the assessment and the design of the proposed scheme are in line with Government noise policy. To this end, the scheme avoids any significant adverse effect on health and quality of life and minimises adverse effects on health and quality of life as far as sustainable. Adverse effects are minimised by the provision of low noise surfacing in this area. It would not be sustainable to provide further mitigation to protect an individual property because the costs of additional mitigation, such as the provision of a noise barrier, would outweigh the benefit. The level of noise at this dwelling is also below the thresholds for triggering offers of noise insulation.
Helen Ruddy (rep no. 320)	It is not clear where construction sites will be located and how the noise impacts of these sites have been considered.	Construction sites are shown on Figure 14.3 in Volume 6.2 of the ES. The construction noise impact assessment is reported in Chapter 14 and at Appendix 14.4 of the Environmental Statement. Mitigation controls are set out in the Code of Construction Practice (Appendix 20.1 to Volume 6.33 of the ES) and the CoCP (Appendix 20.2 of the ES) requires the contractor to seek consent from the local authority for its detailed construction method and take steps to minimise noise before it starts construction.
Ian Bate (rep no. 494)	Request that noise barriers are provided between Conington towards Godmanchester, on both sides of the new road.	As described in Chapter 14 of Volume 6.1 to the Environmental Statement, road traffic noise levels decrease with distance and hence the Design Manual for Roads and Bridges – DMRB - (HD213/11) defines a calculation area that extends to 600m from the new or altered roads. As described in Chapter 14 of Volume 6.1 to the ES, the assessment and the design of the proposed scheme are in line with Government noise policy. To this end the scheme avoids any significant adverse effect on health and quality of life and minimises adverse effects on health and quality of life as far as sustainable ⁵ . Adverse effects are minimised by the provision of low noise surfacing and in this area 2m (above road) landscaped earthwork to reduce visual impact and noise.

⁵ Please see the response to relevant representation 35 in Table 11-1 for further explanation of the use of this term in the context of noise policy.

Relevant Representation	Key issue	Highways England response
Linda Otridge (rep no.161)	How has the assessment considered noise impacts on the Great River Ouse floodplain, including the Ouse Valley Way footpath?	As described in Chapter 14 of Volume 6.1 to the Environmental Statement, road traffic noise levels decrease with distance and hence the Design Manual for Roads and Bridges – DMRB - (HD213/11) defines a calculation area that extends to 600m from the new or altered roads. Figures 14.4 to 14.7 in Volume 6.1 of the ES show calculated noise levels considerably beyond this ‘calculation area’ defined by DMRB and includes the area of the River Ouse valley. The assessment of noise impacts on other travellers, including users of public rights of way is reported in Chapter 15 of the ES.
Lisa Ibberson (rep no. 224), Madingley Parish Council (rep no. 485), Heidi Allen on behalf of Constituents of South Cambs (rep no. 1)	Concerns regarding noise impacts at Madingley Village, which could be reduced if an embankment was not proposed.	Madingley Village is over 1km from the scheme and located close to the A428. The construction of the proposed scheme on an embankment will not affect the noise levels at Madingley Village
James Squier on behalf of Mrs M Hugh (rep. no 270)	Concerns regarding noise impacts on listed properties where double-glazing cannot be provided due to the listing.	Appendix 14.1 of the Environmental Statement presents the scheme noise policy including noise insulation that would follow the Noise Insulation Regulation 1975. With appropriate design, consultation and consents (that would all be undertaken by Highways England), noise insulation can be provided for listed buildings.
Mandy Thomas (rep. no 114), V Hancock (rep no. 304)	Additional noise mitigation should be provided at Alconbury.	Extensive further mitigation is proposed for Alconbury as set out in Section 14.5 of Chapter 14 of the Volume 6.1 to the ES.
Mark Suker (rep no. 351)	The scheme should include noise reducing road surfaces for the entire length.	The proposed scheme does include Low Noise Surfacing for the entire length of the A14 and the realigned section of the A1 covered by the DCO application as described in section 14.5 of Chapter 14 off Volume 6.1 to the ES
Michael Alexander on behalf of George Stocker, Tom Stocker and Trustees of Margaret Stocker (rep no. 481)	Top Field Farm House lies approximately 300m north of the scheme and will require noise mitigation.	As described in Chapter 14 of Volume 6.1 to the ES, the assessment and the design of the proposed scheme are in line with the Noise Policy Statement England, paragraph 5.195 of the National Policy Statement for National Networks and the Planning Practice Guidance on Noise. To this end, the scheme avoids any significant adverse effect on health and quality of life and minimises adverse effects on health and quality of life as far as sustainable. Adverse effects are minimised by the provision of low noise surfacing in this area along with landscape earth works to reduce visual impact and noise. Typical height barriers will not provide much benefit over distances in the order 300 metres. The government's Calculation of Road Traffic Noise methodology states that the

Relevant Representation	Key issue	Highways England response
		calculated level of noise should only allow for either the reduction provided by a noise barrier or the reduction for the absorption provided by soft ground cover between the road and the receiver. The reduction provided by soft ground increases with increasing distance from the road. The calculated net benefit of a noise barrier therefore decreases with increasing distance from the road being considered.
Milton Parish Council (rep no. 483)	How have construction noise impacts on residents of the Blackwell caravan site been considered.	Construction sites are shown on Figure 14.3 in Volume 6.2 of the ES. The construction noise impact assessment is reported in Chapter 14 and at Appendix 14.4 of Volumes 6.1 and 6.3 to the Environmental Statement. Mitigation controls are set out in the Code of Construction Practice (Appendix 20.1 to Volume 6.3 of the ES) and the CoCP requires the contractor to seek consent from the local authority for its detailed construction method and to take all reasonably practical steps to minimise noise before it starts construction.
Michael Alexander on behalf of Robert Lenton Limited (rep no. 500)	Noise impacts on Depden Farm House have not been given sufficient regard.	As described in Chapter 14 of Volume 6.1 to the ES, the assessment and the design of the proposed scheme are in line with Government noise policy. The assessment covers all noise sensitive receptors in the study area including Depden Farm House. In line with the Noise Policy Statement England, paragraph 5.195 of the National Policy Statement for National Networks and the Planning Practice Guidance on Noise the scheme avoids any significant adverse effect on health and quality of life and minimises adverse effects on health and quality of life as far as sustainable. Adverse effects are minimised by the provision of low noise surfacing and landscape earthworks in this area.
Benjamin Leigh-Brown (rep no. 250), G R Fleming (rep no. 374), Mark Shuker (rep no. 351), Janice Denmar (rep no. 59), Nick Bradford (rep no. 438), Mr Steven Sheppard (rep no. 434)	Noise impacts on Hilton village have not been sufficiently considered.	As described in Chapter 14 of Volume 6.1 to the <i>Environmental Statement (ES)</i> , road traffic noise levels decrease with distance and hence the Design Manual for Roads and Bridges – DMRB - (HD213/11) defines a calculation area that extends to 600m from the new or altered roads. Figures 14.4 to 14.7 in Volume 6.1 of the ES show calculated noise levels considerably beyond this 'calculation area' defined by DMRB to include areas such as Hilton. The ES did not identify any likely significant noise effects at Hilton village.

12 Planning policy context

- 12.1.1 The Rule 6 letter, Annex C, raises planning policy context as a principal issue, including how the scheme accords with the National Policy Statement (NPS) for National Networks.
- 12.1.2 No interested parties raised issues regarding planning policy in their relevant representations, which are not covered within the relevant topic sections.
- 12.1.3 Chapter 6 (Policy context) of the *Case for the Scheme (document reference 7.1)* provides an account of how the proposed scheme accords with national and local planning policy.
- 12.1.4 Following the submission of the DCO application in December 2014, the Government designated the National Policy Statement for National Networks on 14 January 2015. Highways England has undertaken a full review of this NPS and submitted this to PINS in an update to the *Case for the Scheme (DCO document reference 7.1)* on 13th May 2015 (document references HE/A14/EX/20 Covering Letter and HE/A14/EX/21 Update to the Case for the Scheme).

13 Traffic and transportation

13.1 Overview

- 13.1.1 Three hundred and ninety eight interested parties raised issues concerned with transportation and traffic in their relevant representations.
- 13.1.2 The Rule 6 letter, Annex C, includes transportation and traffic as a principal issue.
- 13.1.3 Tables 13.1, 13.2, 13.3, 13.4, 13.5, and 13.6 provide a summary of the key issues raised regarding traffic and transportation, alongside a response from Highways England.

13.2 Where are these issues dealt with in the application documents?

- 13.2.1 Volume 7 of the DCO application contains the Transport Assessment (TA). The TA (*document reference 7.2*) includes an assessment of the impact of the proposed scheme on the strategic and local highway network, road safety, and local sustainable modes of transport.
- 13.2.2 All responses contained within the following tables are based on traffic model information available at the time of the DCO application. The effect of the November 2014 and March 2015 DfT economic data and road traffic forecasts will be reported in the Traffic Modelling Update Report to be submitted at Deadline 2. Where this changes any responses in this table, those responses will be updated at the same time.

13.3 Key issues

Table 13-1: The soundness of traffic flow predictions and their consequences for the environment in locations including Brampton, Hilton and Huntingdon town centre

Relevant representations	Key issue	Highways England response
Ann Goodridge (rep no. 62)	Traffic modelling does not seem to take account of the increase in heavy goods traffic that is being created in this area from new and enlarged businesses.	<p>One of the key objectives of the scheme is to unlock growth, enabling major residential and commercial developments to proceed and contributing to increased economic growth. The new road and its junctions are designed to cope with traffic from these developments.</p> <p>The traffic modelling has taken account of the scale and location of planned developments that are expected to occur in the period to 2035. These have been assessed and agreed with planning officers of the relevant local authorities, with overall growth constrained to national growth forecasts. In later years, when there is less certainty about the scale and location of development, the growth has been distributed over the model area according to the expectations of the planning authorities.</p> <p>Hence, the traffic forecasts take account of the impact of growth in population, housing and employment on the volume of cars, light goods vehicles and heavy goods vehicles.</p>
Ben Davidson (rep no. 537), David Pope (rep no. 95), Dry Drayton Parish Council (rep no.118),	What work has been done to mitigate the increase in traffic through villages?	The scheme would have two impacts on traffic through villages. The first would be a reduction in rat running. Currently, congestion and uncertain journey times on the A14 lead to some drivers choosing to use alternative routes. The improvements to the A14 would reduce journey times and make them more reliable. Hence, where rat running is an issue, the scheme should be a benefit to villages.

<p>Knapwell Parish Meeting (rep no.123), Bourn Parish Council on behalf of a coalition of 14 Parish Councils (rep no. 140)</p>		<p>The second impact is related to access to the new road. Different roads will be used to access the A14 and the new Huntingdon Southern Bypass to those used to access the existing road. Consequently, traffic flows through some villages may increase while traffic flows through other villages will fall.</p> <p>The design of the scheme itself therefore mitigates traffic impacts in villages so that there are limited or no increases in flows at many locations. The Transport Assessment (document reference 7.2) indicates that there would be limited change in traffic flows through many villages in 2035, including Abbots Ripton, the Stukeleys, Potton, Earith, Over, Impington and Milton. Villages such as Connington, Knapwell, and Boxworth would benefit from a reduction in traffic flows, whilst increases are forecast in Willingham and Dry Drayton.</p>
<p>Dr Bernard G Gaydon (rep no. 82)</p>	<p>How have traffic flows on local roads as a result of the removal of the viaduct in Huntingdon, been taken into account?</p>	<p>A traffic model has been produced to assess the impact of the scheme. Two scenarios have been modelled; the Do-Minimum scenario, which represents the situation where there are limited changes to the existing road network and the viaduct is retained; and the Do-Something scenario, which represents the situation where the scheme is implemented and the viaduct is removed and replaced by local road connections. The Do-Something therefore necessarily consider predicted traffic flows on local roads as a result of the removal of the viaduct. The impact of the scheme has been determined by comparing the forecast traffic flows, journey times and delays in these two scenarios.</p> <p>The removal of the viaduct would enable the creation of new local road connections that would provide improved access into Huntingdon Town centre, would reduce traffic levels and reduce delays on a number of other key routes in to the town. In particular, there would be a substantial reduction in the amount of traffic using the Old Town Bridge and travelling through Godmanchester to join the A14.</p>
<p>Rachael Herbert (on behalf of Sainsbury's) (rep no. 684)</p>	<p>Insufficient information has been provided about the potential impacts of the scheme on Sainsbury's business operations and the proposed new store at Edison Bell Way.</p>	<p>The current Sainsbury store in Huntingdon is located in the Chequers Court development inside the ring road. In May 2013 Huntingdonshire District Council granted planning permission for a mixed use development on land to the north of Brampton Road and east of Edison Bell Way, including a new Sainsbury's store. Separate proposals to sub-divide the existing store into three units were approved in April 2012.</p> <p>Both of these developments are included in the traffic model. As neither development is dependent on the A14 scheme, they are included in both the 'with</p>

		<p>scheme' and 'without scheme' scenarios. Hence, Highways England's traffic forecasts do take account of the impact of these developments.</p> <p>The proposal to remove the Huntingdon Viaduct would improve access to Edison Bell Way. The Mill Common Link would improve access from the detrunked A14 to the east, while the Views Common Link would improve access from the detrunked A14 to the west. These connections would also remove the need for some traffic to travel around the Huntingdon Ring Road.</p> <p>Highways England will engage with Sainsbury's to confirm the likelihood of this scheme proceeding.</p>
Richard and Lynn Norton (rep no. 22)	The scheme will result in 'rat-running' through the village of Hilton, which is not reflected in the traffic modelling.	<p>The Transport Assessment indicates that there would be a reduction in traffic flows through Hilton as a result of the scheme. This reduction would result from traffic diverting back on to the de-trunked A14, which would be significantly relieved of traffic by the opening of the Huntingdon Southern Bypass.</p> <p>While the B1040 Potton Road and Graveley Way through Hilton could be used by local traffic from St Ives to access the new A14 at the A1198 (Godmanchester) junction, Highways England's traffic model suggests that the quickest route would be via the detrunked A14 and the A1198.</p> <p>Highways England's traffic forecasts indicate that by year 2035 daily traffic flows (2-way) on the B1040 Potton Road would be reduced by around 4% from 5,800 vehicles per day without the scheme to 5,600 vehicles per day with the scheme. A greater reduction is forecast on Graveley Road, with daily traffic flows (2-way) falling from 4,600 vehicles per day without the scheme to 3,300 vehicles per day with the scheme (a 28% decrease).</p>
Mr Simon Davis on behalf of Mr T Leathes, Urban & Civic (rep no. 635)	Further work is required to understand the impacts of the scheme on the proposed mixed use development at Alconbury Weald during construction and operation.	The traffic model includes allowance for the full build out of the Alconbury Weald development. As this development is not dependent on the A14 scheme it is included in both the 'with scheme' and 'without scheme' scenarios. Hence, Highways England's traffic forecasts already take account of the impact of these developments.

<p>Mr Simon Davis on behalf of Mr T Leathes, Urban & Civic (rep no. 635)</p>	<p>A141 Link - the modelling undertaken to support the application assumed a connection is provided to the A141 at Alconbury Weald from 2020 onwards. The inclusion of the A141 link within the modelling is not considered to represent a reasonable worst case assessment of the impacts of the A14 scheme, particularly in terms of the potential local impacts in the immediate vicinity of Alconbury Weald during the early phases. Further information should be provided on the impacts if this A141 link is not provided in 2020 and evidence as to the origins of this assumption.</p>	<p>The traffic modelling is intended to represent a most likely case rather than a worst case. The assumptions made regarding the quantum of development were based on reasonable foreseeability and agreed with planning officers from Huntingdonshire District Council. The access arrangements represented in the model reflect the proposals set out in the Transport Assessment accompanying the outline planning application. This document does not include any indication of the phasing of these access proposals.</p> <p>The A14 scheme is expected to be beneficial to the Alconbury Weald development and surrounding villages, whether or not the A141 link is provided by 2020. The scheme would result in a substantial reduction in traffic on the A14 Spur and at the Spittals Interchange (A14 Junction 23), freeing up capacity for development traffic. As a result, any rat-running traffic on the B1043 Ermine Street is expected to be reduced.</p> <p>The exact details of the access arrangements for Alconbury Weald are not expected to have a material impact on the operation of the new A14.</p>
<p>Mr Simon Davis on behalf of Mr T Leathes, Urban & Civic (rep no. 635)</p>	<p>The TA reports increases in daily vehicle movements of 4% on Ermine Street through the Stukeleys after the completion of the A14 improvements. Given measures were required to discourage inappropriate routing through the Stukeleys for Alconbury Weald, information should be provided to explain this increase and clarity should be provided whether supplementary mitigation measures are proposed along Ermine Street to discourage inappropriate local routing of traffic.</p>	<p>Highways England's traffic forecasts suggest that traffic flows on the B1043 Ermine Street through the Stukeleys would be slightly higher as a result of the scheme. Traffic flows on the B1043 are forecast to increase by around 4%, which equates to around 300-400 vehicles per day.</p> <p>This increase is primarily due to forecast increase in traffic coming from the Stukeleys either as a result of the release of suppressed demand or the transfer of trips from other modes due to the additional road capacity created by the A14 scheme.</p> <p>In the context of day-to-day variations in traffic flow, this scale of change is not considered to result in a material detriment.</p>

<p>Mr Simon Davis on behalf of Mr T Leathes, Urban & Civic (rep no. 635)</p>	<p>The impact of the scheme on the site access at Alconbury Weald are not clear.</p>	<p>The A14 scheme is expected to be beneficial to the Alconbury Weald development and surrounding villages. The scheme would result in a substantial reduction in traffic on the A14 Spur and at the Spittals Interchange (A14 Junction 23), freeing up capacity for development traffic. As a result, any rat-running traffic on the B1043 Ermine Street is expected to be reduced.</p>
<p>Suffolk County Council (rep no. 503), Northstowe Joint Development Control Committee (rep no. 614), Janice Hughes on behalf of Paul Kitson, Head of Northstowe, Homes and Communities Agency (rep no. 495)</p>	<p>The traffic model, CHARM (2), which supports the scheme does not include 2035 assignments of traffic which would sensitivity test the full build out of the proposed developments at Alconbury Weald and Northstowe.</p> <p>It is essential that the traffic model properly takes account of the full development at Northstowe and Alconbury as part of the traffic forecasts, and hence confirm that this level of growth can be accommodated within the scheme.</p>	<p>The traffic modelling process requires the production of a 'core' scenario. The 'core' scenario is based on the most unbiased and realistic set of assumptions that form the central case for the scheme. This includes assumptions on local uncertainty, which is typically dependent on whether developments or other planned transport schemes go ahead in the vicinity of the scheme being built.</p> <p>In order to determine which developments are included in the traffic model, proposed developments were classified into four categories according to the level of certainty of the proposals: These are: near certain; more than likely; reasonably foreseeable; and hypothetical.</p> <p>This categorisation was undertaken in accordance with Department for Transport guidance and in agreement with planning officers from Cambridge City Council, South Cambridgeshire District Council and Huntingdonshire District Council, who could confirm the most up-to-date status of individual developments and agree which developments were in each category, therefore confirming which developments should be included explicitly.</p> <p>It should be noted that the categorisation of individual developments is based entirely on the basis of likelihood at the time of categorisation and there is always a possibility that developments will not be completed or will change as they proceed through the planning process.</p> <p>Consequently, those developments for which there was significant uncertainty and which were categorised by local authority representatives as being in the two lowest categories of confidence were not included in the traffic model</p> <p>Applying these principles to Alconbury Weald, the traffic model includes allowance for the full build out of the Alconbury Weald development.</p>

		<p>For Northstowe, at the time of preparation full build-out of the Northstowe development over and above phases 1 and 2 was categorised as only reasonably foreseeable. Subsequently, full-build out of the Northstowe development to 10,000 homes was not included in the traffic model but considered as part of a 'high development' scenario</p> <p>As a result, the design of the Bar Hill junction allows for the future expansion of the junction to accommodate the potential full build out of Northstowe (10,000 homes). Land has been safeguarded and structures and earthworks would be provided to allow this junction to be expanded in the future to accommodate the traffic generated by the full development. In addition allowance has also been made for widening of the B1050 north of Bar Hill to a two lane dual carriageway to connect to the proposed southern access road and new roundabout on the B1050 that are proposed as part of the Northstowe Phase 2 development. Any further improvements to the local and strategic road network that would be required to support subsequent phases of the Northstowe development would need to be agreed by the developer with the local planning authority in consultation with the local highway authority.</p>
Suffolk County Council (rep no. 503)	<p>The scheme includes flexibility within the design, which provides 'future proofing.' This includes the proposed Bar Hill junction, which includes allowance to be expanded in the future to accommodate Northstowe. It is recommended that this approach is taken in the design of the scheme at other locations, including the Cambridge Northern Bypass, Bar Hill to Swavesey; and Huntingdon Southern Bypass.</p>	<p>At the time of preparation full build-out of the Northstowe development over and above phases 1 and 2 was categorised as only reasonably foreseeable. Subsequently, full-build out of the Northstowe development to 10,000 homes was not included in the traffic model but considered as part of a 'high development' scenario</p> <p>As a result of the 'high development' scenario, the design of the Bar Hill junction also allows passive provision for the future expansion of the junction to accommodate the potential full build out of Northstowe (10,000 homes), as set out above.</p> <p>No further requirements for passive provision were identified as a result of the 'high development' scenario.</p>

Suffolk County Council (rep no. 503)	Concerns with the applicant's interpretation and application of the Design Manual for Roads and Bridges (DMRB) guidance. Insufficient attention is given to the likely deterioration in levels of service and safety as flows exceed the recommended maximum flow per lane and therefore the consequences of under provision. In addition, the design standard for the new or on-line widened sections has not followed the incremental, iterative, design approach advocated.	As set out in the <i>Transport Assessment</i> (document 7.2) section 7.10, parts of the scheme are likely to come under stress during peak hours, approaching the design year (2035) and there would be a reduced level of service on a small number of sections, with the incidence of a degree of congestion in peak hours becoming more frequent. Highways England has not followed the incremental iterative method, but has instead checked that the layout proposed provides adequate capacity and an acceptable level of service while still offering good value for money and still being affordable.
Holywell-cum-needingworth Parish Council (rep no.493)	The scheme will increase traffic on the B1096 and the A1123 which is the main access to and from the villages.	The B1096 is at a considerable distance to the north of the scheme and not within the parish area. Highways England have assumed that the representation is concerned with the A1096, which is within the parish. Traffic forecasts indicate that there will be limited change in traffic flows on the A1096 in the vicinity of St Ives as a result of the proposed scheme. In 2035, daily traffic flows (two-way) on the A1096 are forecast to increase from 22,100 vehicles per day without the scheme to 23,100 vehicles per day with the scheme (an increase of 5%). Further to the south, a more significant increase in flows is forecast, with daily traffic flows (two-way) predicted to rise from 20,300 vehicles per day to 24,900 vehicles per day (an increase of 23%). This increase is primarily due to the relief of traffic from the de-trunked A14 as strategic movements transfer on to the Huntingdon Southern Bypass, which makes the A1096 a more attractive route. The A1123 in St Ives is forecast to benefit from the scheme, with daily traffic flows in 2035 reducing from 15,000 vehicles per day without the scheme to 14,300 vehicles per day with the scheme (a decrease of 5%).

Table 13-2: Impact of travel times, traffic volumes and road safety on the surrounding highway network

Relevant representation number	Key issue	Highways England response
Alison Bourne (rep no. 342), Ben Davidson (rep no. 537), Adrian Harlow (rep no.22)	The possible closure of the junction onto the A14 at Dry Drayton means that the only way the residents of villages such as Comberton, Toft, Bourn, Caldecote, Hardwick etc can access the A14 south of Huntingdon is to go through Knapwell and Boxworth. These small villages will take a huge amount of traffic if the Dry Drayton junction closes.	<p>Junctions on the A14 are being rationalised for operational and safety reasons. Though the junction to the A14 at Dry Drayton will be closed, there will be a junction with the Local Access Road which will run parallel to the A14. The Local Access Road may be used either to access Cambridge on the A1307 Huntingdon Road, to access Huntingdon via the detrunked A14 or to join the A14 at the Bar Hill junction.</p> <p>The additional capacity that would be created by the A14 scheme is expected to result in some traffic that currently rat-runs via local roads transferring back on to the strategic road network and other A-roads. As a result, Highways England's latest traffic forecasts suggest that both Boxworth and Knapwell would benefit from reduced traffic flows.</p>
Alison Bourne (rep no. 342)	There are proposed new developments at Bourn Airfield and Cambourne. This means there will be a volume of traffic using the A428 but there is no way of accessing the A14 northbound or the M11 Southbound at the Madingley or Girton interchanges.	<p>Trips may join the M11 southbound at junction 13 on the A1303 as at present. Trips to the A14 northbound would be expected to use the A1198 to join the Huntingdon Southern Bypass at the Godmanchester junction or the detrunked A14 at Junction 24.</p> <p>The traffic model suggests that in 2035 without the scheme some traffic from the Bourn Airfield and Cambourne developments may use local roads through Knapwell and Connington to access the A14, but that the levels of rat-running traffic using these roads would be substantially reduced by the A14 scheme as this traffic transfers back on to the A428 and A1198.</p>
Boxworth Parish Meeting (rep no. 262)	There is no information on the impact of traffic flows on the new Woolley Road.	<p>Woolley Road south of Alconbury is not expected to be significantly affected by the new A14.</p> <p>The new section of road between the Ellington Interchange and the existing A1 northbound slip road is expected to carry approximately 2,500 vehicles per day.</p>

Relevant representation number	Key issue	Highways England response
Janice Hughes on behalf of Paul Kitson, Head of Northstowe, Homes and Communities Agency (rep no. 495)	Request to understand the traffic impact of the A14 proposals on existing local roads in the vicinity of the Northstowe development as this will influence the capacity and acceptability of future development.	<p>In isolation, the A14 proposals are not expected to have a material impact on traffic flows in the vicinity of the Northstowe development. However, the second phase of the Northstowe development is dependent on the A14 scheme. Consequently, Highways England's traffic forecasts represent the impact of the A14 scheme in combination with the Northstowe Phase 2 development, which would lead to significant increases in traffic on local roads.</p> <p>The impact of this additional traffic on local roads is considered in the Transport Assessment submitted with the Northstowe Phase 2 outline planning application.</p>
Mr R D Bowers (rep no. 514), Jim White (rep no.218)	Concerns with congestion on Hinchingsbrooke Park Road as it provides access to a hospital, schools, park and residential areas.	<p>The proposed arrangement of roads in Huntingdon is designed to allow access to the hospital and other facilities on Hinchingsbrooke Park Road to be improved. The new Views Common Link would allow trips from the north and the west to access the hospital, school and residential areas without using Brampton Road.</p> <p>The introduction of traffic signals at the junction with Brampton Road is forecast to result in some increase in queuing on Hinchingsbrooke Park Road, but would also provide greater control compared with the existing give-way arrangements, by ensuring that there are regular gaps for traffic joining Brampton Road.</p>

Relevant representation number	Key issue	Highways England response
Papworth St Agnes Parish Meeting (rep no. 697)	Concerns regarding congestion on the A1198 between Godmanchester and Caxton Gibbet. Mitigation should be considered including junction improvements and improvements to public transport to reduce car traffic.	<p>It is anticipated that the A14 scheme would provide some relief of congestion on roads including the A1198. In times of congestion on the A14, the A1198 and A428 are used as an alternative route. The improvements to the capacity of the A14 would allow these trips to return to either the new Huntingdon Southern Bypass or to the detrunked A14. However, it is expected that the capacity created on the A1198 would be backfilled by other local traffic that would otherwise be rat-running on the local roads.</p> <p>As a result of this rerouting of traffic, Highways England's traffic forecasts suggest that flows on the A1198 to the south of the Huntingdon Southern Bypass would increase by around 4% in 2035 as a result of the scheme, but many local roads would be relieved of traffic. Flows on the A1198 to the north of the Huntingdon Southern Bypass are forecast to be reduced by over 30%.</p> <p>While the A14 scheme would result in some changes in traffic flow on the A1198, increases to the south of the Huntingdon Southern Bypass are not predicted to result in material detriment.</p>

Table 13-3: Effects on public transport

Relevant representation number	Key issue	Highways England response
Oscar Gillespie (rep no. 88)	Public transport should be made more viable by reducing the fares and improving the timetables to enable	Noted. The A14 is part of a multi modal solution to congestion in the A14 corridor, considered in the Cambridge to Huntingdon Multi Modal Study (CHUMMS). Chapter 4 of the Case for the Scheme (document reference 7.1) provides an account of the history

Relevant representation number	Key issue	Highways England response
	buses and trains to meet the needs of the general public.	development of the scheme. Public transport fares and timetables are not within the jurisdiction of Highways England.
Oscar Gillespie (rep no. 88)	Car parking fees should be removed at park and ride stations to encourage people to use public transport.	Although no specific park and ride facilities are included within the application for development consent, as a general principle, Highways England is committed to working with key stakeholders and partners to support the delivery of Park and Ride facilities to better link the strategic road network with local public transport ⁶ . Although car parking fees at park and ride sites are not within the jurisdiction of Highways England.
Dr. Jeremy Bartlett (rep no. 207), Paul Hollinghurst (rep no.551)	The money would be better spent on improvements to public transport infrastructure, in particular upgrading and electrification of the railway network.	As outlined in Table 4.3: Overview of comments raised of the Consultation Report (document reference 5.1) consideration has been given to other forms of transport infrastructure in previous studies, including the 2001 Cambridge to Huntingdon Multi-Modal Study (CHUMMS) and the 2011 Department for Transport A14 Study. CHUMMS identified a package of transport improvements, which would relieve congestion on the A14 strategic route; these included the development of a guided busway, an upgrade to the Felixstowe to Nuneaton railway line, and improvements to the trunk road. All the measures identified in CHUMMS have now been implemented, with the exception of the trunk road improvement scheme, which now forms the basis for the DCO application.
Cambridgeshire Local Access Forum (rep no.130), Sarah Carlyle (rep no.131), Cyclists' Touring	There is a need for high quality NMU provision alongside the proposed new local roads and the existing roads, including the de-trunked sections of the A14.	High quality NMU facilities are provided in the application, which provide sufficient width, limits of curvature and gradient, and design speed (cyclists) for safe and convenient shared use taking account of the type of users accommodated in each facility (equestrians, cyclists or pedestrians). The latest Department for Transport best practice guidelines have been used, in conjunction with Highways England's design standards, which allow also for separation from carriageways and widening for edge shyness where vertical features are located at the rear of the facilities.

⁶ Highways England Delivery Plan 2015-2020 – page 49

Relevant representation number	Key issue	Highways England response
Club (re no. 215)		<p>This would be demonstrated in many locations in the scheme (around 30 km of new NMU facilities would be provided as part of the scheme). A particular example of a high quality NMU facility would be the shared equestrian, cycle, footway which would be provided from Fenstanton, on the length of A14 to be de-trunked, and Girton at the southern end of the scheme. The facility links to existing facilities at each end stated. The facility would be provided alongside the extent of the local access road as well as part of the de-trunked section, a length of approximately 12 km. It would be separated from the carriageway by a hard-strip and verge. North of Dry Drayton bridge, it would comprise a 3m wide metalled path, with a 2 metre wide verge at the rear, and south of Dry Drayton bridge, a 4 m wide metalled path, with a 2 metre wide verge at the rear. This facility would link two high quality NMU bridges across the A14, which would be provided at Swavesey and Bar Hill, a number of existing bridleways currently truncated by A14, and a number of existing and proposed residential and business developments.</p> <p>At-grade NMU crossing points of major traffic flows on the local access road at Bar Hill, western slip roads at Histon junction, the western arm of the signalised junction at Brampton Hut, and all crossing locations in Huntingdon would be signalised for cyclists and pedestrians.</p> <p>Bridleways would have an unbound, compacted surface to facilitate comfortable use by equestrians.</p> <p>The proposals have been discussed at length with specialists from the Local Traffic Authority, Cambridgeshire County Council, other Local Authorities and user groups. It is anticipated that further details, for instance of signing for NMUs, would be discussed during the detailed design process.</p>

Relevant representation number	Key issue	Highways England response
Sue Rogers (rep no. 213)	Request for equestrian off road access to be incorporated in the NMU designs.	<p>Where new bridleways are provided, these would facilitate equestrian access. At many points within the scheme, equestrian tracks shared with pedestrians and cyclists are provided, particularly on new bridges across the new alignment of A14. These facilities would extend to link adjoining bridleways either side of the A14 alignment where possible.</p> <p>An equestrian track, shared with cyclists and pedestrians would be provided over the 12 km length between Fenstanton (on the de-trunked A14) and Girton, adjacent to the local access road. This would link a number of existing bridleways which terminate currently at the A14, and at Bar Hill, a shared equestrian/cyclist/pedestrian bridge would be provided to link the north-east and south-west sides of A14.</p> <p>Comprehensive bridleways would be provided around each quadrant of the Girton interchange, and would link with the shared equestrian/pedestrian/cycle route adjacent to the local access road, which travels through the junction.</p>

Table 13-4: Severance and access issues relating to public rights of way, non-motorised users, agriculture, and countryside

Relevant representation number	Key issue	Highways England response
Boxworth Parish Meeting (rep no. 262)	The Right of Way Plan shows 130m of bridleway planned on the north side of the A14 opposite Brampton Hut. This Bridleway runs to a dead end. There are	The bridleway referred to is provided to link the south side of the A14 just west of Brampton Hut junction with the new minor road, Woolley Road, which provides access to rural destinations beyond, via the minor road network. This provides connectivity for non-motorised users to travel to/from the new facilities proposed in the scheme which link

Relevant representation number	Key issue	Highways England response
	<p>no existing rights of way located in the vicinity. The newly proposed bridleway increases the risk of trespass on to the working farm area. In addition, there is no access to this proposed bridleway except for crossing the A14. The proposed bridleway is unsafe; it encourages pedestrians, cyclists and horse riders to cross the A14 to use a superfluous path that reaches a dead end.</p>	<p>Brampton with Brampton Hut services to the south of A14, and the north side of the A14 at Brampton Hut with Woolley Road and rural destinations beyond.</p> <p>A signalised crossing for cyclists and pedestrians (and dismounted horses led in hand) would be provided across both carriageways of the west arm of the A14 at Brampton Hut junction, enabling users to cross safely. On reaching the low trafficked minor road, Woolley Road, users would walk on the verges or travel in the carriageway</p>
<p>Offord Cluny and Offord Darcy Parish Council (rep no. 51)</p>	<p>Increased traffic will increase the dangers posed to cyclists between The Offords and Godmanchester. A dedicated cycle path has been requested as part of the scheme. This could be achieved by surfacing the existing bridle path between New Road, Offord Cluny and Silver Street, Godmanchester.</p>	<p>Around a one kilometre, length of NMU path would be constructed parallel to B1043 Offord Road where it is affected by the scheme proposals. The possible improvement of the bridlepath for cyclists between New Road Offord Cluny and Silver Street is a matter for Cambridge County Council.</p>

Table 13-5: Effects of movement of materials and personnel during construction

Relevant representations	Key issue	Highways England response
Clive Baker (rep no. 616)	Concerns regarding the impact of construction traffic on local road surfaces.	In order to facilitate construction movements for the A14 a number of temporary haul routes are proposed to be constructed alongside the new alignment which would accommodate a large proportion of the construction traffic. Haul routes along with the main A roads would be used, which would minimise the need for the use of the local network. From a number of assessments including information from public consultation events, it is clear that several local routes are not suitable to be used as main construction routes therefore use of these roads would be limited as far as practicable in the interests of minimising impact.
Hilton Action on Traffic HAT (rep no. 731), Dry Drayton Parish Council (rep no.118), Cotthenham Parish Council (rep no. 544).	Concerns regarding HGVs through villages, including Hilton and Dry Drayton. Request that HGVs are banned through the village during construction.	<p>The main contractors will each prepare a traffic management plan which will describe the traffic management, safety and control measures proposed during construction of the scheme. The requirement to produce a traffic management plan after consultation with the relevant planning authority is set out at paragraph 8 of Part 1 of Schedule 2 of the Draft Development Consent Order (application document reference 3.1). The traffic management plan will include details of measures to be implemented to reduce construction traffic impacts as well as a list of roads which may be used by construction traffic in the vicinity of the site including any restrictions to construction traffic on these routes</p> <p>In addition, a range of mitigation measures would be implemented to reduce the impact of HGV traffic. During construction, this would include adherence to the Code of Construction Practice (document reference 6.3, Appendix 20.2), the use of appropriate construction phasing, the provision of alternative routes with adequate signage and the use of noise screens and low noise equipment.</p>

Relevant representations	Key issue	Highways England response
Mr Simon Davis on behalf of Mr T Leathes, Urban & Civic (rep no.635)	Insufficient information is provided on construction traffic routing. An indication of the likely distribution of construction traffic, volume of movements per hour and the associated impacts should be identified to provide an envelope of likely impacts.	<p>Appendix 3.2 of the Environmental Statement provides an overview of the envisaged approach to construction of the scheme, and has informed the assessment of environmental effects during construction. It includes envisaged programming and phasing. Annex B of Appendix 3.2 provides monthly construction vehicle numbers over the construction period, and Annex C provides maximum daily numbers of construction vehicles per specified location. A contingency of 10% has been built into the figures for HGV movements for earthworks and a contingency of between 10-35% was used for movements of other components (such as gantries, communications equipment, bridge beams) to cover unforeseen eventualities.</p> <p>In addition to this, the specific topic chapters in the ES set out any assumptions used as the basis for the assessment of construction impacts. This includes detail on the assessment of construction noise, provided in Appendix 14.4 of the Environmental Statement.</p> <p>Please also see the row above, responding to relevant representations 731, 118 and 544, in relation to traffic management plans.</p>
Mr Simon Davis on behalf of Mr T Leathes, Urban &	The application confirms the construction working hours, however there is no consideration within the Transport Assessment or Environmental Statement about	<p>Worker movements are unlikely to be a source of disruption. All proposed compounds and soil storage areas are located within close proximity of the scheme alignment, which would help to lower traffic to and from site once depot plant and personnel are installed within compounds.</p> <p>It is expected that the majority of the workforce would arrive on site via the strategic road network, avoiding local access roads where practicable.</p>

Relevant representations	Key issue	Highways England response
Civic (rep no.635)	<p>the origins and destinations of workers and how they may travel to the construction sites.</p> <p>Construction at Alconbury Weald will be ongoing during this period.</p>	<p>The Code of Construction Practice (<i>document reference 6.3, Appendix 20.2</i>) contains control measures and the standards to be implemented throughout construction of the A14 Cambridge to Huntingdon improvement scheme. This includes preparation of construction workforce travel plans by the main contractors with the aim of encouraging the use of sustainable modes of transport to reduce the impact of workforce travel on local residents and businesses.</p> <p>The plans will include: identification of a travel plan co-ordinator and a description of their responsibilities; key issues to consider for each compound/construction site or group of sites; site activities and surrounding transport network including relevant context plans; anticipated workforce trip generation and how it may change during the construction process; travel mitigation measures that will be introduced to reduce the impact of construction workforce on the transport network; target to reduce individual car journeys by the construction workforce; methods for surveying workforce travel patterns; and the process for monitoring and reviewing the construction workforce travel plan.</p>

Table 13-6: Effects during construction and operational periods

Relevant representations	Key issue	Highways England response
Janice Hughes on behalf of Paul Kitson, Head of Northstowe, Homes and Communities	The scheme should be designed to accommodate the full-proposed build out of Northstowe. In particular, the scheme should ensure that the Bar Hill and Lower Drayton Road junctions, the local	<p>The Bar Hill junction has been designed to accommodate forecast development growth within Cambridgeshire up to the year 2035. This forecast includes the first and second phases of the Northstowe development (approximately 5,000 homes).</p> <p>The traffic modelling process requires the production of a 'core' scenario. The 'core' scenario is based on the most unbiased and realistic set of assumptions that form the central case for</p>

Relevant representations	Key issue	Highways England response
<p>Agency (rep no. 495), Northstowe Joint Development Control Committee (rep no. 614)</p>	<p>access roads, and the connection along the B1050 northwards linking to the Homes and Communities Agency (HCA) improvements as part of the Northstowe Phase 2 are all compatible and can accommodate the Northstowe proposals.</p>	<p>the scheme. This includes assumptions on local uncertainty, which is typically dependent on whether developments or other planned transport schemes go ahead in the vicinity of the scheme being built.</p> <p>In order to determine which developments are included in the traffic model, proposed developments were classified into four categories according to the level of certainty of the proposals: These are: near certain; more than likely; reasonably foreseeable; and hypothetical.</p> <p>This categorisation was undertaken in accordance with Department for Transport guidance and in agreement with planning officers from Cambridge City Council, South Cambridgeshire District Council and Huntingdonshire District Council, who could confirm the most up-to-date status of individual developments and agree which developments were in each category, therefore confirming which developments should be included explicitly.</p> <p>It should be noted that the categorisation of individual developments is based entirely on the basis of likelihood at the time of categorisation and there is always a possibility that developments will not be completed or will change as they proceed through the planning process.</p> <p>Consequently, those developments for which there was significant uncertainty and which were categorised by local authority representatives as being in the two lowest categories of confidence were not included in the traffic model.</p> <p>At the time of preparation full build-out of the Northstowe development over and above phases 1 and 2 was categorised as only reasonably foreseeable. Subsequently, full-build out of the Northstowe development to 10,000 homes was not included in the traffic model but considered as part of a 'high development' scenario</p> <p>As a result, the design of the Bar Hill junction also allows for the future expansion of the junction to accommodate the potential full build out of Northstowe (10,000 homes). Land has been safeguarded and structures and earthworks would be provided to allow this junction to</p>

Relevant representations	Key issue	Highways England response
		<p>be expanded in the future to accommodate the traffic generated by the full development. In addition allowance has also been made for widening of the B1050 north of Bar Hill to a two lane dual carriageway to connect to the proposed southern access road and new roundabout on the B1050 that are proposed as part of the Northstowe Phase 2 development. Any further improvements to the local and strategic road network that would be required to support subsequent phases of the Northstowe development would need to be agreed by the developer with the local planning authority in consultation with the local highway authority.</p>
<p>Janice Hughes on behalf of Paul Kitson, Head of Northstowe, Homes and Communities Agency (rep no. 495), Northstowe Joint Development Control Committee (rep no. 614)</p>	<p>Compatible timing and construction programming is required with the Northstowe development and construction of transport links to minimise disruption and make effective use of public money. For example, the A14 works could take some of the spoil generated by excavations associated with development of Northstowe.</p>	<p>The majority of spoil used by the A14 will be excavated from nearby borrow pits. This ensures the bulk of construction movements can be limited to short journeys.</p> <p>The current construction programme, as well the suitability of material for construction purposes, places restrictions on where material can be sourced from.</p> <p>Further detail on the justification for the use of the borrow pits, including the quantities required and the minimisation of haulage, is set out in Table 15.1.</p>
<p>Suffolk County Council (rep no.503)</p>	<p>Issues with link capacity assessments. There are no detailed assessments in the application to justify the statements contained in paragraphs 7.10.3 to 7.10.9,</p>	<p>A more detailed report indicating how the statements in 7.10.3 to 7.10.9 (of the Transport Assessment, document 7.2) has been shared with the relevant interested party..</p>

Relevant representations	Key issue	Highways England response
	which describe the anticipated operating conditions on each section of the new road.	

14 Water Issues

14.1 Overview

- 14.1.1 Seventy two interested parties raised issues concerned with impact on water quality, local drainage, and ground water during construction and operational periods in their relevant representations. Forty eight interested parties raised issues concerned with flood risk in their relevant representations.
- 14.1.2 The Rule 6 letter, Annex C, raises water issues as a principal issue, including matters concerned with impact on water quality, local drainage, ground water and flood risk during construction and operational periods.
- 14.1.3 Tables 14.1 and 14.2 provide a summary of the key issues raised regarding water, alongside a response from Highways England.

14.2 Where are these issues dealt with in the application documents?

- 14.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. The *ES (document reference 6.1)* includes an assessment of the likely significant effects (both positive and negative) of the scheme on the environment and a description of mitigation measures proposed to reduce any negative impacts.
- 14.2.2 Chapter 17 of the *ES (document reference 6.1)* provides an assessment of the likely significant effects of the scheme on drainage and the water environment, including flood risk, hydromorphology, surface water quality and groundwater.

14.3 Key issues

Table 14-1: Impact on water quality, local drainage, and ground water during construction and operational period

Relevant representations	Key issue	Highways England response
Environment Agency (rep no. 669)	Deterioration of surface water systems could lead to problems of increased flood risk or deterioration on water quality in recipient watercourses. How will maintenance of the surface water drainage system associated with the new route be managed?	<p>The drainage design would be prepared with minimisation of maintenance requirements as a major consideration.</p> <p>Periodic inspection and maintenance of drainage assets would be carried out at appropriate intervals by Highways England or CCC dependent on ownership.</p>
Environment Agency (rep no. 669)	The FRA states the lifespan of the scheme is 100 years. Therefore, the climate change allowances used should be beyond 2085 and therefore should be using 30% increase in rainfall total for the runoff calculation (in accordance with the UKCP09 projections). The lifetime of the scheme needs to be clarified (it was previously 2085, 70 years from design).	<p>As agreed with the Environment Agency the design incorporates an allowance for climate change for culverts and floodplain compensation areas of an additional 20% in peak river flow 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.</p> <p>Application design of balancing ponds and similar storage facilities has been based on providing sufficient storage for the critical duration 1% (1 in 100) AEP storm event +20% climate change allowance. It has been agreed with the Environment Agency and Cambridge County Council as Lead local Flood Authority that any adjustment to balancing ponds to reflect 30% climate change allowance will be undertaken during major maintenance cycles prior to 2085 and so either the detailed design of balancing ponds will provide, as far as is reasonable, for increase in the size of the ponds or alternative measures at reasonable cost will be taken in the future to achieve this.</p>

Relevant representations	Key issue	Highways England response
Environment Agency (rep no. 669)	Road drainage design and construction phase work methods should be managed proactively to reduce sedimentation of the Ellington Brook.	All surface water runoff from carriageway would pass through a permanent treatment facility to ensure that adequate sediment removal occurs prior to discharge to watercourse. Construction phase works would also include temporary sediment removal facilities.
Michael Alexander on behalf of Mr and Mrs Everdell (rep no. 558)	Concerns regarding the effective maintenance of existing drainage schemes.	Periodic inspection and maintenance of drainage assets would be carried out at appropriate intervals by HE or CCC dependent on ownership.
Andrew Meikle on behalf of G B Sewell & Partners (rep no. 492)	Why is a flood plain compensation area required in the land to the south of plot 5/5c? Plot 5/5c has various drainage and water level issues and the proposal for a flood plain compensation area on this land would be counterproductive.	The floodplain compensation area to the south of plot 5/5c is required to provide compensation for lost floodplain on Ellington Brook which is required for a balancing pond. Provision of a floodplain compensation area would improve existing drainage of the land to the north by the provision of additional floodwater storage area at lower levels nearby.
Andrew Meikle on behalf of J A J Winter (rep no. 679)	Concern that the proposed scheme will dissect the drainage network at Hemingford Abbots.	Where the construction of the road causes existing land drainage systems to be severed then head drains would be laid within private land by Highways England as part of an accommodation works package to collect the land drainage flows and convey them to the nearest watercourse. These head drains would be owned and maintained by the private landowner.
Nick Wilkinson (rep no. 42)	How has the impact of increasing rainfall been considered? The scheme should seek to increase the capacity of the existing infrastructure including the fast-draining asphalt surface.	Surface water runoff from highways would be passed through a storage facility that collects and retains excess water from extreme storm events and releases it slowly over a longer period of time, replicating Greenfield runoff flows to ensure that the risk of downstream flooding is no worse than existing and, where possible, the risk is reduced. The new drainage networks include additional capacity to accommodate predicted increased rainfall as a result of climate change.
Douglas Whittle (rep no. 50)	Table 17.4 in the Environmental Statement incorrectly states that the Washpit is a Main River upstream of the A14 and Award Drain Downstream.	The Washpit Brook has been incorrectly defined within Chapter 17 Table 17.4. However the Flood Risk Assessment correctly states that the watercourse is designated as Main River downstream of the A14, this has formed the basis of the assessment.

Relevant representations	Key issue	Highways England response
<p>Camilla Horsfall on behalf of William George Topham (rep no. 637), Stephen Home on behalf of Mr P & Mrs R Burton (rep no. 647), Elisabeth Olding (rep no. 230)</p>	<p>Concerns with land drainage. What will happen to land drains that are severed or need diverting?</p>	<p>Land drainage will be considered further during detailed design. The scheme will maintain existing drainage wherever possible and provide alternative arrangements where it is not.</p> <p>Where the construction of the road causes existing land drainage systems to be severed then head drains would be laid within private land by Highways England to collect the land drainage flows and convey them to the nearest watercourse. These head drains would be owned and maintained by the private landowner.</p>
<p>Environment Agency (rep no. 669)</p>	<p>Mitigation measures should be implemented to ensure that there is no detrimental impact on water quality in the area surrounding the Buckden South Landfill Site.</p>	<p>As described in Chapter 12 of the ES and within Appendix 12.1, previous intrusive investigation was undertaken by Atkins/Costain (7no. window samples and 1no. borehole) to specifically investigate the area immediately to the south of Buckden landfill where the road will pass in close proximity. This investigation found no evidence of landfill waste in this area (i.e. outside the landfill), nor any indication of visual or olfactory contamination. Chemical soil testing identified no exceedances of conservative human health criteria. As referenced in Appendix 12.1, slightly elevated ammoniacal nitrogen (14mg/l) was recorded in groundwater monitoring which is an indicator of landfill leachate. However, this value is not significantly elevated in the context of groundwater quality. FCC (Landfill operators) undertake monitoring of the perimeter wells including a number along the southern boundary of Buckden South.</p> <p>The monitoring data provided correlates with the Atkins/Costain investigation and indicates some indicators of landfill leachate contaminants within groundwater - however, as discussed in the ES these concentrations are not considered significant and indeed with the exception of BH11 (along the eastern landfill boundary and not in the area where the scheme will pass) all ammoniacal nitrogen concentrations are below 10mg/l. It is not considered that the data represents a significant risk to human health or controlled waters. It is also noted that the scheme in this area is on embankment which will reduce the possibility of encountering contaminated materials during the works.</p>

Relevant representations	Key issue	Highways England response
		Further protection is provided by Requirement 5.2 of the Schedule 2 of the DCO which requires that "In the event that contaminated land, including groundwater, is found at any time when carrying out the authorised development which was not previously identified in the Environmental Statement, it must be reported as soon as reasonably practicable to the relevant planning authority or the Environment Agency (as appropriate) and the undertaker must complete a risk assessment of the contamination .
Environment Agency (rep no. 669)	Highway run-off from accidental spillages has the potential to damage receiving water course through liquid contaminants being discharged to watercourses.	All storage facilities would be fitted with an isolation valve at the outfall to enable them to be isolated from the adjoining watercourse in the event of an emergency.
Marcia Whitehead on behalf of Barratt Eastern Counties and the North West Cambridge Consortium of Landowners (Darwin Green) (rep no. 201)	Concern that displaced floodwater may further reduce the capacity of the Country Park and residential land as part of the Darwin Green development.	<p>The scheme incorporates floodplain compensation areas to accommodate floodwaters displaced as a result of the scheme.</p> <p>There are no extents of Flood Zone 2 or 3 designated in the vicinity of the Darwin Green development between Girton and Histon junctions. The scheme does not include works to widen the carriageway footprint between Girton and Histon consequently there will be no displacement of floodwater that would affect the Darwin Green development. Additional surface water runoff from the scheme will be attenuated and restricted to greenfield rates to ensure no change to existing flows.</p> <p>Details of these areas are provided in the Flood Risk Assessment (appendix 17.1 to the Environmental Statement).</p>
John Johnson (rep no. 584)	How will the catchment of Oxholme drain and Covells drain be impacted, and will the waters be amalgamated?	<p>The scheme will cross both watercourses on an embankment requiring new culverts on both watercourses.</p> <p>Hydraulic modelling has been undertaken as part of the Flood Risk Assessment to assess the impact of the scheme on both watercourses. The result of the assessment is that the scheme will have a neutral impact on both watercourses.</p>

Relevant representations	Key issue	Highways England response
		The hydraulic modelling concludes that the flood extents on the two watercourses remain separate for the 1% Annual Exceedance Probability (1 in 100 / Flood Zone 3) event. This does not correlate with the flood zone maps published by the Environment Agency which we are currently discussing with them.
Mr Michael Richards Richard Bros (rep no. 280)	Confirmation is sought that the existing drainage from land which crosses 15/11a via an underground culvert is maintained during construction and operation.	Land drainage will be considered further during detailed design. The scheme will maintain existing drainage wherever possible and provide alternative arrangements where it is not.
Mr Michael Richards Richard Bros (rep no. 280)	Sheet 11 of the General Arrangement Plans show inaccurate drainage flow arrows.	Drainage arrows have been incorrectly orientated on the general arrangement plans. However, these arrows have not been used in the Flood Modelling or drainage design, both of which have been undertaken using ground level information to ensure accurate drainage flow routes are modelled.

Table 14-2: Flood risk

Relevant representations	Key issue	Highways England response
Douglas Whittle (rep no. 50)	Has the flood risk assessment taken into account the flooding that occurred in 2012 and affected properties in Girton?	Yes, Highways England is aware of pre-existing flooding issues in the vicinity of Girton and the flood risk assessment has taken flood risk in the area into account.
Douglas Whittle (rep no. 50)	Table 17.12 of the Environmental Statement notes that the flood risk for Cottenham Lode (Beck Brook) and the Washpit are classified as "low" importance, but this should be "high" based on the criteria set out.	The classification of the 'importance' of Beck Brook and Washpit Brook is based on properties at risk of flooding in the vicinity of the A14 Scheme – no properties are shown as located within the extent of Flood Zone 3 (as defined by the Environment Agency's published maps). Consequently, these watercourses have been classified as 'Low' risk in relation to the scheme.

Relevant representations	Key issue	Highways England response
Environment Agency (rep no. 669)	<p>Concerns regarding the limits of deviation, particularly near designated main rivers.</p> <p>If the scheme moves within these limits vertically or laterally, this could have implications on the proposed flood risk mitigation.</p> <p>Deviation of the scheme in these areas could affect the Environment Agency's maintenance responsibilities.</p> <p>Any lateral or vertical movement of the scheme over the River Great Ouse could result in the prevention of navigation along the River Great Ouse.</p>	The Flood Risk Assessment includes the limits of deviation within the design envelope. It is proposed that protective provisions will be made through the DCO covering Environment Agency consenting powers.
Environment Agency (rep no. 669)	The Environment Agency wish to retain the ability to agree the crossing for the Main river Great Ouse and other designated main rivers. This is due to the potential for changes within the detailed design phase to result in structural impacts upon localised hydrology and flood risk. However, the existing DCO proposal requests disapplication of section 109 of the Water Resources Act 1991.	Discussions are ongoing through the Statement of Common Ground on the wording of Protective Provisions covering Environment Agency consenting powers.

Relevant representations	Key issue	Highways England response
Environment Agency (rep no. 669)	There are separate requirements for the diversion of a main river requiring a new consultation process. In regard to the proposed diversion of the West Brook and Alconbury Brook, the Environment Agency believe there needs to be a consultation on the proposed realignment. The Environment Agency retain the ability to consent any works and wish to remain the determining authority for such proposals.	Discussions are ongoing through the Statement of Common Ground on the wording of Protective Provisions covering Environment Agency consenting powers.
John Dunn (rep no. 621)	Table 17.4 of the Environmental Statement incorrectly states that there are no recorded instances of flooding of the Award Drain.	We understand this RR relates to Award Drains north of Cambridge. The scheme does not impact upon these watercourses and any changes to runoff will be fully mitigated.
Camilla Horsfall on behalf of William George Topham (rep no. 637), Richard Baker on behalf of C Cooper and Sons (rep no. 511), Christopher Monk on behalf of IAC & NIC Wright (rep no. 575), Iain Nott on behalf of the Church Commissioners for England (rep no. 554), Jeremy Procter on behalf of Eleanor Disney (rep no. 423), David Sinfield on behalf of Mrs E A Ruston (rep no. 568), Michael Alexander on behalf of Mr and Mrs Everdell	Concern that the land take for the proposed flood alleviation areas is not proportionate to the flood risk identified. Requests for hydrological evidence that the flood alleviation areas and balancing ponds are required on the scale sought.	Floodplain compensation needs to be provided on a level for level basis and the floodplain compensation areas have been designed to ensure sufficient compensation has been included at each level. Once more detailed topographical information is available in detailed design stage it may be possible to refine the design of some of the storage areas. Balancing ponds have been designed to have sufficient volume to achieve attenuation criteria set by Environment Agency.

Relevant representations	Key issue	Highways England response
<p>(rep no. 558), David Sinfield on behalf of Mrs E A Ruston and Mrs C King as Trustees of the George Lenton Trust (rep no. 565), David Sinfield on behalf of Lenton Bros Ltd (rep no. 567), M W Hamilton on behalf of Melanie Sadler (rep no. 254), National Farmers Union (rep no. 476), Richard Baker on behalf of Sally Williams (rep no. 540), John Wootton on behalf of St. Johns College (rep no. 278) Iain Nott on behalf of the Chancellor Masters and Scholars of The University of Cambridge (rep no. 555)</p>		
<p>Camilla Horsfall on behalf of William George Topham (rep no.637), Richard Baker on behalf of Sally Williams (rep no. 540)</p>	<p>Justification required for the design of the flood alleviation areas (shape, size, position, and area).</p>	<p>Floodplain compensation needs to be provided on a level for level basis and the floodplain compensation areas have been designed to ensure sufficient compensation has been included at each level. The shape, size and position of each area is based on a number of factors including the levels required, proximity to the area of loss, and the need to avoid existing infrastructure and ecologically sensitive areas.</p>
<p>David Russell (rep no. 282), Andrea Petts (rep no. 662), Hemingford Grey Parish Council (rep no. 75), Environment Agency (rep no. 669)</p>	<p>Some flood compensation areas are in the floodplain. These areas are already at risk of flooding and cannot offer new floodplain storage.</p>	<p>The location of flood compensation areas is based on hydraulic modelling carried out as part of the Flood Risk Assessment for the A14 scheme. We are in discussions with the Environment Agency regarding the floodplain areas shown in the maps published by them.</p>
<p>Environment Agency (rep no. 669)</p>	<p>The Environment Agency request that borrow pits numbers 1,3 and 7 are already located in the floodplain and so they need to</p>	<p>The use of borrow pits for flood attenuation and their future management is currently under discussion as part of the Statement of Common Ground process.</p>

Relevant representations	Key issue	Highways England response
	include to have a flood attenuation function or to ensure no loss of floodplain when they are managed in the future.	
Environment Agency (rep no. 669)	The scheme includes land identified for the potential location of soil storage areas in flood zone 3. Soil Storage Areas should not be included within flood zone 3.	Through further design work it has been possible to delete the SSA's in question. A document is to be submitted to the EA demonstrating that those SSA's within FZ3 are no longer required.
Environment Agency (rep no. 669)	The Flood Risk Assessment states an increase in flood levels at Ellington Brook, Brampton Brook and the River Great Ouse. This should be agreed with land owners.	Discussion with landowners whose land will be affected by increased flood levels on these watercourses is ongoing.

15 Borrow pits

15.1 Overview

15.1.1 Fifty-two interested parties raised issues of borrow pits in their relevant representations.

15.1.2 The Rule 6 letter Annex C does not raise borrow pits as a principal issue. However in recognition of the number of representations relating to borrow pits a summary of the key issues is provided in Table 15.1, alongside Highways England's response.

15.2 Where are these issues dealt with in the application documents?

15.2.1 Volume 6 of the DCO application contains the *Environmental Statement (ES) and Related Documents*. Chapter 13 & Appendix 3.3 of the *ES* (document reference 6.1) and further information is provided in the *Case for the Scheme* (document reference 7.1).

15.3 Key issues

Table 15-1: Borrow pits

Relevant representation	Key issue	Highways England response
<p>Camilla Horsfall on behalf of William George Topham (rep no. 637), Iain Nott on behalf of Church of Commissioners for England (rep no.554)</p>	<p>There are local quarries and pits able to supply materials for the construction of the scheme, for which the owners/operators have not been approached by Highways England to enquire about the supply of minerals. Evidence is required to justify the proposed borrow pits rather than the use of existing quarries/pits.</p>	<p>Although there are some local quarries that could potentially provide some minerals of a specification that is required for the scheme, the quantity of materials required in total (5 million m³) is far in excess of that which can be provided from existing permitted local quarries.</p> <p>The proposed solution for sourcing the bulk of the primary construction materials from borrow pits is a well-established approach on major infrastructure projects where suitable minerals are available locally and where these cannot be obtained from cut operations along the route of the scheme.</p> <p>This also ensures that the scheme is as self-sufficient as is feasible with regard to bulk earthworks materials, minimising haulage distances, and reducing the amount of construction traffic using the existing A14 and local road network. Compared with extracting the equivalent quantities of materials from existing quarry sources locally or further afield the use of local borrow pits is overall the better environmental option.</p> <p>The principal area where there would be significant benefit relates to traffic impacts. The movement of materials over longer distances using public roads rather than internal scheme roads would have additional negative impacts with respect to a number of traffic related issues including:</p> <ul style="list-style-type: none"> - increase in harmful emissions from haulage vehicles with respect to human health;

Relevant representation	Key issue	Highways England response
		<ul style="list-style-type: none"> - additional emissions associated with climate change; - noise and dust; and - possible effects on biodiversity. <p>The use of borrow pits for the A14 scheme rather than existing quarry sources has been consulted upon widely. The local development plan produced by Cambridgeshire County Council and adopted in 2012 allocated most of the proposed borrow pit sites as sites reserved for use on the A14 improvement scheme. Where there is deviation from the allocated areas the revised area has been discussed and agreed with Cambridgeshire County Council in accordance with the policies in the Cambridgeshire and Peterborough Minerals and Waste Development Plan Documents.</p>
Mrs Rebecca West (rep no. 31), Clive Baker (rep no. 616), Mr A.G. Peacock (rep no. 592), Boxworth Parish Meeting (rep no. 262), Jacky Homer (rep no. 668)	Details are required on the restoration of the borrow pits sites. Requests to be consulted on the restoration plans for the borrow pits.	Pursuant to DCO Requirement 10, the borrow pits will be restored in accordance with the Borrow Pits Restoration Plan contained in Appendix 3.3 of the Environmental Statement. The sites will be subject to a minimum 5 year landscape aftercare period. The specific detail of the restoration proposals for each borrow pit, including detailed landscaping works and planting specifications, will be determined by Highways England during the detailed design phase of the scheme, and in the light of on-going geophysical investigations, in consultation with the County Council and the local planning authority.
Brampton Parish Council (rep no. 31)	Details are required on the post-scheme ownership and control of borrow pits created for this scheme.	It is the policy of Highways England to sell land back to the original owner where that land is not required permanently for highway purposes. Discussions have commenced with the relevant landowners to ascertain their interest in taking land back on completion of the scheme. These discussions are likely to continue whilst the scheme construction progresses and only when a definitive response is received from existing landowners will Highways England consider other land disposal options. The terms of any disposal would include commitments to agreed restoration and aftercare.

Relevant representation	Key issue	Highways England response
Buckden Parish Council (rep no.411), John Moore (rep no. 556)	Borrow pits should be restored to the existing use following the completion of the construction phase.	Except for borrow pit 5 (located near Boxworth), the topography of the sites and the likely ingress of groundwater following excavation of minerals will make it impracticable to restore the larger parts of the borrow pit sites to their pre-construction use.
Andrew Coggin (rep no.172),Jane Coggin (rep no. 171)	The impacts of borrow pits have not been properly assessed, in particular the impact on the local landscape.	The landscape and visual impacts associated with the borrow pits have been assessed in Chapter 10 of the Environmental Statement. Where there remain uncertainties regarding the detailed construction design of the borrow pit sites realistic worst case assumptions have been made in assessing the sites in accordance with best practice.
Boxworth Parish Meeting (rep no. 262), Nicholas Cole (rep no.143)	Construction access to the borrow pits should be restricted to temporary site roads and site traffic should not use the local public roads to transport the borrowed material to the site.	We can confirm that in most cases the local highway network will not be used for the bulk transport of materials from the borrow pits for use on the scheme. Internal temporary site roads within the footprint of the scheme will be used for earthworks mass-haul. All borrow pits areas are adjacent to and connected with the scheme boundary. Any use of the public highway network would be kept to an absolute minimum. These matters will be covered by the Traffic Management Plans that will have to be approved under paragraph 8 of Part 1 of Schedule 2 of the Draft Development Consent Order (application document reference 3.1) before construction of the relevant part can start.
Camilla Horsfall on behalf of Miss Jean Mary Papworth (rep no. 641)	It is not clear how much material Highways England proposes to extract from the borrow pits and how much is required for the scheme, Details are required. The figures appear to alter throughout the documents.	The Earth Works Strategy Key Plan will provide information on the volume of cut and fill materials expected from each section of the scheme and the deficit required to be supplemented by extraction of materials from each of the borrow pit sites. This will be submitted at or before Deadline 2.
Camilla Horsfall on behalf of Miss Jean Mary Papworth (rep no. 641)	Cross-sections are required to show the depth, volume and shape of proposed borrow pits.	Cross-sections through the borrow pits indicating depth and extent are given in documents 2.9 Engineering section drawings (A14-ARP-ZZ-00-DR-Z-04001 to -04049). The plan locations of the sections are shown in documents 2.4 Works Plans (A14-ARP-ZZ-00-DR-Z-00200 – to 002029).

Relevant representation	Key issue	Highways England response
James Squier on behalf of Chivers Farm Limited (rep no. 277)	The design of access to the borrow pits is important for security and health and safety reasons. The design is unclear and should include fencing and a ditch or bund to increase security to the borrow pits.	Before construction would commence, a risk assessment would be carried out for each site to determine appropriate measures. All borrow pit sites will be fenced for security purposes and standard construction health and safety measures will be in place and applied to all scheme operations in accordance with the Construction (Design and Management) Regulations (CDM).
M W Hamilton on behalf of Derek Wilderspin (rep no. 261), M W Hamilton on behalf of Alan Wilderspin (rep no. 257)	The land proposed for acquisition for use as a borrow pit does not form part of the Cambridgeshire and Peterborough Minerals and Waste Plan, however there are alternative sites that have been identified in the Plan.	<p>Three of the six borrow pits, borrow pits 2, 3 and 7, fall within the allocated areas for mineral extraction identified in the Cambridgeshire Minerals and Waste Site Specific Proposals Plan (CMWSSPP). All three borrow pits are within 'Areas of Search Allocations for Sand and Gravel Borrow Pits'.</p> <p>Parts of borrow pit 1 are located within allocated site M2D West of Brampton which is within an area of search allocations for sand and gravel borrow pits for any future improvements of the A14. However, a large section of borrow pit 1 is located outside of the allocated area M2D.</p> <p>Proposed borrow pit areas which fall outside of the allocated areas have been discussed and agreed with Cambridgeshire County Council who have not raised any policy objection to these changes.</p> <p>The justification for locating borrow pits outside or partially outside the allocated areas is identified in Chapter 4 of the ES section 4.9</p>
Environment Agency (rep no. 669)	Borrow Pit number 6 is located within a geologically sensitive area due to the underlying Woburn Sands aquifer. To ensure protection of existing groundwater sources the Environment Agency requests that the DCO provides a requirement for the EA to retain a role in assessing any design and monitoring	Highways England will ensure that the Environment Agency has reasonable access to design and monitoring information to address this concern and ensure adequate protection of groundwater sources at borrow pits.

Relevant representation	Key issue	Highways England response
	<p>information for the borrow pit in this location. This should also include the production of a scheme for dewatering to be incorporated within the borrow pit design plans. Baseline monitoring data is also required for hydrocarbons and was agreed as part of meeting outcomes held previously for the scheme.</p>	<p>This will be secured through protective provisions to be included in the DCO, which are currently being discussed with the Environment Agency.</p>
<p>Natural England (rep no. 660)</p>	<p>Requirement 10 of the DCO provides a means to ensure that where borrow pits are to be restored to agriculture, this will follow best practice standards to ensure that the amount of agricultural land is maintained by adopting high standards of restoration in line with the NPPF and Minerals Planning Practice Guidance.</p>	<p>Discussions on this with Natural England are ongoing and will be reflected in the SoCG to be submitted at deadline 3.</p>