

# Lower Thames Crossing

## 9.54 Comments on LIRs

### Appendix H – Thurrock Council (Part 1 of 5)

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# Lower Thames Crossing

## 9.54 Comments on LIRs Appendix H – Thurrock Council

### (Part 1 of 5)

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# 1 Applicants Responses to Thurrock Council’s Local Impact Report (Part 1)

**Table 1.1 The Applicant’s responses to Thurrock Council’s Local Impact Report (LIR) – [\[REP1-281\]](#), dealing with Sections 1-7**

LIR Reference	Local Impact Report Extract / Applicant’s Response
<b>Pages 9 to 29, Executive Summary</b>	
<b>Applicant’s Response</b>	<p>The LIR Executive Summary presents a high-level summary of more detailed comments made later in the LIR. Rather than duplicate responses, the Applicant has responded to the points where they arise in more detail in the main body of the LIR in the applicable sections of Appendix H (Parts 1 to 5).</p> <p>On the ongoing comments made by the Council on the sufficiency and clarity of the documents that make up the application, and on consultation / engagement, the Applicant would observe that the application constitutes one of the largest and most comprehensive DCO applications ever made, and that it was subject to very extensive pre-application consultation and engagement over many years. Importantly, when the DCO application was accepted for examination in late 2022, it was determined by the Planning Inspectorate that it had complied with pre-application consultation requirements contained in legislation and guidance, and that the application was of a satisfactory standard and met procedural requirements. On this basis the Applicant submits that it would not be a productive use of remaining examination time to continue to comment on these points</p>
<b>Page 30</b>	<p>1.2.2. The Council would contend (as set out in the sections below) that these disbenefits do in fact outweigh the benefits, notwithstanding the need for the project. However, the Council contend that when considering Section 104(3) of the PA2008, it concludes that the LTC scheme is not, at present, in accordance with the NPSNN and these matters are discussed below.</p>
<b>Applicant’s Response</b>	<p>This matter is a summary and addressed in detail in the response to Part 4 of Appendix H against Section 15 of the Thurrock Council LIR.</p>
<b>Page 30-31</b>	<p>1.2.4 Normally, however, the required LIR approach of enabling LA’s to be able to clearly set out its concerns about impact, is predicated on the assumption that the Applicant has engaged constructively to address and mitigate issues. In this instance, the Applicant undertook extensive technical engagement, but in declining to resolve or delaying input on issues has left a very substantial number of issues unmitigated for the ExA to review. This has made the LIR extremely complex and very challenging for the Council to capture this complexity and the narrative. So, rather than the DCO process being used to resolve issues between public sector organisations, the Council</p>

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	<p>considers that the NH approach has sought to exert its influence to dismiss continuously highly relevant and valid concerns expressed by the Council over a two-year period since the initial DCO was withdrawn.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed by SoCG <a href="#">[APP-130]</a> item number 2.1.75 as follows.</p> <p>The Applicant has engaged extensively with Thurrock Council (and other local authorities) and established a workstream-based issue resolution process to address technical issues by triaging and grouping issues into groups 1, 2, 3, based on their significance.</p> <p>Further explanation of these groups is presented in the Statement of Engagement. Since December 2021, the Applicant has provided technical responses to over 1,100 Group 1 issues and 1,387 Group 2 issues. The Applicant has also engaged on over 550 Group 3 issues, marked as fundamental matters, through the course of 2022, culminating in the Statement of Common Ground.</p> <p>This represents a collaborative approach to working together to resolve a range of issues. Where specific issues need focussed meetings, these have been arranged, e.g. 10 fortnightly sessions on construction traffic impacts have been arranged between May-September 2022 with commitments and interventions discussed live.</p> <p>The fact that the Applicant and Thurrock may disagree on a number of issues is not reflective of inadequacies in the engagement process. As the Council has made clear, it objects to the Project and while the Applicant is committed to ongoing engagement with Thurrock, there may be some issues on which the parties will be unable to reach agreement. This is in spite of the thorough engagement that has taken place to date and will continue throughout the examination process. The Applicant also published a You Said We Did document as part of the Community Impacts Consultation in 2021 <a href="#">[APP-087]</a>, which outlined how the Project has been shaped by stakeholder feedback.</p> <p>The Applicant considers that pre-application discussions have been taken as far as they can and that there is no merit in holding more discussions prior to application. The over-arching thrust of this feedback from Thurrock is addressed in the Statement of Engagement <a href="#">[APP-091]</a>.</p>
<p><b>Page 33</b></p>	<p>2.1.4 LTC will be routed through the middle of Thurrock and will bisect the district into two separate areas and will bisect the East and West Tilbury Conservation Areas. The scheme will lead to the direct loss of land, disruption to access and movement in the Borough and the creation of blight across the LTC corridor. The configuration of LTC is likely to also impact on the future local sustainable growth required by the Council to meets its housing and employment obligations from the Government.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is a summary and addressed in detail in the response to Pages 239-243.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
<b>Page 36</b>	2.3.9 Concerns are raised around the potential impact of NH accommodating the construction workers if LTC is consented and the impact on the private rented accommodation. There may also be impacts on local community facilities, for example doctor surgeries. These concerns are set out in further detail in Sections 10.14 and 13.5 below.
<b>Applicant's Response</b>	This matter is a summary and addressed in detail in the response to Pages 204-207.
<b>Page 36</b>	2.3.10 In terms of cultural heritage, within Thurrock there are a number of heritage assets which will be directly impacted. The setting and significance of the Neolithic causewayed enclosure at Orsett, a Scheduled Ancient Monument, will be severely affected by LTC as well as the total loss of the Grade II Thatched Cottage, Murrells Cottages, and Grays Corner Cottages in Orsett. Furthermore, there are extensive cropmark complexes which are impacted running from East Tilbury to Orsett, which range from the Neolithic through to the post medieval period, the significance of which will adversely be affected.
<b>Applicant's Response</b>	This matter is a summary and addressed in detail in the response to Pages 134-137.
<b>Page 37</b>	2.3.13 In summary, LTC would give rise to adverse effects during its construction and operation which would significantly affect Thurrock's communities and environment, in particular in relation to effects on severance, on private rented accommodation and on Thurrock's natural and historic environment, including to the significance of scheduled monuments, listed buildings, historic landscapes and extensive archaeological deposits.
<b>Applicant's Response</b>	This matter is a summary and addressed in detail in the response to Sections 10 and 15.
<b>Page 39</b>	<p>2.4.4 In summary, since the Statutory Consultation in 2018 there has been a withdrawn DCO application and five further rounds of non-statutory consultation. LTC has changed significantly in the five years since the Statutory Consultation in 2018. These changes have resulted in significant changes in the effects that the scheme has on Thurrock. Yet the final outcome of these changes has failed to result in a substantially improved scheme from the perspective of the local authority.</p> <p>2.4.5 If LTC is consented, there would be significant future challenges to the Council for a minimum of 10 years in terms of impacts/delays beyond the impacts of the LTC construction itself. It is acknowledged that the DCO Examination close is 20 December 2023 and then the timetable effectively prescribes that a decision on the DCO is to be confirmed by the Secretary of State six months after the Examination close. The following issues may affect such a decision into the future bringing further uncertainty to the Council and its residents, which are summarised below:</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<ul style="list-style-type: none"> <li>• a. If there is a legal challenge to the grant or refusal of the DCO brought through a judicial review pursuant to Section 118 of the 2008 Act or further High Court challenges, there could be additional delays and future uncertainty.</li> <li>• b. If there are any interruptions in discharging the Requirements, then this could cause further delays.</li> <li>• c. The construction period is anticipated now to cover the period from 2026 up to 2032, if the DCO is granted without further delays. This will result in a period of at least 10 years from now until 2032 of uncertainty for Thurrock. This could result in other major developments or growth being delayed or halted, businesses deciding not to relocate or expand in the area as a result of the construction period or potential effects from the construction and operation of the LTC scheme on businesses day to day operations.</li> <li>• d. If LTC does in fact open in 2032, there may be further requirements from the Council to monitor the impact of the scheme, which would result in financial burdens on the Council.</li> </ul>
<b>Applicant's Response</b>	<p>The Applicant notes the issues raised by Thurrock Council; however, the Applicant cannot control or influence the extent to which others challenge a decision on the Project. The Applicant considers the potential for delays at the discharging stage, should development consent be granted, and supports the Applicant's position that the Secretary of State is the appropriate discharging authority. The Applicant acknowledges that the construction period for the project is six years, but this is the period required to deliver this Nationally Significant Infrastructure Project.</p>
<b>Page 44</b>	<p><b>Norwich to Tilbury (formerly East Anglia Green (EAG))</b></p> <p>3.2.4 East Anglia Green (EAG) is a Nationally Significant Infrastructure Project (NSIP) proposal being developed by National Grid Electricity Transmission (NGET), to build a new 400kV electricity transmission line between Norwich and Tilbury, which will enable offshore wind generated energy to be directed to the National Grid. The entire scheme is 179 kilometres (111 miles) in length and crosses parts of Norfolk, Suffolk and Essex and into Thurrock. The EAG project will assist the Government in meeting its commitment to achieve net zero emissions by 2050 through enabling the generation of 15,000MW of new energy from renewable sources. It is noted that within the NH LTC DCO submission, there is no information on how the LTC proposal works will operate alongside NGET East Anglia Green project. Non-statutory public consultation was held for the EAG in Spring 2022 and a second non-statutory consultation is being held from 27 June-21 August 2023, with a view to formally submitting the DCO application in 2025.</p>
<b>Applicant's Response</b>	<p>The Applicant is aware of the EAG project and has engaged with National Grid Electricity Transmission to aid the understanding of the interrelationship between the two DCO proposals. The EAG project is at an early stage and the Applicant will continue to engage with National Grid as it develops. National Highways provided response to the</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	consultation in 2022 and will provide a response to the consultation in 2023. The EAG project is considered in the Interrelationship with other Nationally Significant Infrastructure Projects and Major Development Schemes [ <a href="#">APP-550</a> ] and Environmental Statement (ES) Chapter 16: Cumulative Effects Assessment [ <a href="#">APP-154</a> ].
<b>Page 44</b>	<p><b>Recent Major Planned Developments</b></p> <p><b>Purfleet</b></p> <p>3.3.1 Purfleet-on-Thames regeneration programme will provide approximately 2,800 new homes, a new town centre, and additional community facilities, such as schools and health centres. A film and television studio complex will be developed alongside the residential area which will provide employment opportunities within the local area. An outline planning application for the proposals was approved in April 2019. Potentially, if the LTC project is granted consent then it could negatively impact on the delivery of this regeneration programme and make it less attractive for potential investors, which has not been addressed within the DCO application, especially the ES or Planning Statement.</p>
<b>Applicant's Response</b>	<p>ES Chapter 13: Population and Human Health [<a href="#">APP-151</a>] concludes that '<i>Development land identified within the wider area, of relevance due to strategic employment-generating potential, includes the Purfleet on Thames regeneration project...</i>' and '<i>No impacts have been identified on these areas of development land as a result of construction activities associated with the Project resulting in a neutral effect, which is not significant</i>' (paragraph 13.6.111).</p> <p>The Applicant's environmental assessments have considered developments which are sufficiently advanced, and in connection with the traffic assessments, the Applicant has considered developments in line with Transport Analysis Guidance (TAG). The Purfleet on Thames regeneration programme (17/01668/OUT) is included within the Uncertainty Log and so is within the core scenario for the traffic and environmental assessments.</p> <p>Paragraph 13.4.83 of ES Chapter 13: Population and Human Health [<a href="#">APP-151</a>] acknowledges that outline planning permission (application reference 17/01668/OUT) was granted by Thurrock Council in April 2019 for regeneration proposals in Purfleet-on-Thames, comprising up to 2,850 new homes, a new town centre with upgraded railway station, and improved riverside areas, a new primary school, art media village and new parks/leisure space. However, the development proposals are located on the northern banks of the River Thames near Tilbury, approximately 5km south of the Order Limits and therefore are not within the study area (Order Limits plus a 500m area surrounding it) for the assessment on development land and businesses.</p>



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<p><b>Page 44</b></p>	<p><b>Thames Freeport</b></p> <p>3.3.2 In November 2021, the Port of Tilbury, DP World/London Gateway, Ford Motor Co. Ltd and Thurrock Council became a designated Freeport, along with the with the eastern part of the former Tilbury Power Station. As the “Thames Freeport”, all national ports within it can work outside of outside normal customs rules, although confirmation of its planning status has not yet taken place.</p> <p>The Freeport could generate up to 25,000 new jobs and £5.1bn in gross value. In late summer 2021, the design of the LTC was amended to ensure that the development would not limit the land available for the future growth of the Freeport and which is covered within its designated area. However, this Thames Freeport growth is likely to be subject to the need to upgrade the Manorway roundabout, which itself is impacted by LTC. Currently discussed have recently commenced between all parties using the junction (LTC, the Council, DP World/London Gateway and the Thames Enterprise Park (TEP) to understand the collective impacts, determine appropriate mitigation and then determine funding apportionment and delivery.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed by SoCG [<a href="#">APP-130</a>], item 2.1.148 and 2.1.96, summarised below.</p> <p><b>1. Modelling issues related to Manorway (2.1.148)</b></p> <p>The Applicant has undertaken a localised traffic model at the A13 Manorway junction, agreeing the model extents, validation process and consideration of the peak hour through a series of collaborative workshops. Thurrock Council have been provided with model outputs demonstrating that the Manorway junction still functions safely.</p> <p>The Freeport is not part of that assessment due to the lack of information currently available on the proposed developments (with none yet meeting the TAG criteria for inclusion in the model), and the lack of associated mitigation for the prospective new developments. The assumptions and data underlying the Project's transport model have been provided to the Council and were updated with the release of the modelling for the DCO submission. It will be a matter for the Freeport in due course to seek consent and address its infrastructure requirements.</p> <p><b>2. Mitigation at Manorway (2.1.96).</b></p> <p>A further discussion on this matter was held on 19 June 2023 and the Council expressed some outstanding concerns regarding the modelling outputs. Both parties agree that the modelling components might be agreed eventually but the impacts and potential to introduce interventions at this junction into the DCO will be a matter not agreed.</p>
<p><b>Page 44-46</b></p>	<p><b>Other Developments</b></p>

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	<p>3.3.6 National Highways Document 6.1 ES Chapter 16 – Cumulative Effects Assessment [<a href="#">APP-154</a>] sets out relevant planning permissions. However, there are a number of additional applications which have been identified using the Thurrock Council Public Search facility. It is considered that these applications below in <b>Table 3.1</b> should be included within Document 6.1 Environmental Statement Chapter 16 - Cumulative Effects Assessment, as they may have a cumulative effect that needs to be assessed. Further reference should also be made to Section 10.15 below, where further detail is provided.</p> <p>Table 3.1: Title is Other Development Projects in Thurrock</p> <table border="1"> <thead> <tr> <th data-bbox="577 507 685 533">Planning Reference</th> <th data-bbox="685 507 1048 533">Description</th> <th data-bbox="1048 507 1182 533">Status</th> </tr> </thead> <tbody> <tr> <td data-bbox="577 533 685 735">21/00754/MIN</td> <td data-bbox="685 533 1048 735">Application for the variation of condition no's 6 (Plans),10 (Vehicle Movements) and 33 (Landform) of planning permission ref. 14/01316/MIN (Continuation of extraction of minerals (Old Haven Sand - also known by the brand name Thanet Sand) remaining from the cessation of planning permission ref: 00/00890/CONDC (pursuant to planning permission ref: THU/400/84) for a 10 year period (until 2025) together with the subsequent restoration.  Orsett Ltd Stanford Road, Orsett, Essex, RM16 3BB.</td> <td data-bbox="1048 533 1182 735">Awaiting Decision</td> </tr> <tr> <td data-bbox="577 735 685 772">20/00242/FUL</td> <td data-bbox="685 735 1048 772">Tilbury Football Club, Residential Development For 112 Dwellings.</td> <td data-bbox="1048 735 1182 772">Approved on 31 March 2023</td> </tr> <tr> <td data-bbox="577 772 685 871">19/01556/OUT</td> <td data-bbox="685 772 1048 871">Application for outline planning permission with all matters reserved apart from access: Proposed mixed use development comprising up to 750 no. residential dwellings, medical facility, retail and commercial units on the former Thurrock Airfield.</td> <td data-bbox="1048 772 1182 871">Awaiting Decision</td> </tr> <tr> <td data-bbox="577 871 685 1107">18/01404/OUT</td> <td data-bbox="685 871 1048 1107">Outline planning permission with all matters (except for access) reserved for the demolition, phased remediation and redevelopment of 167 hectares of former Coryton Oil Refinery to provide up to 345,500 sq. m of commercial development including Manufacturing; Storage, Distribution &amp; Logistics (Use Class B2/B8); Energy &amp; Waste related facilities (Use Class Sui Generis); A Central Hub incorporating a range of active uses (Research &amp; Development, leisure, education, hotel and conferencing facilities  Thames Enterprise Park, The Manorway, Coryton, Essex</td> <td data-bbox="1048 871 1182 1107">Awaiting Decision</td> </tr> <tr> <td data-bbox="577 1107 685 1343">18/01671/FUL</td> <td data-bbox="685 1107 1048 1343">Hybrid planning application for the demolition of existing buildings and structures; site preparation works; up to 2,500 dwellings [Use Class C3] and supporting infrastructure. 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(Use Class D1); community pavilion of up to 500 sq.m (Use Class D1); convenience retail store up to 400 sq.m (Use Class A1); public art together with associated vehicle parking, open space, landscape and public realm provision, ecological mitigation, highways, pedestrian and vehicular access routes.</td> <td data-bbox="1048 1107 1182 1343">Awaiting Decision</td> </tr> </tbody> </table>	Planning Reference	Description	Status	21/00754/MIN	Application for the variation of condition no's 6 (Plans),10 (Vehicle Movements) and 33 (Landform) of planning permission ref. 14/01316/MIN (Continuation of extraction of minerals (Old Haven Sand - also known by the brand name Thanet Sand) remaining from the cessation of planning permission ref: 00/00890/CONDC (pursuant to planning permission ref: THU/400/84) for a 10 year period (until 2025) together with the subsequent restoration.  Orsett Ltd Stanford Road, Orsett, Essex, RM16 3BB.	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<b>Applicant’s Response</b>	This matter is a summary and addressed in detail in the response to Pages 186-187.											
<b>Page 47-48</b>	<p><b>Thurrock Core Strategy and Policies for Management of Development</b></p> <p>The Core Strategy and Policies for Management of Development (as amended) (the Core Strategy’) was adopted in January 2015. It is a strategic document that sets out the locations for the scale and distribution of development and the provision of supporting infrastructure up to 2026.</p> <p>One of the Core Strategies key objectives is OSDP1, which seeks to promote sustainable growth and regeneration in Thurrock through proactively engaging with developers to deliver high quality sustainable development schemes and this is relevant as one of the LTC scheme objectives seeks to support such sustainable local development. The following policies are considered to be important and relevant to the LTC proposal from the perspective of Thurrock Council.</p>											

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	<p data-bbox="573 264 775 280">Table 4.1: 2015 Core Strategy Policies</p> <table border="1" data-bbox="573 296 1227 751"> <thead> <tr> <th data-bbox="573 296 703 320">Policy Number</th> <th data-bbox="703 296 1227 320">Policy Name</th> </tr> </thead> <tbody> <tr> <td data-bbox="573 320 703 344">OSDP1</td> <td data-bbox="703 320 1227 344">Promoting Sustainable Growth and Regeneration in Thurrock</td> </tr> <tr> <td data-bbox="573 344 703 368">CASP1</td> <td data-bbox="703 344 1227 368">Sustainable Housing and Locations</td> </tr> <tr> <td data-bbox="573 368 703 392">CASP2</td> <td data-bbox="703 368 1227 392">Sustainable Employment Growth</td> </tr> <tr> <td data-bbox="573 392 703 416">CASP3</td> <td data-bbox="703 392 1227 416">Sustainable Infrastructure</td> </tr> <tr> <td data-bbox="573 416 703 440">CASP4</td> <td data-bbox="703 416 1227 440">Sustainable Green Belt</td> </tr> <tr> <td data-bbox="573 440 703 464">CASP5</td> <td data-bbox="703 440 1227 464">Sustainable Green grid</td> </tr> <tr> <td data-bbox="573 464 703 488">CSTP3</td> <td data-bbox="703 464 1227 488">Gypsies and Travellers</td> </tr> <tr> <td data-bbox="573 488 703 512">CSTP5</td> <td data-bbox="703 488 1227 512">Neighbourhood Renewal</td> </tr> <tr> <td data-bbox="573 512 703 536">CSTP6</td> <td data-bbox="703 512 1227 536">Strategic Employment Provision</td> </tr> <tr> <td data-bbox="573 536 703 560">CSTP9</td> <td data-bbox="703 536 1227 560">Wellbeing: Leisure and Sports</td> </tr> <tr> <td data-bbox="573 560 703 584">CSTP10</td> <td data-bbox="703 560 1227 584">Community Facilities</td> </tr> <tr> <td data-bbox="573 584 703 608">CSTP11</td> <td data-bbox="703 584 1227 608">Health Provision</td> </tr> <tr> <td data-bbox="573 608 703 632">CSTP12</td> <td data-bbox="703 608 1227 632">Education and Learning</td> </tr> <tr> <td data-bbox="573 632 703 655">CSTP13</td> <td data-bbox="703 632 1227 655">Emergency Services and Utilities</td> </tr> <tr> <td data-bbox="573 655 703 679">CSTP14</td> <td data-bbox="703 655 1227 679">Transport in the Thurrock Urban Area: Purfleet to Tilbury</td> </tr> </tbody> </table>	Policy Number	Policy Name	OSDP1	Promoting Sustainable Growth and Regeneration in Thurrock	CASP1	Sustainable Housing and Locations	CASP2	Sustainable Employment Growth	CASP3	Sustainable Infrastructure	CASP4	Sustainable Green Belt	CASP5	Sustainable Green grid	CSTP3	Gypsies and Travellers	CSTP5	Neighbourhood Renewal	CSTP6	Strategic Employment Provision	CSTP9	Wellbeing: Leisure and Sports	CSTP10	Community Facilities	CSTP11	Health Provision	CSTP12	Education and Learning	CSTP13	Emergency Services and Utilities	CSTP14	Transport in the Thurrock Urban Area: Purfleet to Tilbury
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<p><b>Applicant’s Response</b></p>	<p>Planning Statement Appendix C: Local Authority Policy Review [<a href="#">APP-498</a>] comprises an assessment of those local plan policies considered by the Applicant to be directly relevant to the Project and which, in accordance with section 104(2)(d) of the 2008 Planning Act, are considered likely to be ‘both important and relevant’ to the Secretary of State’s consideration of the DCO Application for the Project. The Applicant does not agree with Thurrock Council that all of the policies listed above are directly related to the Project or are ‘both important and relevant’ to the determination of the DCO Application.</p> <p>Table C11 of the Planning Statement Appendix C: Local Authority Policy Review [<a href="#">APP-498</a>] addresses the Thurrock Core Strategy and Policies for the Management of Development running from pages 79-114. It provides a summary of the key elements of the relevant policies and the Applicant’s assessment of how the Project is consistent with the</p>																																																						

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	<p>policy and where, in the Application Documents, further information can be found. Table C11 covers the following policies:</p> <ul style="list-style-type: none"> <li>CSSP4 – Sustainable Green Belt</li> <li>CSSP5 – Sustainable Green Grid</li> <li>CSTP3 – Gypsies and Travellers</li> <li>CSTP15 – Transport in Greater Thurrock</li> <li>CSTP16 – National and Regional Transport Networks</li> <li>CSTP17 – Strategic Freight Movement and Access to Ports</li> <li>CSTP18 – Green Infrastructure</li> <li>CSTP19 – Biodiversity</li> <li>CSTP20 – Open Space</li> <li>CSTP21 – Productive Land</li> <li>CSTP23 – Thurrock Character and Distinctiveness</li> <li>CSTP24 – Heritage Assets and the Historic Environment</li> <li>CSTP25 – Addressing Climate Change</li> <li>CSTP26 – Renewable or Low-Carbon Energy Generation</li> <li>CSTP27 – Management and Reduction of Flood Risk</li> <li>CSTP28 – River Thames</li> <li>CSTP29 – Waste Strategy</li> <li>CSTP32 – Safeguarding Mineral Resources</li> <li>PMD1 – Minimising Pollution and Impacts on Amenity</li> <li>PMD2 – Design and Layout</li> <li>PMD4 – Historic Environment</li> <li>PMD5 – Open Space, Outdoor Sports and recreational Facilities</li> <li>PMD6 – Development in the Green Belt</li> <li>PMD7 – Biodiversity, Geological Conservation and Development</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>PMD9 – Road Network Hierarchy</p> <p>PMD10 – Transport Assessments and Travel Plans</p> <p>PMD14 – Carbon Neutral Development</p> <p>PMD15 – Flood Risk Assessment</p> <p>Table C11 in Appendix C does not cover the following policies, with the reasons why briefly addressed after each policy:</p> <p>OSDP1 – Promoting Sustainable Growth and Regeneration in Thurrock – this is a high-level overarching policy committing Thurrock Council to the implementation of the National Planning Policy Framework's (NPPF) Presumption in Favour of Sustainable Development. It is a policy recreated in local plans across the Country and is not directly related to the Project.</p> <p>CSSP1 – Sustainable Housing and Locations – this is the local plan's housing delivery policy containing its overall with housing target, sub-district targets, brownfield target, etc. It is not directly related to the Project which does not comprise housing development (with the exception of the replacement travellers' site which is a replacement, rather than new housing).</p> <p>CSSP2 – Sustainable Employment Growth – this policy contains the local plan's jobs target and employment allocations. Whilst the Project will create jobs during construction and operation, it does not comprise development on any key strategic economic hubs identified in the policy.</p> <p>CSSP3 – Sustainable Infrastructure – this policy comprises a list of key infrastructure projects essential to the delivery of the core strategy. The Project is not covered by this policy and it is therefore not considered to be relevant.</p> <p>CSTP5 – Neighbourhood Renewal – this is a regeneration and renewal policy for priority areas identified in the council area. It seeks to ensure a better balance of housing types and a mix of housing and employment/community uses to create cohesive communities. The Project's relation to local growth is considered elsewhere.</p> <p>CSTP6 – Strategic Employment Provision – this policy identifies the employment target and safeguarding of primary and secondary industrial and commercial areas. The Project does not comprise, nor result in the loss of, employment sites in the locations identified.</p> <p>CSTP9 – Wellbeing leisure and sports – this policy seeks to encourage an active lifestyle and safeguard existing sports and leisure facilities and allocated new leisure and recreation facilities. The Project does not impact on any safeguarded or proposed recreational facilities or sites.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>CSTP10 – Community Facilities – this policy support the protection of existing community facilities and proposed new projects. The Project does not impact on any of the identified sites or locations identified in the policy.</p> <p>CSTP11 – Health Provision – this policy seeks to reduce health inequalities and sets forth proposals for a new hospital and other health facilities. The Project does not impact on any such facilities or allocations.</p> <p>CSTP12 – Education &amp; Learning – this policy seeks to enhance educational attainment and skills – primary, secondary and SEND facilities. The Project does not have any operational impacts on any primary or secondary schools or further education facilities.</p> <p>CSTP13 – Emergency Services and Utilities – this policy commits the Council to work with partners to ensure adequate provision of emergency services and utilities – power station and sewage upgrade allocations. While the Project will call upon the use of emergency services and seeks to relocate a number of existing utilities, appropriate provision is made in the Project for these matters to be addressed.</p> <p>CSTP14 – Transport in the Thurrock urban area – this policy sees the enhancement of walking, cycling and public transport opportunity. The Project does make considerable new provision for Walkers, Cyclists and Horse Riders (WCH), as identified in Project Design Report Part E: Design for Walkers, Cyclists and Horse Riders [<a href="#">APP-512</a>] and elsewhere.</p> <p>CSTP22 – Thurrock design – this policy seeks to promote high quality design which should reflect the local context, etc. It is clear from the Project Design Report [<a href="#">APP-506 to APP-515</a>] and Design Principles [<a href="#">APP-516</a>], that the Applicant has taken the approach to the design or all aspects of the Project extremely seriously, and considered alternative design options in many aspects of the design of the Project.</p> <p>CSTP31 – Provision of minerals – this policy commits the Council to the maintenance of a seven-year landbank and to the prudent use of minerals resources. This policy has effectively been considered through policy CSTP32, Safeguarding Mineral Resources, which is included in Appendix C.</p> <p>PMD16 – Developer Contributions – this policy commits the Council to seek developer contributions through S106 Agreements – Heads of Terms [<a href="#">APP-505</a>], in accordance with the NPPG and practice guidance. This policy is primarily aimed at development for which the Council is the consenting authority. However, the Applicant has been in discussion with Thurrock Council over such matters and a S106 Agreements – Heads of Terms, is submitted as part of the DCO application [<a href="#">APP-505</a>].</p>



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<p><b>Page 48</b></p>	<p><b>Design Strategy Supplementary Planning Document (SPD)</b></p> <p>4.3.1 The Thurrock Design Strategy Supplementary Planning Document (SPD) was adopted in March 2017 and is a material consideration in the determination of planning applications. The document seeks to ensure that new developments are of a high design quality and respond appropriately to the local context.</p> <p>4.3.2 The Design Strategy requires developments to gain a proper understanding of place and establish locally distinctive and responsive designs which complement existing place typologies. The Strategy then sets out key design requirements for each typology.</p>
<p><b>Applicant's Response</b></p>	<p>The Project is a DCO Application and is to be determined against the requirements of relevant NPSs in the context set by the 2008 Planning Act. While section 104(2)(d) of the Act allows the decision maker to take into account any other matters which may be 'both important and relevant' to the decision, the Applicant took the view that local authority SPD and design guidance, etc. was consistent with the requirements in the NPSNN, and/or adequately addressed through the Design Principles. This is because there is ample policy within the relevant NPSs addressing the matter of design with which it has to comply. The Project Design Report [<a href="#">APP-506</a> to <a href="#">APP-515</a>] and Design Principles [<a href="#">APP-516</a>] set out in considerable detail how the Applicant has addressed the matter of design.</p>
<p><b>Page 49</b></p>	<p><b>NPS for Ports</b></p> <p>4.4.3 There is no detail within the Planning Statement – Appendix B – National Policy Statements for Energy Infrastructure Accordance Tables ) with regards to how the LTC project is in accordance with the NPS for Ports, which was published 28 February 2012. Part of the project could have significant impacts on Port of Tilbury or indeed DP World/London Gateway port. Details are required on how the LTC project will ensure Tilbury Docks and DP World/London Gateway (now both part of the Thames Freeport) can continue to promote economic growth through improving networks and links for passengers and freight and to strengthen the safety and security of transport. These significant matters are outlined in their respective Relevant Representations and ).</p>
<p><b>Applicant's Response</b></p>	<p>The Applicant does not doubt the national and regional importance of the UK's ports. Indeed, the Project will bring significant benefit to ports by adding substantially to regional and local connectivity at a critical location on the national road network.</p> <p>While the Project may impact on the Ports mentioned by the Council, the Project itself does not comprise Port development. Paragraph 1.2.1 of the NPS for Ports makes clear that the NPS provides the framework for decisions on proposals for new port development. It can apply to associated development, such as road links, where consent is sought for that associated development alongside that for the principal port development. Accordingly, the Applicant has not assessed the impacts of the Project against the Ports NPS. However, it is recognised that, under</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>the provisions of section 104(2)(d) of the 2008 Planning Act, the decision maker has the discretion to take into account any other matters which may be 'both important and relevant' to the decision. Accordingly, Section 7.2 of the Planning Statement [<a href="#">APP-495</a>] addresses the relevance of the Ports NPS to the DCO Application for the Project.</p>
<p><b>Page 51</b></p>	<p>4.4.10 The proposed alignment of the LTC will significantly undermine the efforts of the Council to plan to meet its objectively assessed housing needs in full and to support economic growth and the regeneration of existing local communities. The impacts on the emerging Local Plan include:</p> <ul style="list-style-type: none"> <li>• a. The sterilization of development opportunities in sustainable locations around existing settlements due to the LTC Order Limits, particularly near Chadwell St. Mary, East Tilbury and South Ockendon;</li> <li>• b. Delays in delivering infrastructure to enable strategic housing and employment locations to be delivered, largely as a result of construction disruption over six years, particularly near Chadwell St. Mary, East Tilbury and South Ockendon;</li> <li>• c. Addressing the issues around poor connectivity as a result of the LTC across the area; and,</li> <li>• d. The need to mitigate the impact of noise, air quality, severance and flood risk considerations, which has led to an increase in land take in locations where future development capacity exists.</li> </ul> <p>4.4.11 Furthermore, the two-year delay to the DCO commencement of construction that was announced by the SoS for Transport and the now current timetable for construction (due to commence in 2026, with completion in 2032) will lead to further uncertainty in terms of delivery of infrastructure, developments and implementation of the emerging Local Plan, if the DCO is consented. The reasons for this are summarised in Section 3 above.</p>
<p><b>Applicant's Response</b></p>	<p>The Applicant disagrees and considers that the Planning Statement [<a href="#">APP-495</a>] and its supporting appendices set out a full and detailed consideration of all of the adverse impacts which might result from the Project, alongside the benefits, including the need for the Project. The approach accords with relevant policy and will allow the ExA/Secretary of State to come to a fully informed view in accordance with paragraph 4.3 of the NPSNN.</p> <p>It is noted from the Council's Local Development Scheme (LDS) (September 2022) that the Thurrock Local Plan has been in preparation since February 2014 and is currently scheduled for Regulation 18 consultation during summer 2023, with the examination hearings not expected to commence until Spring 2025. Therefore, the plan has been prepared in the full knowledge of the emerging proposals for the Project and the Inspector conducting the examination of the local plan will be able to take into account the Secretary of State's decision on the DCO Application for the Project.</p> <p>Further information is presented in the response to Pages 239-243.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>The Applicant has undertaken a number of model runs to assist Thurrock Council with their emerging local plan. The Applicant has also worked with the Council to undertake testing to support and assess their local plan on the highway network using the LTAM. A further discussion on this matter was held on 19 June 2023 and the Applicant reaffirmed their intention to continue working with the Council to support and assess their Local Plan; however, this work is not part of the model published for the DCO application and will not be further progressed until at least the latter part of 2023. This matter remains under discussion.</p> <p><i>One of the Scheme Objectives for the Project, (developed by the Applicant and endorsed by the Department of Transport), is to "support sustainable local development and regional economic growth in the medium to long term". The Need for the Project [APP-494] (Chapter 5 demonstrates how this objective would be met by the Project.</i></p> <p><i>The effects from the adopted and emerging development plans for the Council in combination with the Project have been included in the inter-project effects assessment presented in Environmental Statement Chapter 16 Cumulative Effects Assessment [APP-154] and Environmental Statement Appendix 16.2 Short List of Developments [APP-484]. This confirms that the residual cumulative effects during construction range from neutral to slight adverse, and the residual cumulative effects during operation range from neutral to slight beneficial.</i></p> <p><i>The Environmental Statement (ES) Chapter 13 Population and Human Health [APP-151] provides an assessment of the Project on residential development land (sites or proposals identified in national or local plans, policies or strategies for development or land subject to planning permission). Table 13.12 in Environmental Statement (ES) Chapter 13 Population and Human Health [APP-151] identifies residential development land north of the River Thames. No significant effects have been identified on residential development land in Thurrock during the construction phase of the Project.</i></p> <p><i>The Planning Statement - Appendix C - Local Authority Policy Review [APP-498] provides an assessment of the Project against adopted and emerging Local Plan policies, including allocations. Paragraph 5.173 of the National Policy Statement for National Networks (2014) states that the closer the development plan document is to being adopted, the greater the weight which can be attached to the impact of the proposal on the plan.</i></p> <p><i>Paragraph 48 of the National Planning Policy Framework (NPPF) (2019) states that the weight to be given to policies in emerging plans is dependent upon the stage of preparation of the emerging plan; the more advanced its preparation, the greater the weight that may be given. Thurrock's emerging Local Plan is at such an early stage in its preparation (Regulation 18) it can be afforded little, if any, weight in the decision-making process.</i></p>
<b>Page 52</b>	<p>4.4.15 As Thurrock's emerging Local Plan will provide the development context for the proposed LTC, should the scheme proceed, then there would be implications for the delivery of the emerging Local Plan. The proposed LTC does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>aspirations for the Borough as set out in Thurrock's emerging Local Plan and the Purfleet development. Nevertheless, the emerging Local Plan is being developed to its Regulation 18 stage on the assumption of the current broad LTC proposals within the DCO application.</p>
<p><b>Applicant's Response</b></p>	<p>The Applicant disagrees and considers that the Planning Statement [<a href="#">APP-495</a>] and its supporting appendices set out a full and detailed consideration of all of the adverse impacts which might result from the Project alongside the benefits, including the need for the Project, it will deliver. The approach accords with relevant policy and will allow the ExA/Secretary of State to come to a fully informed view in accordance with paragraph 4.3 of the NPSNN.</p> <p>The Traffic Forecasts Non-Technical Summary has been produced to provide a high-level summary of the work undertaken in the development and use of the Project's transport model. This document is fully consistent with the more detailed documents including the Combined Modelling and Appraisal Report (ComMA) [<a href="#">APP-518</a>] and Transport Assessment [<a href="#">APP-529</a>]. The Transport Forecasting Package provides full details of the Uncertainty Log. As set out in the ComMA, growth in the Project's transport model has been capped on a regional basis in line with Department for Transport (DfT) traffic forecasts, up to 2051. Planned growth that is not under construction, and does not have a planning application or planning permission (as of 30 September 2021 for our DCO submission) is not explicitly included within the transport model in accordance with TAG.</p> <p>The Applicant has undertaken a number of model runs to assist Thurrock Council with their emerging local plan. the Applicant has also worked with the Council to undertake testing to support and assess their local plan on the highway network using the LTAM. A further discussion on this matter was held on 19 June 2023, and the Applicant reaffirmed their intention to continue working with the Council to support and assess their Local Plan. However, this work is not part of the model published for the DCO application and will not be further progressed until at least the latter part of 2023. This matter remains under discussion.</p> <p>It is noted from the Council's Local Development Scheme (LDS) (September 2022) that the Thurrock Local Plan has been in preparation since February 2014 and is currently scheduled for Regulation 18 consultation during summer 2023, with the examination hearings not expected to commence until Spring 2025. Therefore, the plan has been prepared in the full knowledge of the emerging proposals for the Lower Thames Crossing Project, and the Inspector conducting the examination of the local plan will be able to take into account the Secretary of State's decision on the DCO Application for the Project one way or the other. The Applicant further noted its position that a Local Plan must be in accordance with national policy, and that the Project is supported by and forms part of national policy.</p> <p>Further information is presented in the response to Pages 239-243.</p>
<p><b>Page 54</b></p>	<p><b>Statement of Common Ground (SoCG)</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p><b>Introduction</b></p> <p>5.1.1 The Council would draw the ExA's attention to Section 3.3 of the Council's AoC ) and Section XI of the Council's Relevant Representation (RR) dated 4 May 2023 ( ), which set out the Council's serious concerns with the SoCG process to date with the applicant.</p> <p>5.1.2 In summary, the Council set out the process that both the applicant and the Council had agreed from 2019 until before the DCO submission in October 2022. It drew attention to the serious concern in the latter stages of finalising the DCO application and how the Council does not agree with the submitted version, that it is unsigned and does not sets out the Council's position, highlighting that after some four years of discussions there is limited agreement on the almost 300 issues set out in the submitted SoCG ).</p> <p>5.1.3 The Council contends that the SoCG process was developed too late by the applicant and did not allow the Council to scrutinise the applicant's Response to each issue (unlike the collaborative approach to preparing the Council's issues), until after DCO submission. The Council has subsequently undertaken an outline review of this SoCG and concluded the following:</p> <ul style="list-style-type: none"> <li>• a. The Council's issue/comment is only presented as a short precis, but the applicant's response is presented as a detailed rebuttal either disputing the position taken by the Council or a dilution by citing an array of DCO documents, meetings/briefings held or bodies set up to address the issues;</li> <li>• b. The status of many issues/comments is presented as agreed, not agreed or under discussion. The distinction is unclear and presents the status of the draft SoCG as more positive than the Council is willing to support; and,</li> <li>• c. The Council will present its understanding of each issue and set out what is the remaining issue and what is necessary to address each issue, which should offer the ExA more clarity, once the Council has finally reviewed the full SoCG. This is partially covered within the Council's PADs Summary Statement formally submitted to the ExA on 4 May 2023 ).</li> </ul> <p>5.1.4 The Council received from the applicant, on 15 May 2023, an updated SoCG (subsequent to the version submitted in the DCO application) for further commentary. It contained a few new matters as discussed with the Council and many updated applicant responses. It is understood that further updates are being undertaken.</p>
<p><b>Applicant's Response</b></p>	<p>With regards to the SoCG process, the Applicant have followed best practice and the approach used on other National Highways' projects to develop the SoCG.</p> <p>The Applicant is of the view that the SoCG with Thurrock Council has been developed in a collaborative fashion. A timeline of the SoCG engagement between Thurrock Council and the Applicant has been provided below, and is intended to be included at Appendix C of the updated draft SoCG to be submitted at Examination Deadline 3.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response		
	<p>The below table highlights how the SoCG was developed and written in a joint manner. It lists the number of times the complete draft SoCG, including the Applicant's commentary, was shared with the Council for review. It also outlines the Pre-Examination strategy presented to Thurrock Council to progress all the matters under discussion in the SoCG, but this was unsuccessful due to Thurrock Council's paused engagement with the Applicant, as a result of their financial situation.</p>		
	Date	When the SoCG or matters (issues) was issued to Thurrock Council by the Applicant	When comments from Thurrock Council were received
	Iterative SoCG Issues resolution and discussion		
	<b>May – August 2022</b>	<p><b>G3 Issues and Responses</b> – G3 National Highways responses sent to Thurrock Council in batches. Feedback received in batches and discussions completed on the status of matters.</p>	<p>Feedback received from Thurrock Council throughout this period (19 May 2022 and 8 August 2022) and also took place in discussion held at fortnightly meetings.</p>
	<b>June – October 2022</b>	<p><b>G2 Issues and Responses</b> – G2 National Highways responses sent to Thurrock Council in batches. Feedback received in batches and discussions completed on the status of matters. This included discussion and agreement on where to escalate Group 2 issues to Group 3 and therefore inclusion within the SoCG.</p>	<p>Feedback received from Thurrock Council throughout this period. Group 2 matters were also discussed within technical meetings.</p>
	<b>May – August 2022</b>	<p><b>Draft SoCG issued</b> in excel format with draft <b>National Highways commentary</b> and G3 responses included.</p>	<p>No comments were received from Thurrock Council on the National Highways commentary.</p>
<b>July – September 2022</b>	<p><b>SoCG Governance Process</b> – National Highways repeatedly queried Thurrock Council about their process and procedures for SoCG approval and relevant timescales to ensure they have adequate time to read the final SoCG prior to DCO submission. An action was recorded in the fortnightly meeting notes.</p>	<p>No clear answer provided by the Council regarding governance or timescales for review. At this time, the Council were investigating if they were going to have delegated authority to review the document.</p>	

<b>Joint Iterative SoCG Writing</b>		
<b>10 and 11 August 2022</b>	<p><b>SoCG Writing Session 1</b> – this two-day workshop was used to re-draft the Group 3 issues (Thurrock Council Comments in the SoCG) together with the Council.</p> <p>Prior to this and during a regular catch-up meeting with Thurrock Council on 6 July, a discussion took place on the approach to the SoCG. National Highways explained that the final SoCG will need a fundamental re-write so that it can be presented in a way which is helpful to the Planning Inspectorate. This led to the arrangement of the in-person writing sessions held on 11 and 12 August.</p> <p>National Highways also issued a draft of the rewritten SoCG matters on 5 August 2022 as the basis of discussion to be held with the Council in the writing session.</p>	Feedback received in the 19 September 2022 as included below.
<b>11 August 2022</b>	<p><b>SoCG Governance process</b> – Email sent to Thurrock Council outlining what we have done in the writing session, next steps, asking about governance arrangements, and the status for the SoCG.</p>	No formal response received.
<b>5 Aug – 19 September 2022</b>		19 September 2022: Thurrock council undertook a review of the SoCG matters (Thurrock Council Comment) and provided suggested additions/deletions which were used as the basis of discussion on 20 September.
<b>20 September 2022</b>	<p><b>SoCG Writing Session 2</b> – this second workshop was used to continue the discussion from the 10 and 11 August regarding the development of the SoCG and to</p>	

LIR Reference	Local Impact Report Extract / Applicant's Response		
		draft the SoCG matters (Thurrock Council Comment) further to a review undertaken by the council.	
	<b>SoCG Finalisation and Review</b>		
	<b>23 September – 27 September 2022</b>	<p><b>The Complete SoCG Draft (V1)</b> (with the matters and <u>National Highways commentary</u>) was sent to Thurrock Council on 23 September.</p> <p>Thurrock Council were reminded to send final comments on this document by 17 October to address any final comments by DCO submission.</p>	<p>Response received from Thurrock Council on 27 September reviewing the first three columns. The Council chose not to review the last three columns, saying they would do so once they are satisfied with all the matters (first three columns).</p> <p><u>No comments received on the Applicant's commentary.</u></p>
	<b>28 September 2022</b>	<p><b>The Complete SoCG Draft (V2)</b> was sent out with the matters and <u>National Highways commentary</u> with some additional information as requested by the Council on 28 September.</p>	<p>Comment received from Thurrock Council to update one issue in the SoCG and some statuses.</p> <p><u>No comments received on the Applicant's commentary.</u></p>
	<b>30 September 2022</b>	<p><b>The Complete SoCG Draft (V3)</b> was sent out with the matters and <u>National Highways commentary</u>, updating one issue in the SoCG as requested by the Council.</p>	<p>Response issued (edited draft of the SoCG) on 10 October as included below.</p> <p><u>No comments received on the Applicant's commentary.</u></p>
<b>6 October 2022</b>	<p><b>Final SoCG meeting</b> with Thurrock Council to debate the wording of a few outstanding matters and adding text where relevant.</p> <p>The Council were reminded to send final comments on this document by 17 October to address any final comments by DCO submission.</p>	<p>Thurrock Council confirmed that they are still focussing on the review of the matters and <u>have not commenced the review of the Applicant's commentary.</u></p>	



LIR Reference	Local Impact Report Extract / Applicant's Response		
	<p><b>10 October 2022</b></p>		<p>Email from Thurrock Council with Thurrock Council's final review of the first three columns with some minor changes.</p> <p><u>No other comments received on the rest of the draft SoCG, the Applicant's commentary within the SoCG, or status of matters.</u></p>
	<p><b>11 October 2022</b></p>	<p><b>The Complete and Final SoCG (V4)</b> issued to Thurrock Council based on final review of SoCG by National Highways.</p> <p>The Council were reminded to send final comments on this document by 17 October to address any final comments by DCO submission.</p>	<p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>
	<p><b>17 October 2022</b></p>	<p><b>Deadline for comments on SoCG</b></p>	<p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>
	<p><b>18 October 2022</b></p>	<p><b>Reminder</b> sent to Thurrock Council saying that we will be progressing with final pre-submission reviews and checks on the latest draft shared with Thurrock Council in the absence of any other comments.</p>	<p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>
	<p><b>18 October – 25 October 2022</b></p>	<p><b>Discussion on the status of the SoCG</b> (wording to characterise the SoCG position) on the front page / introduction of the SoCG.</p> <ul style="list-style-type: none"> <li>Intended wording sent by National Highways on 18 October 2022 and included at paragraph 1.5.1 of the SoCG.</li> <li>Update provided by National Highways on 25 October 2022 confirming additional text regarding</li> </ul>	<p>Additional wording regarding status of the SoCG sent by Thurrock Council for inclusion on front cover of the SoCG on 21 October 2022.</p> <p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>

LIR Reference	Local Impact Report Extract / Applicant's Response		
		<p>status of the SoCG would be added to the front cover.</p> <p>Final status message communicated via meeting to Thurrock Council.</p>	
	<p><b>31 October 2022</b></p>	<p><b>Draft SoCG submitted as part of DCO</b></p>	<p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>
	<p><b>SoCG progress since DCO submission</b></p>		
	<p><b>31 October – 19 December 2022 (date of s114 notice)</b></p>	<p><b>Fortnightly Meetings</b> – A total number of three meetings held between National Highways and Thurrock Council and comments verbally requested on this draft version of the SoCG at two meetings.</p>	<p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>
	<p><b>24 November 2022</b></p>	<p><b>Pre-Examination Strategy</b> presented to Thurrock Council, focussing on progressing the 'matters under discussion' in the draft SoCG under the topics of:</p> <ol style="list-style-type: none"> <li>1. Construction</li> <li>2. EIA Topics</li> <li>3. HeqIA</li> <li>4. Traffic and Wider Network Impacts</li> <li>5. Design</li> <li>6. Socio Economics</li> <li>7. Climate</li> </ol> <p>National Highways suggested the above topic sessions in agreement with Thurrock Council. These topic sessions were selected as they contain the majority of the matters under discussion in the SoCG. The seven SoCG sessions were set up from mid-January to late February 2023</p>	<p>Thurrock Council requested that limited meetings be set up in the Adequacy of Consultation period (until the end of November 2022). Thurrock Council stated that they need 6-8 weeks to read the DCO documents before having any technical meetings.</p> <p><u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u></p>

LIR Reference	Local Impact Report Extract / Applicant's Response		
	<b>19 December 22 – 2 February 2023</b>	<b>Fortnightly Meetings</b> – A total number of three meetings held between National Highways and Thurrock Council and comments requested on this draft version of the SoCG at three occasions.	<u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u>
	<b>2 February – 18 April 2023</b>	<b>Engagement paused</b> due to Thurrock Council's financial situation. The SoCG meetings in the diary to progress technical matters cancelled.	
	<b>4 May 2023</b>		In the Relevant Representation, Thurrock Council stated that: <ol style="list-style-type: none"> <li>1. The Applicant's commentary not available for review at a sufficient time.</li> <li>2. The Applicant's commentary is a long rebuttal whereas the Thurrock Council issues are summarised.</li> <li>3. DCO documents and meetings referred to dilute the position.</li> <li>4. No clarity on the status of matters and the SoCG portrayed as more positive.</li> <li>5. No progress on technical matters since DCO submission.</li> </ol>
	<b>SoCG for Deadline 3 (DL-3)</b>		
	<b>15 May 2023</b>	<b>The Draft SoCG for DL-1</b> was shared with Thurrock Council when it was intended to submit for DL-1. It was subsequently decided not to submit an updated SoCG at DL1.	<u>No comments received on the draft SoCG or the Applicant's commentary within the SoCG.</u>

LIR Reference	Local Impact Report Extract / Applicant’s Response		
	<p><b>2 June 2023 – 21 June 2023</b></p>	<p><b>Reminders</b> – sent to Thurrock Council to send comments on the SoCG. Thurrock Council confirmed comments are imminent in mid-June.</p>	<p><u>No comments received on the draft SoCG or the Applicant’s commentary within the SoCG.</u></p>
	<p><b>21 July 2023</b></p>	<p><b>The Draft SoCG for DL3</b> was shared with Thurrock Council.</p>	
	<p>With regards to the Council’s point regarding the inclusion of cross references to DCO documents and meetings held in SoCG matter responses, the Applicant considers that the responses provided to SoCG matters should include appropriate cross-references to the application documentation, in order to provide the Council with further detailed information which is considered to be relevant.</p> <p>The status of the matters included in the SoCG are presented as agreed, not agreed or under discussion to clearly present the status of matters.</p> <p>The Applicant looks forward to working with Thurrock Council and recognises that the SoCG is a live document and will be updated throughout the Examination process.</p>		
<p><b>Page 54-55</b></p>	<p><b>Council’s Review of SoCG and Required Outstanding Work</b></p> <p>5.2.1 The Council had undertaken a partial review of the submitted SoCG in December 2022 prior to the Council stopping work on its assessment of the DCO application. The Council subsequently has reviewed the updated version in some detail during May/June 2023. This has revealed the need for a considerable amount of further work necessary to discuss and agree an updated version with the applicant, which is described below. It is not possible for the Council to agree any updated SoCG submission at Deadline 1, however, the Council will work with the applicant collaboratively to submit the updated version at Deadline 3.</p> <p>5.2.2 The main issues that need to be covered in any updated version are:</p> <ul style="list-style-type: none"> <li>• a. The Council’s list of 285 issues was prepared in late summer 2022 (some 9 months ago) and need updating (the Council believes that there are now three additional issues making a total of 288 issues), which is considerable work in parallel with the LIR preparation and very dependent on the LIR technical content. In fact, this updated version has undergone many amendments (mostly trying to place the onus on the Council, often within the ‘Matters Not Agreed’ category) that will require considerable time to check and validate;</li> <li>• b. Once the Council’s comments have been prepared and sent to the applicant further amendments are likely to be necessary, taking time;</li> </ul>		

LIR Reference	Local Impact Report Extract / Applicant's Response
	<ul style="list-style-type: none"> <li>• c. Whilst the PADs Summary Statement is more up to date (May 2023) , it only covers 150 issues of the now 288 SoCG issues;</li> <li>• d. The Council undertook seven SoCG workshops with the applicant between 13 June and 14 July 2023; these were intended to try to resolve 'matters under discussion'. The results of these workshops need to be incorporated into the updated SoCG by both the Council and the applicant and this will take time (although many have been accounted for within this LIR); and</li> <li>• e. Consequently, a more realistic timeframe for a joint submission of the SoCG, undertaken in a collaborative manner (as intended by the DCO process), is Deadline 3 on 24 August 2023.</li> </ul>
<b>Applicant's Response</b>	The Council's comments and updates are noted and as suggested by the Council, the Applicant can confirm that the next submission of the SoCG will be at Deadline 3.
<b>Page 55-57</b>	<p>5.3.3 As the Council have now reviewed the latest updated SoCG (as referred to above), it is clear that the applicant's responses are not satisfactory or agreeable to the Council. It should be noted that the Council's issues were collaboratively debated between the applicant and Council representatives over several days in September and October 2022 and agreed subject to Member review. However, in contrast there was no collaborative discussion on any of the applicant's SoCG responses and the Council was faced with the DCO submitted version )</p> <p>The Council's broad commentary (with examples giving SoCG reference numbers) on the deficiencies of the applicant's formal responses to each SoCG matter can be characterised and are set out below:</p> <ul style="list-style-type: none"> <li>• In the Council's view, responses are <b>vaguely phrased and need better definition, a clear rationale and be based on published evidence</b> using phraseology such as: 'accepted practice'; 'appropriate balance'; '...used professional judgement'; 'worked collaboratively'; 'it has been sufficient' (in relation to information provided); 'demonstrated the right approach'; 'balance design quality and practicality'; 'adequate and appropriate'; 'commitment'; and 'ensure confidence'. Examples would include the following items: 2.1.1; 2.1.4; 2.1.62-2.1.64; 2.1.72 - 2.1.73; 2.1.82 on the approach to the TLR; 2.1.91; 2.1.136 regarding the lack of targets for the FCTP and compliance with PAS500 good practice; 2.1.101; 2.1.103 regarding active travel standards; 2.1.104 regarding flood storage; 2.1.111 regarding ULHs statements; 2.1.137 on contractor commitments that the Council has not seen; and, 2.1.153 which contains several vague statements.</li> <li>• In the Council's view, some responses <b>characterise the Council as evasive, unhelpful and delayed</b> in its responses to certain matters, as with item 2.1.2</li> <li>• In the Council's view, many suggest that <b>the Council's views/comments are out of date</b>, because they have been addressed in the DCO documentation that (by implication) have not been reviewed yet or cite a number of</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>meetings/briefings, with typical text being: <i>‘The position has been reconsidered for our DCO application... This matter is addressed within the DCO application documents but Thurrock Council haven’t provided any feedback on this matter’</i>. A typical example is where specific DCO application documents are referred to then exact bibliographical references are required (including section/paragraph numbers). Other examples include the following items: 2.1.115 where it is implied that the Council asks for more despite applicant engagement; and 2.1.159 regarding the usefulness of WNI meetings, because just holding a meeting/briefing is not sufficient in itself.</p> <ul style="list-style-type: none"> <li>• In the Council’s view, <b>the Applicant has used their response in the Council Comment column by mistake</b> for matters 2.1.24 and in 2.1.71, where a Council position is stated in the Applicant’s Response column.</li> <li>• In the Council’s view, the <b>distinction between “Matter Not Agreed” and “Matter Under Discussion” is rather blurred</b> in many matters, and it is questionable how helpful the distinction is really. Furthermore, the applicant has stated that all ‘Matters Not Agreed’ will not be discussed except through the Examination process. Therefore, the Council should, if there is a likelihood of issue resolution retain it as a ‘Matter Under Discussion’ status, but otherwise mark it as ‘Matter Not Agreed’.</li> <li>• In the Council’s view, there are several instances where <b>the Applicant seeks to reshape the narrative on an issue in order to support its position</b>, such as 2.1.62 (in respect of local growth support and connectivity and additional modelling of the TLR) and many instances where the applicant states (without evidence) that the scheme meets its scheme objectives on a particular matter. No options have been presented for the future use of East Tilbury Landfill despite requests from the Council (2.1.101). Also, ‘written responses’ and a ‘risk-based’ do not necessarily address Council concerns (such as 2.1.120 and 2.1.121); and, within 2.1.165 about the applicant’s statements about timeframes to gain TLR DCO grant.</li> <li>• In the Council’s view, there are very many <b>Incorrect factual or misleading statements</b>, covering approximately 45 matters with a few examples being 2.1.62 – 2.1.65, 2.1.81 – 2.1.88, 2.1.209 – 2.1.228 and 2.1.282 – 2.1.285.</li> <li>• In the Council’s view, here are many instances when <b>the Council has requested information, but not received a satisfactory response or the information in a suitable form</b>, such as relating to air quality and noise assessments, local junction modelling data/results and 2.1.98 and LTC bridge crossing widths and allocation of corridors for WCH and public transport provision.</li> <li>• In the Council’s view, there are <b>many matters where NH seeks only to comply with DMRB or DfT guidance</b>, without employing best practice or later guidance or attempting to comply with emerging policy. In particular, this affects 2.1.101 and 2.1.143.</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<ul style="list-style-type: none"> <li>Finally, in the Council’s view, all references to 2030 as the <b>opening date need changing to 2032</b> throughout the SoCG, and to consider the implications of the delay in construction on the cumulative impacts and the continued and uncertain sterilisation of the Borough, its communities and its affected travel network.</li> </ul>
<b>Applicant’s Response</b>	<p>The Applicant disagrees with the Council’s comments and holds the view that the SoCG document (including the Applicant’s Response) has been available for comment in draft format since July 2022 and in a final format since September 2022. However, no comments were received from the Council on this section of the document prior to submission. Furthermore, the Applicant have received no comments on the SoCG from Thurrock Council since the submission of the DCO. An updated draft of the SoCG was also shared with the Council on 15 May 2023, but no comments were received. Please see the above table included in the response to page 54, which provides a timeline of the SoCG engagement between Thurrock Council and the Applicant.</p> <p>If the Council disagree with any of the National Highways responses included in the SoCG, they are able to respond via the status column of the document.</p> <p>The latest version of the SoCG was issued to the Council for their review on 21 July 2023 and upon receipt off comments from the Council, the Applicant will continue to work collaboratively and update the document accordingly. Any factual errors will also be addressed and additional information will be provided if necessary. The Applicant considers that the Council are conflating matters by introducing matters which are recorded as “not agreed” in the SoCG and presenting them as ‘problems with the process’, and therefore does not intend to respond again here.</p>
<b>Page 57</b>	<p><b>The Applicant’s and Council’s Position on Future SoCG Updates</b></p> <p>5.4.1 The applicant has set out on 21 June 2023, the process for updating the submitted SoCG in a six-step process requesting Council comments by 16 June 2023 and culminating in re-submission at Deadline 1 on 18 July 2023. It stated that the Council’s comments must be received by 23 June 2023, otherwise they will not be able to address those comments. However, the Council has been clear in all correspondence with the applicant that the absence of the Examination timetable delay has repercussions on other matters, such as the updated SoCG.</p> <p>5.4.2 The applicant then presented two options for moving forward:</p> <ul style="list-style-type: none"> <li>a. To use a form of words (set out below, although the Council requires a much fuller more explanatory cover page text) in the introduction section of the SoCG explaining how this has not gone through full governance of the Council and is the applicant’s view of matters:</li> <li><i>‘While National Highways has worked closely with Thurrock Council in the preparation of the SoCG, Thurrock Council has not yet been able to complete its review of the SoCG in line with its governance process. The SoCG</i></li> </ul>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p><i>is therefore presented as National Highways understanding of the status of discussions with Thurrock Council and is presently unsigned</i>'.</p> <ul style="list-style-type: none"> <li>• b. The applicant considered submitting this updated SoCG document at ED2, however, to be helpful to the ExA and highlight the new issues added into the SoCG early, the Council would prefer submitting at ED3 (the draft SoCG went from 285 issues in October 2022 to 288 in June 2023). This option provides an opportunity to update the SoCG with additional and amended issues agreed with the Council at the various workshops in May, June and July 2023.</li> </ul> <p>5.4.3 The Council is strongly of the view that to do justice to the process of properly updating both the SoCG and the PADs Summary Statement, it requires more time otherwise the ExA will receive, again, a one-sided view of the SoCG from the applicant, when the process was intended to be collaborative. This collaborative process is set out clearly in the PINS Advice Note 2 (AN2 dated February 2015, Version 1) section 22 and in the Government's guidance entitled '<i>Examination of Applications for Development Consent</i>' dated March 2015 (Sections 58 - Important quotations from these advice/guidance notes are set out below:</p> <ul style="list-style-type: none"> <li>• AN2 Paragraph 22.4 – '<i>The preparation of a SoCG can be iterative and, particularly for larger NSIPs, agreement may evolve over the course of the examination</i>'; and, '<i>...an early SoCG, developed during the pre-application stage can and should be signed by both parties</i>'.</li> <li>• Government Guidance Section 58 – '<i>A statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it is also useful if a statement identifies those areas where agreement has not been reached</i>'</li> <li>• Government Guidance Section 60 – '<i>Applicants should start to work with relevant statutory consultees on agreeing statements of common ground during the pre-application period and should aim to have reached an initial agreement in the pre-examination period before the preliminary meeting is held</i>'.</li> </ul> <p>5.4.4 It is clear that at DCO submission in October 2022 and even now in July 2023, for all the reasons given above, that the SoCG is not agreed with the Council, is unsigned and remains a serious area of disagreement with the Council.</p> <p><b>Latest Position</b></p> <p>5.4.5 The applicant has informed the Council by email on 17 July 2023 that it will not be submitting an updated SoCG at Deadline 1 and their current changes will be developed and submitted at Deadline 3. This position was recommended by the Council in discussions and therefore is acceptable to the Council. The applicant has proposed</p>



LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>a four-step process for jointly updating the SoCG and the Council will collaborate in achieving this suggested timetable. Notwithstanding this, in email correspondence, the Applicant has refused to discuss further all 'Matter Not Agreed' within the SoCG, preferring to devolve such responsibilities to the ExA. Regrettably, this confirms that NH's approach to matters of disagreement regarding the SoCG is to refuse to cooperate in respect of further discussions with a view to identifying, discussing and ultimately accommodating reasonable points made to them by the Council.</p> <p>5.4.6 The Council consider that having refused the Council's request to delay the start of the Examination by seven weeks, it is clearly the ExA's expectation that the Applicant will adopt a collaborative and constructive approach in order to facilitate the Council's fair engagement in the Examination process (and behind the scenes thereof), as opposed to the intransigent approach, which is currently being adopted by the Applicant.</p>
<b>Applicant's Response</b>	<p>The Applicant refers to its response above against the SoCG points raised by Thurrock Council on page 54 of its LIR. In response to point 5.4.4, the Applicant notes that it is not unusual for SoCGs to remain unsigned during the examination and contain "uncommon ground" (in addition to areas of common ground) and it is the "uncommon ground" that remain the points of discussion. With regards to 5.4.6, the Applicant rejects the claim that it is not being collaborative and again refers to the response given against the page 54 comments which sets out the Applicant's efforts to work with the Council in a constructive and collaborative manner.</p>
<b>Page 59-60</b>	<p><b>Overall Position of the Council and Key Issues on Consultation/Engagement</b></p> <p><b>The Council's Overall Position on LTC</b></p> <p>6.1.1 The Council objects to current proposals for the LTC as they fail to strike an acceptable balance between national benefit and the substantial harm to the Borough. This position was set out in the Council's Statutory Consultation response and all five previous rounds of non-statutory public consultation. The Council considers that this position has not changed as a result of the current proposals, which deliver very little benefit for local people and do not deliver on the Applicant's own scheme objectives, such as '<i>to support sustainable local development and regional economic growth in the medium to long term</i>' or to '<i>minimise adverse impacts on health and the environment</i>'.</p> <p>6.1.2 The Council has continued to engage with the Applicant in order to fulfil its statutory obligations and to protect the interests of the Borough. This is important in order to comply with PINS AN2: '<i>The role of local authorities in the development consent order process</i>'. This states at paragraph 6.2 '<i>Local authorities should engage proactively with a developer even if they disagree with the proposal in principle... Local authorities are not undermining an 'in principle' objection to a scheme by engaging with a developer at the pre-application stage</i>'. With this in mind, the Council has negotiated an agreed Planning Performance Agreement (PPA) Variation in place with the Applicant for the Pre-Examination and Examination periods, which will provide some financial support for resources needed to</p>

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	<p>respond and engage with the Applicant on technical matters and is only awaiting Council governance to be concluded in mid-late July 2023. This aligns with the Council’s usual practice for major development applications within the Borough.</p> <p>6.1.3 The Council has consistently set out in consultation responses its key issues with the scheme. In February 2021, the Council published its Hatch Report entitled ‘<i>LTC Mitigation Benefits</i>’, which set out in some detail the 58 mitigation, avoidance and compensation measures that it required should the scheme proceed.</p> <p>6.1.4 The Council has continued to engage with the Applicant to achieve the measures identified in the Hatch Report through the DCO securing mechanisms and other means, which necessarily will involve much discussion and some compromise. The Council has also engaged with the Applicant on a range of technical matters including, inter alia, the transport implications of alternative scheme layouts; impacts on and operation of the local road network; integration with Local Plan growth, housing, and infrastructure; provision for public transport and active modes; provision for future crossings of the LTC; construction traffic and materials handling; traffic management; health impact; climate change; health and equalities; and, emergency services.</p> <p>6.1.5 However, progress on agreeing measures for mitigation, avoidance or compensation of impacts with NH has been unnecessarily slow and difficult, with very little movement on significant measures and the necessary collaboration and engagement from the Applicant to resolve such matters has been mixed. This mixed reaction from the application has involved positive approaches to having meetings or workshops and some measure of written responses, but in the main has failed to provide critical information when requested, has refused to provide essential mitigation, and has delayed progress on a range of technical matters.</p> <p>6.1.6 Consequently, it is the Council’s view that the Applicant is not sufficiently invested in a commitment to achieve an improved level of support from the Council as main host local authority to LTC prior to or following the start of the DCO Examination on 20 June 2023. It has recently become clear that NH intends to use the ExA to arbitrate on a substantial number of crucial matters, using the limitations of the DCO process to constrain the depth of analysis achievable with the time period allowable. In its detailed and ongoing analysis of LTC the Council is of a strong view that the extent of local disbenefits arising from the scheme is not outweighed by the scheme’s claimed/forecast strategic benefits. The Council’s constructive opposition is to the general configuration, proposed purpose and details of the proposed route, as set out previously, and not necessarily opposition to the principle of a further Thames crossing to improve accessibility across the Estuary. However, recognising this does not alter the need to negotiate these measures and other scheme improvements.</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>6.1.7 Furthermore, that the Applicant has not adequately explored alternatives that might perform better and align with local sustainable growth objectives that should have been considered; and that in the event of this scheme progressing, there are many changes to the submitted scheme that the Council would advocate.</p>
<p><b>Applicant’s Response</b></p>	<p>The Applicant rejects that engagement with Thurrock has not been extensive. As recorded in B.6.2 of the Statement of Engagement [<a href="#">APP-091</a>], there have been 420 engagement meetings with Thurrock Council, 270 of which were held between October 2020 and October 2022. This engagement has been supported by extensive sharing of information, as set out in Appendix V (Adequacy of Consultation Representations) of the Consultation Report [<a href="#">APP-090</a>]. The Applicant has also specifically responded to the financial circumstances of the Council to enable them to respond and participate further in the development of the Project (see paragraph 4.11 of the Applicant’s summary of Oral Submissions). It is acknowledged, as recorded in the SoCG with Thurrock Council, that there are a number of areas of disagreement. The Applicant’s view is that this should not be conflated with the Applicant’s efforts to engage with the Council.</p> <p>All feedback from consultations on the Project proposals has been properly considered by the Applicant, with changes made to the proposals whenever they were deemed to be appropriate and in keeping with the Scheme Objectives previously agreed with the Department for Transport. The Consultation Report [<a href="#">APP-064</a> to <a href="#">APP-090</a>] submitted as part of the DCO application submitted in October 2020 sought to be transparent about which suggestions had led to changes in the Project proposals and the reasons why other suggestions had not led to changes. In light of feedback provided by Thurrock Council and others, the revised Consultation Report provides further detail and coverage of the changes that have been made to the proposals as a result of consultation. It makes clear that changes previously described under a single heading often comprise hundreds of minor and interrelated design changes. The revised report also includes the numerous instances of changes made to the Project proposals in light of consultee feedback provided through the Community Impacts Consultation and Local Refinement Consultation. One of the actions taken in light of feedback provided in AoCRs was to publish a series of documents setting out how feedback from the consultation had informed the development of the Project. The purpose of these documents was to provide greater clarity on the way in which feedback had informed the development of the Project proposals and the many instances in which changes were made as a result of that process.</p> <p>The Applicant agrees with the Planning Inspectorate’s decision to accept the DCO application and accept there had been adequate consultation and engagement prior to the DCO application.</p> <p>A response to the discussion on Hatch Report matters is addressed in detail in the response to pages 207-209.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Since submission of the DCO application in October 2022, the Applicant has continued to engage with Thurrock Council, including continuing to work on updating the SoCG which will be submitted at Deadline 3. Appendix A of the SoCG lists the engagement undertaken by the Applicant and it will continue to be updated throughout the Examination process.</p>
<p><b>Page 60-61</b> <b>Paragraph 6.2.1-6.2.2</b></p>	<p><b>6.2 Key Matters in Adequacy of Consultation (AoC) and Technical Engagement</b></p> <p>6.2.1 The Council's submitted Adequacy of Consultation response on 16 November 2022 (<a href="#">AoC -018</a>) did contain a number of matters of inadequacy or deficiency that are relevant to the Council's LIR responses, which also relate to technical engagement, which are set out below.</p> <p>6.2.2 The inadequacies of both the now six consultations and technical engagement by the Applicant over the last five years has resulted in the following inadequacies/deficiencies:</p> <ul style="list-style-type: none"> <li>• Almost <b>300 outstanding SoCG issues</b> not being resolved (refer to Section 5.3.1 above) with a preference from NH to consciously defer many of these issues for the DCO Examination. The Council recognises the likely insufficient time available to deal with these issues properly within the DCO Examination timescale.</li> <li>• <b>A significant volume of technical information/data is not being available or was only being released at DCO submission in October 2022</b> and recently requested information remains outstanding. This was outlined in Principal Issue XII within the Council's RR dated 4 May 2023 (<a href="#">PDA-009</a>) and as set out in Section 3.2 of the Council's AoC</li> <li>• In addition, and more recently, there have been some 15 requests for information by the Council in December 2022 and January 2023 (nine detailed requests) and responses were finally received in late-April 2023. Very few were provided, instead the Applicant referred to the DCO application or declined to provide with only a few actually being provided. Subsequently, over the last two months there were a further 10 detailed information requests and most are still outstanding or are not being provided by NH.</li> <li>• These issues with the Applicant sharing information were apparent in the process to obtain the Applicant's August 2020 Outline Business Case (OBC), which was protracted and from the initial request by the Council in March 2022 to the release by the Applicant in late October 2022 (after DCO submission), following the Information Commissioners Office (ICO) decision notice earlier that month.</li> <li>• The changes resulting from consultation are 81 changes, despite there being a total of over 4,000 summary issued raised in those consultations (some 2% of changes derived from the many issues raised). This <b>resistance to change</b> by the Applicant despite Section 49 of PA 2008 and extensive technical engagement by the Council, still pervades the current DCO process. It therefore is incumbent on the Council, within this LIR, not</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>only to set out the impacts, but also to set out the design changes and additional mitigation required (with detailed supporting evidence) that would ensure that the benefits do outweigh the identified adverse impacts.</p> <ul style="list-style-type: none"> <li>• The <b>critical 14 Control Documents</b> that are part of the DCO application – the Council’s very detailed comments on drafts, were shared with the Applicant in September 2021 on seven documents provided by the Applicant. However, there was no feedback (except inclusion within the draft SoCG) until the DCO submission in October 2022 (four documents were shared by the Applicant in the first DCO application). This has effectively missed two years of opportunity to resolve matters within those documents and this deficiency still persists. In addition, a further four Control Documents formed part of the submitted DCO application that had not been shared with the Council for consultation/engagement, namely the Carbon &amp; Energy Management Plan [<a href="#">APP-552</a>], Environmental Management Plan (APP-159 – APP-168), Stakeholder Actions and Commitments Register (SAC-R) [<a href="#">APP-554</a>] and the Preliminary Works EMP [<a href="#">APP-339</a>].</li> <li>• The Council has a significant issue with the Applicant’s traffic modelling, which are set out in more detail below in Chapters 7 and 9). In particular, the lengthy progression (in collaboration with the Council over a year) and the subsequent <b>refusal to submit the local traffic modelling</b> within the DCO submission to the ExA, which came to a ‘head’ in Issue Specific Hearing 1 (Part 2), when the information was requested from the Applicant by the ExA by Deadline 1. The Council and Essex County Council (ECC) sent a joint letter in February 2022 to NH to request the release of the full LTAM strategic model, as it proved impossible to hold sensible discussions between neighbouring Highway Authorities to determine cross-boundary impacts of LTC. This request, along with all previous requests, for access to LTAM was formally refused by NH.</li> <li>• The Council has repeatedly requested the Applicant to consider <b>resubmitting a Scoping Report to the Planning Inspectorate (PINS) for a new Scoping Opinion</b> within Section 3.8 of its AoC response (<a href="#">AoC-018</a>) and within most of the Council’s formal responses to consultations set out within the Applicant’s Consultation Report – ). The reason for these requests has been the significant number of changes since the PINS Scoping Opinion given in December 2017, outlined in six consultations and within the DCO submission.</li> <li>• Section 3.9 of the Council’s AoC (<a href="#">AoC-018</a>) sets out a range of issues that need to be considered and which may <b>jeopardise the completion of the Examination timetable</b> within the 6 months, and to satisfactorily resolve most of the major issues within that timeframe.</li> </ul>
<b>Applicant’s Response</b>	<p>This matter is addressed by SoCG [<a href="#">APP-130</a>], item 2.1.75, summarised below:</p> <p>The Applicant rejects that engagement with Thurrock has not been extensive. As recorded in B.6.2 of the Statement of Engagement [<a href="#">APP-091</a>], there have been 420 engagement meetings with Thurrock Council, 270 of which were held between October 2020 and October 2022. The Applicant has also specifically responded to the financial</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>circumstances of the council to enable them to respond and participate further in the development of the scheme (see paragraph 4.11 of the Applicant's summary of Oral Submissions. It is acknowledged, as recorded in the SoCG with Thurrock Council, that there a number of areas of disagreement. The Applicant's view is that this should not be conflated with the Applicant's efforts to engage with the council. The Applicant agrees with the Planning Inspectorate's decision to accept the DCO application and accept there had been adequate consultation and engagement prior to the DCO.</p> <p>The Applicant has established a workstream-based issue resolution process to address technical issues. The Applicant has engaged extensively with Thurrock and other local authorities by triaging and grouping issues into groups 1, 2, 3, based on their significance. Further explanation of these groups is presented in the Statement of Engagement. Since December 2021, the Applicant have provided technical responses to over 1,100 Group 1 issues and 1,387 Group 2 issues. The Applicant has also engaged on over 550 Group 3 issues, marked as fundamental matters, through the course of 2022. This represents a collaborative approach to working together to resolve a range of issues. Where specific issues need focussed meetings, these have been arranged, e.g. 10 fortnightly sessions on construction traffic impacts have been arranged between May-September 2022 with commitments and interventions discussed live.</p> <p>During these sessions, the scope of requests has often changed significantly at the request of the Council, often during negotiations. A good example of this is the commitment to transport bulk aggregates through ports. The lack of a commitment was highlighted by Thurrock Council and categorised as a significant issue; however, when a commitment was presented, the Council's response was for the Applicant to address several more comments and refusal to agree the matter in principle, until each and every subsequent ask was also agreed in full.</p> <p>In most cases, when the Applicant position differs from the position adopted by the Council, the Council present this as a "lack of progress" rather than adopting an approach of acknowledging the Applicant position.</p> <p>The fact that the Applicant and Thurrock may disagree on a number of issues is not reflective of inadequacies in the engagement process. As the Council has made clear, it objects to the Project and while the Applicant is committed to ongoing engagement with Thurrock, there may be some issues on which the parties will be unable to reach agreement. This is in spite of the thorough engagement that has taken place to date and will continue throughout the examination process.</p> <p>The Applicant considers that pre-application discussions have been extensive and that it is now appropriate that the engagement continues within the framework of the statutory process of Examination. The over-arching thrust of this feedback from Thurrock Council has been addressed in the Statement of Engagement. The Applicant has also</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>shared information in the submitted version of the SoCG as demonstrated in Appendices A and C. The Council disagree with the Applicant’s position set out above.</p> <p>Since submission of the application in October 2022, the Applicant has continued to engage with Thurrock Council including continuing to work on updating the SoCG which will be submitted at Deadline 3. Appendix A of the SoCG lists the engagement undertaken by the Applicant and it will continue to be updated throughout the Examination process.</p> <p>With regards to the Council’s comment included under point f; every comment made by the Council made was logged and dealt with through the issue resolution process as set out above.</p> <p>In respect of the information requests received to date from Thurrock Council the Applicant has considered each of these and provided information where it is appropriate to understand the findings of the assessments. With regards to the Council’s comments under point c, the Applicant will respond to any outstanding information requests through the Examination process. The Applicant considers that the information shared through the DCO application to be sufficient and proportionate to understand the relevant part of the assessment.</p> <p>With regards to the Council's comments under point g, this matter is a summary and addressed in detail in responses to Section 7 and 9.</p> <p>With regards to point h, this matter is addressed by SoCG [<a href="#">APP-130</a>], item 2.1.185 as follows.</p> <p>The Scoping Opinion for the Lower Thames Crossing Project formed the basis for the Preliminary Environmental Impact Report (PEIR), which was shared at Statutory Consultation and the Environmental Statement (ES), submitted as part of the subsequently withdrawn application for development consent. Over the time between the receipt of the scoping opinion and the submission of the application, there have been a number of changes as noted by Thurrock Council. To help ensure that the scope of the environmental assessment has remained comprehensive and robust, an Environmental Update document (Remaining Changes since DCO 1, May 2022) was also shared and discussed at CIPHAG in May 2022. This is following the release of the full ES submitted with the previous, now withdrawn, application for development consent, which was shared with all Local Planning Authorities for their consideration and comment.</p> <p>In relation to the comments under point i, the Applicant’s position on the examination timetable was set out in [<a href="#">AS-086</a>] and [<a href="#">PDB-002</a>]. The Applicant respects the Procedural Decision of the Examining Authority, as well as its Rule 6 and Rule 8 Letters, in establishing the examination programme for the Project. The Applicant emphasises that its engagement has been extensive, and existence of matters which are disagreed is not indicative of either a failure of engagement or a sound basis for delaying the examination.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
<p><b>Page 61</b> <b>Paragraph 6.3.1-6.3.3</b></p>	<p><b>The Consequential Need for Further Information</b></p> <p>6.3.1 Throughout the subsequent sections below, especially Sections 7 – 15 there are many technical requirements for further information for most of the topics covered in subsequent Sections below; and this is in addition to the previous requests for data/information outlined above in Section 6.2. The need for such information, if provided to the ExA and local authorities, would then enable the Council (as technical competent authority for many matters), to assess the impacts outstanding and then recommend additional mitigation or further securing mechanisms. A significant example of this lack of information was highlighted during ISH1 Part 2, where it was clear that all interested parties that contributed found this refusal of NH to provide operational modelling to be unacceptable – the Council considers that an example of a much more significant issue with information provision by NH that is set out in more detail below in <b>Table 6.1</b> (which shows that there are 19 significant information matters missing with many sub details under each matter).</p> <p>6.3.2 It is entirely the ExA decision on how such matters might be progressed, but the Council has tried various methods to obtain appropriate further information/data over the last two years with very limited success. Therefore, as the ExA is aware, there is the provision in Rule 17 of the Infrastructure Planning (Examination Procedure) Rules, 2010 that allows for a range of further information to be requested from the applicant. However, it would then depend further on the ExA offering a further opportunity for comment to interested parties (17 (2)),</p> <p>6.3.3 The Council sets out below for the ExA a composite list of what the Council requires in terms of further information, for the ExA to then determine what if any of these matters should be part of any Rule 17 request.</p>
<p><b>Applicant's Response</b></p>	<p>The response to Section 6.2 above demonstrates that the Applicant has taken a reasonable and proportionate approach to engagement and dialogue with Thurrock Council and has made information available to the Council and other stakeholders in the same vein.</p> <p>A response to the alleged lack of evidence being provided to the council is in the response to Section 6.4.</p> <p>In terms of the specific discussion at ISH1 and the reference to Rule 17 of the Infrastructure Planning (Examination Procedure) Rules, the ExA made it clear that it expected the Applicant to provide the modelling information requested and this is provided in Annexes B and E of the Applicant's Post-event submissions, including written submission of oral comments for ISH1 <a href="#">[REP1-183]</a>, submitted at Deadline 1 (18 July 2023). This is supplemented by the Applicant's Localised Traffic Modelling report, and supporting Appendices B through H, submitted at the same deadline (18 July 2023) <a href="#">[REP1-187 to REP1-194]</a> which sets out the localised traffic modelling work completed by the Applicant during the development of the Project. The appendices address the following matters:</p> <p>Appendix B – Orsett Cock VISSIM Local Model Validation Report</p>



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	<p>Appendix C – Orsett Cock Forecasting Report  Appendix D – Manorway Forecasting Report  Appendix E – Thurrock East-West VISSIM Local Model Validation Report  Appendix F – Thurrock East-West – Forecasting Report  Appendix G – Traffic Operational Appraisal – VISSIM Local Model Validation Report  Appendix H – Traffic Operational Appraisal – VISSIM Forecasting Report  A timetable is also provided for the Applicant's provision of further modelling information to the Examination (Deadline 3)</p>
<p><b>Page 62</b></p>	<p><b>6.4 Evidence and Information Missing from DCO Application</b>  6.4.1 In addition, to the missing evidence and information set out below, the Council set out in its PDB Supplementary Submission [in Table 2, a comparison of data that is current with that used in the DCO submission. In considering this vast amount of missing robust evidence and information in the LTC DCO submission documents, it is information which has either not been produced by the applicant at all or has been produced but not shared with the Council, despite various written requests. Without clear visibility of crucial evidence, the Council have not been properly informed to enable the Council to make full assessment of the scheme benefits, disbenefits and impacts, which has resulted in a large number of SoCG issues and PADs. Missing evidence is listed below, with summary of why evidence is required, which is explained in full within various other subsequent Sections of this LIR.</p>
<p><b>Applicant's Response</b></p>	<p>The Applicant maintains that the technical information provided on topics (including traffic, air quality and noise impacts) during both public consultation and engagement, has been sufficient to understand the Project-wide and localised impacts of the proposals, and to determine the suitability of the mitigation. During the Community Impacts Consultation this information was set out on a localised basis in the ward summaries, then during the Local Refinement Consultation the Guide to the Consultation set out the proposed changes to the Project, and again confirmed the validity of this information previously released. During the consultation and engagement over the past few years, Thurrock Council have made a number of recommendations for additional mitigation, such as low noise surfacing, increased bunding, and the Applicant has incorporated these recommendations into the proposals. The Applicant shared the full suite of DCO documents, including the full traffic assessment(s), air quality, noise and health</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p><b>1 Strategic Green Belt Assessment</b> for the selection of preferred route, based on the purposes of the Green Belt, as set out in NPPF. Then a <b>detailed Green Belt Assessment</b> for the preferred route, based on the purposes of the Green Belt, as set out in the NPPF, to inform the design.</p>
<p><b>Applicant's Response</b></p>	<p>Green Belt is considered in the Planning Statement Chapters 5, 6, 7 and 8 [<a href="#">APP-495</a>], and Planning Statement Appendix E: Green Belt [<a href="#">APP-500</a>]. It is also considered in the ES Chapter 3: Assessment of Reasonable Alternatives [<a href="#">APP-141</a>] and ES Chapter 7: Landscape and Visual [<a href="#">APP-145</a>].</p> <p>Paragraph 5.164 of the National Policy Statement for National Networks (NPSNN) states that: <i>'The fundamental aim of Green Belt Policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. For further information on the purposes and protection of Green Belt, see the National Planning Policy Framework'</i>.</p> <p>The starting point for assessment is set out in paragraph 5.170 of the NPSNN which states that there is <i>'a general presumption against inappropriate development in the Green Belt. Such development should not be approved except in very special circumstances. Applicants should therefore determine whether their proposal, or any part of it, is within an established Green Belt and, if so, whether their proposal may be considered inappropriate development within the meaning of Green Belt policy'</i>.</p> <p>The NPSNN provides further guidance specifically in relation to linear infrastructure recognising the prospect of passing through Green Belt land, stating at paragraph 5.171 that: <i>'linear infrastructure linking an area near a Green Belt with other locations will often have to pass through Green Belt land. The identification of a policy need for linear infrastructure will take account of the fact that there will be an impact on the Green Belt and as far as possible, of the need to contribute to the achievement of the objectives for the use of land in Green Belts'</i>.</p> <p>If it is determined that a proposal would involve inappropriate development in the Green Belt, paragraph 5.178 of the NPSNN sets out the decision-making policy: <i>'When located in the Green Belt national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development'</i>.</p> <p>As set out in paragraph E.1.1 and on Plate E.1 of the Planning Statement Appendix E: Green Belt [<a href="#">APP-500</a>] the majority of Project lies within the designated Metropolitan Green Belt. Paragraph E.8.1 states <i>'the Project, when</i></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><i>taken as a whole, is [an] inappropriate development in the Green Belt and therefore as per paragraph 5.178 of the NPSNN, the SoS will need to assess whether there are very special circumstances to justify inappropriate development in the Green Belt’.</i></p> <p>Chapter 5 of the Planning Statement [<a href="#">APP-495</a>] and Chapter 3 of the Environmental Statement: Assessment of Reasonable Alternatives [<a href="#">APP-141</a>] set out the route selection process that has led to the development of the Project. Paragraph E.8.3 of the Planning Statement Appendix E: Green Belt [<a href="#">APP-500</a>] summarises that: ‘<i>The Project has been through a rigorous assessment process and has been included in both the first DfT Road Investment Strategy (RIS) 2015-2020, published in 2014 and in RIS2 2020-2025. A lengthy process of route selection has taken place with full community and stakeholder consultation, and it was found that to satisfy the Scheme Objectives, technical considerations and achieve a least impactful solution it would not be possible for an intervention to take place without it being located in the Green Belt’.</i></p> <p>It is also clear from the two Scheme Appraisal Reports (SAR) produced in connection with the 2016 route options consultation (pre-consultation in 2016, and post-consultation in 2017) that Green Belt policy identified in local plans was taken into account in the route selection process. See section 4.2 of Volume 6 of the pre-consultation SAR, sections 4.1, 4.2, and 6.2 of Volume 6 of the post-consultation SAR, and volume 7 of the post-consultation SAR. In combination with a range of constraints and considerations, Green Belt and Green Belt policy was therefore one of many factors which were weighed in the balance when considering route options.</p> <p>The 2018 Statutory Consultation on the preferred route (Route 3 and Location C) included the Preliminary Environmental Information Report (PEIR, Sept 2018). The PEIR assessed the Project’s effects on the different Landscape Character Areas it passes through, which includes consideration of the Green Belt including its openness.</p> <p>Paragraph 6.5.277 of the Planning Statement [<a href="#">APP-495</a>] concludes that: ‘<i>Appendix E to this Statement provides a detailed assessment of the case for the Project within the Green Belt in order to show that very special circumstances exist sufficient to justify the location of the development in the Green Belt and so demonstrate accordance with the relevant requirements of the NPSNN and Energy NPSs, and as far as this may be relevant, consistency with other relevant national and local Green Belt policies’.</i></p> <p>The DCO application therefore demonstrates accordance with Green Belt policy as set out in the National Policy Statements and, as relevant, the NPPF.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b></p> <p><b>2 Microsimulation Modelling is required at the following locations for LTC operations:</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Orsett Cock</p> <ul style="list-style-type: none"> <li>• Base Year model is complete but not submitted as part of the DCO evidence</li> <li>• Forecasts have been completed and shared with Thurrock but not signed off.</li> </ul> <p>The Manorway</p> <ul style="list-style-type: none"> <li>• Further work is required to refine the model by accounting for Base Year observed flow before the impacts can be understood.</li> </ul> <p>Daneholes and Marshfoot junctions:</p> <ul style="list-style-type: none"> <li>• Base Year model East-West microsimulation model is complete but not submitted as part of the DCO evidence</li> <li>• Forecasts have been completed and need to be shared and agreed with Thurrock.</li> <li>• Five Bells junction</li> <li>• Microsimulation modelling is required to assess impacts</li> </ul> <p>A1012/Devonshire Road</p> <ul style="list-style-type: none"> <li>• Microsimulation modelling is required to assess impacts</li> <li>• Tilbury Junction</li> <li>• No modelling to support future connection</li> <li>• Further work is required to refine the operational and emergency access</li> </ul>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed by SoCG [<a href="#">APP-130</a>], items 2.1.147, 2.1.148 and 2.1.161, summarised below.</p> <p><b>Orsett Cock</b></p> <p>The Applicant has undertaken a local traffic model at the A13 Orsett Cock junction, agreeing the model extents, validation process and consideration of the peak hour through a series of collaborative workshops. These results have been provided to Thurrock Council on completion demonstrating that Orsett Cock junction still functions safely. The most recent discussion on this matter was held on 19 June 2023 and the Council expressed some outstanding concerns regarding the modelling outputs.</p> <p><b>Manorway</b></p> <p>The Applicant has undertaken a localised traffic model at the A13 Manorway junction, agreeing the model extents, validation process and consideration of the peak hour through a series of collaborative workshops. Thurrock Council have been provided with model outputs demonstrating that the Manorway junction still functions safely.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>The most recent discussion on this matter was held on 19 June 2023 and the Council expressed some outstanding concerns regarding the modelling outputs.</p> <p><b>Daneholes and Marshfoot junctions</b></p> <p>In early 2022 the Applicant agreed a scope of work with Thurrock Council (funded by the Applicant) that included an early assessment of Daneholes RB using the new DCO2 LTAM cordon models to determine whether it was still an impacted Junction. The LTAM cordon models were provided to Thurrock Council in spring/summer 2022. Subsequently, Thurrock Council has said they would only complete the assessment with the East-West VISSIM model and reiterated this at the most recent meeting on the 19th June. The East-West model has been issued to the Council in July 2023. Further discussions will be undertaken after a review of the model by the Council is completed. This issue remains under discussion but the Applicant is of the view, from its Transport Assessment, that there is no longer an issue at Daneholes Roundabout as a result of the design change made to the Lower Thames Crossing scheme in the design refinement consultation.</p> <p>The East-West model referenced above includes both Daneholes and Marshfoot junctions. Further discussions will be undertaken after a review of the model by the Council is completed.</p> <p><b>Five Bells and A1012 and Devonshire Road junction</b></p> <p>The Applicant has not undertaken local junction modelling of the A1012/Devonshire Road junction. The A1012/Devonshire Road junction is directly adjacent to the East-West model area. The Applicant undertook collaborative scoping sessions for the East-West model to agree the area. The agreement did not include the A1012/Devonshire Road junction.</p> <p>The Applicant advised in the Local Traffic Modelling report [<a href="#">REP1-187</a>] that it proposes to submit information relating to a localised traffic model of the Five Bells junction at Deadline 3.</p> <p><b>Tilbury Junction</b></p> <p>This matter is addressed by SoCG [<a href="#">APP-130</a>] items 2.1.167, 2.1.98 and 2.1.99, summarised below.</p> <p>Fortnightly traffic modelling sessions with Thurrock Council have been undertaken. Runs of the LTAM with the Tilbury Link Road have been run and the outputs shared with the Council. The Applicant continues to engage with Thurrock Council on the Tilbury Link Road project, which is being considered separately to the Lower Thames Crossing. Until such a time as a preferred route is determined for the Tilbury Link Road project, it is not possible for the Applicant to determine whether changes would be required to the operational access provided at the North Portal to connect.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>The operations and emergency access is not a junction open to the public. The operations and emergency access has not been designed specifically for any particular future connection into the local road network, however if the Local Authority or a third-party stakeholder is considering any future development, they would need to liaise with the National Highways Spatial Planning Team to develop their proposals. The issues highlighted by Thurrock Council need to be considered by the promoter of the subsequent development proposals. The operations and emergency access have been designed to appropriate DMRB standards. The suitability of the access to provide connectivity for specific aspects, such as the provision of an East Tilbury link, will have to be considered as those proposals are developed.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>3 LTAM Sensitivity Tests to Align the Assessment of the operation of LTC with up-to-date guidance and real-life travel behaviour:</b></p> <ul style="list-style-type: none"> <li>• Application of Common Analytical Scenarios Framework - required to confirm LTC benefits/disbenefits and local impacts in the context of national uncertainties</li> <li>• Application of the latest DfT's national travel growth forecasts using NTEM 8.0 (for car and public transport trips) and NRTP2022 (for LGV and HGV traffic)</li> <li>• Incident management scenarios - required to substantiate resilience objective</li> <li>• Local Plan Growth Scenarios - to ensure LTC does not preclude delivery of Thurrock's emerging Local Plan</li> <li>• Impact arising from Thames Freeport - to test LTC in the context of local uncertainty</li> <li>• Impact of significant events (e.g. COVID-19 pandemic) - to confirm benefits/disbenefits and local impacts in the context of national uncertainties.</li> </ul>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed in the response to Pages 85-88.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>4 Missing Traffic Modelling – ASDA Roundabout – LTC operations and construction periods</b></p> <ul style="list-style-type: none"> <li>• No modelling has been completed to assess and mitigate impacts.</li> <li>• Microsimulation modelling work is required to understand impacts of LTC.</li> </ul>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed by SoCG [<a href="#">APP-130</a>] items 2.1.97, 2.1.149 and 2.1.150, summarised below.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>The Applicant has stated that the forecast impacts at the junction do not prevent it from operating, albeit with delays for some users. Thurrock Council has been provided with GIS shape files and a cordon of the Project's transport model, allowing them to interrogate the detail of forecast flow changes such as those around the ASDA roundabout. The Applicant considers that the impacts on the ASDA roundabout at construction are acceptable, and can be managed through the construction management framework, including particularly the outline Traffic Management Plan for Construction (oTMPfC) [REP1-175]. A further discussion on this matter was held on 19 June 2023.</p> <p>The Applicant has set out in 9.15 Localised Traffic Modelling [REP1-187 to REP1-194], submitted at Deadline 1, at paragraph 5.1.2 that an operational microsimulation model of the ASDA roundabout will be submitted at Deadline 3. At paragraph 5.1.3 of the same document, the Applicant also notes that a construction assessment, using the same microsimulation model, of the critical construction phases will also be submitted at Deadline 3.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>5 Walkers, Cyclists and Horse Riders (WCH) details</b></p> <p>The absence of detail on the format of walking, cycling and equestrian provision on the structures and along the LRN corridors. The structure plans simply refer to 'raised verge', but the dDCO Works Descriptions imply that other facilities are to be provided.</p> <p>In addition, and while there is a lot more information regarding PRoW and WCH, there is not a plan showing the existing network with the proposed closures and the routes of the agreed diversions.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed in detail in the response to Pages 162-164.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>6 Excavated Material</b></p> <p>The assumptions or modelling used by NH to identify the quantities of both excavated materials generated and placed within the order limit are not provided. At the scale of Excavated Material arisings, even relatively small percentage deviations have the potential to generate material differences in arisings which would affect the assessment of the impact on transport, local waste treatment infrastructure and the environmental impacts of their management.</p> <p>NH has stated that 'earthworks'/Excavated Materials HGVs are assigned to specific routes within its LTAM Thurrock Cordon Model and assigned to specific compounds. Those compounds are contained within broad model zones and so permitted to assign across that zone and can contain more than one compound with unclear EM strategies. NH</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	should provide detailed evidence on its EM/earthworks movements within the LRN and that strategy should be the basis for a capping of impacts.
<b>Applicant's Response</b>	<p>Information on the classification of the excavated materials (inert, non-hazardous and hazardous) is provided within the ES Appendix 11.1: Excavated Materials Assessment (EMA) [APP-435] and within the ES Appendix 2.2 Annex B: Outline Materials Handling Plan (oMHP) [APP-338]. The Applicant has set out the bulk earthwork quantities within Chapter 7 of the oMHP. A further discussion on this matter was held on 13 June 2023 and further information was requested by the Council around how the excavated material quantities, including quantities identified as waste detailed in the oMHP have been generated. The Applicant has prepared a technical note outlining the methodology used to derive the relevant quantities and this will be shared with Thurrock Council for consideration. While this matter is still under discussion, the Applicant anticipates that the technical note will offer the necessary clarification sought by the Council.</p> <p>In regard to the matter of earthwork movements and clarity of inter compound movements. Although the LTAM uses model zones which vary in size, the inter-compound movements are represented in the model as a series of fixed routes where each compound-to-compound movement has been allocated a route which would be used to transfer the earthwork material. Chapter 7 of the oMHP provides a description of those movements including quantity of material transported, routes that are offline using the haul roads and movements that are online using the road network and have informed the construction traffic modelling assessment as presented in the DCO application.</p>
<b>Page 62-67 Table 6.1</b>	<p><b>Lack of Evidence or Missing from DCO</b></p> <p><b>7 Air Quality Assessment</b></p> <p>No evidence has been presented to demonstrate that the efficacy and practicability of options to mitigate the air quality impacts of operational traffic have been considered through the design process of the Scheme and the Council consider that mitigation, such as speed limits or additional physical barriers to protect the most impacted and vulnerable receptors, need to be secured through the DCO.</p> <p>it would be appropriate (and in line with non-Highway related developments) to commit to undertake extensive monitoring post completion at receptors identified by the air quality assessment to have the greatest change in concentrations because of the scheme. This would provide clarity as to the actual impacts of the Scheme on air quality (and risk of adverse health effects) and support the Council in its statutory duties, in regards to Local Air Quality Management and Public Health.</p>
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Pages 128-129.



LIR Reference	Local Impact Report Extract / Applicant's Response
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>8 Noise Assessment</b></p> <p>No details on Traffic Management Plan to mitigate construction traffic impacts. No information on absolute noise levels in noise contour format to determine significance. No assessment of Gammonfields travellers' site.</p>
<p><b>Applicant's Response</b></p>	<p>The first two matters are not considered by the Applicant to be missing information, as the Applicant considers the traffic management plan and the noise level information in the application to be appropriate and aligned with guidance. The assessment of Gammonfields traveller site is detailed in the response to pages 130-132.</p> <p>In response to information on absolute noise levels in noise contour format, the assessment framework for operational traffic noise is based on DMRB LA 111 which considers the change in road traffic noise level, as presented in ES Figure 12.7: Opening Year Noise Change Contour (DSOY minus DMOY) [APP-315] and ES Figure 12.8: Future Year Noise Change Contour (DSFY minus DMOY) [APP-316]. Absolute noise levels for operation are therefore not in noise contour format in the ES, as DMRB LA 111 requires the assessment of change in road traffic noise level.</p> <p>The changes in road traffic noise attributable to the Project are described within Section 12.6 of ES Chapter 12: Noise and Vibration [APP-150] and we do not propose to introduce any new data formats.</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>9 Details on the Assessment of other modal solutions</b> in response to Traffic Appraisal Modelling and Economics (TAME) Advice Note 2 to understand what alternative options have been considered and how they have been assessed.</p>
<p><b>Applicant's Response</b></p>	<p>The consideration of other modal solutions is summarised in the DCO application, within the Planning Statement. The National Policy Statement for National Networks (DfT, 2014) sets out (para 4.27) that all projects should be subject to an options appraisal, considering viable modal alternatives. It further notes that 'For national road and rail schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process'. As set out in the Planning Statement, this options appraisal took place at the appropriate stage in the project development process [APP-495].</p>
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>10 Carbon Emissions</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response														
	<p>All technical calculations, spreadsheets and workbooks that were developed and used as part of the carbon emission calculations have not been provided.</p> <p>The NH Carbon Valuation Toolkit was used to value the embodied carbon emissions. A copy of this has not been provided to allow full analysis of the assumptions behind it. A copy of the schemes NH Carbon Valuation Toolkit (including results, input assumptions and other relevant information) has been requested but not yet received.</p> <p>Only the core carbon values for the carbon impacts (tailpipe and embodied) have been provided whereas many NH schemes provide both these and the high values of carbon. A copy of the calculation using the higher carbon value has been requested, but not yet received.</p>														
<b>Applicant's Response</b>	<p>The carbon model used to calculate the construction emissions is described in detail in Appendix D of the Carbon and Energy Management Plan, while the input parameters are covered in Appendix C. In addition, commitment CBN16 states that the Applicant will publish an annual carbon report that will include information on forecast life cycle carbon emissions, carbon reductions and progress against carbon commitments as well as key actions and targets for the following year. Secondly, CBN17 Carbon data published by the Applicant in the annual carbon performance report will be independently reviewed prior to publication. This, in combination with the PAS 2080 verification that the project has achieved, should give comfort that the emissions have been accurately forecast and will continue to be so.</p> <p>The carbon valuation toolkit is an internal National Highways toolkit used to determine the values associated with greenhouse gas emissions. The calculation is based on the following data sources:</p> <table border="1" data-bbox="562 917 2056 1294"> <thead> <tr> <th data-bbox="562 917 831 978">Data</th> <th data-bbox="831 917 1323 978">Source</th> <th data-bbox="1323 917 2056 978">Notes</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 978 831 1066"><b>GDP Deflator</b></td> <td data-bbox="831 978 1323 1066">TAG Databook v1.18 (May 2022)</td> <td data-bbox="1323 978 2056 1066"><a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a></td> </tr> <tr> <td data-bbox="562 1066 831 1153"><b>Discount Rate</b></td> <td data-bbox="831 1066 1323 1153">TAG Databook v1.18 (May 2022)</td> <td data-bbox="1323 1066 2056 1153"><a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a></td> </tr> <tr> <td data-bbox="562 1153 831 1294"><b>Social Cost of Carbon</b></td> <td data-bbox="831 1153 1323 1294">BEIS (2021, as reported in TAG Databook v1.18) Valuation of Greenhouse Gas in Appraisal</td> <td data-bbox="1323 1153 2056 1294"><a href="https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation">https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation</a></td> </tr> </tbody> </table>			Data	Source	Notes	<b>GDP Deflator</b>	TAG Databook v1.18 (May 2022)	<a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>	<b>Discount Rate</b>	TAG Databook v1.18 (May 2022)	<a href="https://www.gov.uk/government/publications/tag-data-book">https://www.gov.uk/government/publications/tag-data-book</a>	<b>Social Cost of Carbon</b>	BEIS (2021, as reported in TAG Databook v1.18) Valuation of Greenhouse Gas in Appraisal	<a href="https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation">https://www.gov.uk/government/publications/valuing-greenhouse-gas-emissions-in-policy-appraisal/valuation-of-greenhouse-gas-emissions-for-policy-appraisal-and-evaluation</a>
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LIR Reference	Local Impact Report Extract / Applicant's Response		
	<b>UK ETS Permit Price</b>	BEIS (2022) UK ETS reporting	<a href="https://www.gov.uk/government/publications/taking-part-in-the-uk-emissions-trading-scheme-markets/taking-part-in-the-uk-emissions-trading-scheme-markets">https://www.gov.uk/government/publications/taking-part-in-the-uk-emissions-trading-scheme-markets/taking-part-in-the-uk-emissions-trading-scheme-markets</a> Applies to 2022 only, with permit prices inflated according to EFC Inflation Index for all other years. This is to be reviewed annually by the end of March each year. The 2022 “starting price” is the arithmetic mean of monthly prices from May 2021 to January 2022 (all available data at time of publication)
	<b>EFC Inflation Index</b>	National Highways Commercial Services Division	-
	<p>The National Highways tool used only contains a central set of unit monetary carbon values, and so a value of carbon disbenefits using a higher carbon value cannot be produced.</p> <p>The Applicant has appraised the Project's road user carbon impacts based on core traffic growth, as this is the standard appraisal approach for road user carbon.</p>		
<b>Page 62-67 Table 6.1</b>	<b>Lack of Evidence or Missing from DCO</b> <b>11 Local Benefit Climate Adaptation Assessment</b> No evidence has been provided on the benefits and disbenefits of investment into climate adaptation measures by LTC.		
<b>Applicant's Response</b>	An assessment of the Project's vulnerability to climate change has been carried out and presented in Chapter 15. To support this assessment the project has presented a climate resilience impacts and effects risk assessment (ES Appendix 15.3). This risk assessment has used the latest UKCP 18 climate projections. The design of the Project takes into account these projections, and this demonstrates that the project is resilient to a changing climate and will improve the transport resilience of Thurrock and the wider Thames Estuary area.		
<b>Page 62-67 Table 6.1</b>	<b>Lack of Evidence or Missing from DCO</b> <b>12 Flows at the Dartford Crossing</b> Paragraph 5.2.11, point a) of the <a href="#">(APP-528)</a> Non-Technical Summary states that the		

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>'overall level of traffic using the Dartford Crossing would fall on average by 19% in 2030 and 12% in 2045 (but up to a maximum of 25% in 2030 and up to a maximum of 25% in 2045 in the modelled hours) when compared to the Do Minimum scenario'. The Council have been unable to derive these figures from the data provided in either this document or Document 7.7 Combined Modelling and Appraisal Report and its Appendices to ). The derivation of this figure has been requested, but not yet received.</p>
<p><b>Applicant's Response</b></p>	<p>The figures quoted in paragraph 5.2.11 of the Traffic Forecasts Non-Technical Summary [<a href="#">APP-528</a>] are derived from Table 5.2 of that document.</p> <p>The 19% is the percentage change in vehicles in 2030:</p> <ul style="list-style-type: none"> <li>• 171,700-139,800=31,900</li> <li>• (31,900/171,700)*100=18.6, rounded to 19%</li> </ul> <p>The 12% for 2045 is calculated in a similar manner.</p> <p>The maximum figures are calculated from Table 5.1 of that document. The figures are calculated in the same way. The 25% in 2030 is for Passenger Car Units (PCUs) in the inter-peak. The 25% in 2045 should read 18% (this is a minor error in the document) and applies to PCUs in the PM peak hour.</p>
<p><b>Page 62-67 Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO 13 Accidents and Safety</b></p> <p>A reduction in accidents of 0.57 PIC/km is presented within the ComMA Appendix D (<a href="#">APP-526</a>). This has been requested as a rate in terms of PIC/mvkm as this is the standard unit for accident rate used by COBALT. This remains outstanding.</p> <p>The A2 from M2 J7 to Dover is excluded from the assessment despite Plate 8.3 (<a href="#">APP-526</a>) suggests it is an impacted link. A reason for this exclusion has been requested but yet to be provided.</p> <p>The COBALT accident impacts are presented at a high level at a total level. Plates of results provided in various reports shows there are some accident changes in Thurrock. The A13 sees an increase in accidents and LTC through Thurrock shows a large number of accidents. Detailed results for Thurrock links and junctions have been requested from NH. These remain outstanding.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed in detail in the response to Page 73.</p>
<p><b>Page 62-67 Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO 14 Reliability</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Annex B, of ComMA Appendix D (<a href="#">APP-526</a>) states that user defined assumptions for MyRIAD have been used but these are not presented. These assumptions have been requested, but not yet received.</p> <p>The results (Table B.7) show that the PM shoulder shown to have more benefits than PM peak. The reason for this is not explained within the text and an explanation as to the reason has been requested but is outstanding.</p> <p>The four time periods with the biggest benefit are (in order of magnitude from largest), the Interpeak, the PM Shoulder, Weekend Charged and the PM Peak. Further commentary around the reasons for these periods being the highest benefit has been requested.</p>
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Page 79.
<b>Page 62-67</b> <b>Table 6.1</b>	<p><b>Lack of Evidence or Missing from DCO</b></p> <p><b>15 Wider Economic Benefits</b></p> <p>NH have been asked to provide the input and output files for the WITA2 analysis, including any masking (and any differences between it and the TUBA masking). This requested remains outstanding.</p>
<b>Applicant's Response</b>	The WITA v2.2 software is provided by the DfT. The Applicant cannot share this due to licence restrictions, but it can be obtained directly, and this has been advised to Thurrock Council. The Applicant can confirm to have used the standard WITA economic files supplied with the software by the DfT.
<b>Page 62-67</b> <b>Table 6.1</b>	<p><b>Lack of Evidence or Missing from DCO</b></p> <p><b>16 Drainage and Water Environment</b></p> <p>The flood risk modelling which supports the FRA has not been updated to latest methods and software versions (for example, using the FEH hydrological methods and 2022 software versions for Flood Modeller and Tuflow), as the EA would typically require, when climate change scenarios have been updated. Confirmation that this approach was agreed with the EA and is required. Further, additional information is required to confirm that there is sufficient area and volume available to accommodate any changes at detailed design when later methods are used.</p> <p>Confirmation must be provided that the assumptions within the biodiversity calculations are consistent with the surface water drainage strategy.</p> <p>Clarification is required regarding the phasing at the North Portal junction with regard to the drainage strategy and whether temporary measures are required.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	Further information must be provided regarding the proposed pumping station in relation to the North Portal junction, which should include location, access proposals, maintenance and operational requirements and also definition of adoption responsibilities.
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Pages 147-148 below.
<b>Page 62-67</b> <b>Table 6.1</b>	<p><b>Lack of Evidence or Missing from DCO</b></p> <p><b>17 Human Health, Equalities and Wellbeing</b></p> <p>Clarification provided on how criteria for significance has been met and why topic assessments outlined in paragraph 10.2.5 are not considered significant.</p> <p>Further clarification is needed on what local weight policy has been given in the assessment and if mitigation is expected to meet local policy objectives.</p> <p>NH were to provide access to a 'Hard to Reach Engagement Strategy' at DCO to demonstrate adequate engagement with these groups.</p> <p>Clarification on what mitigation is proposed for sensitive wards outlined within the air quality assessment and how a neutral impact has been justified.</p> <p>Information needs to be provided regarding noise assessment baselines for Traveller sites.</p> <p>Further clarification if there has been consideration of noise and vibration impacts on WCHs during construction.</p> <p>Further clarification on numbers of CLG's proposed, where these might be and a list of topics/themes that these will cover and if any additional funding will be provided for them. Clarification is needed on if the Council and other stakeholders will have input into the ECP to inform the development of the CLGS.</p> <p>Rationale to be provided for consideration of affordability within visitors' accommodation.</p> <p>Further information provided on scoping process for the HIA with CIPHAG and what topic assessments and equalities groups were scoped out and why.</p> <p>Clarification on further modelling undertaken regarding noise and air quality impacts post 2022 assessment provided by the Council, referenced in the Council's Relevant Representation (Principal Issue VIII) (<a href="#">PDA-009</a>).</p> <p>Further clarification is needed regarding intra- cumulative effects, including the phasing of these effects, where they will be felt and what mitigation measures will be in place regarding cumulative impacts, including in reference to the transport assessment regarding severance, pedestrian delay, amenity and fear and intimidation.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Further information provided regarding what enhancement measures are in place to encourage a move away from vehicular travel in operation to achieve a positive significant effect.</p> <p>How appropriate is defined within mitigation regarding healthcare facilities should be defined.</p>
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Pages 166-176.
<p><b>Page 62-67</b>  <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b>  <b>18 Utilities</b></p> <p>The overarching concern regarding the utilities infrastructure, including diversions, new supplies and utilities logistics hubs (ULHs), is the spread of information across the DCO, with little to no reference to information location. It is also acknowledged that the information provided is not detailed enough to be able to determine the impacts of the utilities diversions, new supplies and ULHs. It is usual for a project of this size and complexity, particularly with regards to the gas and electric NSIPs, for a standalone Utilities Section to be included, which provides a lot more detail than has been given for LTC and with detailed drawings provided. It is clear from what has been included within the DCO that further detail and information is available, however, this has not been provided.</p>
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Pages 191-197.

LIR Reference	Local Impact Report Extract / Applicant's Response
<p><b>Page 62-67</b> <b>Table 6.1</b></p>	<p><b>Lack of Evidence or Missing from DCO</b> <b>19 Draft DCO (dDCO)</b></p> <p>A major concern with the dDCO is the lack of justification and analysis for certain provisions. As set out later in this LIR, the applicant needs to justify why they require so much flexibility and how this has been balanced by the harm caused by the uncertainty to other stakeholders. This includes justifying the uncertain Order Limits and the time limit for exercise of CPO powers.</p> <p>The Council also consider that the applicant needs to provide further justification for why it has not taken all reasonable steps to reduce the areas of land which are not subject to the restrictions of Article 28(2). Further justification should also be provided in relation to the power at 35(a)(ii) to temporarily possess Order Limits land that is not specifically set out in Schedule 11.</p> <p>The applicant also needs to provide its analysis of how which legislative provisions (including local legislation) may be impacted by LTC and why it is appropriate to disapply them. This includes the analysis as to whether there could be unintended consequences and why the geographic scope of the disapplication of legislation hasn't been set out. Further justification needs to be provided for the wide scope of the defence to statutory nuisance, taking into account that the requested provisions are much wider than requested in other highways DCOs.</p> <p>For Article 31(3), further information on this approach is required. This is a significant departure from standard provisions and the Council needs to understand the full implications of the proposal.</p> <p>The above documents should be requested and then shared during the Examination, so that the ExA and the Council can be fully informed on how the applicant have arrived at the design of LTC and mitigation of its impacts. The Council believes that the ExA can make an improved and informed decision on the scheme following viewing the documents listed above.</p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed in detail in the response to Pages 217-222. The Applicant considers that the provisions included in the draft DCO are appropriately justified and both proportionate and necessary. The council has been provided detailed responses on its comments on the draft DCO, and has repeatedly been asked to particularise their concerns on flexibility.</p>
<p><b>Page 67</b> <b>Paragraph 6.4.2</b></p>	<p>6.4.2 The above documents should be requested and then shared during the Examination, so that the ExA and the Council can be fully informed on how the applicant have arrived at the design of LTC and mitigation of its impacts. The Council believes that the ExA can make an improved and informed decision on the scheme following viewing the documents listed above.</p>



LIR Reference	Local Impact Report Extract / Applicant’s Response
<b>Applicant’s Response</b>	The Applicant has provided a response to each information request and where necessary updates would be provided to the ExA to help decision making.
<b>Page 68</b>	<p><b>7. Costs and Disbenefits outweigh the Benefits and provide Poor Value for Money</b></p> <p><b>7.1 Introduction</b></p> <p>7.1.1 This section of the LIR sets out the Council’s concerns with the appraisal and evidence base used to underpin the costs and disbenefits for the LTC scheme. The key issues are summarised below.</p> <p><b>Table 7.1: Summary of Key Issues – Disbenefits</b></p> <ul style="list-style-type: none"> <li>• The Council considers that NH has not carried out the required form of appraisal as defined in NPSNN and subsequent updated (‘successor’) documents. Further, the Council considers that the carbon appraisal undertaken by NH should be assessed against the transport sector carbon target to determine whether this leads to a different conclusion against the ‘material impact’ test for such emissions.</li> <li>• The Council contends the scheme does not provide significant relief to the Dartford Crossing, is incompatible with the UK’s and NHs net zero ambitions and legal targets, and additionally there are concerns around the safety impacts of the scheme.</li> <li>• The Council contends that the NH analysis shows that LTC caters for different traffic to the Dartford Crossing and this is reflected by the low level of traffic relief at the Dartford Crossing. LTC is shown to be more suitable for traffic travelling to/from Dover/Folkstone to the northern M25 (and beyond) while Dartford caters for mainly M25 orbital traffic.</li> <li>• The assumptions used to generate the reliability benefits have not been shared and so the Council cannot consider or scrutinise on the validity of the assumptions or results. The Council therefore still considers this a Matter under Discussion (SoCG issue ref 2.1.154).</li> <li>• There are sizable construction disbenefits, the majority of which are expected to fall on trips and users within/travelling through Thurrock. The Council has been unable to assess the distribution of these disbenefits within the borough as this information has not been provided by NH and considers this still a Matter under Discussion (SoCG issue refs, 2.1.121, 2.1.150 and 2.1.151).</li> <li>• The Council considers that NH is obliged to give Wider Economic Costs the same weight as Wider Economic Benefits (WEBs) in its BCR analysis and that it has failed to do this.</li> <li>• The Council’s view is that the WEBs presented are an overestimate.</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<ul style="list-style-type: none"> <li>The current traffic model is underpinned by data which dates from 2016. The Council contends that the traffic modelling supporting LTC does not represent an up to date or representative view of the current conditions and leads to the benefits of the scheme being overestimated.</li> <li>Inadequate sensitivity testing has been undertaken as part of the scheme appraisal. This is inconsistent with the latest Uncertainty Toolkit approach from DfT published in 2021. The Council therefore contends that the modelling is outdated and inconsistent with guidance published around uncertainty.</li> <li>The Council considers that the Value for Money of the scheme is likely to be overstated due to costs and overstated benefits. The estimated margin of benefit of LTC is now so low, that even modest changes in the assumptions would wipe out the net benefit entirely.</li> </ul>
<b>Applicant's Response</b>	This matter is addressed in detail in the response to Pages 69-88.
<b>Page 69-72</b>	<p><b>7.2 Key Policy Consideration and Not Achieving Scheme Objectives</b></p> <p><b>Policy Considerations</b></p> <p>7.2.1 The NPSNN, December 2014 (NPSNN) is the base statement for defining the broad objectives of NSIPs, covering their expected contribution to wider Government policies, as well as defining needs, assessment principles, and both generic and specific impacts. The validity of these broad policy requirements is not typically open to challenge at DCO Examination.</p> <p>7.2.2 However, NPSNN also provides guidance for how it should be treated in the Examination process by the ExA, promoters and interested parties. There are some specific aspects of the guidance which have not been followed by NH. The most important ones are, as follows:</p> <p><b>Updated Policies and Data</b></p> <p>7.2.3 Section 1.8 of the NPSNN states:</p> <p><i>'It should be noted that where the NPS refers to other documents, these other documents may be updated or amended over the time span of the NPS, so successor documents should be referred to.'</i></p> <p>7.2.4 There is no specific time limit applied to 'successor documents', e.g. 'up to the date of writing the application' or 'up to the date of the data used for modelling', and successor documents could include important statements issued during the Examination itself, for example, updates of the DfT's WebTAG (now called Transport Assessment Guidance (TAG)) guidance on forecasting and appraisal. The constraint is not of date but of importance. Paragraph 4.7 states:</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><i>‘Where updates are made during the course of preparing analytical work, the updated guidance is only expected to be used where it would be material to the investment decision and in proportion to the scale of the investment and its impacts.’</i></p> <p>7.2.5 Further guidance in the DfT’s TAG – The Proportionate Update Process 2014 on how to test materiality and proportionality states that <i>‘This should involve reasonably balancing (a) the greater time, cost, and/or resource needed to deliver programmes, with (b) the quality of the analysis submitted to assist the decision required, including its robustness against potential challenge from all sources.’</i></p> <p>7.2.6 In relation to LTC, there are two factors which make updated evidence <i>material and proportionate</i>: 1 - it is the biggest project in the roads programme; and 2 - its appraisals are very close to the point where its costs exceed the benefits.</p> <p>7.2.7 In addition to this, particularly important ‘successor’ documents, which in the Council’s view NH has not, or only partially, considered include:</p> <ul style="list-style-type: none"> <li>• BEIS, in their <i>Green Book Supplementary Guidance: Valuation of Energy Use and Greenhouse Gas Emissions for Appraisal</i>, recommendations to carry out appraisal tests against scenarios of 2°C and 4°C global temperature increase.</li> <li>• BEIS recommendations for values to be attributed to carbon in the appraisal, especially the upper bound of those values which are presented as <i>‘part of sensitivity analysis to account for uncertainties’</i> (<i>Valuation of Greenhouse Gas Emissions: For Policy Appraisal and Evaluation 2021</i>)</li> </ul> <p><b>DfT Publication of its Transport Decarbonisation Plan 2021</b></p> <p>7.2.8 TAG guidance on assessing uncertainty and the use of a range of different scenarios found in sections 3.1.3, 4.1.1 and 4.2 of TAG Unit M4, which is not consistent with the sensitivity tests shown by NH. A more realistic range of sensitivity tests would show that in most scenarios the scheme would represent lower value for money than is currently presented.</p> <p><b>Need to Assess Alternatives</b></p> <p>7.2.9 NPSNN (paragraph 4.27) states:</p> <p><i>‘All projects should be subject to an options appraisal. The appraisal should consider viable modal alternatives and may also consider other options (in light of the paragraphs 3.23 to 3.27 of this NPS). Where projects have been subject to full options appraisal in achieving their status within Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker. For national road and rail schemes, proportionate option consideration of alternatives will have been</i></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><i>undertaken as part of the investment decision making process. It is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken.’</i></p> <p>7.2.10 Further guidance on options development is also given by DfT TAG <i>The Transport Appraisal Process 2018</i> (quoting here the 2018 version which was already available before the DCO submission was prepared).</p> <p><i>‘2.8 Step 5: Generating Options</i></p> <p><i>2.8.1 The purpose of option generation is to develop a range of alternative measures or interventions that look likely to achieve the objectives identified in Step 4a. Analysts should start with a wide range of possible measures, and then narrow these down (in Steps 6 and 7) in a robust, transparent and auditable manner.</i></p> <p><i>2.8.2 It is important that as wide a range of options as possible should be considered, including all modes, infrastructure, regulation, pricing and other ways of influencing behaviour. Options should include measures that reduce or influence the need to travel, as well as those that involve capital spend. Revenue options are likely to be of particular relevance in bringing about behavioural change and meeting the Government’s climate change goal.</i></p> <p><i>TRANSPORT ANALYSIS GUIDANCE - The Transport Appraisal Process</i></p> <p><i>2.8.3 Studies should not start from an assertion about a preferred modal solution, or indeed that infrastructure provision is the only answer. Following the Eddington Transport Study 2, Sponsoring Organisations will be looking to encourage the better use of existing infrastructure and avoiding “solutions in search of problems”. In this context, it is recognised that small schemes can represent high value for money.</i></p> <p><i>2.8.4 For public transport schemes, options should include different technologies and lower cost alternatives. For example, where light rail schemes are being considered, alternative bus based options should also be identified.</i></p> <p><i>2.8.5 Where highway solutions are being considered, options should include a consideration of different link/junction standards and other alternatives to address the problems in the area, such as public transport provision, demand management policies, traffic management measures and strategies.’</i></p> <p>7.2.11 NH has not undertaken the required form of options appraisal as defined in NPSNN and subsequent updating documents, and therefore the condition in NPSNN that such matters do not need to be considered in detail at the Examination, <i>which is conditional on such work having been done at an earlier stage</i>, does not apply; and, the Council consider that the Options Appraisal Report (OAR) process for LTC has not been robust – these matters are set out below in further detail. The Council consider that NH has been more critical during Thurrock’s OAR process for the East Facing Access onto A13 scheme, despite there being more significant issues with the LTC scheme. NH</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>has not therefore applied the same level of scrutiny and rigour for its flagship LTC scheme that it does for more routine schemes on its network Further examination of alternative options to LTC is provided in Section 8 below.</p> <p><b>Carbon Impacts</b></p> <p>7.2.12 Paragraph 5.18 of the NPSNN (December 2014), referring to the Carbon Plan 2011, states:  <i>5.18 ‘The Government is legally required to meet this plan. Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.’</i></p> <p>7.2.13 In previous road appraisals, NH and its predecessors, citing this clause, has made a calculation of the estimated increases in carbon emissions arising from a scheme. This is then expressed as a percentage of all carbon emissions from all sources in the whole economy, as a test of whether the scheme would have a ‘material impact’. Since the figure always comes out as a very small percentage, it is concluded by NH that carbon emissions from a road scheme, under the legal doctrine of ‘de minimis’, are irrelevant and may be discounted.</p> <p>7.2.14 In one legal challenge this interpretation was upheld by the court (see Transport Action Network Ltd v Secretary of State for Transport (2021) EWHC 2095, which involved a challenge via Judicial Review that the SoS needed to account for quantitative carbon assessments when approving RIS2). However, that was at a time when there was no sectoral target published for transport as a whole, or for the road’s element within that target. Since publication of the transport decarbonisation strategy, there are now targets for the transport sector, and the relevant test is the effect of whether the Roads Infrastructure Programme as a whole, and specific schemes within it, would have a material impact on the ability of the transport sector to reach its sectoral targets. The Council contends that LTC scheme emissions should be assessed against this test, and this is set out in more detail in Section 10.14 below.</p> <p>7.2.15 The sentence quoted above from 5.18 of the NPSNN has disappeared from the draft revised NPSNN 2023. The draft new wording (Section 5.37) does allow for some circumstances where increases in carbon may be compatible with decarbonisation, but with a more cautious tone, and concludes in draft Section 5.37: <i>‘Therefore approval of schemes with residual carbon emissions is allowable and can be consistent with meeting carbon budgets, net zero and the UK’s Nationally Determined Contribution’</i>. Implicitly that will require a judgement about whether the LTC scheme’s emissions are, in fact, allowable and consistent with meeting the relevant norms.</p> <p>7.2.16 <b>SUMMARY: the Council considers that NH has not carried out the required form of options appraisal as defined in NPSNN and subsequent updated (‘successor’) documents. This means that the condition in NPSNN that such matters do not need to be considered in detail at the Examination, which is conditional on</b></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><b>such work having been done at an earlier stage, does not apply. Further, the Council considers that the carbon appraisal undertaken by NH should be assessed against the transport sector carbon target to determine whether this leads to a different conclusion against the ‘material impact’ test for such emissions.</b></p>
<p><b>Applicant’s Response</b></p>	<p>In relation to the draft NPSNN consulted between March and June 2023, the Applicant submitted written comments on the draft revised NPSNN and, like TMBC, awaits the Government’s response. However, in the meantime, the transitional arrangements set out at paragraphs 1.16 and 1.17 of the draft revised NPSNN make it clear that, ‘for any application accepted for examination before designation of the 2023 amendments, the 2015 NPS should have effect in accordance with the terms of that NPS’. While it is acknowledged that emerging draft NPSs are capable of being ‘other important and relevant matters’ to which the Secretary of State may wish to have regard under the provisions of section 104(2)(d) of the Planning Act 2008, the primary consideration is the designated NPSNN. Accordingly, the Applicant’s analysis of the draft revised NPSNN is that it does not fundamentally alter the policy position in respect of the determination of the DCO application for the Project. The Applicant’s assessment of accordance with the designated NPSNN is presented in Appendix A NPS Accordance Table of the Planning Statement [<a href="#">APP-496</a>].</p> <p>In relation to the carbon matters, the UK Government has not set any statutory net zero carbon budgets for the sectors identified by the Climate Change Committee (CCC) (including the surface transport sector) and there is no evidence that this has been recommended by the CCC. The basis for assessment of the Project emissions remains the UK national carbon budgets as these represent the UK’s statutory commitment to the Paris Agreement. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and NPSNN represent current legislation and policy and do not specify a requirement for sub-national (sectoral or local) assessments. The NPSNN refers only to the national budgets made under the Climate Change Act (CCA) 2008. Table 15.17 of ES Chapter 15: Climate [<a href="#">APP-153</a>] presents a comparison of the Project’s emissions against the national carbon budgets to enable the decision maker to determine whether the Project’s GHG emissions would have a material impact on the Government’s ability to meet its carbon reduction targets (which are set out in the national carbon budgets under the Climate Change Act 2008). Given the size of the Project, it is considered that comparison to the national budgets is appropriate and also follows current policy. Further, the assessment presented in Section 15.6 of ES Chapter 15: Climate [<a href="#">APP-153</a>] is not limited to an assessment against the national budgets, but also includes a contextualisation in terms of alignment with the net zero trajectory, as per the Institute of Environmental Management &amp; Assessment (IEMA) guidance, Assessing Greenhouse Gas Emissions and Evaluating Their Significance (IEMA, 2022). A full consideration of relevant carbon-related policies is contained in Appendix I to the Planning Statement [<a href="#">APP-504</a>].</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>The Department for Transport, and subsequently the Applicant, has undertaken options appraisal throughout the development process, including the consideration of modal alternatives, multiple corridors and two rounds of public consultation before the preferred route was selected. The NPSN (DfT, 2014) states at paragraph 4.27:</p> <p><i>“All projects should be subject to an options appraisal. The appraisal should consider viable modal alternatives and may also consider other options (in light of the paragraphs 3.23 to 3.27 of this NPS). Where projects have been subject to full options appraisal in achieving their status within Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker. For national road and rail schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process.[..]”</i></p> <p>Chapter 5 of the Planning Statement [<a href="#">APP-495</a>] and Chapter 3 of the Environmental Statement: Assessment of Reasonable Alternatives [<a href="#">APP-141</a>] set out the route selection process that has led to the development of the Project. In response to specific elements of the alternatives consideration, responses are provided to a number of specific matters raised in this document, including for example the consideration of alternatives in relation to utilities (Part 4 – response to pages 194 – 195), and the consideration of the green belt in the alternatives assessment (Part 4 – response to pages 243 – 244)</p> <p>Information is provided to respond to concerns raised as follows:</p> <ul style="list-style-type: none"> <li>● Transport Decarbonisation Plan 2021 – Section 2 (response to Page 94)</li> <li>● TAG Unit M4 scenarios - Section 1 (Responses to page 85 to 88)</li> </ul>
<p><b>Page 72</b></p>	<p><b>7.3 Scheme Objectives</b></p> <p>7.3.1 Table 1.1 of the “Need for the Project” (sets seven objectives for the LTC scheme, framed around Transport, Community/Environment and Economic. The Council’s view on whether each objective is achieved is presented in the following sub sections.</p> <p><b>Transport</b></p> <p><i>Objective 1: To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity.</i></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>7.3.2 The modelled future traffic using Dartford Crossing and the M25 is provided in the Combined Modelling and Appraisal report: Transport Forecasting Package (Plate/Tables 8.32, 8.33, 8.53 &amp; 8.54) for 2037 and 2045 with the LTC scheme in place.</p> <p>7.3.3 The figures presented by NH show in 2037 that Dartford Crossing remains at or above 95% Volume/Capacity (V/C) Southbound in the AM and Northbound in the PM, i.e. there is no relief to Dartford Crossing in these time periods. Additionally, Dartford Crossing is above 85% V/C in the Northbound direction in the AM and Interpeak periods i.e. there are not free flow traffic conditions as stated as the aim in the objective.</p> <p>7.3.4 NH's data therefore shows that the scheme fails to relieve congestion at Dartford Crossing and does not provide free flow capacity at this location or relieve congestion at the Dartford Crossing.</p> <p><b>In summary, this Objective is not met.</b></p>
<b>Applicant's Response</b>	<p>This matter is addressed by SoCG <a href="#">[APP-130]</a> item 2.1.58, summarised below.</p> <p>The Applicant has set out how the Project meets national policies and the Scheme Objectives, both in consultation and through provision of documents and discussion with the Council.</p> <p>The DCO application documents clearly address this issue. In Chapter 4, Section 4.4, pages 37 and 38 of the Planning Statement <a href="#">[APP-495]</a> maps the project objectives to the National Policy Statement for National Networks (NPSNN) evidence, and demonstrates the alignment between the policy and the project at a high level.</p> <p>The application also provides evidence to illustrate the performance of the project against the policy requirements of the National Networks and Energy National Policy Statements (NPS), as they apply to the Project. Chapter 5 of the Planning Statement <a href="#">[APP-495]</a> also provides evidence to demonstrate the optioneering process, how engagement and consultation has influenced the proposed scheme, and the link between the delivery of sustainable development.</p> <p>Section 5.2 of the Need for the Project <a href="#">[APP-494]</a> sets out how the Applicant considers that the transport scheme objectives are met by the proposed Lower Thames Crossing. The Project would provide over 80% additional road capacity across the River Thames east of London and reduce traffic flows on the Dartford Crossing by an average of 19% in the peak hours. The Project would provide a less congested, quicker, more reliable alternative for those wishing to cross the River Thames east of London and, by taking traffic from the existing Dartford Crossing, would release capacity there for local traffic.</p>
<b>Page 72-73</b>	<p><i>Objective 2: To improve the resilience of the Thames crossings and the major road network.</i></p> <p>7.3.5 <i>No transport modelling tests are provided in the DCO documentation to show the network impacts of closing one of either the Dartford Crossing or LTC. There is no mechanism to use the proposed tolls to manage</i></p>



LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><i>demand as both crossings are proposed to use the same tolling regime. This means that the overall use of the two crossings is not maximised.</i></p> <p><b><i>In summary, insufficient evidence is currently provided to show that this objective is met.</i></b></p>
<p><b>Applicant’s Response</b></p>	<p>The resilience benefits of the Project are present in Section 10.7 of ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [<a href="#">APP-526</a>].</p> <p>A transport modelling test has not been carried out of the complete closure of either the Dartford Crossing or the Project. This is because assumptions would have to be made on the number of drivers who would not make their trip that day or would change their destination. What is certain, is that the normal level of demand for an average weekday that is contained in the LTAM would be affected by such a significant change in the availability of road capacity across the River Thames. The LTAM is not designed as a modelling tool to make forecasts in those circumstances, and the behaviour responses of drivers for such events is not part of the variable demand model elasticities incorporated in the model. Paragraph 5.2.6 to 5.2.10 of the Need for the Project [<a href="#">APP-494</a>] set out how the Project improves resilience. Crucially, the Project would mean that there would no longer be a single point of failure at one of the most important locations on the national road network. The Project would reduce traffic flows at the Dartford Crossing by 19% on average in the opening year (Annual Average Daily Traffic). As a result, journey times across the existing Dartford Crossing would become more reliable. Due to the lower volumes of traffic, the Dartford Crossing and approach roads would recover more rapidly from minor incidents on the crossing.</p> <p>The Road User Charging Statement [<a href="#">APP-517</a>] sets out the rationale for charging and the powers that are being sought in the draft DCO [<a href="#">REP1-042</a>].</p> <p>Both Crossings will be managed by the Applicant, in accordance with standard National Highways Incident Management Processes (DMRB GM703), in order to provide a co-ordinated response to incidents at either Crossing, including:</p> <ul style="list-style-type: none"> <li>• Managed through the Regional Operations Centre.</li> <li>• Traffic Officer resources for both crossings.</li> <li>• National management escalation structure for dealing with the response to different levels of incident.</li> <li>• Communications resources for advanced warnings (Message signs, social media, press, radio, etc.).</li> </ul> <p>The Applicant will work with the Emergency Services and local authorities to ensure the timely resolution of any incident on the network, and will seek to manage traffic through diversion routes on the strategic road network (SRN) where possible. Utilising Variable Messaging Signage across the network, the Applicant will seek to provide the</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response																																				
	travelling public with sufficient information to guide route selection, wherever possible in advance of reaching an incident, and remain on the SRN where possible.																																				
Page 73	<p><b>Objective 3: To improve safety.</b></p> <p>7.3.6 The ComMA: Economic Appraisal Report [<a href="#">APP-526</a>] Table 8.10 (shown as <b>Figure 7.1</b> below), shows that the scheme increases the number of casualties over 60 years with 26 additional Fatalities and 182 Seriously Injured Casualties and presents an accident saving per kilometre with LTC in place of 0.57 PIC/km. This is unusual as the standard approach in other scheme assessments is to present an absolute saving in casualties and accidents rather than a rate. As far as the Council is aware, this is the only scheme to rely on a rate to justify its success against its safety objective and the only NH scheme with an increase in all casualty types with the scheme in place.</p> <p><b>Figure 7.1: Extract of Table 8.10 from Economic Appraisal Report (<a href="#">APP-526</a>)</b></p> <div data-bbox="568 639 2047 842" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><b>Table 8.10 Change in the number of casualties</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">Without Scheme</th> <th colspan="4">With Scheme</th> <th colspan="4">Change</th> </tr> <tr> <th>Fatal</th> <th>Serious</th> <th>Slight</th> <th>Rate/km</th> <th>Fatal</th> <th>Serious</th> <th>Slight</th> <th>Rate/km</th> <th>Fatal</th> <th>Serious</th> <th>Slight</th> <th>Rate/km</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1,441</td> <td style="text-align: center;">14,559</td> <td style="text-align: center;">146,987</td> <td style="text-align: center;">40.65</td> <td style="text-align: center;">1,467</td> <td style="text-align: center;">14,741</td> <td style="text-align: center;">149,451</td> <td style="text-align: center;">40.08</td> <td style="text-align: center;">26</td> <td style="text-align: center;">182</td> <td style="text-align: center;">2,464</td> <td style="text-align: center;">-0.57</td> </tr> </tbody> </table> </div> <p>7.3.7 Table 8.10 (shows that the monetised impact of this increase in accidents is valued as a disbenefit of £67.8m, i.e. the delivery of the scheme has a negative impact on safety. Further, the estimate of this disbenefit is the same for all three assessed traffic scenarios. This does not seem plausible given the different levels of traffic flows which are used in the assessment.</p> <p>7.3.8 The Council also notes that NH’s assessment of different options for LTC undertaken in 2013 (Review of Lower Thames Crossing Options: Final Review Report) stated at paragraph 4.6.2 that in terms of the assessment of <b>all</b> options: ‘they are projected to increase accidents on the network as a whole, because they would induce additional traffic and accidents increase broadly proportionally with traffic’.</p> <p>7.3.9 Additionally, the A2 from M2 J7 to Dover is excluded from this assessment of accident disbenefits despite information (<a href="#">APP-526</a> Plate 8.3) showing it is an impacted link. Given this is a key route for traffic using LTC, the</p>	Without Scheme				With Scheme				Change				Fatal	Serious	Slight	Rate/km	Fatal	Serious	Slight	Rate/km	Fatal	Serious	Slight	Rate/km	1,441	14,559	146,987	40.65	1,467	14,741	149,451	40.08	26	182	2,464	-0.57
Without Scheme				With Scheme				Change																													
Fatal	Serious	Slight	Rate/km	Fatal	Serious	Slight	Rate/km	Fatal	Serious	Slight	Rate/km																										
1,441	14,559	146,987	40.65	1,467	14,741	149,451	40.08	26	182	2,464	-0.57																										

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	<p>traffic (and therefore accident) changes on this route are likely to make the accident disbenefit greater than currently presented.</p> <p>7.3.10 A review of the 2013 Options Analysis undertaken at earlier stages of LTC showed all options had an overall negative impact on casualties suggesting the scheme would not meet this objective regardless of the option taken forward. This puts it at odds with NH stated commitment, which also must apply to LTC of ‘nobody will be killed or seriously injured on our roads / motorways by 2040’. A copy of the article providing this quote is provided in <b>Appendix A.1</b>.</p> <p>7.3.11 The Council has requested the detailed accident impacts for the Thurrock area to understand the local impacts of the increase in accidents. The Council considers that an increase in accidents as a result of the scheme would jeopardise its Vision Zero commitments, which aim to eliminate fatal and serious injuries from the roads of Essex by 2040. No mitigation for increases in accidents on the local road network has been put forward as part of the LTC scheme.</p> <p><b>In summary, this Objective is not met.</b></p>
<p><b>Applicant’s Response</b></p>	<p>This matter is addressed by SoCG [<a href="#">APP-130</a>] item 2.1.154, summarised below.</p> <p>Safety is the Applicant’s highest priority. The new crossing will be designed and built to the standards recommended today, but the Applicant will continue to adapt its plans to incorporate advances in safety design and technology that will come forward in the years ahead to minimise the number and severity of incidents. When incidents do occur, the design includes technology to quickly detect and respond, supplemented by operational resources available attend incidents, minimising the duration and impact.</p> <p>In the event of an incident occurring, the National Highways Regional Operations Centre will liaise with the various emergency services, Traffic Officers, National Highways network maintainers and other network authorities to ensure that any delays are kept to a minimum; that incidents are cleared within the Applicant’s response time; and any diversions are managed in line with agreements with other network authorities. In addition, the Applicant will use multiple communications channels to advise motorists of traffic conditions, so that that they can adjust their journeys to suit.</p> <p>It should be noted that the Transport Assessment [<a href="#">APP-529</a>] reflects the operational modelling that forms the basis of the DCO application. Discussions relating to the operational protocols will continue through until scheme opening, and then beyond as the Applicant continues its statutory duty to operate the strategic road network.</p> <p>The Applicant has also responded to specific points made by the Council below:</p> <p><u>Paragraph 7.3.6:</u></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response																				
	<p>The impact on safety is presented in the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [APP-526] in both absolute numbers (Table 8.10) and as a rate per million vehicle kilometres driven. These are standard outputs from the COBALT software.</p> <p><u>Paragraph 7.3.7:</u> It is industry standard practice to only appraise accidents for the core scenario using COBALT.</p> <p><u>Paragraph 7.3.8:</u> Whilst it is forecast that there is likely to be a small increase in collision numbers as a result of more traffic in the area appraised, there would be a reduction in the collision rate (collisions per vehicle mile travelled) as a result of a managed, less congested network. This is further detailed in the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [APP-526].</p> <p><u>Paragraphs 7.3.9 and 7.3.11:</u> The results of the economic appraisal of accidents using COBALT software are reported in Chapter 8 of the Economic Appraisal Report. Plate 8.3 shows the accident appraisal area, which runs along the M2 corridor to junction 7 in the east.</p> <p>Much of the A2 running east from M2 junction 7 to Dover meets the criteria for an impacted link, which is a flow change of 5% or more, and a flow change of above 200 vehicles AADT in 2045, when comparing the With Scheme and Without Scheme scenarios. At the request of Thurrock Council, a sensitivity test has been carried out, with the full extent of the A2 from M2 junction 7 to Dover included in the accident appraisal area.</p> <p>The accident appraisal is summarised in Table 8.10 in the Economic Appraisal Report. It is reproduced here as Table 1. The results of the sensitivity test are shown in Table 2 below.</p> <p><b>Table 1: Accident cost per million vehicle kilometres</b></p> <table border="1" data-bbox="562 1050 2069 1339"> <thead> <tr> <th></th> <th>Without Scheme</th> <th>With Scheme</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td><b>Number of accidents over 60-year appraisal period</b></td> <td>116,899</td> <td>118,566</td> <td>1,667</td> </tr> <tr> <td><b>Accident cost over 60-year appraisal period (£ million)*</b></td> <td>-4,679.10</td> <td>-4,746.60</td> <td>-67.5</td> </tr> <tr> <td><b>Total network length appraised (km)</b></td> <td>2,876</td> <td>2,958</td> <td>82</td> </tr> <tr> <td><b>Accident rate per million vehicle km in 2030</b></td> <td>0.117</td> <td>0.113</td> <td>-0.004</td> </tr> </tbody> </table>		Without Scheme	With Scheme	Change	<b>Number of accidents over 60-year appraisal period</b>	116,899	118,566	1,667	<b>Accident cost over 60-year appraisal period (£ million)*</b>	-4,679.10	-4,746.60	-67.5	<b>Total network length appraised (km)</b>	2,876	2,958	82	<b>Accident rate per million vehicle km in 2030</b>	0.117	0.113	-0.004
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LIR Reference	Local Impact Report Extract / Applicant’s Response			
	<b>Accident rate per million vehicle km in 2045</b>	0.105	0.101	-0.004
	<b>Number of accidents per km over 60-year appraisal period</b>	40.65	40.08	-0.57
	<b>Accident cost per km over 60-year appraisal period (£ million)</b>	1.627	1.605	-0.022
	<i>* Excludes -£0.3 million from planned maintenance</i>			
 <b>Table 2: Accident cost per million vehicle kilometres, including A2 from M2 junction 7 to Dover</b>				
		Without Scheme	With Scheme	Change
	<b>Number of accidents over 60-year appraisal period</b>	118,711	120,444	1,733
	<b>Accident cost over 60-year appraisal period (£ million)*</b>	-4,766.2	-4,836.9	-70.7
	<b>Total network length appraised (km)</b>	2,953	3,035	82
	<b>Accident rate per million vehicle km in 2030</b>	0.116	0.112	-0.004
	<b>Accident rate per million vehicle km in 2045</b>	0.104	0.100	-0.004
	<b>Number of accidents per km over 60-year appraisal period</b>	40.21	39.69	-0.52
	<b>Accident cost per km over 60-year appraisal period (£ million)</b>	1.614	1.594	-0.020
	<i>* Excludes -£0.3 million from planned maintenance</i>			

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	<p>This shows that the inclusion of the A2 from M2 junction 7 to Dover would increase the change in the total number of accidents over 60 years from 1,667 to 1,733. The increase in the discounted cost of accidents would rise by £3.2 million from £67.5 to £70.7 million. This change is so small that it would not affect the benefit cost ratio of the Project. The COBALT appraisal has also been carried out for the Thurrock area. These results are presented in Table 3 below.</p> <p><b>Table 3: Accident cost per million vehicle kilometres, Thurrock only</b></p> <table border="1"> <thead> <tr> <th></th> <th>Without Scheme</th> <th>With Scheme</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td><b>Number of accidents over 60-year appraisal period</b></td> <td>17,491</td> <td>17,871</td> <td>380</td> </tr> <tr> <td><b>Accident cost over 60-year appraisal period (£ million)*</b></td> <td>-720.2</td> <td>-735.9</td> <td>-15.7</td> </tr> <tr> <td><b>Total network length appraised (km)</b></td> <td>460</td> <td>501</td> <td>41</td> </tr> <tr> <td><b>Accident rate per million vehicle km in 2030</b></td> <td>0.124</td> <td>0.112</td> <td>-0.012</td> </tr> <tr> <td><b>Accident rate per million vehicle km in 2045</b></td> <td>0.112</td> <td>0.100</td> <td>-0.012</td> </tr> <tr> <td><b>Number of accidents per km over 60-year appraisal period</b></td> <td>37.99</td> <td>35.65</td> <td>-2.33</td> </tr> <tr> <td><b>Accident cost per km over 60-year appraisal period (£ million)</b></td> <td>1.564</td> <td>1.468</td> <td>-0.096</td> </tr> </tbody> </table> <p>The change in the absolute number of accidents for the Thurrock area alone is shown in Table 4 below. The numbers for the Cobalt appraisal area as provided in Table 8.10 of ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report <a href="#">[APP-526]</a> are also provided in the table for comparison purposes.</p> <p><b>Table 4: Change in the number of casualties for 60 years after opening of the Project</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Area</th> <th colspan="3">Without Project</th> <th colspan="3">With Project</th> <th colspan="3">Change</th> </tr> <tr> <th>Fatal</th> <th>Serious</th> <th>Slight</th> <th>Fatal</th> <th>Serious</th> <th>Slight</th> <th>Fatal</th> <th>Serious</th> <th>Slight</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>											Without Scheme	With Scheme	Change	<b>Number of accidents over 60-year appraisal period</b>	17,491	17,871	380	<b>Accident cost over 60-year appraisal period (£ million)*</b>	-720.2	-735.9	-15.7	<b>Total network length appraised (km)</b>	460	501	41	<b>Accident rate per million vehicle km in 2030</b>	0.124	0.112	-0.012	<b>Accident rate per million vehicle km in 2045</b>	0.112	0.100	-0.012	<b>Number of accidents per km over 60-year appraisal period</b>	37.99	35.65	-2.33	<b>Accident cost per km over 60-year appraisal period (£ million)</b>	1.564	1.468	-0.096	Area	Without Project			With Project			Change			Fatal	Serious	Slight	Fatal	Serious	Slight	Fatal	Serious	Slight										
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	<b>Cobalt study area</b>	1,441	14,559	146,987	1,467	14,741	149,451	26	182	2,464
	<b>Thurrock</b>	237	2,292	21,588	245	2,326	22,213	8	35	625
<b>Page 74</b>	<p><b>Community and Environment</b>  <b>Objective 4: minimize the impacts on health and the environment.</b></p> <p>7.3.12 The scheme is shown to lead to large tonnages of new carbon emissions during the next three Carbon Budget Periods(CBP), as presented in</p> <ul style="list-style-type: none"> <li>• CB4 – 1.148m tCO2</li> <li>• CB5 – 0.899m tCO2</li> <li>• CB6 – 0.462m tCO2</li> <li>• 60yrs – 6.596m tCO2</li> </ul> <p>7.3.13 These are calculated to have a monetised value of £526.1m disbenefit over the 60-year appraisal period. This level of emissions is not consistent with UK Net Zero policy and carbon disbenefits are worth 30% of the journey time savings. The ComMA (quotes UK transport emissions as 99m tCO2 in 2020. LTC would provide a substantial addition to this total.</p> <p>7.3.14 The report states there are several assumptions that are neither firm nor funded, but are included in the embodied carbon estimate, including:</p> <ul style="list-style-type: none"> <li>• Net zero operation assumed (in accordance with NH Net Zero Plan, a copy of the relevant section of the plan is found in <b>Appendix A.2</b>) from opening of LTC.</li> <li>• Maintenance assumed to be net zero from 2040 (in accordance with NH Net Zero Plan).</li> <li>• Renewals assumed to be net zero (in accordance with NH Net Zero Plan) from 2040.</li> </ul> <p>7.3.15 Although the NH Net Zero Plan has been published, funding will be required in RIS3 and beyond to deliver these assumptions with no certainty the Plan will achieve its aims. RIS3 negotiations are ongoing, so this funding is not assured. Further assumptions have been made by NH around low carbon design and construction but details of how this will be achieved are not provided.</p> <p>7.3.16 The LTC scheme is aiming to achieve 7.5% net gain for biodiversity. However, the scheme is now a RIS3 scheme following the delay to the start of construction. RIS3 is expected to have aims in line with the Environment Act 2021, i.e. to achieve 10% biodiversity net gain in each of the three unit categories. LTC should be designed to</p>									

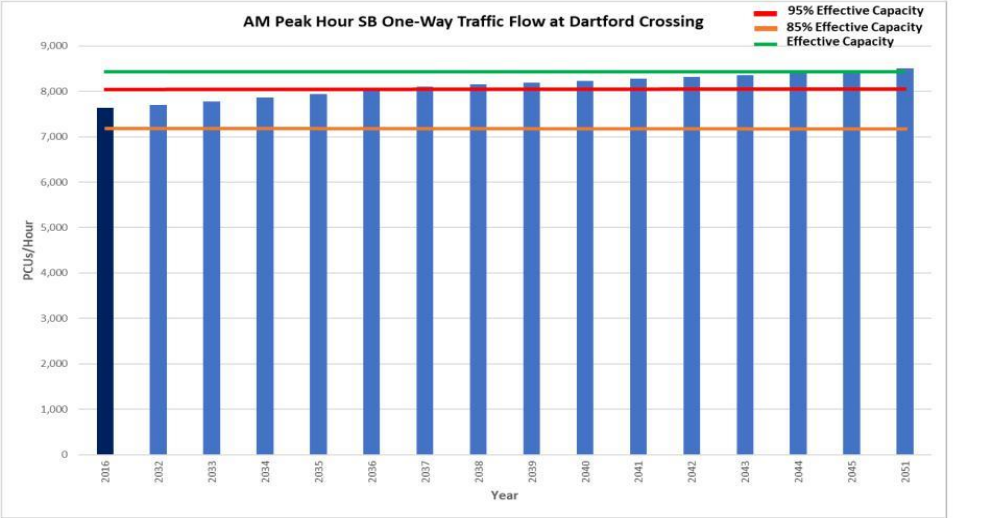
LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>meet the requirements of this Act (which is not listed in (, despite other 2021 national policies being included) and the required changes should be included in revised costs and mitigation. This biodiversity point is dealt with in more detail in Section 10.6. In addition, there is further discussion on the Environment and Health impacts of the scheme in Section 10 of this LIR below.</p> <p>7.3.17 Further impacts on human health are dealt with in more detail in Sections 10.2 (Air Pollution) and 10.13 (Health and Wellbeing) below.</p> <p><b>In summary, this Objective is not met.</b></p>
<p><b>Applicant's Response</b></p>	<p><u>7.3.12 to 7.3.15 Carbon Emissions</u></p> <p>The Applicant does not consider that the Project's emissions are significant in relation to the UK's carbon budgets (see Chapter 15). There is no requirement to assess the Project's emissions against any other published sector measurements.</p> <p>With reference to the carbon reduction plans set out in the National Highways' Net Zero Plan, these are commitments and targets to reduce emissions from the strategic road network and support the UK Government's transition to net zero by 2050. Table 2.1 of the Carbon and Energy Management Plan [<a href="#">APP-552</a>] sets out the iterations of the Carbon and Energy Plan that will be produced by the Applicant. This includes a third iteration which will be submitted for the approval of the Secretary of State on completion of construction.</p> <p>The third iteration will address carbon and energy matters relevant to the operation and maintenance of the authorised development, and set out how carbon emissions will be managed during the operation and maintenance of the authorised development. It will also show how the Project is supporting the Applicant's carbon policies, plans and strategies. This is also reiterated in carbon commitment CBN22 in the Carbon and Energy Management Plan Appendix E.</p> <p><u>7.3.16 Biodiversity Net Gain (BNG)</u></p> <p>With reference to the Project's biodiversity metric figures, reported in ES Appendix 8.21: Biodiversity Metric Calculations [<a href="#">APP-417</a>], the Project is applying the Natural England Biodiversity Metric several years ahead of this being a mandatory requirement. For Nationally Significant Infrastructure Projects, mandatory BNG reporting is likely to commence for applications submitted after November 2025.</p> <p>In its design, the Project has focused on maximising biodiversity value through being ambitious in terms of the habitats proposed for essential mitigation requirements, shown in ES Figure 2.4: Environmental Masterplan [<a href="#">APP-159 to APP-168</a>], and their long-term management described in Outline Landscape and Ecology Management Plan [<a href="#">REP1-173</a>], with a focus on the Lawton principles of more, bigger, better and joined up. It should be noted that the</p>

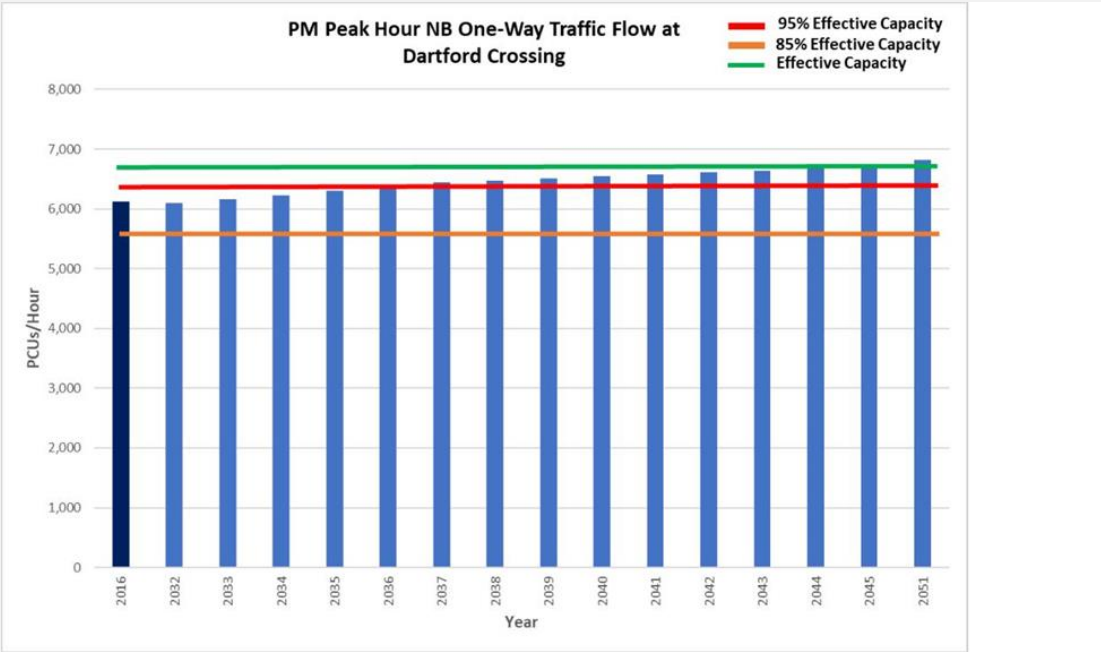


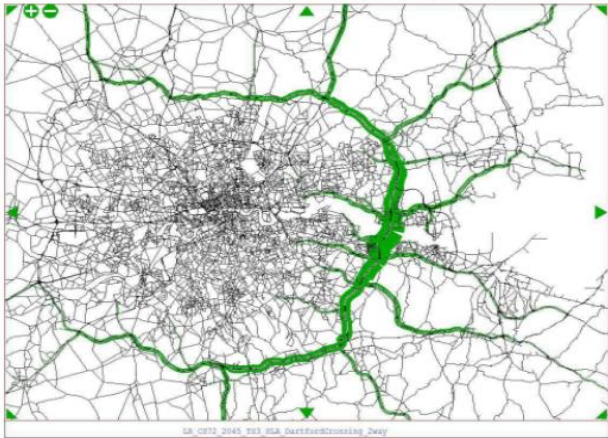
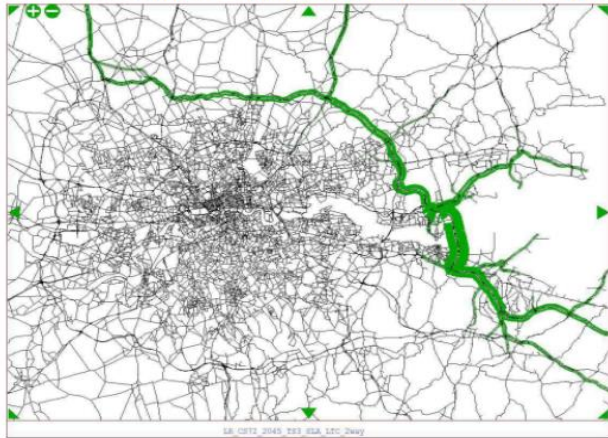
LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Project has no legal power to compulsorily acquire additional land for what would be classed as an enhancement (i.e. solely for BNG purposes) in the circumstances of the Project, and in light of current policy and legal requirements. It is recognised that the ambition demonstrated in the design does not necessarily maximise the value calculated by the Biodiversity Metric, but it is the view of the Applicant that the Project delivers a design of high biodiversity value. It is expected that the forecast Metric performance would improve during detailed design. Design refinements would seek to further reduce habitat loss during construction, minimise lags between habitat loss and creation and to maximise the condition and distinctiveness of habitats created, and the Project would seek to maximise biodiversity performance over the full project lifecycle.</p>
<p><b>Page 74-75</b></p>	<p><b>Economic</b> <b><i>Objective 5: To support sustainable local development and regional economic growth in the medium to long term.</i></b></p> <p>7.3.18 The network impacts of LTC may constrain the ability of the local network (and the Strategic Road Network within and adjacent to Thurrock) to accommodate the Council's growth ambitions within the emerging Local Plan and of the Thames Freeport. LTC will use local road capacity, and this will likely stifle local growth rather than support it and further details can be found in Section 9 below.</p> <p><b>In summary, this Objective is not met.</b></p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed in detail in the response to paragraphs 7.3.19 -7.3.22 below.</p>
<p><b>Page 75</b></p>	<p><b><i>Objective 6: To be affordable to government and users.</i></b></p> <p>7.3.19 (<a href="#">APP-063</a> 4.3 Funding Statement (paragraph 2.1.1) states the cost envelope of the scheme is £5.2bn – £9bn. At each iteration of the appraisal, the scheme cost has increased. The current estimate used for the 'central case cost' in (<a href="#">APP-526</a>) is approximately £8bn, which is already at the at top end of the envelope quoted in the Funding Statement and other published documents. In two recently published reports: the NH RIS2 Report (March 2020) it is stated as £6.4 – £8.2Bn and in the National Audit Office Report (November 2022) it is stated as £5.3 – £9Bn.</p> <p>7.3.20 Materials and labour costs are increasing and at a faster rate than the inflation forecasts provided in Table 6.1 of Appendix D – Economic Appraisal Package (<a href="#">APP-526</a>). For example, inflation for 2023 is estimated by NH at 4.18% whereas the BCIS 'Outlook for the Construction Industry 2023' published in January 2023 forecasts inflation to be 6.6%. A 2% variation in the cost of the scheme is equivalent to the substantial cost increase of £100m – £180m; and this is just the change associated with increased inflation in 2023. This impact will be compounded in future years if inflation continues to overshoot NH expectations, which is likely.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>7.3.21 These ongoing high levels of inflation mean that it is very likely that the £8bn+ cost of LTC now represents a lower- end estimate. Therefore, there are questions about the accuracy of the cost estimate presented in the DCO. These issues suggest the cost envelope will need revising upwards to represent these rising scheme estimates.</p> <p>7.3.22 A cost increase of approximately £500m (to around £ 8.5-£9bn or more) could result in a BCR below 1.0 and therefore very poor value for money. It is noted that whilst the central cost case is circa £8bn that NH has considered it necessary to seek prior approval from HM Treasury for a substantial increase in the budget envelope to £9bn. With commitments to adopt contemporary technology, as part of its pledge to be the greenest construction project ever, it is reasonable to assume that costs may even exceed the current budget envelope, as is commonly the case.</p> <p><b>In summary, this Objective is not met.</b></p>
<b>Applicant's Response</b>	<p>Affordability, which is intrinsically linked to investment decisions, is a matter for the UK government. The Applicant considers that the VfM metrics relate directly to investment decisions, and should not be conflated with a decision to made under section 104 of the Planning Act 2008. In that context, whilst the BCR is relevant in the context of paragraph 4.6 of the National Networks National Policy Statement, it is not intended to substitute the tests under section 104 of the Planning Act 2008. The Applicant provided a response in relation to inflation in Annex H.3 of 9.10 Post-event submissions, including written submission of oral comments, for ISH1 [<a href="#">REP1-183</a>].</p> <p>As noted at paragraph H.2.5 of 9.10 Post-event submissions, including written submission of oral comments, for ISH1 [<a href="#">REP1-183</a>], a 100-year appraisal of the Project (given its expected life is longer than 60 years) shows that the Adjusted BCR increases to between 1.66 and 1.72, depending on the assumptions relating to the implementation of the Transport Decarbonisation Plan.</p>
<b>Page 75</b>	<p><b>Objective 7: To achieve value for money.</b></p> <p>7.3.23 The Combined Modelling and Appraisal report: Economic Appraisal Package (<a href="#">APP-526</a>) Tables 8.16 and 8.18 shows the Level 1 Core BCR is shown to be below 0.5, which suggests that the core transport benefits are low compared to the cost. Table 11.5 - 11.6 of the same report show that cost sensitivities have a large impact on the BCR.</p> <p>7.3.24 Increases in cost push the scheme towards Poor Value for Money (VfM) even when Level 1 and Level 2 benefits are included. There are concerns outlined further in this section around the robustness of some of the claimed benefits. A reduction in these benefits would also potentially result in Poor VfM.</p> <p><b>In summary, this Objective is not met.</b></p>

LIR Reference	Local Impact Report Extract / Applicant's Response
<b>Applicant's Response</b>	<p>Please refer to response directly above. This matter is also addressed by SoCG <a href="#">[APP-130]</a>, item 2.1.156, summarised below.</p> <p>The Applicant considers that the Project does provide VfM as set out in ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report <a href="#">[APP-526]</a>. The benefits have been appraised following the DfT Transport Appraisal Guidance (TAG).</p>
<b>Page 75-76</b>	<p><b>7.3.25 SUMMARY: the Council has a number of concerns around LTC objectives and believes that those in the Transport, Economic and Community &amp; Environment areas are not met by the current scheme. The Council considers that the scheme does not provide significant relief to the Dartford Crossing, may be incompatible with the UK's and NH's net zero ambitions and legal targets and, additionally, there are concerns around the safety impacts of the scheme. The Council also considers that the Value for Money of the scheme is likely to be overstated due to cost pressures and the robustness of the evidence used in the economic appraisal.</b></p>
<b>Applicant's Response</b>	<p>This matter is addressed in detail in the response to Pages 72-75 above.</p>
<b>Page 76-78</b>	<p><b>7.5 Transport User Disbenefits/Benefits and Distribution</b></p> <p><b>Lack of Relief to Dartford Crossing and SRN</b></p> <p>7.4.1 One of the schemes stated objectives is '<i>To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity</i>' (APP-494, Table 1.1). This subsection outlines the way in which this objective is not being met by presenting analysis based upon data provided by NH in the ComMA: Traffic Forecasting Report <a href="#">(APP-522)</a>.</p> <p>7.4.2 National Highways states in paragraph 5.2.11 of the Traffic Forecasts Non-Technical Summary <a href="#">(APP-528)</a> that there is a 19% reduction in 2030 two-way daily flows at Dartford Crossing with the scheme in place. However, this does not provide an accurate picture of the peak time periods when traffic is at its highest over the Dartford Crossing.</p> <p>7.4.3 The analysis uses traffic flows at the Dartford Crossing (interpolated between modelled years) and compares them to the maximum capacity stated for the Dartford Crossing (by direction). This allows the Council to understand when the short-term congestion relief at the Dartford Crossing will stop and it becomes congested again. Full details of the Council's analysis are provided in <b>Appendix A.3</b>.</p> <p>7.4.4 DMRB LA 105 Table A.1 (NH 2019) defines the 'free flow' speed band to be a road with a V/C&lt;80% (This table is quoted in Table 9.4 of <a href="#">APP-522</a>). <a href="#">APP-518</a>, paragraph 5.8.11 states that '<i>A V/C ratio of above 0.85 indicates</i></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><i>the likelihood of frequent occurrences of slow-moving traffic and above 0.95 indicates a network under pressure’.</i> This shows that NH acknowledges that a section of road with a V/C of more 0.85 is no longer providing free flow conditions and is subject to congestion. Models provide forecasts and there is a margin for error to account for uncertainty. A <math>\pm 5\%</math> V/C is within a margin for error and therefore the Council would argue a 95% V/C could be considered a road operating at capacity.</p> <p><b>Southbound</b></p>  <p><b>Figure 7.2: Southbound AM Peak Dartford Crossing Traffic (With LTC in place) compared to capacity</b></p> <p>7.4.5 <b>Figure 7.2</b> shows that southbound, the AM peak has capacity issues from LTCs opening. The AM is above 85% V/C from 2032 (opening year) and is carrying more traffic than in 2016 from this opening year. In the AM peak, the southbound Dartford Crossing is over 95% V/C by 2037. This suggests the scheme will only provide five years of relief to Dartford Crossing southbound before the crossing is operating at or near capacity. Moreover, the scheme is shown to be operating at, or above, effective capacity by 2044.</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response																																																																																					
	<p>7.4.6 In the case of the Interpeak and PM peak (provided in <b>Appendix A.3</b>), the flow is shown to be below 85% V/C until 2051.</p> <p>7.4.7 This shows that the scheme does not achieve its objective of relieving the Dartford Crossing and in the southbound direction, after five years will be operating with the same levels of congestion as 2016.</p> <p><b>Northbound</b></p>  <table border="1"> <caption>Estimated data for Figure 7.3: Northbound PM Peak Dartford Crossing Traffic (With LTC in place) compared to capacity.</caption> <thead> <tr> <th>Year</th> <th>Traffic Flow (PCUs/Hour)</th> <th>95% Effective Capacity</th> <th>85% Effective Capacity</th> <th>Effective Capacity</th> </tr> </thead> <tbody> <tr><td>2016</td><td>6100</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2032</td><td>6100</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2033</td><td>6150</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2034</td><td>6200</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2035</td><td>6250</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2036</td><td>6300</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2037</td><td>6350</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2038</td><td>6400</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2039</td><td>6450</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2040</td><td>6500</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2041</td><td>6550</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2042</td><td>6600</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2043</td><td>6650</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2044</td><td>6700</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2045</td><td>6750</td><td>6400</td><td>5600</td><td>6800</td></tr> <tr><td>2051</td><td>6800</td><td>6400</td><td>5600</td><td>6800</td></tr> </tbody> </table> <p><b>Figure 7.3: Northbound PM Peak Dartford Crossing Traffic (With LTC in place) compared to capacity.</b></p> <p>7.4.8 <b>Figure 7.3</b> shows that northbound, the PM peak is above 85% V/C from opening and above 95% V/C (defined by National Highways as a network under pressure) by 2037. This suggests the scheme will only provide</p>	Year	Traffic Flow (PCUs/Hour)	95% Effective Capacity	85% Effective Capacity	Effective Capacity	2016	6100	6400	5600	6800	2032	6100	6400	5600	6800	2033	6150	6400	5600	6800	2034	6200	6400	5600	6800	2035	6250	6400	5600	6800	2036	6300	6400	5600	6800	2037	6350	6400	5600	6800	2038	6400	6400	5600	6800	2039	6450	6400	5600	6800	2040	6500	6400	5600	6800	2041	6550	6400	5600	6800	2042	6600	6400	5600	6800	2043	6650	6400	5600	6800	2044	6700	6400	5600	6800	2045	6750	6400	5600	6800	2051	6800	6400	5600	6800
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LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>five years of relief to Dartford Crossing northbound before the crossing is under pressure and again suffering from a lack of traffic capacity.</p> <p>7.4.9 The Council’s analysis (provided in <b>Appendix A.3</b>) also show that in the AM peak and Interpeak periods the northbound Dartford Crossing flow (taken from <a href="#">APP-522</a>) will be above 85% V/C by 2034 and 2037 respectively.</p> <p>7.4.10 In summary, paragraph 7.1.7 of the Traffic Forecasts Non-Technical Summary (<a href="#">APP-528</a>) states ‘<i>If the Project is built (as shown by the Do Something scenario), it would provide significant relief to the Dartford Crossing and its approach roads</i>’. The definition of ‘significant’ is not provided in this statement, but as shown by the analysis presented in this report, there is no evidence that ‘significant relief’ would be provided by LTC to the operation of the Dartford Crossing and in fact NH traffic modelling shows that congestion levels will return to the existing levels within five years of opening.</p> <p><b>Journey Patterns Through Both Crossings</b></p> <p>7.4.11 The Council notes that (<a href="#">APP-518</a>) Tables 5.3 and 5.4 show a total crossing capacity of the River Thames by combining the capacities of both LTC and Dartford Crossing. However, a review of (<a href="#">APP-522</a>) Plates 8.28-8.30, 8.31-8.33 and, 8.34-8.36 shows that LTC and Dartford crossing cater for different traffic, and different origins and destinations. Figure 7.4 shows an example of these Plates for the 2045 PM Peak with LTC in place.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="577 815 1272 839"> <p>Plate 8.35 Select link analysis – Dartford Crossing DS 2045 core PM peak</p>  </div> <div data-bbox="1294 815 2040 839"> <p>Plate 8.36 Select link analysis – Lower Thames Crossing DS 2045 core PM peak</p>  </div> </div>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p><b>Figure 7.4: <a href="#">APP-522</a> Plates 8.35 and 8.36 showing traffic in 2045 PM Peak using the different crossings with LTC in place</b></p> <p>7.4.12 LTC users are typically travelling from Dover/Folkstone to north of the River Thames (and vice versa), while the Dartford Crossing caters for mainly M25 orbital traffic, local traffic in Kent from the west of LTC and some port traffic. The Do Something plots suggest LTC caters for very little M25 orbital traffic or traffic in local areas west of the scheme. The majority of the existing M25 traffic continues to use the Dartford Crossing once LTC has opened.</p> <p>7.4.13 A key observation is that LTC causes an increase in traffic on the M20 and A2/M2 corridors to/from Dover/Folkstone with the main route for traffic using LTC appearing to be the A2/M2 corridor. There is some routing shown in the Plates previously referenced between the M2 and M20 via the A229 and A228, the latter of which is a mix of single and dual carriageway which may not be appropriate for high levels of strategic traffic.</p> <p>7.4.14 Due to increases in traffic, there are capacity issues on the M25 between J28 and J29 (from 2037) and J3 and J4 (from opening) in the AM peak. Further mainline issues (V/C over 85%) appear on many more links in most peaks by the design year of 2045 (Plates 6.13-6.15 in <a href="#">APP-518</a>).</p> <p><b>7.4.15 SUMMARY: the traffic flows presented in (<a href="#">APP-522</a>) show that for multiple time periods the Dartford Crossing is over 85% volume/capacity (a network under pressure), particularly in the northbound direction, from 2037. This shows the scheme only provides five years of congestion relief to the Dartford Crossing and therefore shows that the NH objective for Dartford Crossing is not met.</b></p> <p><b>7.4.16 Further, the Council contends that the NH analysis shows that LTC caters for different traffic to the Dartford Crossing and this is reflected by the low level of traffic relief at the Dartford Crossing. LTC is shown to be more suitable for traffic travelling to/from Dover/Folkstone to the northern M25 (and beyond) while Dartford caters for mainly M25 orbital traffic, and therefore, the potential relief for Dartford Crossing is limited.</b></p>
<p><b>Applicant’s Response</b></p>	<p>This matter is addressed by SoCG <a href="#">[APP-130]</a>, item 2.1.157, summarised below.</p> <p>The Applicant’s traffic modelling has demonstrated the benefits to Dartford Crossing in the opening year and the design year, as well as the future flows at the Dartford Crossing in the counterfactual scenario (Do Minimum) where Lower Thames Crossing is not built. This information has been shared at consultation and the latest traffic forecasts have been supplied to demonstrate the forecast performance that is set out in the DCO submission as part of the Transport Assessment <a href="#">[APP-529]</a>.</p> <p>Thurrock Council have made public statements about their interpreted performance of the Dartford crossing. Although the Council have not been clear how they have calculated the figures in their claims, the source of their</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>data or what year they relate to, it appears they are comparing traffic levels which used the Dartford Crossing in 2016 with those predicted to use the crossing in 2045. In doing so, they have assumed there will be no increase in traffic using the Dartford Crossing for nearly 30 years. Traffic levels are already higher than they were in 2016. If the Lower Thames Crossing is not built, in 2045 traffic levels using Dartford are expected to be 13% higher in the AM peak and 27% higher in the PM peak than they were in 2016. Traffic levels are already above the theoretical capacity of the Dartford Crossing, which carries around 150,000 vehicles a day and 180,000 on some of the busiest days. In the year the road is planned to open, 2030, the Applicant’s traffic modelling shows that traffic levels on the Dartford Crossing are predicted on average to fall by around 19%, with a 17% reduction in the AM peak and a 21% reduction in the PM peak. Even after the road has been open for 15 years, traffic levels using the Dartford Crossing are still predicted on average to fall by 14%, and by 9% in the AM peak and 17% in the PM peak. These figures compare predicted traffic levels in 2030 and 2045; they do not compare traffic levels with 2016. The Applicant has never claimed that traffic levels using the Dartford Crossing will remain the same in 2045 as they were in 2016; however, it appears that is what the Council are seeking to claim.</p> <p>The journey patterns shown above and presented by the Applicant in ComMA Appendix C: Transport Forecasting Package [<a href="#">APP-522</a>] illustrates how the Project provides relief to the Dartford Crossing. It provides a more direct route into Essex and to the M25 north of the River for trips from Kent than the current route via the Dartford Crossing. These trips choose to use the Project rather than the Dartford Crossing, which results in a reduction in the number of vehicles using the Dartford Crossing with the Project than would be the case without the Project.</p>
<p><b>Page 79</b></p>	<p><b>Journey Time Reliability</b></p> <p>7.4.17 The Council has concerns around the reliability benefits claimed by NH. The Council has requested further commentary on the results, particularly commentary around why the periods with the biggest benefit are (in order of magnitude from largest to smallest): the Interpeak; the PM Shoulder; Weekend Charged and the PM Peak. The Council notes that the middle two of this list are not modelled in LTAM and so the derivation of these benefits is not clear.</p> <p>7.4.18 Annex B of (<a href="#">APP-526</a>) states that the MyRIAD journey time reliability software used to calculate these benefits uses a series of user defined assumptions. These are not presented by NH although they have been requested.</p> <p>7.4.19 <b>SUMMARY: the assumptions used to generate the reliability benefits have not been shared and so the Council cannot consider or scrutinise on the validity of the assumptions or results. The Council therefore still considers this a Matter under Discussion (SoCG issue 2.1.154).</b></p>



LIR Reference	Local Impact Report Extract / Applicant’s Response												
<p><b>Applicant’s Response</b></p>	<p>Details of the journey time reliability assessment, using the MyRIAD software are provided in Section 9.2 and Appendix B of the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [<a href="#">APP-526</a>].</p> <p>The time periods which generate the highest benefits are those which represent a large proportion of the year (such as the interpeak and the weekend peak charged periods) and those with higher hourly traffic volumes.</p> <p>The annualisation factors used are shown in Table B.1 of the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [<a href="#">APP-526</a>]. There are more hours of the year in some time categories than others. For example, the interpeak period covers 1,518 hours each year and the weekend peak charged period covers 1,120 hours each year, whereas the AM peak covers just 506 hours each year.</p> <p>The PM shoulder and the PM peak both represent 506 hours in the year. The total value of the MyRIAD benefits is £64.3 million for the PM shoulder and £52.7million for the PM peak, over 60 years in 2010 prices and values</p> <p>MyRIAD calculates three types of benefits:</p> <ul style="list-style-type: none"> <li>• Incident delay – the extra journey time for drivers as a result of incidents, including accidents.</li> <li>• Diversion impacts – the impact on drivers of traffic taking diversion routes. The impacts are experienced by the existing drivers on these routes as well as the diverted traffic.</li> <li>• Travel time reliability – this is the benefit from reduced variability in journey times.</li> </ul> <p>The table below shows the value of each of these three components of the MyRIAD benefits for the PM shoulder peak period and the PM peak hour period. The data is taken from tables 9.1, 9.2 and 9.3 in ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [<a href="#">APP-526</a>].</p> <p style="text-align: center;"><b>Components of MyRIAD benefits over 60 years, £ million in 2010 prices and values</b></p> <table border="1" data-bbox="562 997 2069 1203"> <thead> <tr> <th data-bbox="562 997 1279 1050">MyRIAD benefit</th> <th data-bbox="1279 997 1704 1050">PM shoulder</th> <th data-bbox="1704 997 2069 1050">PM peak</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 1050 1279 1098">Incident delay</td> <td data-bbox="1279 1050 1704 1098" style="text-align: center;">36.1</td> <td data-bbox="1704 1050 2069 1098" style="text-align: center;">37.3</td> </tr> <tr> <td data-bbox="562 1098 1279 1150">Diversion impacts</td> <td data-bbox="1279 1098 1704 1150" style="text-align: center;">16.4</td> <td data-bbox="1704 1098 2069 1150" style="text-align: center;">12.9</td> </tr> <tr> <td data-bbox="562 1150 1279 1203">Travel time variability</td> <td data-bbox="1279 1150 1704 1203" style="text-align: center;">11.8</td> <td data-bbox="1704 1150 2069 1203" style="text-align: center;">2.5</td> </tr> </tbody> </table> <p>The benefits from the incident delay is higher in the PM peak as would be expected, due to the higher volume of traffic in the peak period that experiences a reduction in the incident impacts with the Project.</p>	MyRIAD benefit	PM shoulder	PM peak	Incident delay	36.1	37.3	Diversion impacts	16.4	12.9	Travel time variability	11.8	2.5
MyRIAD benefit	PM shoulder	PM peak											
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Diversion impacts	16.4	12.9											
Travel time variability	11.8	2.5											

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>The benefits from the diversion impacts are higher in the PM shoulder peak as there is less traffic on the diversion routes, and so there is less of an adverse impact on the existing users of these links when traffic is diverted onto them. Within MyRIAD, accidents are a sub-category of incidents and are accounted for in the incident delays. They therefore contribute to the assessment of travel time variability.</p> <p>The benefits from reduced travel time variability are higher in the PM shoulder peak than the PM peak. This is because when there are consistently high traffic volumes compared to the available capacity on a road, then speeds are low and there is less variation in the day to day travel time.</p> <p>At lower speeds, MyRIAD assumes a constant standard deviation of delay per kilometre, and speed changes on links that fall within this band of low speeds do not translate into changes in journey time variability, which limits the ability to achieve journey time variability improvements at the busiest times/locations. With the lower traffic volumes in the PM shoulder peak, fewer of the links in the network have speeds that fall into this low speed category and so more of the observed journey time reductions result in travel time variability reductions. This accounts for the higher value of travel time variability benefits in the PM shoulder.</p> <p>Taken together, the value of the diversion impacts and travel time variability impacts in the PM shoulder peak are greater than in the PM peak, and this difference is greater than the amount by which the value of the reduced incident delays is greater in the PM Peak than in the PM shoulder. This leads to the overall value of the MyRIAD benefits being greater in the PM shoulder peak period than in the PM peak.</p>
<p><b>Page 79</b></p>	<p><b>7.5 Transport User Construction Disbenefits</b></p> <p>7.5.1 The disruption on the road network resulting from the construction of LTC will lead to impacts on local traffic unrelated to the construction work. The Council is concerned that this will lead to rat-running to avoid construction sites, which was seen in recent major works on the A13, leading to adverse impacts on local communities. For example, traffic rat running via Marshfoot Road and by the two proposed schools, to avoid the congestion on the A1089.</p> <p>7.5.2 Transport Assessment (TA) (<a href="#">APP-529</a>) Section 8.8 discusses the flow changes forecast as a result of construction activities and information is shown for each of the eleven phases. The Transport Assessment acknowledges that there would be traffic flow changes and adverse impacts on local roads as a result of the prevailing traffic management plans. For example, Marshfoot Road is acknowledged within the TA as one on which traffic measures and network changes would be undertaken during construction. In Phase 1. Contraflow is planned on Marshfoot Road (<a href="#">APP-529</a> Table 8.6 as RNTM05) and the contraflow at Marshfoot Road would cause traffic to divert on to Linford Road and Turnpike Lane (paragraph 8.8.9). This contraflow would also contribute to delays on</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>Station Road/Fort Road/A1089 in the AM peak westbound direction (paragraph 8.8.12) and cause additional delays along the A126 in both directions (paragraph 8.8.14).</p> <p>7.5.3 The ComMA (<a href="#">APP-518</a>) presents the assessed impacts of these construction impacts. Table 7.5 (<a href="#">APP-518</a>) shows that the scheme has construction and maintenance disbenefits of £140.7million. Construction disbenefits account for £130.8million. These were modelled within TUBA and represent the various Traffic Management Plan phases. No breakdown of local impacts during construction has been provided nor is it clear where the disbenefits are located in terms of local areas. Given construction is likely to be localised around the main construction sites (and their approach roads), it is anticipated that Thurrock will likely bear the brunt of these disbenefits. However, the locations most affected cannot be assessed due to insufficient data being provided. This means that the adequacy of the Traffic Management Plan mitigations cannot be robustly assessed by the Council. The impacts on the LRN during the construction phase are dealt with at Section 9 and Section 15 of this LIR.</p> <p>7.5.4 <b>SUMMARY: there are sizable construction disbenefits, the majority of which are expected to fall on trips and users within/travelling through Thurrock. The Council has been unable to assess the distribution of these disbenefits within the district as this information has not been provided by NH and considers this still a Matter under Discussion (SoCG issues 2.1.121, 2.1.150 and 2.1.151).</b></p>
<b>Applicant's Response</b>	<p>The Applicant acknowledges there will be construction disbenefits, but considers that it has mitigated these so far as is practicable. Nationally important infrastructure on this scale cannot be constructed without some temporary adverse effects. Mitigation measures are set out in the oTMPfC (<a href="#">REP1-175</a>) and ES Appendix 2.2: Code of Construction Practice (CoCP) (<a href="#">REP1-157</a>).</p> <p>The Council were provided with GIS shapefiles and cordon models showing the forecast traffic flows and link times for each of the modelled hours for all 11 construction traffic modelling phases. This information allows the Council to view which roads will be most affected during construction.</p> <p>The Applicant has held a programme of engagement sessions and workshops with Thurrock Council to explain the nature of the construction impacts on the local highway network, and to understand the concerns of the Council. Through the pre-application period, the Applicant has developed modifications to the proposals and mitigations, which have been embedded into the reference control documents. The Applicant will continue to work with Thurrock Council through delivery and has secured an obligation in the draft DCO.</p> <p>The reference to items 2.1.150 and 2.1.151 of the SoCG (<a href="#">APP-130</a>) are incorrect.</p>
<b>Page 80</b>	<p><b>7.6 Wider Economic Disbenefits/Benefits and Distribution</b></p> <p><b>Wider Economic Costs</b></p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>7.6.1 The Council is concerned about the absence of any quantifiable evidence on Wider Economic Costs (WECs) in the calculation of the Benefit Cost Ratio (BCR) for LTC.</p> <p>7.6.2 The Government’s TAG Unit A1.1 Paragraph 1.1.1 says that ‘<i>analysis which quantifies in monetary terms as many of the costs and benefits of a proposal as feasible, including items for which the market does not provide a satisfactory measure of economic value</i>’. One of the key negative effects of LTC is through the way it affects the development of land for residential and employment growth. This concept of lost or delayed growth is of critical importance to the Council.</p> <p>7.6.3 The Council is not satisfied that the issue of lost or delayed growth has been examined in sufficient depth or indeed materially at all and believes that NH has not considered important disbenefits. These disbenefits should feature in the scheme BCR. The Council’s concerns are, as follows:</p> <ul style="list-style-type: none"> <li>• The notion of negative development land consequences of LTC are acknowledged by NH. They include analysis of development land impacts in the ES Chapter 13 Population and Human Health (<a href="#">APP-151</a>, paragraphs 13.4.77 – 13.4.88 covering identified development land north of the River Thames). However, the analysis is far too simplistic (see below) and there is no attempt to incorporate these negative impacts (economic costs) into the BCR. The only reference to development land impacts in the BCR focuses on what NH see as positive ‘dynamic agglomeration’ (Level 3) economic impacts. There is no reference to negative effects in the Level 3 analysis.</li> <li>• The scope of the NH analysis in (<a href="#">APP-151</a>) is to include development land within the Order Limits, plus a 500m area surrounding it. They include development land that is either allocated in the extant Local Plan or has a permitted planning application attached to it. This is a narrow interpretation of development land, especially at a time when the emerging Local Plan is being developed and new sites are coming forward for consideration. Our analysis shows that there are numerous good quality development sites physically located within the 500m radius that have been overlooked by NH. The Thurrock Local Plan Issues &amp; Options (Stage 2) report 2018 shows the Council has urban extension ambitions in South Ockendon, Chadwell St Mary and East Tilbury that would all be affected by the scheme. This includes sites from the ‘Call for Sites’, which shows sites have developer interest. The impact on viability of some of these sites and impacts on the local network from LTC on these ambitions has not been adequately articulated.</li> <li>• It is far too simplistic to assume, as NH do, that the only transmission mechanism between LTC and development land is physical land-take. There are other transmission mechanisms that will impact development land that have been ignored by NH. For example, the impact of LTC on the local road network will significantly shape the ability to bring forward certain sites for development and these sites lie outside the 500m area but are nevertheless impacted negatively by LTC.</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant’s Response																								
	<p>7.6.4 <b>SUMMARY:</b> the Council considers that NH is obliged to give Wider Economic Costs the same weight as wider economic benefits in its BCR analysis. It has failed to do this. NH’s analysis of lost/delayed growth is overly simplistic. They also fail to give any acknowledgment to Wider Economic Costs in their analysis of Level 3 wider economic effects. This means that the Council considers the analysis of Wider Economic Impacts to be incomplete and suggests further work is undertaken to establish and include any Wider Economic Costs.</p>																								
<b>Applicant’s Response</b>	<p>The BCR, which gives monetary values to specified costs and benefits, has been calculated in accordance with TAG. The aim of the Level 3 Wider Economic Impacts report [<a href="#">APP-527</a>] was to focus on the Project’s potential to generate Level 3 Wider Economic Impacts.</p> <p>The methodology used in the Population and Human Health assessment (<a href="#">APP-151</a>) is consistent with DMRB LA 112 which defines development land as land identified in national or local plans, policies or strategies for development (including intensification of existing uses) and land subject to planning permission.</p>																								
<b>Page 81-82</b>	<p><b>7.7 Poor Value for Money</b> <b>Review of OBC and Identification of BCR Options</b></p> <p>7.7.1 Successive appraisals of LTC since 2016 have shown that estimated benefits have consistently reduced, and the estimated costs have consistently increased. This is shown in <b>Table 7.2</b>.</p> <p><b>Table 7.2 Successive outline appraisals of the Lower Thames Crossing by the Promoters</b></p> <table border="1" data-bbox="562 906 2069 1351"> <thead> <tr> <th data-bbox="562 906 920 1098">2010 Prices, £m</th> <th data-bbox="920 906 1272 1098">2016 Summary Business Case – Route Consultation Favoured scheme R3ESL</th> <th data-bbox="1272 906 1637 1098">2020 Core growth ComMA Appendix D Economic Appraisal Report 2020</th> <th data-bbox="1637 906 2069 1098">2022 Central Case ComMA Appendix D Appraisal Summary Table (<a href="#">APP-524</a>)</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 1098 920 1150">Initial Present value</td> <td data-bbox="920 1098 1272 1150">3,856</td> <td data-bbox="1272 1098 1637 1150">1,946</td> <td data-bbox="1637 1098 2069 1150">1,296</td> </tr> <tr> <td data-bbox="562 1150 920 1203">Benefits PV Costs</td> <td data-bbox="920 1150 1272 1203">1,656</td> <td data-bbox="1272 1150 1637 1203">2,877</td> <td data-bbox="1637 1150 2069 1203">2700</td> </tr> <tr> <td data-bbox="562 1203 920 1256"><b>Initial BCR</b></td> <td data-bbox="920 1203 1272 1256"><b>2.3</b></td> <td data-bbox="1272 1203 1637 1256"><b>0.68</b></td> <td data-bbox="1637 1203 2069 1256"><b>0.48</b></td> </tr> <tr> <td data-bbox="562 1256 920 1308">WEBs</td> <td data-bbox="920 1256 1272 1308">1,677</td> <td data-bbox="1272 1256 1637 1308">1,657</td> <td data-bbox="1637 1256 2069 1308">1,517</td> </tr> <tr> <td data-bbox="562 1308 920 1351">Reliability</td> <td data-bbox="920 1308 1272 1351">147</td> <td data-bbox="1272 1308 1637 1351">545</td> <td data-bbox="1637 1308 2069 1351">487</td> </tr> </tbody> </table>	2010 Prices, £m	2016 Summary Business Case – Route Consultation Favoured scheme R3ESL	2020 Core growth ComMA Appendix D Economic Appraisal Report 2020	2022 Central Case ComMA Appendix D Appraisal Summary Table ( <a href="#">APP-524</a> )	Initial Present value	3,856	1,946	1,296	Benefits PV Costs	1,656	2,877	2700	<b>Initial BCR</b>	<b>2.3</b>	<b>0.68</b>	<b>0.48</b>	WEBs	1,677	1,657	1,517	Reliability	147	545	487
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LIR Reference	Local Impact Report Extract / Applicant’s Response			
	‘Adjusted’ BCR	3.4	1.44	1.22
	Carbon by value £m	288	122	528
	<p>7.7.2 The initial outline appraisal of the proposed LTC in 2016 looked at several different alignments. The promoters claimed that the best of these would have initial benefits, mostly calculated from the value of estimated travel time savings for users and a BCR using established benefits of 2.3. After adding less established estimates for potential wider economic benefits and improvements in reliability, a BCR of 3.4 was presented, i.e. the benefits would be 3.4 times the costs.</p> <p>7.7.3 Each subsequent recalculation found that this initial estimate was substantially overestimated.</p> <p>7.7.4 In 2020 the initial BCR was 0.68, i.e. the travel time savings did not even cover the cost of construction and even after adding the less well established wider economic benefits and reliability, the estimated BCR was only 1.44. This calculation lasted less than two years.</p> <p>7.7.5 By the time of DCO submission in 2022, the initial benefits were less than half the cost, and even after adding Wider Economic Benefits (WEBs) and reliability, the benefits are closer to the costs, at 1.22.</p> <p>7.7.6 The estimates for wider economic benefits are in the Council’s view, biased because they only include a number for ‘benefits’ and not the corresponding number for the additional costs of these wider effects.</p> <p>7.7.7 This process of successive reductions in benefit has not been completed. Even on optimistic assumptions there is less estimated net benefit, and this is at risk because the current situation and prospects are less favourable to LTC than had been assumed in 2022, when the calculations were largely based on traffic data from 2016 to 2018, and did not take account of:</p> <ul style="list-style-type: none"> <li>• Longer term impacts of Covid;</li> <li>• Revised official economic growth estimates following financial crisis and estimated effects of Brexit;</li> <li>• The ‘high’ carbon values advised by BEIS;</li> <li>• Potential effects of climate change on economic activity;</li> <li>• Potential impacts of declared Government policy on walking, cycling, public transport, vehicle occupancy, and land use planning to reduce road traffic;</li> <li>• Potential effects of changes in vehicle taxation which would reduce the growth in electric vehicle traffic; and</li> <li>• Any further increase in cost including the changes to the assumptions around inflation.</li> </ul>			

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>7.7.8 NH has not included any explicit modelled tests of the effects of any of these on the benefit cost calculations. They have shown some results simply for higher or lower traffic growth, and these show that lower traffic growth is associated with a worse benefit cost ratio and high traffic growth is associated with worse congestion.</p> <p>7.7.9 Lower traffic growth could happen either as a result of worse economic conditions or as a result of policy to reduce traffic. Although both these outcomes have very different wider effects, they both reduce the calculated value of the scheme, in the one case with unfavourable ramifications and the other with favourable ones.</p> <p>7.7.10 <b>SUMMARY: the estimated margin of benefit of LTC is now so low, that even modest changes in the assumptions would wipe out the net benefit entirely. This would mean that the scheme would cost more than the benefits it could produce and could not be justified in terms of value for money.</b></p> <p><b>The sensitivity tests provided do not cover sufficient scenarios to fully understand the impacts of possible policy and economic futures. The Council therefore contends that further sensitivity tests should be undertaken and published to understand the impacts of different futures for travel, technology and work habits. The Council suggests that some of the DfT's Common Analytical Scenarios should be used to undertake this. Further, a revision to NH's assumptions is required.</b></p>
<p><b>Applicant's Response</b></p>	<p>This matter is addressed by SoCG <a href="#">[APP-130]</a>, items 2.1.156 and 2.1.70, summarised below.</p> <p>The Applicant considers that the Project does provide value for money. The ComMA <a href="#">[APP-518]</a> forms part of the DCO application. This includes the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report <a href="#">[APP-526]</a>, reflecting the latest scheme cost estimates and calculated benefits, whilst incorporating updated guidance from DfT.</p> <p>The Project BCR has been updated at each stage to reflect both the modelling outcomes and the government guidance at that stage. While the BCR has changed over time, as the changes have reflected changing government guidance, individual BCRs cannot be compared on a like-by-like basis, and it is not appropriate to extrapolate trends.</p> <p>The economic appraisal of the Project has been produced following the Transport Analysis Guidance from the Department for Transport. Values and methodology as were current at the time the valuation was made. For the DCO application, this is as is set out in the ComMA <a href="#">[APP-518]</a>.</p> <p>The Outline Business Case was produced in 2020, with the appraisal undertaken for the DCO application undertaken in 2022. Changes in this time that affected the appraisal include:</p> <ul style="list-style-type: none"> <li>• Changes to TAG guidance – only tailpipe carbon emissions were included in the OBC, whereas the DCO application in 2022 also included construction carbon emissions, maintenance and renewals.</li> </ul>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<ul style="list-style-type: none"> <li>• Increases in the unit values of greenhouse gases (GHG).</li> <li>• The version and forecast years of the Project's transport model used in each appraisal.</li> <li>• A change to the methodology that GHG emissions were calculated (TUBA for the OBC appraisal, and the Department for Environment, Food and Rural Affairs Emission Factor Toolkit (v11) for the DCO appraisal).</li> </ul> <p>The Applicant is not proposing to undertake any further appraisals that attempt to predetermine government policy on areas such as, walking and cycling or vehicle taxation.</p> <p>The Applicant considers that the impacts of current policies in these areas is already accounted for in the TEMPro forecasts (which are multi-modal).</p> <p>With regard to electric vehicles, the Applicant has used DfT forecasts as contained within the TAG data-book which was current at the time the appraisal was undertaken.</p> <p>Section 7.5 of the ComMA <a href="#">[APP-518]</a> sets out sensitivity analyses that the Applicant has conducted to test the robustness of the assessment to changes in input data.</p>
<p><b>Page 82-83</b></p>	<p><b>Wider Economic Impacts</b></p> <p>7.7.11 Wider Economic Benefits (WEBs) are a key element of LTC's economic case, comprising 46% of net scheme benefits (£1.52Bn/£3.29Bn) and 37% of all gross benefits (£1.52Bn/£4.10Bn) (Table 9.6, . It is only through the inclusion of Wider Economic Benefits that the BCR gets to</p> <p>1.22. Without Wider Economic Benefits the BCR is only just over 0.48 BCR for only Level 1 benefits.</p> <p>7.7.12 The Council considers that these WEBs are not robust nor robustly measured and considers the following issues need to be considered further:</p> <p>7.7.13 The WEBs are largely so called 'static agglomeration' effects. These are nebulous concepts with high levels of uncertainty as to whether these benefits will actually occur and at what scale. The Government's own TAG Unit A2- 1 states that the modelling of wider economic benefits is '<i>...complex and subject to a high degree of uncertainty</i>' (para 1.1.3(a)).</p> <p>7.7.14 The reliance on WEBs (46% of total benefits) is, as far as the Council knows, without precedent. For example, the 2012 HS2 Business Case had wider economic benefits of 24% of net scheme benefits. On HS2 the wider economic benefits pushed the BCR from 1.9 to 2.5. The 2018 A303 Stonehenge Business Case had wider economic benefits of just 3% of net scheme benefits (based on Table 6-1 of the A303 Stonehenge ComMA. A copy of this table is provided in <b>Appendix A.4</b>). On both these schemes the Wider Economic Benefits just pushed the BCR further above a level of 1 and were not critical to the business case in the same way as they are for LTC. The</p>



LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>Council questions whether a new river crossing mainly dealing with traffic to and from Dover delivers the WEBs claimed. The Council considers local wider benefits will be negligible.</p> <p>7.7.15 The needs case for WEBs (see ‘Need for the Project’ <a href="#">APP-494</a>) is not persuasive. Physical connectivity between labour markets and individual businesses is becoming far less of an issue because of technological advances and behavioural changes; and, if physical connectivity is required across local labour markets, then there are alternative means to deliver it.</p> <p>7.7.16 There is a lack of transparency on the derivation of the WEBs. The Council has asked for the assumptions used within the WITA economic analysis software to assess WEBs, but the information has not been provided by NH. There are some limited assumptions listed in Doc 7.7 Appendix D Economic Appraisal Report (<a href="#">APP-526</a>), but a full explanation is not provided. Given the dependency of the business case on WEBs, the Council would have expected far more transparency and explanation.</p> <p>7.7.17 From the assumptions and workings that have been provided by NH it is clear the WEBs are rooted in very historic evidence. There are two key variables in the NH approach that link changes in travel times/costs into productivity improvements – these being ‘effective densities’ and ‘agglomeration elasticities’. It is clear from the NH evidence that these critical variables are based on research papers from 2009 or earlier (according to the references presented in <i>Quantifying Wider Economic Impacts of Agglomeration for Transport Appraisal: Existing Evidence and Future Direction</i> by DfT, 2018, the reference section of which is provided in <b>Appendix A.5</b>). <b>This means that the evidence used in the modelling of wider economic benefits is nearly 15 years old.</b> The labour market and the ways in which businesses collaborate has changed substantially over this period, not least due to COVID and technological advances. None of these behavioural changes, which essentially make more and more use of technology/virtual connections, and which are gathering pace every year are factored into NH’s calculations.</p> <p>7.7.18 The NH analysis shows that relatively few of the WEBs flow to Thurrock. The data presented indicates that Thurrock receives just 5% of the static agglomeration benefits (£77m over 60 years out of £1,374 million based on Table C.11 of Economic Appraisal Report (<a href="#">APP-526</a>)). Medway in Kent by comparison gets 23% of the total. The £ 77m over 60 years for Thurrock equals £1.3m per annum, just a tiny fraction (0.03%) of the size of the annual Thurrock economy.</p> <p>7.7.19 SUMMARY: the scheme BCR is highly reliant on WEBs, more so that the Council are aware of than any other transport scheme (including HS2). WEBs are a nebulous and uncertain concept and quantified using old world economic models. Behaviours have changed markedly, and the benefits are greatly exaggerated. If the labour markets/businesses either side of the River Thames need to become better connected then alternative mechanisms are available to provide this accessibility. Without the WEBs, the LTC BCR falls to well below 1.0. Irrespective, NHs</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response																
	<p>calculations show that very few (5%) of the WEBs will flow to Thurrock. The Council’s view is that the WEBs presented are an overestimate and misrepresent the case that would be considered acceptable if an independent assessment was undertaken.</p>																
<p><b>Applicant’s Response</b></p>	<p>The BCR for the Project has been calculated in accordance with the DfT’s Transport Appraisal Guidance. The value of the agglomeration benefits has been calculated using DfT’s WITA software and, as expected, shows that the Project achieves a substantial reduction in journey times and brings the two economies on either side of the River Thames effectively closer together. The value of the agglomeration benefits was calculated using the DfT’s WITA software. The results were quality assured by repeating the calculations using a bespoke computer programme written in Python to implement the TAG methods to calculate wider economic impacts. The results were also independently assured by the Head of Economics at National Highways.</p> <p>Within the ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report <a href="#">[APP-526]</a>, the Level 2 Wider Economic impacts for Thurrock are presented in Table C.11 and Thurrock’s Level 1 TUBA impacts are presented in Table A.34.</p> <p>The Project’s Level 2 Wider Economic impacts are appraised over 60 years and expressed in 2010 prices and discounted to 2010 values. This is in a different unit of account to the annual value of Thurrock’s economy which is expressed in 2023 prices. As a result, it is not valid to compare the Level 2 Wider Economic impacts against the size of Thurrock’s economy.</p> <p>This table shows the percentage of the Level 1 TUBA benefits and Level 2 WITA benefits that accrue to Thurrock. This shows that overall Thurrock receives 16% of the benefits calculated using the TUBA and WITA software. The benefits are appraised over 60 years and expressed in 2010 prices and values.</p> <table border="1" data-bbox="562 986 2069 1145"> <thead> <tr> <th>Level of benefits</th> <th>Thurrock</th> <th>Total</th> <th>% to Thurrock</th> </tr> </thead> <tbody> <tr> <td>Level 1: TUBA</td> <td>454</td> <td>1,971</td> <td>23.0%</td> </tr> <tr> <td>Level 2: WITA</td> <td>78</td> <td>1,374</td> <td>5.7%</td> </tr> <tr> <td><b>Total</b></td> <td><b>532</b></td> <td><b>3,345</b></td> <td><b>15.9%</b></td> </tr> </tbody> </table>	Level of benefits	Thurrock	Total	% to Thurrock	Level 1: TUBA	454	1,971	23.0%	Level 2: WITA	78	1,374	5.7%	<b>Total</b>	<b>532</b>	<b>3,345</b>	<b>15.9%</b>
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<p><b>Page 83-85</b></p>	<p><b>7.8 Review Of Transport Modelling Evidence Base</b></p> <p>7.8.1 This sub section outlines the issues and weaknesses identified in the appraisal evidence base, particularly issues with the LTAM model, the data underpinning it, the traffic impacts of the scheme and the appraisal and disbenefits of the scheme. The Council has previously submitted further issues with the technical approach taken towards modelling. These are set out in Table 2 of <i>Thurrock Council – Preliminary Meeting Part 1 Supplementary Submission (PDC-007)</i>. This Table details the Council’s concerns that new and up-to-date data and guidance or</p>																

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>assumptions regarding traffic modelling, scheme appraisal, air quality and climate have not been used by NH, to the detriment of understanding the impact of LTC.</p> <p><b>LTAM as an Evidence Base – Overview</b></p> <p>7.8.2 The Lower Thames Area Model (LTAM) has been developed and used by NH as the scheme promoter to understand the impacts of LTC on the Strategic Road Network (SRN) and Local Road Network (LRN) and to provide evidence that the scheme meets relevant planning policy tests and achieves its objectives.</p> <p>7.8.3 The LTAM is a multi-modal strategic model. For each model year the model is used to forecast how travellers will change their behaviour as a result of highway and public transport interventions, changes in the levels of congestion, the cost of fuel and other external factors. The model forecasts the routes that drivers will take, given higher levels of traffic on the network in the future and their behavioural responses to the change in the time and cost of their planned trips. These forecasts are prepared using a road network, which does not include LTC (Do Minimum scenario) and a road network which includes LTC (Do Something scenario). Clearly, the model is only as good as the assumptions and technical information within it.</p> <p>7.8.4 LTAM is a critical part of the assessment for LTC. Results from the model are used to predict future road conditions, future changes in strategic travel behaviour and directly underpin environmental assessments, such as noise, carbon and air quality, as well as the Combined Modelling and Appraisal Report (<a href="#">APP-518</a>), which includes information for the economic justification for the scheme.</p> <p><b>LTC Assessment is Based on Very Outdated Data</b></p> <p>7.8.5 The LTAM base model was created in March 2016 to represent the transport system in the Lower Thames Area as it was then. Further updates were applied to the 2016 base model as part of the withdrawn DCO application from late-2020, including minor network alterations and a localised validation update.</p> <p>7.8.6 The 2016 base year LTAM serves as the basis for developing the forecast year models (2030, 2037, 2045 and 2051) used to assess LTC benefits and to test the effects of the LTC operation and construction phases on the SRN and LRN.</p> <p>7.8.7 Since the base year model was developed in 2016, there have been a number of changes that have significantly impacted the transport sector, including the UK’s exit from the European Union, changes to the UK economy, the UK’s Net Zero Strategy, the COVID-19 pandemic and rising fuel prices. These are significant events, which have led to marked changes in travel patterns and which will have an impact on model forecasts.</p>

LIR Reference	Local Impact Report Extract / Applicant's Response
	<p>7.8.8 The LTAM is based on 2016 data, i.e. data that is seven years old, and this means that LTC assessment takes no account of current travel patterns. The LTAM is therefore in the Council's view, not a suitable basis for the assessment of a scheme of this scale, cost and national significance.</p> <p>7.8.9 The use of 2016 data as the basis for LTC assessment is not in line with DfT guidance concerning the use of traffic data. The guidance clearly requires that scheme assessments should be based on up-to-date evidence. This is stated within several TAG (Transport Analysis Guidance) units, for example:</p> <ul style="list-style-type: none"> <li>• DfT TAG for The Technical Project Manager, May 2018 states at paragraph 3.2.8 that <i>'each model should be assessed on the basis of: the structure of the overall model and its components; the age, quality and spatial coverage of the underlying data; and, the model's adherence to quality criteria for calibration and validation.'</i></li> <li>• Also, at paragraph 3.5.1, this guidance states <i>'As part of producing an appropriate analytical tool, it is important that models are based on up-to-date evidence and are demonstrated to produce realistic results when tested. Without this assurance, results from a model may not be sufficiently robust to be used to adequately assess impacts of a potential intervention.'</i></li> <li>• DfT guidance on Data Sources and Surveys, May 2020 says at paragraph 3.3.40 <i>'All data should be checked to identify and remove any that might have been affected by unusual events. Where data quality is suspect, the data should be investigated thoroughly and, if necessary, rejected.'</i></li> <li>• DfT TAG Unit M2.2 Base Year Matrix Development, May 2020 describes the importance of establishing an appropriate base year model from which to forecast and reiterates in paragraph 2.1.3 that <i>'The base year demand matrix is a fundamental element of the transport models used for scheme appraisal'</i>.</li> </ul> <p>7.8.10 The Council is therefore concerned that the traffic modelling of LTC is based on outdated data, which does not meet DfT guidance for assessing new transport schemes.</p> <p>7.8.11 SUMMARY: the current traffic model is underpinned by data which dates from 2016. With the scheme opening now delayed until 2032, this data predates the opening year by 16 years. It also predates the pandemic and other major events, which have resulted in changes to travel behaviour and reduced demand for travel and which will significantly affect the assessment of LTC presented in the submitted DCO. The Council contends that the traffic modelling supporting LTC does not represent an up to date or representative view of the current conditions and leads to the benefits of the scheme being overestimated.</p>
<b>Applicant's Response</b>	<p>The Applicant does not agree that the age of the baseline data would reduce the reliability of the model. The Applicant notes that the last "pre-COVID" year is 2019, which is only three years after the LTAM base year. Traffic levels have returned after COVID, and the pattern of travel on the highway network in the area remains similar to</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>that observed in 2016.</p> <p>In relation to the comments raised about wider changes including Brexit, the national methodology on economic growth and population growth has been adopted in accordance with paragraph 4.6 of the NPSNN. It would not be appropriate for the Applicant to develop its own bespoke methodology. Impacts of the pandemic on travel and behavioural patterns have been incorporated into the assessment where relevant – for example in relation to the impacts of COVID-19 on levels of exercise, usage of green space and the link between nature and wellbeing (described in Section 7.4 of the HEqIA) and in relation to work and training (described in Section 7.10 of the HEqIA). National Highways are of the firm opinion that the calibration and validation of the Project’s transport model is acceptable for its use to assess the impacts of the Lower Thames Crossing. The model has been assessed by an independent assurer within National Highways who has approved the model as being suitable to assess the predicted impacts of the Lower Thames Crossing. Part of this assurance process includes checking compliance of the model with TAG, including the age and quality of the underlying data. The Applicant agrees that having a robust underlying data set is essential to support the modelling programme, and for the reasons set out above considers that 2016 is an appropriate base line year which accords with TAG.</p> <p>The Lower Thames Crossing DCO application has been developed in line with standard practice. The draft DCO <a href="#">[REP1-042]</a> sets a time limit on the start of works (article 2) as follows: ‘<i>The authorised development must begin no later than the expiration of 5 years beginning with the date that this Order comes into force</i>’. A two-year rephasing sits within this five year time limit. That five-year period is heavily precedented in DCOs across all sectors, and is intended to accommodate circumstances such as this type of delay. DCO applications typically do not provide any sensitivity assessments associated with that five-year period of commencement flexibility, but instead reflect a reasonable worst-case scenario to provide adequate information for the Examining Authority and Secretary of State to reach conclusions on likely significant effects. Consequently, the DCO, if granted as drafted, would allow for this two-year rephase without any need for change in the Application documents, including the submitted assessments and the proposed powers sought within the draft DCO. This matter will be discussed further once the Applicant’s position above has been reviewed by the Council. This matter is addressed by the SoCG <a href="#">[APP-130]</a>, at items 2.1.289, 2.1.143 and 2.1.22.</p>
<p><b>Page 85-88</b></p>	<p><b>Inadequate Consideration of Uncertainty in Forecasting</b></p> <p>7.8.12 TAG Unit M4 Forecasting and Uncertainty (May 2019 - this version was used in the DCO application and has now been superseded by a newer version) sets out the need for all known assumptions and uncertainties in the modelling and forecasting approach to be summarised in an uncertainty log. Paragraph 2.1.1 states that ‘<i>the uncertainty log will also be the basis for developing a set of alternative scenarios.</i>’</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>7.8.13 This guidance requires the development of the Core Scenario, which is intended to provide a sensible, consistent basis for decision making based on current evidence. To account for significant and often unquantifiable uncertainties associated with forecasting travel demand, the development of High and Low Growth Scenarios is also recommended. The High Growth scenario aims to consider whether under high demand assumptions the intervention is still effective in reducing congestion, or if there are any additional adverse effects, e.g. on safety or air quality. The Low Growth Scenario aims to confirm if the intervention is still economically viable with lower traffic flows.</p> <p>7.8.14 This guidance, as it was in May 2019, was followed in the LTC assessment with the results presented in the DCO application.</p> <p>7.8.15 Though the guidance on the use of the uncertainty log and application of High and Low Growth Scenarios has been retained and maintained in subsequent updates of TAG Unit M4 including the prevailing version (May 2023), in recent years DfT has prepared a comprehensive framework of Common Analytical Scenarios. These Common Analytical Scenarios are a set of seven consistent, ‘off-the-shelf’, cross-modal scenarios exploring national level uncertainties and they have been developed by DfT for use in forecasting and appraisal. They are the preferred substitutes for the High and Low Growth Scenarios used by NH and in the Council’s view it is essential they are incorporated into the LTC assessment.</p> <p>7.8.16 The development of a common set of appraisal scenarios by DfT was driven by the need to see a more robust and consistent treatment of uncertainty in the appraisal of major schemes such as LTC. The DfT’s TAG Uncertainty Toolkit (May 2023, first published in May 2021) sets out scenarios for testing trajectories for economic and demographic growth, regional imbalances, behavioural and technological changes and decarbonisation, which capture the key uncertainties that face the transport sector in the coming decades.</p> <p>7.8.17 DfT’s TAG Uncertainty Toolkit states at paragraph 1.1 that ‘<i>There is considerable uncertainty about how the transport system will evolve in the future, particularly with the potential for emerging trends in behaviour, technology and decarbonisation to drive significant change over time. The use of transport models, a fundamental aspect of scheme appraisal, can also introduce uncertainty to transport analysis, through the data, assumptions and model specifications required. To ensure decision-making is resilient to future uncertainty, decision makers need to understand how the outcomes of spending and policy proposals may differ under varying assumptions about the future.</i>’</p> <p>7.8.18 The DfT Uncertainty Toolkit sets out the four principles that underpin the guidance at paragraph 1.3, which are:</p>

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	<ul style="list-style-type: none"> <li>• <i>‘The treatment of uncertainty is a core part of any transport analysis and is needed to inform robust decision making.</i></li> <li>• <i>Analysis should not focus exclusively on a core scenario.</i></li> <li>• <i>Proportionate appraisal techniques for defining, measuring and accounting for uncertainty within decision making should be used.</i></li> <li>• <i>Uncertainty should be considered holistically across the strategic and economic cases and throughout the planning process.’</i></li> </ul> <p>7.8.19 DfT TAG Unit M.4 Forecasting and Uncertainty states in paragraph 5.1.1 that in addition to the High and Low Growth Scenarios and the Common Analytical Scenarios, other scenarios may be required to test the impacts of significant sources of local uncertainty and that these scenarios should also be subject to a full appraisal. Given significant changes, the level of uncertainty and in accordance with TAG guidance, the Council is of a view that a much more comprehensive framework for consideration of national and local uncertainty beyond just the implementation of Low and High Growth Scenarios should be followed by NH, with follow-up technical engagement and consultation with the public.</p> <p>7.8.20 Over the last few years numerous requests have been made to NH to undertake sensitivity tests to test uncertainty in forecasting. <b>Table 7.3</b> summarises sensitivity tests requested by the Council, when they were requested and the inadequacy of the NH responses to date.</p> <p><b>Table 7.3: Summary of Sensitivity Tests Requested by Thurrock Council</b></p> <table border="1" data-bbox="562 932 2069 1347"> <thead> <tr> <th data-bbox="562 932 943 1050">Sensitivity Test requested by Thurrock Council</th> <th data-bbox="943 932 1317 1050">When Requested</th> <th data-bbox="1317 932 1693 1050">National Highways Response</th> <th data-bbox="1693 932 2069 1050">When Sensitivity Test Completed and Results provided</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 1050 943 1168">Impact arising from Thames Freeport</td> <td data-bbox="943 1050 1317 1168">Requested in DCOv1 model review report (November 2021)</td> <td data-bbox="1317 1050 1693 1168">None</td> <td data-bbox="1693 1050 2069 1168">Not completed</td> </tr> <tr> <td data-bbox="562 1168 943 1347">Local Plan Growth Scenarios (DCO application)</td> <td data-bbox="943 1168 1317 1347">Requested in ‘PART 2 Indicative Local Plan (ILP) Model Runs’ report (29.06.21)</td> <td data-bbox="1317 1168 1693 1347">National Highways confirmed (30.11.21) that it was unlikely that they would be updating local plan runs using the latest</td> <td data-bbox="1693 1168 2069 1347">Not completed</td> </tr> </tbody> </table>				Sensitivity Test requested by Thurrock Council	When Requested	National Highways Response	When Sensitivity Test Completed and Results provided	Impact arising from Thames Freeport	Requested in DCOv1 model review report (November 2021)	None	Not completed	Local Plan Growth Scenarios (DCO application)	Requested in ‘PART 2 Indicative Local Plan (ILP) Model Runs’ report (29.06.21)	National Highways confirmed (30.11.21) that it was unlikely that they would be updating local plan runs using the latest	Not completed
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LIR Reference	Local Impact Report Extract / Applicant's Response			
			version of the model available at the time (DCOv1)	
	Impact of additional trips associated with London Resort	Requested in DCOv1 model review report (November 2021)		No longer relevant as the application for London resort has been withdrawn
	Incident/network resilience tests to demonstrate that the scheme meets its objective of improving network resilience	Requested in December 2021		Not completed
	Future mobility the LTC design is for a life span of some 100 years, yet there is no modelling for resilience to future change	Thurrock Council requested National Highways to provide information regarding sensitivity testing of the scheme in terms of future mobility.	National Highways confirmed they will not be carrying out any sensitivity testing	Not completed
<p>7.8.21 The assessment of LTC followed TAG Unit M4 Forecasting and Uncertainty, which was published in May 2019 and has now been superseded by a newer version. The demand sensitivity tests undertaken and presented in the DCO are for Low and High Growth Scenarios consisting of forecasts that are based on a proportion of base year demand subtracted (for Low Growth) or added (for High growth) to the demand from the Core Scenario as per the guidance in TAG Unit M4 Section 4.2.</p> <p>7.8.22 The proportion of base year demand subtracted or added is based on a parameter 'p' which varies by mode. For highway demand, the value of 'p' required by the latest version of the guidance is 4%, which is up from 2.5% in the old guidance. The LTAM forecasts have been based on the old value of 2.5% and are therefore outdated. These forecasts are likely to overestimate the effectiveness of the scheme in meeting their strategic objectives in the High Growth Scenario and overestimate the scheme value for money in the Low Growth Scenario.</p>				



LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>7.8.23 It is also important to recognise that modelling for business cases submitted to the DfT must include forecast scenarios assuming central growth in demand (such as the Core Scenario), which has controls on growth in travel demand associated with the NTEM dataset at an appropriate spatial area (usually local authority and district level).</p> <p>7.8.24 The NTEM dataset is accessible via the TEMPro software (Trip End Model Presentation Program) and represents DfT’s standard assumptions about growth in demand.</p> <p>7.8.25 The DCO forecasts are based on the DfT’s national traffic growth forecasts published in February 2017 (National Trip End Model, NTEM v7.2), which has now been superseded with NTEM v8.0. The latest version of NTEM v8.0 was released as the ‘forthcoming change’ in April 2022 and became a definitive version in December 2022.</p> <p>7.8.26 There is a significant difference between the two sets of national forecasts. NTEM v7.2, which has been used in the LTC DCO application, forecasts a 27.3% growth in car trips between 2016 (LTAM base year) and 2045 (LTC design year) for Essex and 39.9% growth in car trips in Thurrock.</p> <p>7.8.27 These forecasts have been substantially reduced in NTEM v.8.0 to 17.6% for Essex and to 22% for Thurrock and are reflective of changes in national forecasts of population growth and employment. NTEM v8.0 is now definitive and given the significant changes (shown in <b>Table 7.4</b>) in national forecasts, the Council expects a sensitivity test based on NTEM v8.0 assumptions to be provided.</p>

LIR Reference	Local Impact Report Extract / Applicant’s Response												
	<p><b>Table 7.4: Differences in Car Trip Growth between NTEM v7.2 and NTEM v8</b></p> <table border="1" data-bbox="562 300 2069 507"> <thead> <tr> <th data-bbox="562 300 1496 347">Car Trip Growth between 2016 - 2045</th> <th data-bbox="1496 300 1771 347">Essex</th> <th data-bbox="1771 300 2069 347">Thurrock</th> </tr> </thead> <tbody> <tr> <td data-bbox="562 347 1496 400">NTEM v7.2</td> <td data-bbox="1496 347 1771 400">27.3%</td> <td data-bbox="1771 347 2069 400">39.9%</td> </tr> <tr> <td data-bbox="562 400 1496 453">NTEM v8</td> <td data-bbox="1496 400 1771 453">17.6%</td> <td data-bbox="1771 400 2069 453">22.0%</td> </tr> <tr> <td data-bbox="562 453 1496 507"><b>Difference (NTEM v8 - NTEM v7.2)</b></td> <td data-bbox="1496 453 1771 507"><b>-9.7%</b></td> <td data-bbox="1771 453 2069 507"><b>-17.9%</b></td> </tr> </tbody> </table> <p>7.8.28 Similarly, paragraph 1.1.7 of Appendix C Transport Forecasting Package of the Combined Modelling and Appraisal Report (<a href="#">APP-522</a>) indicates that the percentage growth in LGV and HGV growth factors for LGV and HGV traffic have been determined from DfT’s National Transport Model (NTM) Road Traffic Forecasts 2018 (RTF18) and these are applied to the base year LGV and HGV trips. These forecasts are now outdated and have been superseded by National Road Traffic Projections (NRTP2022).</p> <p>7.8.29 This evidence confirms that the LTC assessment has not properly taken account of the latest national travel demand forecasts, key areas of forecasting uncertainty, including UK’s exit from the European Union, the COVID-19 pandemic, rising fuel prices, changes to the UK economy and the UK’s Net Zero Strategy, as well as likely alternative land use changes or consideration of incident planning. As a result, all the environmental and economic assessment work is based on out-of-date assumptions, preventing a realistic picture of benefits and disbenefits of LTC to be considered, including noise, air quality, carbon, etc., as well as implications for the justification of the scheme.</p> <p>7.8.30 Many of these requests for updated data, guidance and methodological assumptions were presented to the ExA in the Council (<a href="#">PDC-007</a>) Supplementary Submission in Table 2 on 9 June 2023.</p> <p>7.8.31 <b>SUMMARY: inadequate sensitivity testing has been undertaken as part of the scheme appraisal. This is inconsistent with the latest Uncertainty Toolkit approach from DfT published in 2021. The new DfT Common Analytical Scenarios and NTEM8 (both published 2022) have not been incorporated. Additionally, the emerging Local Plan for Thurrock has not been included in any test so far presented by NH and the scheme is likely to reduce the available capacity of the local road network to accommodate the emerging Local Plan. The Council therefore contends that the modelling is outdated and inconsistent with guidance published around uncertainty.</b></p>	Car Trip Growth between 2016 - 2045	Essex	Thurrock	NTEM v7.2	27.3%	39.9%	NTEM v8	17.6%	22.0%	<b>Difference (NTEM v8 - NTEM v7.2)</b>	<b>-9.7%</b>	<b>-17.9%</b>
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<b>Applicant’s Response</b>	This matter is addressed by SoCG [ <a href="#">APP-130</a> ], at items 2.1.69, 2.1.70 and 2.1.147, summarised below.												

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<p>The Applicant is of the firm opinion that the LTAM is a suitable tool to assess the impacts of the Project. The scale of the Project requires the use of a strategic transport model. The LTAM base year model has been calibrated and validated in line with TAG guidance, details of which are provided within the ComMA Appendix B: Transport Model Package [APP-520]. In addition, the LTAM forecasts and economic appraisal have been developed in accordance with TAG as set out in the ComMA Appendix C: Transport Forecasting Package [APP-522] and ComMA Appendix D: Economic Appraisal Package – Economic Appraisal Report [APP-526].</p> <p>Section 7.5 of the ComMA [APP-518] sets out sensitivity analyses that the Applicant has conducted to test the robustness of the assessment to changes in input data.</p> <p>NTEM v8.0 was published in November 2022, after the DCO submission. Likewise the NTEM v8.0 traffic growth forecasts for the Common Analytical Scenarios were published in December 2022, after the DCO submission. The transport modelling presented in ComMA Appendix C: Transport Forecasting Package [APP-522] was carried out using DfT’s Transport Appraisal Guidance, and associated data books at the time the modelling was undertaken in early 2022.</p> <p>The Applicant has recognised that as a result of advancing technology, the Transport Decarbonisation Plan and Net Zero by 2050 targets, new technologies such as Connected and Autonomous Vehicles will emerge. The timescales and exact nature of these interventions is currently unknown, as therefore is the policy and legislative framework in which they will sit. In absence of this, the Applicant, or other highway authorities, are not able to make adaptations to either existing or proposed infrastructure. It is clear that the delivery mechanisms for any future technology will need to be implemented cost-effectively across the entire road network that exists at the particular time of implementation. As the Project is being designed to the latest standards, the implementation of future technology will be compatible with our infrastructure and such retrofitting is likely to be significantly simpler than for other areas of the strategic road network.</p> <p>With regards to Table 7.3 which sets out the Council’s view on the status on a number of sensitivity tests, the Applicant has set out its view on each below. It is worth noting that the Applicant has produced many model runs requested by Thurrock Council using the LTAM (a full list is set out in Appendix A of Localised Traffic Modelling [REP1-187]). Where specific runs have not been undertaken, the Applicant considers that it has provided reasons to the Council in the regular transport modelling meetings:</p> <ul style="list-style-type: none"> <li> <p><b>Thames Freeport</b> – Whilst the Applicant has been provided some details of forecast trip generation for elements of the freeport at the Port of Tilbury, this has not been accompanied by the proposed highway interventions that would be necessary to support the proposals. As this is yet to be determined by the developer, the runs cannot be undertaken as it would not be for the Applicant to predetermine these.</p> </li> </ul>

LIR Reference	Local Impact Report Extract / Applicant’s Response
	<ul style="list-style-type: none"> <li>• <b>Local Plan Growth Scenarios</b> – It is not considered proportionate, nor a good use of public money to repeat model runs whenever there is a minor update of the Applicant’s transport model, which would not affect the conclusions that can be reached from the analysis.</li> <li>• <b>London Resort</b> – As noted by the Council, this test is no longer required as the London Resort DCO application has been withdrawn.</li> <li>• <b>Incident / Resilience tests</b> – A test of the complete closure of either the Dartford Crossing or the Project has not been carried out. The LTAM is not designed as a modelling tool to make forecasts in those circumstances, and the behaviour responses of drivers for such limited duration events is not part of the variable demand model elasticities incorporated in the model. This is because assumptions would have to be made on the number of drivers who would not make their trip that day or would change their destination. What is certain is that the normal level of demand for an average weekday that is contained in the LTAM would be affected by such a significant change in the availability of road capacity across the River Thames.</li> <li>• <b>Future mobility tests</b> – The Applicant does not consider that these are necessary as there are no standards or guidance set by government with regards to future mobility, and so such tests would not provide a meaningful insight.</li> </ul>

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