

Lower Thames Crossing

**Application by National Highways for an Order Granting
Development Consent for the Lower Thames Crossing
(Ref. No. TR010032)**

**Supplementary Submission following Preliminary Meeting
(Procedural Deadline B)**

Thurrock Council

9 June 2023

 **thurrock.gov.uk**

On behalf of **Thurrock Council**

Introduction

- 1 During discussions at the Preliminary Meeting Part 1 on Agenda Item 4, the Council summarised its justification for requesting the inclusion of 14 additional issues into the ExA's 'Initial Assessment of Principal Issues.' The Council explained that they had created a table that cross references each additional issue with its Relevant Representation, PADs Summary Statement and the submitted SoCG, along with additional commentary. Furthermore, that for additional issue 15 a further table citing the out-of-date data and methodological assumptions had also been created.
- 2 The ExA requested that this additional material and justification would be most helpful and that it should be submitted as a Supplementary Submission at the earliest opportunity. Therefore, below is that additional material for the ExA's consideration.

Context

- 3 The Rule 6 Letter issued on 25 April 2023 set out in Annex B the ExA's 'Initial Assessment of Principal Issues' over three pages and 15 main issues. The ExA acknowledges that this is not '*a comprehensive or exclusive list' and that new issues may arise. Some of the issues identified here may increase in relevance and weight during the Examination and some may decrease or cease to be principal issues*'. Furthermore, the ExA highlights that there are five matters that will be accounted for as overarching or internal components: good design, sustainable development, effects of the proposed development, effects of linkages between issues and the effects on human rights and equalities.
- 4 However, since the date on which the ExA compiled its draft list of principal issues (Rule 6 Letter was issued 25 April 2023), Thurrock Council (by agreement with the ExA) submitted its Relevant Representation (RR) and its Principal Areas of Disagreement (PADs) Summary Statement on 4 May 2023.
- 5 Consequently, Thurrock Council has respectfully requested in its Preliminary Meeting submission on 26 May 2023 and at the Preliminary Meeting Part 1 that Annex B is updated soon to reflect, in particular (but not exclusively), a detailed consideration of the Council's two submission documents for the reasons set out below.

Justification for Inclusion of Additional Issues

- 6 At the Preliminary Meeting Part 1, the Council requested that the ExA include some 15 additional issues (whether as separate issues or as discrete sub-issues under the relevant issue) within its updated list of principal issues.
- 7 In order to determine these additional issues the Council considered the most relevant sources from the two Programming Meeting submission documents and the currently submitted, but not agreed or signed, Statement of Common Ground (SoCG) between the Council and National Highways (NH).
- 8 The following **Table 1** sets out these sources and the Council's further high-level commentary in respect of each proposed additional issue. Reference links are provided to these sources – to the Relevant Representation, the PADs Summary Statement and the submitted SoCG as either direct or indirect links. All three source documents are formally before the ExA and have a formal submission status. It is notable that when reviewing the sources for each additional issue it is apparent that they are from multiple sources, reinforcing the importance of its inclusion as principal or sub issues.

Table 1: Additional Issues – Sources and Commentary

	Additional Principal or Sub Issue	Relevant Rep Refs	PADs Refs	SoCG Refs	Council Commentary
1	Costs and Disbenefits weighed against the Perceived Benefits	Issue I	46, 47 and 119	2.1.155-2.1.157	This issue was a key part of our RR and will become a key feature of the Council's case against the scheme and will form a significant element within our LIR
2	Value for Money of the 'transport business case'	Issue I	46, 47 and 119	2.1.155-2.1.157	This issue was a key part of our RR and will become a key feature of the Council's case against the scheme and form a significant element within our LIR
3	The achievement of the 7no. NH Scheme Objectives, particularly in relation to accommodating or supporting sustainable local development, i.e. the Council's planned/emerging Local Plan growth	Issue II	N/A	2.1.57 (relating to need for the project)	It is vital that NH is able to demonstrate, with evidence, that its 7no. scheme objectives are realised in its scheme design
4	Impact on local roads, particularly on key A13 junctions that have been incorporated as an essential part of the LTC design (and without which LTC would not be viable) and on other important local roads and the absence of any proposed mitigation	Issue III	29–38, 44–47, 48–51, 86–89 and 109–124	2.1.84 – 2.1.99 (relating to design of roads, tunnels and utilities), 2.1.143 – 2.1.157 (relating to traffic and economics) and 2.1.158 – 2.1.168 (relating to wider network impacts)	A critical issue for the Council, in view of the significance of the disbenefits, is that the additional burden of congested roads and use of local roads for SRN purposes is not acceptable

5	Consideration of alternative design configurations for key elements of the LTC current scheme – <u>this could be an additional bullet to Principal Issue 3 in Annex B of the Rule 6 Letter</u>	Issue VI	20 and 22–25	2.1.63 and 2.1.66 – 2.1.70 (relating to route selection, modal alternatives and assessment of reasonable alternatives)	NH has not accommodated the need to justify particular scheme element design or consider alternatives, such as the A13 junction
6	Construction impacts on communities, Public Rights of Way (PRoWs), public transport and emergency services response times	Issue V	27, 56–58, 59–60, 71 – 72, 100–101, 106–107, 120, 121, 122, 136, 138–139 and 141–143	Besides the SoCG (APP-130 and in particular items 2.1.107 – 2.1.140, 2.1.160, 2.1.233 – 2.1.236 and 2.1.243 – 2.1.255); there are seven control documents that have a bearing on construction and need to be checked in detail (PINS Ref. Nos. APP-130, APP-336, APP-554, APP-338, APP-337, APP-367 and APP-552)	It is vital that identified significant effects/impacts are adequately mitigated and communities are protected – currently these mitigations are not in place
7	During construction, the adequacy of the Framework Construction Travel Plan arrangements – <u>this could be an additional bullet to Principal Issue 4 (Traffic and Transportation) in Annex B of the Rule 6 Letter</u>	Issue V	42, 61–70 and 107	Besides the SoCG, there are two control documents that have a bearing on marine transport and travel plan matters, which need to be checked in detail	The Framework Construction Travel Plan (FCTP) (APP-546) commitments are ineffective with no targets provided or means of enforcement. This makes it more likely that the construction workforce will generate excessive amounts of vehicle travel and there is no means for the Council to control this.

				(PINS Ref. Nos. APP-130 and APP-546)	
8	During construction, there is an in adequate use of marine transport for the movement of materials and plant – <u>this could be an additional bullet to Principal Issue 8 (Waste and Materials) in Annex B of the Rule 6 Letter</u>	Issue V	91–92, 96	Besides the SoCG, there are two control documents that have a bearing on marine transport and travel plan matters, which need to be checked in detail (PINS Ref. Nos. APP-130 and APP-338)	Although some provision for marine transport was provided, both the Port of London Authority (PLA) and the Council do not consider it adequate or acceptable.
9	Health impacts and adequacy of the Health & Equalities Impact Assessment methodology and supporting technical data – it is currently noted only a sub-point under item 13 ‘Social, economic and land-use considerations’ of Rule 6 Letter Annex B and the Council considers that it requires greater priority and importance	Issue VIII	10, 27, 56–57, 58–59, 119, 124, 131, 132–134, 136–139, 144 and 145	These relating to the HEqIA and Chapter 13 of the ES and cover 2.1.28, 2.1.77, 2.1.155, 2.1.164, 2.1.187 – 2.1.190, 2.1.193 – 2.1.198, 2.1.206 – 2.1.232, 2.1.239 – 2.1.240 and 2.1.264	This is a critical issue for the Council and serious methodology shortcomings were previously identified, which together with not previously shared impacts or mitigation, heighten concern. The documents require careful scrutiny and refinement to ensure that local residents properly understand the likely impact of increased air, noise and light pollution
10	Lack of accommodation by NH of the 56 Emergency Services recommendations	Issue X and ESSPSG RR dated 24.02.23	20, 22, 24, 37–38, 43, 75, 87 and 118	2.1.8, 2.1.63, 2.1.66, 2.1.69, 2.1.95, 2.1.98 – 2.1.99, 2.1.125, 2.1.141, 2.1.154 and 2.1.277	Despite two years of negotiation between NH and the ESSPSG, very limited progress has been achieved on the 56 recommendations – NH must respond properly to these serious issues and make the necessary DCO commitments

11	Significant issues with the Statement of Common Ground (SoCG) process	Issue XI	N/A	Refer to SoCG (APP-130) Cover Page Statement and the Council's version in RR	Whilst the Council engaged proactively with NH to identify its issues, NH gave the Council no opportunity to review its responses in the document submitted to the ExA. This has resulted in a SoCG that is not considered 'fit for purpose'
12	Lack of progress on and accommodation of many relevant Section 106 matters and the need to expedite further technical assessments to understand and quantify appropriate mitigation via the S106 Agreement	Issue XII	52–54 and 125–129	2.1.170 – 2.1.184	Despite several meetings with NH and the Council presenting its initial list in January 2022, very little progress has been achieved and there is no commitment to the Council's S106 items at present. It is worth noting that NH wanted to adopt the (largely unprecedented) use of S106 for this scheme. This was because of the complexity of resolving a myriad of existing identified issues through its scheme design. To adequately define, agree and cost elements within a S106 is a significant amount of work needed to be progressed by NH, which has not been commenced.
13	Inadequacy of compensation proposals for affected Council-owned land and property and impacted Thurrock residents	Issue XIII	4–5, 17, 28, 82–83 and 85	2.1.1 – 2.1.56, 2.1.66, 2.1.80 – 2.1.83, 2.1.91 and 2.1.238	The Council has concerns about determining compensation for its land parcels affected, but more importantly has concerns about there not being an adequate 'non-statutory compensation' policy or adequate provision for impacted residents and businesses
14	Council concerns over the DCO application not responding to current and emerging policy and guidance	Issues VI and VII	20, 21, 22–25, 73 and 145–147	2.1.63, 2.1.64, 2.1.66 – 2.1.70 and 2.1.264 – 2.1.271	NH has not adequately accommodated the new or emerging/developing Government policies for integrated transport supporting public transport and active travel. Also, the emerging/updated NPS's for National Networks and for Energy should be taken as best practice

					and use by NH to guide their proposals, along with new (not yet enacted) requirements on air quality and biodiversity net gain provisions in law. Also, to be taken into account are the emerging law, procedures, policy and guidance on achieving decarbonisation and addressing climate change
15	Council concerns over the DCO application not responding to more recent data and methodological assumptions, particularly regarding traffic modelling, air quality and climate matters and whether the traffic modelling, air quality and climate assessment undertaken to support the application is sufficiently robust and up-to-date – <u>this could be an additional bullet to Principal Issue 2 (Climate Change and Carbon Emissions: for robust and up-to-date data); to Principal Issue 4 (Traffic and Transportation: methodologies to be robust and up-to-date); and, to Principal Issue 5 (Air Quality) in Annex B of the Rule 6 Letter</u>	Issues I, III, IV, VI, VII, VIII, XII and XV	As noted in issues above	As noted in issues above	<p>Crucial requests for technical data from NH for two years have been denied or delayed, especially regarding traffic modelling, health, air quality and noise data and assessments, which were set out in the Council’s AoC response and previous CIC and LRC consultations.</p> <p>Furthermore and particular to this issue, robust, new and up-to-date data and guidance or assumptions regarding traffic modelling, air quality and climate have not been used by NH, to the detriment of understanding the impact of the project. The following Table 2 sets out some 25 of these data and methodology concerns.</p>

Table 2: Recent Technical Data, Guidance and Methodological Assumptions compared against that used by NH in the Traffic Modelling work and appraisal and relating to the Air Quality and Climate work

Preliminary Observations

Traffic modelling is critical to this project. If it is wrong, then the ‘transport business case’ for investment could be substantially misrepresented and would be misaligned with the reality of the project’s impacts (both beneficial and adverse) in transport terms; and, the implications for traffic growth on local roads along with a plethora of associated disbenefits could create legacy problems for generations to come. Transparency to facilitate constructive scrutiny is essential to test, refine and endorse the technical approach taken.

To date NH has not permitted the Highway Authorities with responsibility for the local road network (Kent CC, Essex CC, Thurrock and TfL), which includes the A13 and A2, access to the full strategic traffic model for the region (LTAM). Instead, it has provided piecemeal information and cordons for each local authority and restricted ability to discuss issues across boundaries. The Council do not consider that this approach can be justified, not least since it prevents and precludes collaborative engagement between stakeholders, as well as ability to assess and to understand the implications of the project on a comprehensive basis. Serious concerns remain about the traffic impacts of the scheme and their misrepresentation in the DCO application. Further issues with the technical approach taken towards modelling are set out in **Table 2** below.

The DCO application submitted by NH contains reference only to the traffic modelling it has undertaken using LTAM, its strategic model. One key issue of concern for the Council is the fact that the A13 Orsett Cock junction provides a vital and critical role in the operation of the LTC scheme. This is, and will remain, part of the local road network. NH has incorporated this junction into the central design of the scheme and it is included in the red line boundary. Without this junction the LTC scheme does not work. It is crucial therefore that this junction works effectively for LTC and local traffic. In recognition of its importance NH and the Council collaborated on the development of a more detailed operational local traffic model, using Vissim microsimulation software. This model highlighted serious concerns about the ability of the A13 Orsett Cock junction to operate effectively from opening. The LTAM model shows substantial amounts of traffic using inappropriate routes via local villages, such as Orsett, due to traffic congestion. If this traffic was reallocated back on the strategic highway network it would further exacerbate the pressure on A13 Orsett Cock junction.

Due to the critical nature of Orsett Cock junction affecting the efficacy of the LTC design, it is crucial that the operational modelling data is shared by NH as part of its DCO application. This transparency will help enable concerns raised by the Council and DPWLG at the Preliminary Meeting Part 1 to be considered appropriately by the ExA.

Table 2

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	Traffic Modelling Guidance	
1	TAG unit M4 ‘Forecasting and Uncertainty’. Published 19 May 2021	To inform scheme forecasting NH used an earlier version of guidance Unit M4 (DfT, 2019a), which only

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	<p>Last updated 31 May 2023</p> <p>This TAG Unit gives practical guidance for forecasting the impact of transport projects including option testing and appraisal. The guidance introduces the Common Analytical Scenarios (CAS). CAS 'are a set of seven standardised, off the-shelf, cross-modal scenarios exploring national level uncertainties which have been developed by DfT for use in modelling, forecasting and appraisal. They are preferred substitutes for the High and Low Growth Scenarios <...> and their use is expected for 'high impact' schemes'.</p> <p>More detail on CAS and their application are provided in TAG 'Uncertainty Toolkit'. First published on 19 May 2021. Last updated - 31 May 2023.</p> <p>This TAG is accompanied by the Common Analytical Scenarios Databook, which represents a selection of data tables to help consider and model the common analytical scenarios. Published 8 August 2022. Last updated 31 May 2023. The latest version includes updates to Marginal External Costs, Car Costs and Car and Bus Journey Times.</p>	<p>required consideration of Low and High growth scenarios.</p>
2	<p>Guidance on accounting for COVID-19 in transport modelling has been included in Annex B of TAG unit M4 'Forecasting and Uncertainty' in its latest update released on 31 May 2023. This is text from Forthcoming Change (published March 2023) that has been moved to Annex B.</p>	<p>Not accounted for in NH's assessment of the LTC.</p>
3	<p>TAG Data Book (v1.21) - provides all of the appraisal and modelling values referred to in TAG guidance.</p> <p>Published 29 November 2018. Last updated 31 May 2023</p>	<p>NH used an earlier version of the Databook in the assessment of the LTC.</p> <p>Paragraph 7.2.1 in ComMA Appendix B (APP-520 and 521) 'VOT and VOC were calculated for use in the assignment model from the VoT and VOC from TAG Databook_ 1.17_November 2021.xls spreadsheet provided by National Highways Transport Planning Group'.</p>

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
		Paragraph 7.2.1 in ComMA (APP-518) – ‘The monetary values used, discount rates and forecasts of GDP growth are those set out in the DfT’s (May 2022) TAG data book’.
4	Demand for Travel Forecasts – DfT’s National Trip End Model (NTEM) model forecasts the growth in trip origin-destinations (or productions-attractions) up to 2051 for use in transport modelling and appraisal. The latest version TEMPro v 8.0 was released as the ‘forthcoming change’ in April 2022 and a definitive version in December 2022.	NH used an earlier version of NTEM in the assessment of the LTC. Traffic growth in the Core Scenario has been constrained to the level of growth included in DfT’s NTEM, National Trip End Model (TEMPro dataset version 7.2).
5	Growth rates for goods vehicles – DfT’s Road Traffic Forecasts (December 2022).	NH used an earlier version of DfT’s Road Traffic Forecasts in the assessment of the LTC. The growth rates for goods vehicles are taken from the DfT’s Road Traffic Forecasts (2018a).
6	Variable Demand Modelling – DfT’s TAG unit M2-1 ‘Variable Demand Modelling’ - this document gives guidance on the analysis of variable demand modelling in transport appraisals. Published 29 May 2020.	NH used the current version of the guidance in the LTC assessment. Notwithstanding this, paragraph 5.11.3 in ComMA (APP-518) – ‘The variable demand model was created using the parameters set in TAG Unit M2.1 (DfT, 2020c)’; and, Paragraph 5.11.7 of ComMA (APP-518) – ‘The strength of the variable demand responses was tested by running the realism tests as set out in TAG Unit M2.1 (DfT, 2020c)’.
7	TAG unit M2-2 ‘Base Year Matrix Development’ - provides guidance on developing demand matrices for the modelled base year. This covers methods for gathering matrix data, treatment of the data, and combining of data from different sources to develop and explain the quality of base year demand matrices. Published 29 May 2020	It is not clear if NH adopted this guidance in the matrix development.

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	Appraisal Workbooks	
8	Greenhouse Gases workbook – Last updated 31/05/23 to account for updated GDP deflator forecasts and to align GHG values to match TAG Data Book v1.21 (May 2023)	NH used an earlier version of workbook in the assessment of the LTC. Table C.3 'Data sources used in the carbon quantification' in the Carbon and Energy Management Plan (7.19): 'TAG Greenhouse Gases Workbook (Department for Transport, 2022a)'.
9	Air Quality workbook – Last updated 31 May 2023 to align with v1.21 Data Book	ES Chapter 5: Air Quality (APP-143) - Department for Transport (2022). TAG Data Book v1.18, Table A3.2.4. [Spreadsheet]. Accessed June 2022.
10	Landscape Monetisation workbook – Last updated 31 May 2023 to align with v1.21 Data Book	NH used an earlier version of workbook in the assessment of the LTC. Paragraph 7.3.40 in ComMA (APP-518) – 'The valuation of the landscape impacted by the Project, based on the appraisal parameters in TAG data book v1.18'.
11	Noise workbook – Last updated 31/05/23 to align with v1.21 Data Book	NH used an earlier version of workbook in the assessment of the LTC. Paragraph 7.3.29 in ComMA (APP-518): 'For noise, a monetary value was calculated using the TAG noise workbook and the method set out in TAG Unit A3 (DfT, 2019c)'.
	Appraisal Software	
12	TUBA - The TUBA software undertakes the economic appraisal of transport schemes in accordance with DfT's cost benefit analysis guidance. As announced on 31 May 2023, new version of TUBA will be released shortly to align with the TAG Data Book (v1.21). Current version is TUBA v1.9.17 (22	NH used an earlier version of TUBA in the assessment of the LTC. Paragraph 7.2.2 in ComMA (APP-518): 'DfT's Transport Users Benefit Appraisal (TUBA) v1.9.17 software and installer with the TUBA Economics file v1.9.18, which is

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	December 2021) with Economics File last updated to align with TAG Data Book v1.20.2 January 2023.	<p>consistent with the DfT (May 2022) TAG Databook v1.18 (May 2022), to estimate transport user and provider impacts’.</p> <p>ComMA (APP-518) acknowledges (para 7.5.9) that ‘In May 2022, DfT issued a Forthcoming Change version of the TAG data book v1.19FC that it expects to become definitive in November 2022. An accompanying TUBA Economics file was issued in June enabling these provisional Databook parameters to be used in TUBA.’</p> <p>A sensitivity test was run in TUBA on the core growth scenario to assess the impact of using the new parameters on the valuation of vehicle operating costs. The results of the sensitivity testing are presented in ComMA (Table 7.20).</p>
13	<p>WITA - The WITA software completes appraisals of transport schemes in accordance with the wider economic impacts guidance.</p> <p>As announced on 31 May 2023, new version of WITA will be released shortly to align with the TAG Data Book (v1.21). Current version is WITA v2.3 - January 2023.</p>	<p>NH used an earlier version of WITA in the assessment of the LTC.</p> <p>Paragraph 7.2.2 in ComMA (APP-518): ‘Wider Impacts Transport Appraisal (WITA) version 2.2 to estimate wider economic impacts’.</p>
14	<p>COBALT - assesses the safety aspects of road schemes based on a comparison of accidents by severity and associated costs, across an identified network.</p> <p>As announced on 31 May 2023, new version of COBALT will be released shortly to align with the TAG Data Book (v1.21). Current version is COBALT v2.4 - January 2023.</p>	<p>NH used an earlier version of COBALT in the assessment of the LTC.</p> <p>Paragraph 7.2.2 in ComMA (APP-518): ‘Costs and Benefits Appraisal - Light Touch (COBALT) version 2.3 to estimate accident impacts’.</p>
15	<p>Motorway Reliability Incidents and Delays (MyRIAD) – the tool will calculate the monetised</p>	<p>Paragraph 7.2.2 in ComMA (APP-518): ‘Motorway Reliability Incidents</p>

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	<p>reliability and incident delay impacts of trunk road improvement schemes, which affect the speed profiles on carriageways or the duration and number of incidents such as accidents.</p> <p>Current version: 2022, which uses TAG Databook May 2022 (imminent update to TAG Databook May 2023 is expected).</p>	<p>and Delays (MyRIAD) version 2021 to estimate journey time reliability impacts’.</p>
16	<p>Queues And Delays at Roadworks (QUADRO) - The purpose of the program is to provide a method of assessing the total cost of major road maintenance works.</p> <p>Current version: 2023, which uses TAG Databook May 2022 (imminent update to TAG Databook May 2023 is expected).</p>	<p>Paragraph 7.2.2 in ComMA (APP-518): ‘Queues And Delays at Roadworks (QUADRO) 2019 version 4 release 17.0.1 to estimate transport user delays during maintenance periods’.</p>
17	<p>Active Mode Appraisal Toolkit (AMAT) - calculates the key impacts of cycling and walking interventions.</p> <p>Updated 31 May 2023 to aligns with v1.21 Databook.</p>	<p>NH used an earlier version of AMAT in the assessment of the LTC.</p> <p>Paragraph 7.2.2 in ComMA (APP-518): ‘DfT’s Active Mode Appraisal Toolkit (May 2022) to value the benefit of changes to footpaths, cycleways and bridleways’.</p>
18	<p>National Highways Carbon Valuation Toolkit – last updated in December 2022, latest version is v2.5.</p>	<p>NH used an earlier version of the toolkit in the assessment of the LTC.</p> <p>Paragraph 7.2.2 in ComMA (APP-518): ‘National Highways Carbon Valuation Toolkit version 1.4.2 to provide a monetary value for the greenhouse gas emissions from road users over the 60 years after the road opening and the Project’s embodied carbon’.</p>
	Air Quality	
19	<p>The draft NPSNN highlights (Sections 5.18 and 5.21) that air quality considerations will be important where there is a deterioration in air quality, particularly where substantial changes are expected and not be limited to areas where breaches of any national air</p>	<p>The current significance criteria in DMRB LA105 guidance, used in the DCO assessment, are not considered to reflect this revised approach and there are receptors where substantial increases in pollutant concentrations are</p>

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	quality limits or statutory air quality objectives are predicted.	predicted and the ES Chapter 5: Air Quality (APP-143) does not consider them as significant due to the background level rather than the degree of deterioration.
20	The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020 amended the PM _{2.5} limit value in the Air Quality Standards Regulations to 20 µg/m ³ .	National Highways have assessed against the Air Quality Objective limit of 25 µg/m ³ .
21	<p>The 2019 Clean Air Strategy included a commitment to set a '<i>new, ambitious, long-term target to reduce people's exposure to PM_{2.5}</i>' which the Environment Act 2021 committed the Secretary of State to setting. Two PM_{2.5} targets were published via The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023:</p> <ul style="list-style-type: none"> • an annual mean concentration target for PM_{2.5} levels in England to be 10 µg/m³ or below by 2040; and, • a population exposure reduction target for a reduction in PM_{2.5} population exposure of 35% compared to 2019 to be achieved by 2040. <p>The published Environmental Improvement Plan 2023 sets out an interim PM_{2.5} targets to be met by the end of January 2028:</p> <ul style="list-style-type: none"> • the highest annual mean concentration in the most recent full calendar year must not exceed 12 µg/m³ of PM_{2.5}; and, • compared to 2018, the reduction in population exposure to PM_{2.5} in the most recent full calendar year must be 22% or greater. 	This is not covered in the DCO submission, but these commitments were published after DCO submission.
	Climate and Carbon	
22	Any data variations, inconsistencies and inaccuracies within the transport modelling will directly effect the carbon emission quantum.	The comments above relating to the use of TUBA, DMRB and Webtag are relevant
23	There appears to be an inconsistency in how vehicle use reduction on the national road network has been used to define carbon emission reductions and support the scheme's economic benefit	No guidance is referenced in assessing the emission benefits in reducing car use on the strategic road network against economic benefit
24	It is noted in ES Chapter page 14 and 15 and Section 15.3.20 that the life cycle modules of PAS 2080 have been used to establish a 'worst-case' emissions	NH has mis-used GHG Protocol for setting consistent, comparable, and

	Current Technical Data, Guidance and Methodological Assumptions	Guidance used by NH in the DCO submission
	<p>scenario for the construction phase. This worst case assumes that good practice is applied throughout the construction phase activities. The PAS 2080 modules set specific emission boundaries for infrastructure design and construction.</p> <p>ES Chapter 15, Section 15.3.22 notes the boundaries for road user emission reporting have followed the Project's transport model. This excludes a broad range of additional emissions that will result from the project. For example, emissions created in car manufacturing as a result of the additional km's travelled. It is assumed that these and many other emissions have been scoped out of the boundaries for carbon emission assessment.</p> <p>In determining significance (ES Chapter 15, Section 15.9, Page 59) National Highways has used the total National Budget for comparison with the project emissions budget. The National Budget includes all sectoral emissions, including manufacturing, agriculture and non-road transport. The boundaries of the National Budget are significantly broader than those established for the Project budget.</p> <p>As a further commentary, the boundaries set for the project emission reporting and national emission budget are so different, it is not appropriate to compare them as the project emission budget is inconsistent, incomplete and therefore not comparable with the National budget. It does not meet the basic test of transparency set by the Paris Agreement for completeness, consistency, comparability and accuracy.</p>	<p>accurate emission boundaries for comparing significance of emissions.</p>
25	<p>The standards and guidance listed in ES Chapter 15, Section 15.3.1, page 9 does not include the Institute of Environmental Management's industry guidance '<i>Assessing Greenhouse Gas Emissions and Evaluating their Significance</i>' (IEMA, 2022)'. </p>	<p>No specific guidance has been utilised in establishing the significance of the calculated data.</p> <p>IEMA Guidance provides the primary industry-wide recognised methodology.</p>