

Lower Thames Crossing

Thurrock Council Local Impact Report

**Appendix J – NH Memo for Stakeholders ‘Traffic and Transport Assessment in
DCO 2.0, April 2022’**

Lower Thames Crossing

Traffic and transport assessment in DCO 2.0

Memo for Stakeholders

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Lower Thames Crossing

Traffic and transport assessment in DCO 2.0

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1 Introduction

1.1 Purpose

1.1.1 This memorandum is provided in response to feedback from stakeholders and the Planning Inspectorate, related to the inclusion of a dedicated traffic and transport assessment chapter within the Environmental Statement (ES) in the Development Consent Order (DCO) application for Lower Thames Crossing (the Project). This memo explains how it is proposed that traffic and transport assessment will be covered within the DCO application documents.

1.2 Background

1.2.1 The Lower Thames Crossing DCO application (referred to as Application 1.0) was withdrawn in November 2020 and will be updated and resubmitted to the Planning Inspectorate in November 2022 (Application 2.0). Following the withdrawal, the Project responses to the Scoping Opinion (Planning Inspectorate, 2017) were reviewed by the Project and the issue of a transport and traffic assessment was considered further.

1.2.2 Section 3.3.5 of the Scoping Opinion specifically stated *“While the structure of the ES remains for the Applicant to decide, the information that would be expected to appear in a Transport chapter must be provided in the ES. The ES must demonstrate where the information gathered as part of the traffic assessment has been applied to other assessments within the ES. The absence of a Transport chapter, supported by a Transport Assessment, has been noted by Essex County Council (ECC), the London Borough of Havering (LBH), and Thurrock Council (TC). The Inspectorate considers that these concerns should be addressed.”*

1.2.3 A gap analysis review was undertaken of the DCO documents to understand how the requirements of a traffic and transport assessment were considered within the DCO Application documents. This piece of work is discussed further below in section 3.1.

1.2.4 This gap analysis confirmed that the Application 1.0 documents contained the relevant information, or where gaps were identified, this would be included within Application 2.0.

1.2.5 A response confirming this was provided to stakeholders in August 2021:

1.2.6 *“The ES will clearly explain that while a separate ES transport assessment chapter has not been produced, the assessments typically included in an ES transport assessment chapter are in fact provided in the following DCO documents:*

- Appendix B: Transport Model Package (Application Document 7.7)
- Appendix C: Transport forecasting Package of the Combined Modelling and Appraisal Report (Application Document 7.7)
- Transport Assessment (Application Document 7.9)
- ES Chapter 5: Air Quality (Application Document 6.1)

- ES Chapter 12: Noise and vibration (Application Document 6.1)
 - ES Chapter 13: Population and Human Health (Application Document 6.1)
 - ES chapter 16: Cumulative Effects Assessment (Application Document 6.1)
- 1.2.7 *The information will be clearly signposted and explained within the ES. You have already had sight of these other documents as part of the DCO V1 documents.”*
- 1.2.8 Following that response, further feedback was received from London Borough of Havering in September 2021, as follows:
- 1.2.9 *“Whilst it is noted that assessments that would normally be included in an ES transport assessment will be found in other documentation that forms part of the Application, Havering would expect all the relevant information pertaining to a transport assessment to be found in a single document. In particular it is important that this information is easily accessible for all stakeholders in one document rather than having to read across several documents.”*
- 1.2.10 A more detailed response was provided by Thurrock Council in October 2021, which stated the following. The full response is provided in Appendix A.
- 1.2.11 *“The Council are not yet close to understanding or agreeing the content of the seven documents listed in NH’s response. The Council question where the environmental effects of construction traffic is dealt with and the derivation of appropriate data for those assessments. The Council also question where other environmental effects, e.g., severance, through both the construction and operational stages are going to be dealt with, as the Council do not believe that the ES Population and Human Health chapter currently deals with this matter.*
- 1.2.12 *The Council’s requirement is that a transport chapter is included within the ES. This will ensure that all of this information is clearly dealt with in one place, providing a more legible understanding of impacts in a transparent manner. In doing so, this will help facilitate a collaborative approach to identify and mitigate impacts locally. A transport chapter should set out:*
- 1.2.13 *Preparation of data to underpin assessment of operational and construction transport effects;*
- 1.2.14 *Assessment of transport related effects, e.g. severance etc; and*
- 1.2.15 *References to the assessments relating to air quality, noise, human health and cumulative assessment.”*

2 Requirements for an ES traffic and transport assessment

2.1 Requirements

- 2.1.1 The Annex to the Planning Inspectorate Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements states the following:

- 2.1.2 *“Schedule 4 (Paragraph 4) of the EIA Regulations provides a list of the environmental aspects which (where relevant) should be considered when determining significant environmental effects. These are:*
- *Biodiversity (for example fauna and flora);*
 - *Water (for example hydromorphological changes, quantity and quality);*
 - *Air;*
 - *Landscape;*
 - *Cultural heritage, including architectural and archaeological aspects;*
 - *Land (for example land take);*
 - *Soil (for example organic matter, erosion, compaction, sealing);*
 - *Material assets;*
 - *Population;*
 - *Human health; and*
 - *Climate (for example greenhouse gas emissions, impacts relevant to adaptation).*
- 2.1.3 *Traffic and transport is not a specified aspect identified by the Regulations. However, good practice indicates that this can be an important consideration when assessing environmental impacts particularly in terms of interrelated impacts to air quality, noise and vibration and where relevant this should be assessed.”*
- 2.1.4 The National Policy Statement for National Networks (NPSNN) states the following in relation to impacts on transport networks from road and rail developments:
- 2.1.5 *“5.206 For road and rail developments, if a development is subject to EIA and is likely to have significant environmental impacts arising from impacts on transport networks, the applicant’s environmental statement should describe those impacts and mitigating commitments.”*

2.2 Guidance documents

- 2.2.1 The Design Manual for Roads and Bridges (DMRB) does not include a requirement or methodology for traffic and transport assessment chapter within the ES.
- 2.2.2 In general, the guidance followed for environmental assessment of traffic and transport is the Environmental Assessment of Road Traffic published by Institute of Environmental Management and Assessment (IEMA) in 1993 (referred to as the IEMA guidance). This includes the following topics:
- a. Noise
 - b. Vibration
 - c. Visual effects
 - d. Severance*

- e. Driver delay*
- f. Pedestrian amenity*
- g. Fear and intimidation*
- h. Accidents and safety*
- i. Hazardous loads*
- j. Air pollution
- k. Dust and dirt
- l. Ecological effects
- m. Heritage and conservation areas

2.2.3 In a typical ES structure where a traffic and transport assessment included, the scope items that could fall within that chapter are identified by *.

3 Traffic and transport assessment within DCO 2.0 application documents

3.1 Gap Analysis

- 3.1.1 A gap analysis was carried out during 2021 to identify how the required scope of a traffic and transport assessment chapter (identified by * in the list in paragraph 2.2.2) was covered within the application documents presented for DCO 1.0.
- 3.1.2 This identified that the assessment scope was mostly covered in the application documents for DCO 1.0 with the exception of hazardous loads and driver stress.
- 3.1.3 The key documents that covered the scope of the assessment were:
- a. Transport Assessment (TA) (Application Document 7.9)
 - b. ES Chapter 13: Population and Human Health (Application Document 6.1)
 - c. Health and Equalities Impact Assessment Report (HEqIA) (Application Document 7.10)
- 3.1.4 Additional information to support the modelling information presented in the TA was also provided in the Combined Modelling and Appraisal Report (ComMA) (Application Document 7.7).
- 3.1.5 The IEMA guidance requires assessment of hazardous loads and paragraph 4.43 of the guidance states that “Some developments may involve the transportation of dangerous or hazardous loads by road and this should be recognised within any Environmental Statement. Such movements should include specialist loads which might be involved in the construction or

decommissioning phases of the development in addition to movement associated with the operation of the establishment". It is considered that the loads moved during the construction and operation phases are not different to those in standard scenarios, and so was scoped out of assessments for DCO 1.0.

- 3.1.6 The Scoping Report presented to the Planning Inspectorate in 2017 referenced DMRB advice which has now been withdrawn. There have been changes from the guidance presented in Volume 11, Section 3, Part 9 (Vehicle Travellers) compared to the methodology now presented in DMRB LA 112 Population and Human Health. Volume 11, Section 3, Part 9 included assessment of driver stress as a topic, however this is neither a requirement under LA 112 nor in the IEMA guidance. It was identified in the Scoping Report to be included qualitatively in the ES and defined with three components:
- a. Frustration (such as caused by congestion or roadworks)
 - b. Fear of potential accidents
 - c. Route uncertainty
- 3.1.7 Due to the removal of driver stress from the DMRB guidance, it was not covered in the ES Chapter 13 and referred readers to the TA. The gap analysis identified that driver stress was not sufficiently covered in the TA.

3.2 Proposed approach for DCO Application 2.0

- 3.2.1 Following the completion of the gap analysis, the Project agreed that subject to appropriate updates and additions, the required scope would be covered across the suite of application documents for DCO 2.0.
- 3.2.2 In seeking to address the feedback received from London Borough of Havering and Thurrock Council, discussed in section 1.2, it is proposed that the traffic and transport assessment would be presented more simply and clearly within the TA and the ES as described below.
- 3.2.3 The TA would present the assessment of the effects from the construction and operation of the Project on the transport networks. This would include the information that is derived from the transport modelling, for example changes in traffic flow, volume and capacity, effects on journey time, public transport, accidents and road safety. The TA would present how the following transport networks are affected during both construction and operation:
- a. Highways
 - b. Public transport (including buses and coaches, rail, and river users)
 - c. Walkers, cyclists, and horse riders
- 3.2.4 The ES would present the assessment of how environmental receptors would be affected by the changes to the transport network reported in the TA.
- 3.2.5 It was proposed that the ES would be updated for DCO Application 2.0 as follows:

- a. Chapter 1: Introduction – To include a brief description of the content of the TA and HEqIA, making it clear that these documents contain relevant transport assessment information.
- b. Chapter 4: Methodology – To provide a detailed explanation of the approach taken for traffic and transport assessment and additional justification on why it is not included as a chapter in the ES .i.e. the assessment is covered within relevant application documents. The chapter would also describe in general, how outputs from the transport modelling have been used in the ES assessment.
- c. Appendix 4.4 – A new appendix to Chapter 4 would be produced to provide signposts to the relevant sections of the application documents, where the detail of traffic and transport assessments can be found.
- d. Topic chapter – Each topic chapter which uses outputs from the transport modelling would include a more detailed description of the how the data is used. This would supplement the more generic information presented in Chapter 4. The relevant topic chapters are:
 - i. Chapter 5: Air quality
 - ii. Chapter 6: Cultural Heritage
 - iii. Chapter 7: Landscape and Visual
 - iv. Chapter 8: Terrestrial Biodiversity
 - v. Chapter 12: Noise and Vibration
 - vi. Chapter 13: Population and Human Health
 - vii. Chapter 14: Road Drainage and the Water Environment
 - viii. Chapter 15: Climate
 - ix. Chapter 16: Cumulative Effects Assessment

3.2.6 The relevant environmental topic chapters would include the environmental assessment of the changes to the transport networks. The typical content of an ES traffic and transport assessment chapter would be presented in Chapter 13: Population and Human Health. Table 1 provides further information on each scope item based on the IEMA guidance, how this was included within the Scoping Report, and how the assessment will be presented in the ES.

Table 4.1 - Traffic and transport assessment in the ES

Traffic and transport assessment scope	Guidance document	Included in Scoping Report	Relevant ES chapter	Comment
Severance	IEMA guidance DMRB LA 112	Yes	Chapter 13 – Population and Human Health	
Driver delay	IEMA guidance DMRB LA 112	Not specifically identified in Scoping Report	Chapter 13 – Population and Human Health	Included as part of accessibility assessment in Chapter 13
Pedestrian amenity	IEMA guidance DMRB LA 112	Yes	Chapter 13 – Population and Human Health	
Fear and intimidation	IEMA guidance	Yes	Chapter 13 – Population and Human Health	Fear of accidents is included as part of driver stress assessment
Accidents and safety	IEMA guidance DMRB LA 112	Yes	Chapter 13 – Population and Human Health	
Hazardous loads	IEMA guidance	No	Scoped out of ES (paragraph 3.1.5 shown above)	
Driver stress	DMRB Volume 11 Part 3 Section 9 (withdrawn)	Yes	Chapter 13 – Population and Human Health	Included in ES, although no longer required by DMRB

- 3.2.7 To ensure compliance with the Scoping Opinion a qualitative assessment of driver stress would be included within Chapter 13: Population and Human Health with further detail presented in the Health and Equalities Impact Assessment (HEqIA) (Application Document 7.10).
- 3.2.8 As for DCO 1.0, the HEqIA will provide further detail on the health assessment reported in ES Chapter 13 – Population and Human Health.

4 Next steps

- 4.1.1 The next steps for the Project will be the preparation of the assessment information for presentation in the TA and the ES for DCO resubmission during 2022.
- 4.1.2 We will be seeking to agree the approach to presentation of traffic and transport assessment with stakeholders as part of the process for agreeing Statements of Common Ground.

References

Department for Transport (2019). Transport Analysis Guidance Unit A3: Environmental Impact Appraisal. Accessed October 2020.

<https://www.gov.uk/government/publications/tag-unit-a3-environmental-impact-appraisal>

Highways England (2020). Design Manual for Roads and Bridges, LA104 Environmental Assessment and Monitoring <https://www.standardsforhighways.co.uk/dmrb/>

Highways England (2020a). Design Manual for Roads and Bridges, LA 112 Population and Human Health. <https://www.standardsforhighways.co.uk/dmrb/>

Institute of Environmental Management and Assessment (1993). Guidelines for the Environmental Assessment of Road and Traffic 1993

<https://www.iema.net/resources/event-reports/2020/02/13/iema-impact-assessment-guidance>

The Planning Inspectorate (2017). Scoping Opinion: Proposed: Lower Thames Crossing

<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010032/TR010032-000033-LTC%20-%20Scoping%20Opinion.pdf>

Appendix A – Thurrock Council Response

Re. Transport Matters in the LTC ES and DCO (13.10.21)

The Council write in response to the email from NH received on 27 August 2021 regarding the transport information in the ES/ DCO, as set out below.

As NH are aware, the Council have repeatedly requested that a transport chapter ought to be included in the ES. Paragraph 3.3.5 of the Scoping Opinion states that:

‘While the structure of the ES remains for the Applicant to decide, the information that would be expected to appear in a Transport chapter must be provided in the ES. The ES must demonstrate where the information gathered as part of the traffic assessment has been applied to other assessments within the ES. The absence of a Transport chapter, supported by a Transport Assessment, has been noted by Essex County Council (ECC), the London Borough of Havering (LBH), and Thurrock Council (TC). The Inspectorate considers that these concerns should be addressed.’

The Meeting Note issued by PINS in November 2020 post withdrawal of DCOv1 (‘the PINS Meeting Note’) raises concerns with the adequacy of assessments of likely environmental effects arising from changes in traffic level during the construction period and the mitigation measures relevant to construction traffic.

Paragraph 1 of the PINS Meeting Note states ‘Highway diversions, realignments and closures are listed in the DCO for several local roads during the construction period, but the effects arising from those during the various phases of the construction period are not quantified or considered in detail.’

Paragraph 2 states ‘construction traffic management proposals and other mitigation measures in the Transport Assessment, ES Appendix 2.1, Code of Construction Practice and Register of Environmental Actions and Commitments (REAC) relevant to construction traffic are largely generic and lacking in detail. The extent to which advice from local authorities, residents and businesses on construction traffic and related matters has been obtained or incorporated is not clear. It is not apparent whether the mitigation measures would, or could, be consistent with the traffic modelling, with the transport assessment or with the assessments of likely environmental effects in the Environmental Statement (ES).’

Paragraph 3 states ‘the adequacy of the assessments of likely environmental effects arising from changes in traffic level during the construction period does not appear to have been demonstrated.’

The email from NH on 27 August 2021 states:

‘The ES will clearly explain that while a separate ES transport assessment chapter has not been produced, the assessments typically included in an ES transport assessment chapter are in fact provided in the following DCO documents:

- Appendix B: Transport Model Package (Application Document 7.7)
- Appendix C: Transport forecasting Package of the Combined Modelling and Appraisal Report (Application Document 7.7)
- Transport Assessment (Application Document 7.9)
- ES Chapter 5: Air Quality (Application Document 6.1)
- ES Chapter 12: Noise and vibration (Application Document 6.1)

- ES Chapter 13: Population and Human Health (Application Document 6.1)
- ES chapter 16: Cumulative Effects Assessment (Application Document 6.1)

The information will be clearly signposted and explained within the ES. You have already had sight of these other documents as part of the DCOV1 documents.'

In the Council's view, this response does not address the comments in the Scoping Opinion or the PINS Meeting Note. The response does not explain where Thurrock Council can locate information, in particular, the underpinning transport data for the separate transport and environmental assessments. The requirements for transport is set out in the NPS NN and the PINS note.

Paragraph 5.206 of the National Policy Statement for National Network (NPS NN) states that: 'For road and rail developments, if a development is subject to EIA and is likely to have significant environmental impacts arising from impacts on transport networks, the applicant's environmental statement should describe those impacts and mitigating commitments. In all other cases the applicant's assessment should include a proportionate assessment of the transport impacts on other networks as part of the application.'

The criteria for assessing significance of effect within an ES are different to the typically capacity based judgement taken within a TA. The TA provided for DCOV1 covered some of the topics usually covered in an ES transport chapter, but did not provide the technical justification and underpinning data for the assessment of environmental effects (for both construction and operational effects), nor assess the significance of the magnitude of effect in the way an ES would and did not propose mitigation for those impacts.

The Council are not yet close to understanding or agreeing the content of the seven documents listed in NH's response. The Council question where the environmental effects of construction traffic is dealt with and the derivation of appropriate data for those assessments. The Council also question where other environmental effects, e.g. severance, through both the construction and operational stages are going to be dealt with, as the Council do not believe that the ES Population and Human Health chapter currently deals with this matter.

The Council's requirement is that a transport chapter is included within the ES. This will ensure that all of this information is clearly dealt with in one place, providing a more legible understanding of impacts in a transparent manner. In doing so, this will help facilitate a collaborative approach to identify and mitigate impacts locally. A transport chapter should set out:

- Preparation of data to underpin assessment of operational and construction transport effects;
- Assessment of transport related effects, e.g. severance etc; and
- References to the assessments relating to air quality, noise, human health and cumulative assessment.