

Lower Thames Crossing 9.105 Applicant's Comments on IP Responses to ExQ1 at Deadline 4

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Lower Thames Crossing

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1 Introduction

1.1 Introduction

- 1.1.1 The Applicant has reviewed the submissions of the Examining Authority's First Written Questions (ExQ1) by others from Deadline 4.
- 1.1.2 The Applicant has determined that in order to assist the Examining Authority and the Examination process, it would provide a response to the following submissions:
- a. Topic 3: Consideration of alternatives (Section 2 of this report)
 - b. Topic 4: Traffic and transport (Section 3 of this report)
 - c. Topic 5: Air quality (Section 4 of this report)
 - d. Topic 8: Waste and materials (Section 5 of this report)
 - e. Topic 9: Noise and vibration (Section 6 of this report)
 - f. Topic 10: Road drainage, water environment and flooding (Section 7 of this report)
 - g. Topic 11: Biodiversity (Section 8 of this report)
 - h. Topic 12: Physical effects of development and operation (Section 9 of this report)
 - i. Topic 10: Social, economic and land-use considerations (Section 11 of this report)
- 1.1.3 Where a stakeholder response to a question is not identified below, the Applicant has no further comments to make at this stage.
- 1.1.4 The Applicant has not sought to provide a summary or extract of the Interested Parties' (IPs') responses to the written question, to avoid misrepresenting statements made by others. Instead, the Applicant has provided links to source documents for each response below.
- 1.1.5 The Applicant has no comments to make on the submissions by IPs on the following ExQ1 topics:
- a. Topic 1: Project definition
 - b. Topic 2: Climate change and carbon emissions
 - c. Topic 6: Geology and soils
 - d. Topic 7: Tunnelling
 - e. Topic 15: The acquisition and temporary possession of land and rights (CA & TP)
 - f. Topic 16: General and overarching questions

1.2 Signposting to other responses to Deadline 4 submissions

- 1.2.1 This does not include those submissions in relation to the following:
- a. Responding to post-event submissions by others. For information on this, refer to the Applicant's Responses to IP's post-event submissions at Deadline 4 [**Document Reference 9.115**].
 - b. Responding to the other submissions at Deadline 4. For information on this, refer to the Applicant's Comments on IP submissions at Deadline 4 [**Document Reference 9.116**].
 - c. Any comments made on the draft Development Consent Order (dDCO), planning obligations, agreements and the adequacy of security. These have been covered in the Applicant's response to IP's comments on the dDCO at Deadline 4 [**Document Reference 9.118**].

2 Topic 3: Consideration of alternatives

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q3.1.1	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: Thurrock Council state in their Responses to ExQ1 [REP4-353] at Point 3 (page 25): <i>‘3. Consideration of other management solutions: the capacity of the northbound direction of Dartford Crossing through the tunnels is constrained by the need to manage the movement of hazardous loads. The applicant reports that this reduces capacity by c8%-12% (see paragraph 4.2.14 of ‘Need for the Project’ (APP-494)). Different management arrangements and / or the use of Silvertown Tunnel for these movements would potentially help increase the capacity of the crossing, particularly in peak hours. This is a further example of a potential solution which has not been assessed by the applicant.’</i> While the Dangerous Goods Vehicles (DGV) escorts do lead to disruption of traffic flows, Dartford Crossing will remain a critical link on the strategic road network. In terms of DGVs, the Dartford Crossing provides the only crossing east of central London that can accommodate vehicles allowed through category C and category D tunnels. Silvertown Tunnel will not change this position, as it is proposed to be a category E tunnel and will therefore not be capable of carrying dangerous goods vehicles. A typical fuel tanker can only use a category C tunnel. Introducing a prohibition on dangerous goods vehicles at the Dartford Crossing would require vehicles from east London to take an extended diversionary route to the A122 Lower Thames Crossing, requiring certain journeys to substantially increase in length. In particular, the Applicant notes the substantial bulk liquid terminals adjacent to the Dartford Crossing, which supply fuel across the region. Removing the requirement for escorts would also not be feasible without having the A122 Lower Thames Crossing in place. Conversely, the relief provided by the A122 Lower Thames Crossing to the Dartford Crossing would reduce the disruption arising from the escorts. It should be noted that the capacity constraints resulting from the need for escorts have been accounted for in the traffic modelling. The key justifications for retaining provision for DGVs at Dartford Crossing once the Lower Thames Crossing is operational are:</p> <ul style="list-style-type: none"> • retention of route choices, including the avoidance of diversion of Dangerous/Oversized Goods Vehicles from the M25 to the Lower Thames Crossing • maintaining operational flexibility and resilience between the Dartford Crossing and Lower Thames Crossing.

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q3.2.1	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The Applicant’s consideration of ‘reasonable alternatives’ to the Project is set out in Environmental Statement (ES) Chapter 3: Assessment of Reasonable Alternatives [APP-141] and Section 5.3 of the Planning Statement [APP-495]. These documents describe the thorough assessment and re-assessment of alternatives that has taken place throughout the evolution of the Project.</p> <p>Section 3.6 of ES Chapter 3 [APP-141] addresses strategic alternatives with Section 5.3 of Chapter 5 of the Planning Statement [APP-495] presenting an assessment of the role which might be played by alternative modes of transport. This includes paragraph 5.3.12 of the Planning Statement [APP-495]:</p> <p><i>‘a. Road based public transport and non-motorised modes that could eliminate/reduce the need for the new crossing or change the location.</i></p> <p><i>b. Rail based passenger services to replace the road crossing with a rail crossing (or provide a road/rail crossing of a different standard).</i></p> <p><i>c. Rail based freight services to reduce the truck traffic and reduce/eliminate the need for a new road crossing or provide a road/ rail crossing solution.</i></p> <p><i>d. Ferries across the Thames as an alternative or supplement to a fixed crossing.</i></p> <p><i>e. Non-motorised modes (cycling and walking).’</i></p> <p>In terms of Thurrock Council’s alleged ‘missed opportunity to improve public transport’, paragraph 5.3.14 in Chapter 5 of the Planning Statement [APP-495] notes that:</p> <p><i>‘...traffic models have established that the majority of the traffic is not travelling between Kent and Essex and the diverse pattern of origins and destinations makes the provision of viable bus services difficult. Routing via the Dartford Crossing adds significantly to the length of any services linking north Kent and south Essex. Having regard to this, along with the very large number of bus services which would be required to carry the estimated passenger trips per day, as indicated above, (and to cater for the diverse origins and destinations of the trips) the provision of road based public transport as a modal alternative would not meet the Scheme Objectives.’</i></p> <p>Nonetheless, the Project would create the opportunity for commercial bus operators to offer enhanced bus services should those operators determine that there is sufficient demand to offer such services. Such opportunity constitutes a positive outcome in respect of public transport.</p>

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		<p>The conclusion (paragraph 5.3.23 of the Planning Statement [APP-495]) is that: <i>‘...the need for the Project, stemming from existing congestion at the Dartford Crossing, cannot be resolved by provision of a new rail crossing, provision of a ferry service, or provision of active travel measures. While road based public transport may be a contributory element to the solution, this is not achievable without the provision of a new road crossing.’</i></p> <p>The Applicant further considered the issue of modal alternatives in its post event submissions to Issue Specific Hearing 1 held on 21 and 23 June 2023 [REP1-183] in paragraph 4.2.3 and Annex B. Section B.4 of Annex B specifically addresses points made by Thurrock Council in respect of public transport alternatives to the Project.</p> <p>Section 4.4 of the Transport Assessment demonstrates how the Applicant has followed relevant Transport Assessment Guidance [REP4-148, REP4-150 and REP4-152].</p> <p>The Applicant demonstrates accordance with paragraph 4.27 of the National Policy Statement for National Networks (NPSNN)¹ on pages 40-42 of Planning Statement Appendix A: National Policy Statement for National Networks Accordance Table [APP-496].</p> <p>Accordingly, the Applicant considers that this assessment of alternatives complies with the requirements of all relevant policy and guidance and the Project would deliver benefits for public transport opportunities through the provision of a new road river crossing.</p>
ExQ1_Q3.2.2	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The Applicant has reviewed the submission by Thurrock Council in relation to ExQ1_Q3.2.2, and notes that this response needs to be considered alongside the submission by Thurrock Council in relation to their consideration of the modelling undertaken by the Applicant with regard to alternatives incorporating a Tilbury Link Road (as set out in page 90 onwards of the Thurrock Council Local Impact Report (LIR) Appendix B [REP1-283]). The Applicant’s position on this was set out at Annex E.6 and E.9 to the Post event submissions, including written submission of oral comments, for ISH1 [REP1-183].</p> <p>Thurrock Council makes reference to the inclusion of a junction in Tilbury as part of Route 2 presented by the Applicant at the non-statutory consultation in 2016, prior to the preferred route announcement. The Applicant</p>

¹ Department for Transport (2014). National Policy Statement for National Networks (NPSNN). Accessed September 2023.
<https://assets.publishing.service.gov.uk/media/5a7e0a40ed915d74e6223b71/npsnn-web.pdf>

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		<p>has provided a detailed description of the route selection process at Section 5.4 of the Planning Statement [APP-495] including the reasons for discounting Route 2. As noted at paragraphs 5.4.94 to 5.4.98, Route 2 would have been closest to existing urban areas, and by utilising a section of the A1089 would have required challenging works and led to mixing of local and long distance traffic. Furthermore, Route 2 had significant adverse impacts on road safety on the A1089 and was not supported by the public or key stakeholders. Thurrock Council suggests there could be land reduction at the A13/A1089 through:</p> <ul style="list-style-type: none"> • Inclusion of a Tilbury Link Road (as envisaged by Thurrock) as part of the A122 Lower Thames Crossing • Removing links at the A13 junction, specifically removing: 1) the links from the A1089 to the A122 Lower Thames Crossing northbound and southbound and 2) the links between the A122 Lower Thames Crossing north of the A13 to and from the A13 eastbound. <p>The Applicant has set out its position on the Tilbury Link Road a number of times, including in response to point 8.5.2 of Thurrock Council’s LIR; see the Applicant’s Comments on LIRs Appendix H: Thurrock Council (Part 2 of 5) [REP2-063].</p> <p>Specifically in response to Thurrock Council’s characterisation of National Highways position the Applicant notes the following regarding Point 5. Thurrock Council state National Highways position to be ‘<i>A link road would not contribute to the Scheme Objective of relieving the congested Dartford Crossing and approach roads and improving their performance by providing free-flowing north-south capacity</i>’. National Highways does not consider that a link road would not have its own benefits, but that it is not required to achieve the Scheme Objectives.</p> <p>Removal of the link from the A1089 to the A122 northbound would have an adverse impact on the relief that the Project provides to M25 junction 30. Currently traffic on the A1089 that is heading north on the M25 is required to join the M25 at junction 30, making a right turn using the signalised roundabout at this junction. The link from the A1089 to the A122 northbound provides a direct free-flow connection to the M25 northbound. This provides a shorter route for traffic from the A1089 going north on the M25. It removes this traffic from the A13 between A1089 and the M25 junction 30 and on the M25 between junction 30 and junction 29. It removes right-turning traffic from the M25 junction 30 and so improves the performance of this junction. As well as providing essential relief to the M25 junction 30, this link provides a significant benefit to commercial businesses in the Tilbury area, including the Port of Tilbury.</p> <p>If the Tilbury Link Road were in place, there would be an alternative movement along the Tilbury Link Road onto the A122 northbound. However, for vehicles coming from the Port of Tilbury and the surrounding businesses, this journey would be longer than the route with the A13/A1089/A122 connection. In addition, due to space constraints in relation to the location of the tunnel portal and the Tilbury Loop railway line, the</p>

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		<p>connection between the Tilbury Link Road and the A122 could not be provided by free-flow links so roundabouts would be required at the junction.</p> <p>Removal of the link from the A1089 to the A122 southbound would similarly have an adverse impact on the relief that the Project provides to M25 junction 30 of the M25, unless the Tilbury Link Road were in place to take this traffic.</p> <p>The links between the A122 north of the junction to and from the A13 east of the junction are included to provide direct free-flow access to and from the M25 for communities and business to the east of the junction between the Project and the A13. Removal of these links would require traffic to either use M25 junction 30 and the existing A13, or to use the A127 and the A128. In the first instance, this again leads to increased congestion on critical approach roads to the Dartford Crossing. In the latter case, this redistributes traffic onto smaller local roads and, particularly in the case of the A128, roads that are a focus for residential developments.</p> <p>Overall, the configuration proposed by Thurrock Council would give rise to a reduction in the relief provided by the Project to the A13 westbound and the M25 northbound between junction 30 and junction 29, as compared to the scenario with the proposed A122 Lower Thames Crossing configuration. It would increase flows along the A128 and the A127, as traffic would choose these routes. It would also remove all of the direct free-flow links to the north which contribute to the improved journey times reported for the Port of Tilbury and DP World London Gateway.</p> <p>The provision of a Tilbury Link Road, with the removal of the direct links from the A122 to the A1089 and from the A122 north to and from the A13, would also result in trips re-routing through the residential areas in Tilbury to access the Project via a Tilbury Link Road.</p> <p>A Tilbury Link Road is not part of the Applicant’s DCO application and is under separate consideration by National Highways. However, in order to provide comfort that the Project does not impede the delivery of that scheme, the Applicant has inserted Requirement 17 into Schedule 2 to the draft DCO [Document Reference 3.1 (7)].</p>

3 Topic 4: Traffic and transportation

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q4.1.8	Port of Tilbury London Ltd	<p>ExQ1 response by stakeholder: [REP4-348]</p> <p>Applicant’s response: The Applicant has provided PoTLL with a further sensitivity test from the Project’s transport model which includes the proposed Thames Freeport development at the Port of Tilbury in the Do-Minimum scenario (i.e. without the Project). The outputs from this run result in very similar results to that in the run previously provided by the Applicant to PoTLL (which assessed the impact of the proposed Thames Freeport development at the Port of Tilbury in the Do-Something scenario (i.e. with the Project)).</p>
ExQ1_Q4.1.10	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: Response to ‘<i>Strategic model does not reflect the queuing and delay forecast by the Orsett Cock microsimulation model</i>’: The Applicant’s view is set out in Comments on LIRs Appendix H:Thurrock Council [REP2-063], response to page 108-111 of the LIR. Response to ‘<i>Need for a micro-simulation model</i>’: The Applicant’s view is set out in Comments on LIRs Appendix H:Thurrock Council [REP2-063], response to page 108-111 of the LIR. Response to ‘<i>Microsimulation model network assumptions are different from Orsett Cock Design</i>’: <ul style="list-style-type: none"> Item 1 (short weaving length): The Applicant is aware of this short weaving length and would have the ability to address this at the detailed design and implementation stage through the application of the limits of deviation applicable to works 7I and 7G as set out in Sheet 32 of the Works Plans Volume C Composite [REP4-044]. </p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<ul style="list-style-type: none"> Item 2 (design fix before localised modelling agreed with the Council): The Applicant has responded to this in paragraph A.7.4 of Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180]. Item 3 (VISSIM modelling as part of the design process): The Applicant has responded to this in paragraph A.7.4 of Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180]. <p>Response to ‘<i>Wider Implications for Applicant’s Transport Assessment and LTC scheme design if Orsett Cock not modelled nor impacts understood</i>’: These implications would not arise because the Orsett Cock junction has been modelled and the impacts are understood.</p>
ExQ1_Q4.1.14	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: Response to ‘<i>LTAM forecasting is based on very outdated data</i>’: The Applicant has provided a response to this in Section A.7 of Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180].</p> <p>Response to ‘<i>Inadequate Consideration of Uncertainty in Forecasting</i>’: The Applicant has responded to this matter in Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062] in response to LIR Page 85-88. A response is also provided in paragraph 3.1.23 to 3.1.28 of Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180].</p> <p>Response to ‘<i>Incorrect assessment of Heavy and Light Goods Vehicles</i>’: The Applicant has provided a response to this in Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180], paragraphs A.6.14 to A.6.17.</p> <p>Response to ‘<i>Other challenges with TAG compliance</i>’: In response to the comment about high values of carbon, the Applicant has provided a response to this in Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180], paragraphs A.6.19. In response to the comment on wider economic impacts, the Applicant has provided a response to this in Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180], paragraphs A.6.23 to A.6.24.</p>

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ExQ1_Q4.3.3	DP World London Gateway (DPWLG)	<p>ExQ1 response by stakeholder: [REP4-366]</p> <p>Applicant’s response: The Applicant would make the following comments on the response provided by DPWLG to this question. Slide 31 of 9.96 Visual Representation of A13-A1089-LTC [REP4-207] does not suggest that movements will use M25 junction 30 to reach Tilbury. The slide simply provides the route by which traffic from M25 junction 30 can reach Tilbury once the Project opens.</p> <p>Tables 8.29 to 8.31 of the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package [APP-522] show select link analysis in 2037 in the AM, inter-peak and PM peak modelled hours. The 9% figure quoted by DPWLG is for traffic on the A122 (the Project) heading north across the River Thames, which heads to the A1089.</p> <p>DPWLG also quote paragraphs 7.3.28 and 7.3.29 of the Transport Assessment [REP4-148] (which relate to the AM peak in 2045) and state that ‘<i>there is clearly a heavy reliance on Orsett Cock to accommodate these movements</i>’. This, assuming that DPWLG are referring to the red highlighted parts (their emphasis) of these paragraphs, is incorrect. Part b of paragraph 7.3.28 states that 20% of HGVs (travelling north across the River Thames on the A122) is destined for the A13 eastbound. Of the 20%, 13% would head to the A1089 via the Orsett Cock junction, with the remainder (7%) joining the A13 before the Orsett Cock junction. Part c of paragraph 7.3.29 states that 13% of HGVs (travelling south across the River Thames on the A122) would come from the A1089 northbound. None of this traffic would route via the Orsett Cock junction to access the A122 to head south of the River Thames.</p> <p>DPWLG also state that ‘<i>The level of U-turning traffic (i.e. A13-EB – A13WB) is lower than DTA had previously thought and is around 309 PCUs</i>’. The Applicant would like to clarify that, there would be no vehicles that U-turn at the Orsett Cock junction in the Do Something scenario. It is possible that DPWLG are referring to trips that use the Project and the Orsett Cock junction to reach the A13 eastbound. The extract from the Project’s transport model provided by DPWLG presents movements from the A122 via the Orsett Cock junction in the 2030 PM peak which shows only 28 PCUs head westbound on the A13.</p> <p>Finally, based on the same extract from the LTAM, DPWLG state that circa 600 PCUs would use the Orsett Cock junction and the A1013 to reach Stanford-le-Hope. While it is the case that the LTAM forecasts that there would be 582 PCUs in the PM peak travelling on the A1013 eastbound from the Orsett Cock junction it</p>

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		<p>clearly shows that only 201 PCUs head to Stanford-le-Hope. The other traffic is going to other destinations, not to Stanford-le-Hope.</p> <p>The Applicant held a workshop with Thurrock Council, Essex County Council, DPWLG and Port of Tilbury London Limited (PoTLL) on 25 September 2023 in relation to the Orsett Cock junction, and a position statement, ISH7 action point 6 – Orsett Cock [Document Reference 9.113], has been submitted to the ExA at Deadline 5.</p>
ExQ1_Q4.3.7	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: In response to ‘<i>Introduction</i>’: The Applicant has shared operational junction modelling with the Council. This is evident from Comments on LIRs Appendix H: Thurrock Council (Part 1 of 5) [REP2-062], response to LIR paragraphs 6.3.1 to 6.3.3. In response to ‘<i>Lack of Modelling information</i>’: The Applicant has shared operational junction modelling of the Orsett Cock junction with the Council. This is evident from Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062], response to LIR Paragraph 6.3.1-6.3.3. In addition, the Council states that it ‘<i>can only analyse the benefits to trips which have both and origin and destination in Thurrock (because full trip information has not been provided for trips which cross the cordon)</i>’. This is not correct. Full trip information is not necessary in order to understand the effects of the Project on the Thurrock road network; the performance of trips which cross the cordon is included for that part of the trips which is within the cordon. Information on the part of trips outside of the cordon is irrelevant to understanding the effects on the network inside the cordon. In response to ‘<i>LTAM does not reflect the queuing and delay modelled by VISSM</i>’: The Applicant has responded to this in Applicant’s comments on IP submissions at Deadline 1 to 3 Table 3.1, response to Section 14, submitted at Deadline 5. In response to ‘<i>There are significant outstanding issues with the Applicant’s assessment of benefits and disbenefits</i>’: The Council has simply restated its position expressed in Section 7 of its LIR [REP1-281]. The Applicant has already responded to these points as expressed in its response to the LIR in Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062].</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>In response to ‘Information required to enable Thurrock Council to understand and agree benefits and disbenefits’:</p> <p>In respect of agreement of the localised base and forecast junction models in Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180], paragraphs 3.120 to 3.121 set out pathways to achieving this. With respect to incorporating micro-simulation modelling parameters into the LTAM, the Applicant has responded to this in Appendix A, Sections A.3 to A.5 of Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180]. In respect of reliability benefits the Applicant has previously responded in Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062] in response to page 79 of the LIR. In respect of construction disbenefits the Applicant has also previously responded in Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062] to address page 79 of the LIR. In response to Wider Economic Costs the Applicant has provided its response in Comments on LIRs Appendix H – Thurrock Council (Part 1 of 5) [REP2-062] in response to page 80 of the LIR.</p> <p>In response to ‘What overall assessment of the effect of LTC on its network which weighs the positive and negative effects in the balance has the Council undertaken’:</p> <p>The Applicant notes that the Council acknowledged user benefits of £454 million that would occur in Thurrock. These are in 2010 prices and values. The Applicant also notes that the Council considers that the Project would provide significantly more negative effects than positive effects, yet does not explain this in the context of the acknowledged economic benefit that is forecast to occur in Thurrock.</p>
ExQ1_Q4.6.5	Port of Tilbury London Ltd	<p>ExQ1 response by stakeholder: [REP4-348]</p> <p>Applicant’s response:</p> <p>The Applicant has noted the technical questions that PoTLL raised in relation to the Asda roundabout VISSIM construction modelling that was raised at ISH4. The Applicant has corresponded with PoTLL to understand their concerns in more detail and awaits their response.</p> <p>It is important to note that as set out in Annex C to Post-event submissions, including written submission of oral comments, for ISH4 [REP4-180], the Applicant’s construction assessment is a precautionary approach which reflects a reasonable worst case. Particular attention is drawn to paragraph C.2.9.</p> <p>The Applicant considers that the control documents, namely the Framework Construction Travel Plan [REP4-158] and the outline Traffic Management Plan for Construction [REP4-160] provide a robust basis that</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>would enable the Applicant to manage and minimise any impacts that would arise. As PoTLL note, the Applicant is also developing a bespoke traffic management protocol with them which recognises the importance of the Port, which once fully agreed would provide a suite of additional controls.</p> <p>The Applicant considers that the proposed operational control framework will provide the necessary management of construction traffic, and that close collaboration will be put in place with PoTLL through the aforementioned mechanisms to efficiently manage deliveries and explore solutions in the event traffic issues at Asda roundabout arise. The Applicant has not identified any necessary physical interventions at the Asda roundabout. The specifics of the operational constraints and the requirements for collaboration with PoTLL are currently being discussed and will be incorporated into the bespoke traffic protocol.</p> <p>Notwithstanding the above controls, the Applicant considers that, in the event of any physical interventions that could be implemented at the Asda roundabout to optimise operation of the roundabout for all customers, identified during development of the oTMPfC or otherwise, there are powers in place to address these. As the strategic highway authority for the A1089, National Highways owns and maintains the Asda roundabout. Any improvements would be to the benefit of the overall operation of the roundabout for all customers; as such, they could be undertaken through powers arising from the Highways Act 1980 as part of the Applicant’s duties in relation to the safe and efficient operation of the road network.</p> <p>Dialogue between the Applicant and PoTLL is ongoing regarding these mitigations and await the PoTLL's development of these mitigations for the Applicant's consideration.</p> <p>It is worth noting that following concerns raised by a number of Interested Parties at ISH4, the Applicant has developed Terms of Reference for the Travel Plan Liaison Group, Traffic Management Forum and Workforce Accommodation Working Group, which have been submitted at this deadline (Deadline 5).</p>

4 Topic 5: Air quality

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q5.1.6	London Borough of Havering	<p>ExQ1 response by stakeholder: [REP4-314]</p>
		<p>Applicant’s response: The Applicant refers London Borough of Havering to the detailed response provided to ExQ1_Q5.1.6 [REP4-190]. The response provides details on where compliance with the PM2.5 targets are assessed as detailed in Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.</p>
ExQ1_Q5.1.9	London Borough of Havering	<p>ExQ1 response by stakeholder: [REP4-314]</p>
		<p>Applicant’s response: The Applicant assumes that London Borough of Havering are referring to the Institute of Air Quality Management’s (IAQM’s) Land-Use Planning & Development Control: Planning for Air Quality². This guidance sets out the following in paragraph 6.3: <i>‘As set out in the introduction in Chapter 1, this guidance document is not intended to replace guidance that exists for certain types of development, notably:</i></p> <ul style="list-style-type: none"> • <i>industrial developments that require a Permit;</i> • <i>highways schemes promoted by Highways England; or</i> • <i>activities associated with sources of dust (e.g. mineral extraction, waste handling, construction) or odours.’</i> (emphasis added) <p>Additionally, paragraph 6.4 elaborates further: <i>‘The guidance provided by the Environment Agency and Highways England has a formal status, reflecting the connections these organisations have with Government departments. This EPUK/IAQM guidance has no such status and is not intended as a substitute for the formal guidance’.</i></p> <p>The Applicant’s response to ExQ1_Q5.1.9 [REP4-190] provides a summary of the change at receptors where the change is greater than 1% and where the Air Quality Strategy objectives are not exceeded.</p>

² Institute of Air Quality Management and Environmental Protection UK (2017). Land-Use Planning & Development Control: Planning for Air Quality. Accessed September 2023. <http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		However, the Applicant maintains that Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality ³ , is the most appropriate guidance to use in respect to determining compliance of the Project’s impacts against the National Policy Statement for National Networks (NPSNN) ⁴ .
ExQ1_Q5.1.10	London Borough of Havering	<p>ExQ1 response by stakeholder: [REP4-314]</p> <p>Applicant’s response: In response to the issues raised by London Borough of Havering regarding reliance on contractors defining monitoring requirements, the Applicant considers appropriate controls are in place. In particular, the Register of Environmental Actions and Commitments (REAC), within the Code of Construction Practice [REP4-138], secured under Requirement 4 of Schedule 2 to the dDCO [REP4-094], provides the mechanism to control dust during construction. The Applicant considers that the REAC ensures there are sufficient control measures in place during the construction of the Project. This includes ensuring that best practice mitigation measures are used and that monitoring of these measures will be undertaken by the Contractors. It should be noted that air quality monitoring programs required under the REAC, and which will be reflected in the EMP2, will require SoS approval following consultation with local authorities, including the London Borough of Havering. In addition, the specific REAC measure relating to air quality monitoring (commitment AQ006) refers to consultation requirements.</p>

³ Highways England (2019). Design Manual for Roads and Bridges, LA 105 Air Quality. Accessed September 2023.

<https://www.standardsforhighways.co.uk/search/10191621-07df-44a3-892e-c1d5c7a28d90>

⁴ Department for Transport (2014). National Policy Statement for National Networks.

5 Topic 8: Waste and materials

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q8.1.7	Port of London Authority	<p>ExQ1 response by stakeholder: [REP4-344]</p> <p>Applicant’s response: Response to (1) of Q8.1.7: Paragraph 6.2.13 in the outline Materials Handling Plan (oMHP) [REP4-136] defines bulk aggregates for purposes of the river use commitment. The Applicant has taken a proportionate approach to determine the river use commitment, whereby the following factors have informed the suitability of materials for river use transportation:</p> <ul style="list-style-type: none"> • Existing supply chain capabilities • Project design requirements • Suitability of the road network between suppliers and site • Ability of suppliers to transport the material via the river. <p>The Project’s reasons for excluding cement from the commitment is based on the fact that at this stage of the Project and without a detailed design the exact specification of cement is unknown but is likely to be specialist cement tailored for tunnelling works. Projects such as the Channel Tunnel Rail link required a high specification cement only available from Ketton in the East Midlands and thus not appropriate for transport via the river. Similarly, the cement required on Crossrail was batched at Chatham Docks with only elements of the cement mix imported via the river. Committing to using cement imported via the river exposes the Project to unnecessary risk where the specification may make importing via the river difficult or significantly economically disadvantageous.</p> <p>It is also worth noting that National Highways is a public sector body and therefore the Project cannot make a commitment which restricts the choice of available suppliers and thereby may not be able to provide a value for money scheme.</p> <p>The reason for excluding aggregates for bituminous bound materials is because such material cannot be brought to site via barges. This is not industry practice and as with the point above, there are few or no suppliers in the UK that could bring bituminous bound material via barges. The oMHP [REP4-136] clarifies that aggregates brought into site for batching bituminous bound materials onsite would be considered part of the commitment and would fall under the definition of bulk aggregates. It is, however, the offsite batched</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>bituminous bound material that would be brought in trucks that would not be suitable for river transport and is therefore excluded.</p> <p>Response to (2) of Q8.1.7: The oMHP [REP4-136] is a control document and commitments within it are secured as part of the Development Consent Order (DCO). Paragraph 6.2.9 in the oMHP provides the commitment for the utilisation of port facilities. In addition to this, Contractors are required to produce a specific MHP for each part of the works at the construction phase of the Project. These MHPs must be aligned with the principles set out in the oMHP. As such, Section 3.4 of the oMHP provides principles that the MHP must apply to reduce material movements for construction.</p> <p>A clear commitment is provided in paragraph 3.4.13 of the oMHP [REP4-136] which requires that the Contractors ‘seek to reduce road vehicle miles travelled using a combination of transport...’ The contents of the MHP will be submitted to relevant stakeholders for review and the Port of London Authority (PLA) is a named consultee. It is at this stage that the Contractor would demonstrate how they have maximised the reduction of road vehicle miles and the PLA can challenge the Contractor if the view is that they have not gone ‘further than is strictly required’.</p> <p>Response to (3) of Q8.1.7: The Project has added robust commitments to forecast, monitor and report on the amount of bulk aggregate being imported via port facilities in both the oMHP [REP4-136] and outline Traffic Management Plan for Construction [REP4-160]. These commitments are linked to a clear derogation process which has also been added to the oMHP submitted at this deadline (Deadline 5) [Document Reference 6.3 ES Appendix 2.2 Annex B (3)] and should address the concerns raised in this regard by the PLA.</p>
ExQ1_Q8.1.7	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The Applicant has responded to Thurrock Council's queries concerning the Project’s utilisation of port facilities commitment in response to the Local Impact Report (LIR) submissions, as well as technical engagement sessions. Detailed responses to these queries can be found in the Applicant’s Comments on LIRs Appendix H: Thurrock Council (Part 4 of 5), reference 237-239 [REP2-065] and Statement of Common Ground [REP3-092], item 2.1.110. Regarding the absence of specific quantification relating to the 80% commitment, it is explicitly clarified in paragraph 6.2.9 of the outline Materials Handling Plan [REP4-137] that the measurement is specified by 'weight'.</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>Regarding the queries on the monitoring process associated with this commitment, the Applicant engaged in a technical session with Thurrock Council on September 20, where proposals on this matter were shared. The Applicant has updated the outline Materials Handling Plan (oMHP) [REP4-137] for submission at Deadline 5 [Document Reference 6.3 ES Appendix 2.2 Annex B (3)]. These updates provide comprehensive information on the monitoring process and outline the derogation process pertaining to the use of port facilities commitment.</p>

6 Topic 9: Noise and vibration

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q9.2.5	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p><i>‘The Council would expect monitoring of exceedances and associated reactive mitigation measures to be in place. It is noted that REAC NV009 commits to noise and vibration monitoring during the construction phase and this is welcomed. However, the Council would like to understand how the project will ensure good effective two-way communication with local communities.’</i></p> <p>Applicant’s response: Community engagement is covered within Register of Environmental Actions and Commitments (REAC) commitment NV008 [REP4-138], which sets out ‘Residents would be notified of particularly noisy and vibration-generating work such as percussive piling and concrete breaking prior to their commencement. The mechanisms for notification will be detailed in the Engagement and Communications Plan. Effective communication would be established, keeping local residents informed of the type and timing of works involved, paying particular attention to potential evening and night-time works and activities that may occur in close proximity to receptors.’</p> <p>Section 5 of Environmental Statement (ES) Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan (CoCP) [REP4-138] sets out that Contractors will be required to develop an Engagement and Communications Plan (ECP) and establish Community Liaison Groups in those communities most likely to be impacted by construction activities: Paragraph 5.2.5 states: ‘The ECP will provide a detailed programme of community engagement, setting out how relevant planning authorities, communities, stakeholders and affected parties will be engaged with throughout the construction period. It will specify stakeholders, communities and affected parties (such as schools, places of worship, businesses and environmental organisations) and for each group, will identify the proposed methods and likely timing of engagement for each key stage of work. Such methods may cover, but are not limited to, community drop-in sessions, one-on-one meetings with key stakeholders as relevant, newsletters and leaflet drops explaining forthcoming works.’</p> <p><i>‘In the event of exceedances of noise limits during the construction phase, REAC NV015 states that these will be investigated by the contractor and mitigation put in place. However, in the event that construction techniques to develop the project that reduce noise are not possible, the Council would query what other mitigation measures will be employed to reduce the potential exceedances. The extent to which the mitigation is likely to be achievable in practice needs to be considered now by the applicant to minimise the risk of</i></p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p><i>mitigation not being achievable and rectifying the impacts. As per guidance in BS 5228:1-2009 a1 2014 where all reasonable measures have been taken to reduce the noise levels, but levels are still such that widespread community disturbance or interference with activities or sleep is likely to occur additional provisions can be made. These include options for noise insulation to be provided to noise sensitive receptors effected or temporary re-housing. These options should be included in the REAC.’</i></p> <p>Applicant’s response: The other mitigation measures employed to reduce potential exceedances would be very site specific and would need to be examined by the chosen Contractor, taking into account the specifics of the plant being used and the work site. NV009 makes clear that ‘<i>During the construction phase, day and night-time noise and vibration monitoring would be undertaken at locations identified in consultation with the relevant local planning authorities to ensure that the mitigation measures suggested are working effectively.</i>’ Section 61 notices would be submitted to the local authorities, including Thurrock Council, for approval in relation to these matters (subject to the appeals process in the event of a refusal). Appropriate safeguards are therefore in place.</p> <p>The REAC commitment NV006 requires the construction works to be assessed in accordance with BS 5228 using specific manufacturer’s data and proposed position of equipment. During this assessment, and under REAC commitment NV004, the production of any required Section 61 applications the provision of noise insulation or the need for temporary re-housing will be examined and concluded.</p> <p><i>‘Significant adverse effects have been identified relating to construction traffic in the years 2025 – 2029, with receptors subject to a moderate or more increase in noise levels in 2025 and in 2028. It is unclear from the DCO application what the construction traffic mitigation will be and what resulting noise impacts will be after mitigation. The Council expects additional assessments to be undertaken to determine the impacts with a mitigation scheme in place. If this is to entail a construction traffic management plan, then acoustic modelling with revised flows shall be presented to the Council to confirm the suitability of the mitigation measure.’</i></p> <p>Applicant’s response: Construction traffic impacts on the wider road network are temporary in nature, only occurring for the duration of the works in that area. As detailed within ES Chapter 12: Noise and Vibration [APP-150] significant effects associated with construction traffic have been identified within the ES but these predominantly occur on local minor roads around the Project, where the existing flows are low, as detailed on ES Figure 12.2: Construction Traffic Noise – Affected Links [APP-310].</p> <p>The roads presenting the potential for significant impacts tend to be lower speed roads, with impacts occurring at properties directly adjacent, which when coupled with the temporary short-term nature of the impacts, means that provision of physical noise mitigation such as low noise surfacing and acoustic screening</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>are not considered to be sustainable or proportionate measures. Specific control of construction traffic noise is therefore implemented through the ability to actively monitor and manage the flows around the network, allowing route changes and other control measures to be implemented to alter flow patterns of construction traffic where problems are identified. This would be managed through measures in the outline Traffic Management Plan for Construction (oTMPfC) [REP4-160]. The oTMPfC [REP4-160] provides a framework that would apply to the design, management and communication of construction traffic management, around which the Contractors must develop their future proposals. It sets out how the Traffic Management Plans (TMPs) will be determined and developed by the Contractors through consultation with all relevant stakeholders via the Traffic Management Forum. Additionally, the oTMPfC set out the minimum requirements the TMP would address for each stakeholder category, e.g. residents, businesses, schools, set out in Table 2.3. This approach offers a robust framework for developing the TMP in consultation with relevant stakeholders, as the details associated with the construction methodology develop.</p> <p><i>‘The Council welcomes the measures outlined in REAC NV001 and NV007, which state that best practicable measures will be applied. However, the Council also expects that low noise equipment is used wherever possible, alongside use of greener, cleaner equipment to help alleviate noise, but also other impacts such as air quality, and human health. A REAC measure specifically stating the use of low noise equipment alongside use of greener cleaner equipment will be utilised would be expected from the Council.’</i></p> <p>Applicant’s response: The Applicant considers that the Best Practicable Means (BPM) measure within REAC commitment NV007 of <i>‘using silenced equipment where available, in particular silenced power generators and pumps’</i> sufficiently ensures the Contractor is committed to choosing low noise equipment. REAC commitment AQ001 also requires the Contractor to use low emission vehicles and plant as set out in the CoCP [REP4-138].</p>
ExQ1_Q9.4.5	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: 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. The Applicant considers the information shared through the DCO application to be sufficient and proportionate for Thurrock Council to understand the relevant part of the assessment. The Applicant will continue to work with Thurrock Council to explain the predicted impacts and chosen mitigation. Once a Contractor is appointed, they will engage with Thurrock Council through the consultation of</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		the Noise and Vibration Management Plan and the Section 61 consents application as per REAC commitments NV002 and NV004 within ES Appendix 2.2: Code of Construction Practice [REP4-138] . Both these documents will contain further details of the proposed noise mitigation measures.
ExQ1_Q9.5.3	London Borough of Havering	<p>ExQ1 response by stakeholder: [REP4-314]</p> <p>Applicant’s response: The Applicant agrees that S61 is the appropriate mechanism to secure construction noise monitoring for the Project, where it is necessary.</p>
ExQ1_Q9.5.3	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p><i>‘The applicant has not provided details within a REAC on the specifics of the proposed on-going maintenance relating to acoustic barriers and the low noise road surface. The Council expects that such details should include a programme of when maintenance checks will occur and a commitment to restore mitigation if required so that the adverse impacts detailed in the chapter are not increased in magnitude. The Council would want a REAC which specifically covers this so that the DCO commits to maintenance checks and restoration of noise barriers/low noise road surface as required. Clearly though, it is vital to understand who is responsible for the road in each case, i.e. LHA, National Highways or private.’</i></p> <p>Applicant’s response: The ongoing maintenance of the acoustic barriers and the low noise surfacing will be maintained using routine National Highways procedures. Maintenance/renewals would be undertaken in accordance with Design Manual for Roads and Bridges (DMRB) GM 701 Asset Delivery Asset Maintenance Requirements⁵ and DMRB CD 227 Design for Pavement Maintenance⁶, coupled with the consideration of other DMRB standards for pavement treatments and investigation, and asset management plans. Pavement surfacing will undergo like-for-like replacement, based on measured wear and usage, with current best practice being a typical 11-year renewal period.</p> <p>An update to REAC commitment NV013 will be made at Deadline 5 that will commit the maintaining authority to ensuring that surface renewal will be undertaken using replacement road pavement on the strategic road</p>

⁵ Highways England (2020). Design Manual for Roads and Bridges, GM 701 Asset delivery asset maintenance requirements. Revision 1. Accessed September 2023. <https://www.standardsforhighways.co.uk/search/e0a134c8-f5e2-4f30-9cda-9e43d047f46e>.

⁶ Highways England (2020). Design Manual for Roads and Bridges, CD 227 Design for pavement maintenance. Accessed September 2023. <https://www.standardsforhighways.co.uk/search/0ff37fc4-9db6-495a-9460-843a55c0fc0c>.

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>network that has a no worse noise emission performance (Highway Authority Product Approval Scheme certification values) than that laid for the Project’s opening. The commitment discussed above will be included in the Handover Environmental Management Plan (EMP), i.e. the third iteration of the EMP (EMP3). By the end of the construction, commissioning and handover stage of any part of the Project, the Contractors will have developed the EMP3. EMP3 will detail maintenance and monitoring activities throughout the operational phase having regard for the specific mitigation measures identified within the REAC as well as operating procedures of National Highways, the local authority and local highway authority including the commitments outlined above. This is set out in Section 6.13 of the CoCP [REP4-138].</p> <p><i>‘With regards to additional measures, while the REAC NV015 states that exceedances during the construction phase will be investigated by the contractor, the Council has reservations on what this will entail in practice. The Council would firstly want to see a commitment that noise and vibration monitoring would be shared with LPA’s, so that the Council has real time data and knowledge of when exceedances occur. This should be set out in REAC NV009.’</i></p> <p>Applicant’s response: The Applicant considers that details such as the sharing of data are best included with the Noise and Vibration Management Plan (NVMP) secured under REAC commitment NV002 or the Section 61 applications (secured under REAC commitment NV004) that will be submitted to each affected local authority. As set out in Section 2.4 of ES Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan [REP4-138], the Contractor will be required to produce a second iteration of the environmental management plan (EMP2), which will include the NVMP in accordance with draft Development Consent Order (DCO) Schedule 2, Requirement 4(3) [REP4-094]. The NVMP would be prepared for each part of the construction works subject to Section 61 control in consultation with the local planning authorities as per REAC NV002.</p> <p><i>‘There are currently no timescales set out in the REAC of when investigations into exceedances will occur. A time period should be set out in the REAC NV015. Within the REAC NV015 it is stated that best practice measures will be employed to minimise noise. However, in the event that construction techniques to develop the project that reduce noise are not possible, the Council would query what other mitigation measures will be employed to reduce the potential exceedances.’</i></p> <p>Applicant’s response: The Applicant considers that details such as the timing of investigations are best considered in the preparation of the NVMP secured under REAC commitment NV002 or the Section 61 applications (secured under REAC commitment NV004) that the Project have committed to supply to each affected local authority. The other mitigation measures employed to reduce potential exceedances would be very site specific and</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>would need to be examined by the chosen Contractor, taking into account the specifics of the plant being used and the work site.</p> <p>As set out in Section 2.4 of ES Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan [REP4-138], the Contractor will be required to produce a second iteration of the environmental management plan (EMP2), which will include the NVMP in accordance with draft DCO Schedule 2, Requirement 4(3) [REP4-094]. The NVMP would be prepared for each part of the construction works subject to Section 61 control in consultation with the local planning authorities as per REAC NV002.</p> <p><i>‘The extent to which the mitigation is likely to be achievable in practice needs to be considered now to minimise the risk of mitigation not being achievable and rectifying the impacts. As per guidance in BS 5228:1-2009 A1 2014 where all reasonable measures have been taken to reduce the noise levels, but levels are still such that widespread community disturbance or interference with activities or sleep is likely to occur additional provisions can be made. These include options for noise insulation to be provided to noise sensitive receptors effected or temporary re-housing. These options should be included in the REAC.’</i></p> <p>Applicant’s response: The Applicant considers this point is addressed within the response to item 9.2.5 and controlled through commitments already made in the REAC [REP4-138].</p>

7 Topic 10: Road drainage, water environment and flooding

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q10.1.1	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: It is the Applicant’s view that an additional water features survey is not required north of the River Thames. A comprehensive water features survey was carried out across the full study area, both north and south of the River Thames.</p> <p>The Council notes the detailed survey of the Filborough and Shorne Marshes described in Section 5 and Section 6 of Environmental Statement (ES) Appendix 14.6: Water Features Survey Factual Report [APP-454]. The Applicant would refer the Council to item 2.1.15RRE of the Draft Agreed Statement of Common Ground between (1) National Highways and (2) the Environment Agency [REP1-058], which provides the rationale for a more detailed review of the sensitive water environment at this location. Baseline ecological and water quality surveys were undertaken in the watercourses in and adjacent to the Thames Estuary and Marshes between 2021–2022 as requested by the Environment Agency. These surveys were undertaken to support technical engagement between the Applicant, Natural England and the Environment Agency and informed pre-application advice for the environmental permitting requirements of the temporary surface water discharge at the southern tunnel entrance compound (see commitment RDWE033 within the Register of Environmental Actions and Commitments (REAC), part of ES Appendix 2.2: Code of Construction Practice [REP4-138]).</p> <p>The baseline characteristics of the water environment north of the river have been established using desk and field survey information and the effects of the Project’s construction and operation on these features has been assessed using robust modelling studies and by applying other good practice tools (as detailed in ES Appendix 14.3: Operational Surface Water Drainage Pollution Risk Assessment [APP-456], ES Appendix 14.4: Hydromorphology Assessment [APP-457], ES Appendix 14.5: Hydrogeological Risk Assessment [APP-458 and APP-459] and ES Appendix 14.6: Flood Risk Assessment [APP-460 to APP-477 and REP1-171]).</p> <p>Mucking Flats and Marshes Ramsar and Site of Special Scientific Interest, also part of the Special Protection Area, was identified as a protected area within the Project’s Zone of Influence and was screened in to ES Appendix 14.7: Water Framework Directive Assessment [APP-478]. The assessment, presented in Section 7</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p>of the report, concludes a negligible residual risk of deterioration of this protected area when all of the embedded, good practice and secured mitigation measures proposed are accounted for.</p> <p>With regard to drainage design, commitment RDWE025 [REP4-138], secures that further survey and sampling of watercourses that are intended to received road drainage discharges, including all those north of the River Thames, would be undertaken to define their flow regime and water quality, such that this data can inform the detailed design of highway runoff treatment measures.</p>
ExQ1_Q10.4.5	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The potential for the Project to have long term effects on water levels in the watercourses in the West Tilbury Marshes and around Coalhouse Point has been assessed in ES Chapter 14: Road Drainage and the Water Environment [APP-152] and no residual risks have been identified, taking into consideration the embedded, good practice and mitigation measures that are secured within the Development Consent Order (DCO) application. While no significant adverse effects have been identified relating to the water environment, as detailed in Section 14.8 of the chapter, monitoring of some aspects of the water environment is proposed during construction, notably in relation to the West Tilbury Marshes, a monitoring programme around the North Portal (secured by REAC commitment GS021 [REP4-138]) that would be agreed with the Environment Agency prior to the commencement of excavation works to construct the North Portal box structure.</p>

8 Topic 11: Biodiversity

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q11.9.5	Port of London Authority	<p>ExQ1 response by stakeholder: [REP4-344]</p> <p>Applicant’s response: The Applicant has responded to these issues in its Comments on Written Representations (WRs) Appendix A: Statutory Environmental Bodies [REP2-046] at the beginning of the third paragraph of page 41 under the heading of ‘Environmental Statement (WR 22)’ (heading on page 40).</p>
ExQ1_Q11.9.6	Port of London Authority	<p>ExQ1 response by stakeholder: [REP4-344]</p> <p>Applicant’s response: The Applicant has previously provided a response on the age of its data in its Comments on WRs Appendix E: Ports [REP2-050] in response to the written representation of Port of Tilbury London Limited. The Applicant believes that the baseline adequately reflects the current situation, and hence the assessment of effects is robust.</p> <p>The Applicant believes that the third-party data that has been utilised to supplement the baseline is robust. The data utilised from the selected projects provides a robust basis to develop the baseline for the Project. Baseline information on, for example, the distribution of a potentially affected feature such as birds, would be the baseline irrespective of what potential impact on that feature was. Where third party data covers the necessary geographical extent of the potential impact, further survey is not required. For example, a number of the potential impacts on the river predicted from Tilbury2 are similar in extent to those of the Project, hence surveys carried out for Tilbury2 are also suitable to support baseline development for the Project’s assessment purposes. Further survey would only be required where data is not already available.</p>

9 Topic 12: Physical effects of development and operation

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q12.2.5	Kent Downs AONB Unit	<p>ExQ1 response by stakeholder: [REP4-312]</p> <p>Applicant’s response: In addition to the post planting aftercare period of five years, there is also provision for a further period for monitoring and management detailed in the outline Landscape and Ecology Management Plan (oLEMP) [REP4-140] in Table 4.1: Establishment duration table. Different habitats will require a different length of time to establish which is why the Applicant has recognised that different durations may be required for different habitats, with the detail to be settled in the LEMP. The reference to the five-year period in Requirement 5 does not supersede those requirements (which would be secured under Requirement 5(1) of the draft Development Consent Order (DCO) [REP4-094]).</p>
ExQ1_Q12.2.5	Natural England	<p>ExQ1 response by stakeholder: [REP4-338]</p> <p>Applicant’s response: In addition to the post planting aftercare period of five years, there is also provision for a further period for monitoring and management detailed in the outline Landscape and Ecology Management Plan (oLEMP) [REP4-140] in Table 4.1 Establishment duration table. Different habitats will require a different length of time to establish and this has been recognised by the Applicant, with the detail to be settled in the LEMP. The reference to the five-year period in Requirement 5 does not supersede those requirements (which would be secured under Requirement 5(1) of the draft DCO [REP4-094]).</p>
ExQ1_Q12.2.5	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The Applicant notes that Thurrock Council ‘<i>is satisfied in principle that there is an appropriate mechanism for ensuring the long-term establishment of the landscape and ecological mitigation measures</i>’. In response to the last point made in Thurrock Council’s response to ExQ1_Q12.2.5 (<i>‘The oLEMP implies that management would be ongoing in perpetuity, however, this is not explicitly stated. The applicant should</i></p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
		<p><i>provide confirmation that this is the case’), paragraph 2.1.11 of the outline Landscape and Ecology Management Plan (oLEMP) [REP4-140] states that:</i></p> <p><i>‘This outline LEMP sets out the long-term goals and the outline landscape and ecology management practices for the Project. The key objectives of this outline LEMP are to provide details of the habitat creation, ecological enhancement, visual screening, and landscape integration of the Project for those parcels subject to permanent acquisition powers identified within the Order Limits, that require a bespoke approach from the management practices already identified within the DMRB standards GM 701 Series 3000 and GS 801 Series 3000 documents...’</i></p> <p>The ongoing management regimes and expectations (including durations) are reserved by the oLEMP, and these specifics are to be developed for future iterations of the LEMP, as indicated in paragraph 2.1.5 [REP4-140]. The oLEMP acknowledges that different durations may be appropriate for different types of habitat.</p>
ExQ1_Q12.2.10	Kent Downs AONB Unit	<p>ExQ1 response by stakeholder: [REP4-312]</p> <p>Applicant’s response:</p> <p>It is the Applicant’s intention to provide a supplemental compensatory enhancement fund for the Kent Downs AONB Unit through a Section 106 Agreement with Kent County Council.</p> <p>Draft Heads of Terms were shared with the AONB Unit on 31 August 2023. The Applicant is awaiting comments from Kent Downs AONB Unit and have a meeting scheduled for 3 October 2023 to follow up on this. The Applicant will update the Examining Authority on the progress of discussions at Deadline 6.</p> <p>The Applicant considers that appropriate mitigation has been included in the Order Limits.</p> <p>In relation to enhancement, the compensatory enhancement fund is intended to provide further resources for compensation by enabling the purchase of land and undertaking planting to enhance other areas of the environment in accordance with paragraph 5.153 of the NPSNN⁷.</p> <p>The Applicant notes that in respect of the suggested land to the south of the A2, at the eastern end of the Project between the exit slip road westbound at M2 junction 1 leading to the A289 eastbound, this area is within National Highways’ ownership, but it is already planted as mitigation for the A2/M2 widening and would therefore would not be suitable for additional planting.</p>

⁷ Department for Transport (2014). National Policy Statement for National Networks.

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q12.3.1	Kent County Council	<p>ExQ1 response by stakeholder: [REP4-309]</p> <p>Applicant’s response: The Applicant has provided the two relevant historic viewpoints. Environmental Statement (ES) Figure 6.5: Location of Representative Heritage Viewpoints [APP-191] shows (at Pages 3 and 8) the locations of the viewpoints: from the tower of the grade I listed Church of St Mary Magdalene in Cobham at viewpoint S-(CH)07; and from Lower Higham Road towards the grade II* listed Church of St Mary in Chalk at viewpoint S-(CH)06. The viewpoints themselves are shown on ES Figure 6.6: Representative Heritage Viewpoints (2 of 2) [REP1-125].</p>
ExQ1_Q12.3.1	Natural England	<p>ExQ1 response by stakeholder: [REP4-338]</p> <p>Applicant’s response: The passage quoted in Natural England’s response to ExQ1_Q12.3.1 from the Applicant’s email to Natural England dated 11 April 2019, explains the format of the Project photomontages submitted in the DCO application in ES Figure 7.19: Photomontages - Winter Year 1 and Summer Year 15 (1 of 4) to (4 of 4) [APP-244 to APP-247]. In summary, the email confirmed that the photomontages would be based on baseline photography for Representative Viewpoints and would comprise the addition of computer-rendered imagery to winter and summer baseline photography, to illustrate the Project opening year and design year respectively. The Applicant’s email to Natural England dated 11 April 2019 was not intended to imply that photomontages would be provided from all 89 Representative Viewpoints. The selection of a smaller range of key viewpoints from which to provide photomontages represents a proportionate approach to illustrating the Project and this approach is widely recognised as good practice. However, the Applicant has confirmed in its response to ExQ1_Q12.3.5 [REP4-200] that it will be providing a new photomontage from Representative Viewpoint S-03, a view from the Kent Downs AONB on footpath NS161, north of Park Pale, east of Shorne Woods Country Park. This is provided at Deadline 5 in an update to ES Figure 7.19: Photomontages - Winter Year 1 and Summer Year 15 (1 of 4) [Document Reference 6.2 ES Figure 7.19 (1 of 4) (3)]. The Applicant also intends to provide a new photomontage from Representative Viewpoint S-11, a view from the Kent Downs AONB on footpath NS179 within Cobham Hall Grade II* Registered Park and Garden at Deadline 6 in a further update to ES Figure 7.19: Photomontages - Winter Year 1 and Summer Year 15 (1 of 4) [Document Reference 6.2 Figure 7.19 (1 of 4) (4)].</p>

10 Topic 13: Social, economic and land-use considerations

ID	External stakeholder	ExQ1 response by stakeholder / Applicant’s response
ExQ1_Q13.1.4	Thurrock Council	<p>ExQ1 response by stakeholder: [REP4-353]</p> <p>Applicant’s response: The Applicant welcomes confirmation from Thurrock Council that it agrees the replacement land for Ron Evans Memorial Field is of suitable size, location and purpose. The Applicant will endeavour to reflect this position in the next update to the Statement of Common Ground between (1) National Highways and (2) Thurrock Council [REP3-092].</p> <p>The Applicant has provided a response on the timing of replacement land generally at pages 74 and 75 of its Comments on LIRs Appendix H: Thurrock Council (Part 4 of 5) [REP2-065].</p> <p>There is a period of approximately five years, as set out at paragraph D.5.46(a) of Planning Statement Appendix D: Open Space [REP3-108], before the replacement land for Ron Evans Memorial Field is anticipated to be accessible by the public because it is subject to temporary possession for construction. The northern parcel is to be used for utilities works (Works Nos MU54 and MU57) and the southern parcel is to be used for utilities works (Works Nos OHT6, OH6, OH7, MUT20, MU56 and for temporary access to ULH8) and as a construction compound (Long Lane Compound A, Works No CA 8A). It is in those circumstances that thereafter, the Applicant was proposing a scheme for the laying out of replacement land to be worked up and the site to be laid out in accordance with that scheme.</p> <p>Please refer to Sheets 29 and 33 of the Temporary Works Plans Volume C [REP4-086] and Sheets 29 and 33 of the Works Plans (Volume C) Utilities [REP4-042] in conjunction with Sheets 29 and 33 of the Special Category Land Plans Volume C [REP4-026] and Schedule 1 of the draft Development Consent Order (DCO) [REP4-094] for more detail of the Applicant’s proposals affecting Ron Evans Memorial Field.</p> <p>Those areas of Ron Evans Memorial Field not being replaced (Areas C and D on Plate D.5: Existing Special Category Land – Ron Evans Memorial Field of Planning Statement Appendix D: Open Space [REP3-108]) would be returned to their existing use as open space following the completion of works and reinstated in accordance with Article 35 of the draft DCO [REP4-094].</p> <p>The Project is currently at the preliminary design stage, and neither a detailed construction programme nor methodology have been finalised. The duration of temporary possession is controlled by article 35(4) of the draft DCO [REP4-094] which provides that the undertaker may not remain in possession of the land for any</p>

ID	External stakeholder	ExQ1 response by stakeholder / Applicant's response
		more than one year after completion of the relevant part of the authorised development. Nonetheless, in light of Thurrock Council's comments at Compulsory Acquisition Hearing 2 (CAH2), the Applicant will investigate the feasibility of bringing replacement land for Ron Evans Memorial Field into public use earlier than anticipated in the DCO application, taking account of construction constraints and public safety among other things. The Applicant intends to feedback to the Examining Authority on this matter at Deadline 6.

Glossary

Term	Abbreviation	Explanation
A122		The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1)
A122 Lower Thames Crossing	Project	A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing.
A122 Lower Thames Crossing/M25 junction		New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon.
A13/A1089/A122 Lower Thames Crossing junction		Alteration of the existing junction between the A13 and the A1089, and construction of a new junction between the A122 Lower Thames Crossing and the A13 and A1089, comprising the following link roads: <ul style="list-style-type: none"> • Improved A13 westbound to A122 Lower Thames Crossing southbound • Improved A13 westbound to A122 Lower Thames Crossing northbound • Improved A13 westbound to A1089 southbound • A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout • A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout • Orsett Cock roundabout to the improved A13 westbound • Improved A13 eastbound to Orsett Cock roundabout • Improved A1089 northbound to A122 Lower Thames Crossing northbound • Improved A1089 northbound to A122 Lower Thames Crossing southbound
A2		A major road in south-east England, connecting London with the English Channel port of Dover in Kent.
Application Document		In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent.
Construction		Activity on and/or offsite required to implement the Project. The construction phase is considered to commence with the first activity on site (e.g. creation of site access), and ends with demobilisation.
Design Manual for Roads and Bridges	DMRB	A comprehensive manual containing requirements, advice and other published documents relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations (National Highways, Transport Scotland, the Welsh Government or the Department for Regional Development (Northern Ireland)) is highway authority. For the A122 Lower Thames Crossing the Overseeing Organisation is National Highways.

Term	Abbreviation	Explanation
Development Consent Order	DCO	Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.
Development Consent Order application	DCO application	The Project Application Documents, collectively known as the 'DCO application'.
Environmental Statement	ES	A document produced to support an application for development consent that is subject to Environmental Impact Assessment (EIA), which sets out the likely impacts on the environment arising from the proposed development.
Highways England		Former name of National Highways.
M2 junction 1		The M2 will be widened from three lanes to four in both directions through M2 junction 1.
M2/A2/Lower Thames Crossing junction		New junction proposed as part of the Project to the east of Gravesend between the A2 and the new A122 Lower Thames Crossing with connections to the M2.
M25 junction 29		Improvement works to M25 junction 29 and to the M25 north of junction 29. The M25 through junction 29 will be widened from three lanes to four in both directions with hard shoulders.
National Highways		A UK government-owned company with responsibility for managing the motorways and major roads in England. Formerly known as Highways England.
National Planning Policy Framework	NPPF	A framework published in March 2012 by the UK's Department of Communities and Local Government, consolidating previously issued documents called Planning Policy Statements (PPS) and Planning Practice Guidance Notes (PPG) for use in England. The NPPF was updated in February 2019 and again in July 2021 by the Ministry of Housing, Communities and Local Government.
National Policy Statement	NPS	Set out UK government policy on different types of national infrastructure development, including energy, transport, water and waste. There are 12 NPS, providing the framework within which Examining Authorities make their recommendations to the Secretary of State.
National Policy Statement for National Networks	NPSNN	Sets out the need for, and Government's policies to deliver, development of Nationally Significant Infrastructure Projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.
Nationally Significant Infrastructure Project	NSIP	Major infrastructure developments in England and Wales, such as proposals for power plants, large renewable energy projects, new airports and airport extensions, major road projects etc that require a development consent under the Planning Act 2008.

Term	Abbreviation	Explanation
North Portal		The North Portal (northern tunnel entrance) would be located to the west of East Tilbury. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
Operation		Describes the operational phase of a completed development and is considered to commence at the end of the construction phase, after demobilisation.
Order Limits		The outermost extent of the Project, indicated on the Plans by a red line. This is the Limit of Land to be Acquired or Used (LLAU) by the Project. This is the area in which the DCO would apply.
Planning Act 2008		The primary legislation that establishes the legal framework for applying for, examining and determining Development Consent Order applications for Nationally Significant Infrastructure Projects.
Project road		The new A122 trunk road, the improved A2 trunk road, and the improved M25 and M2 special roads, as defined in Parts 1 and 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1).
Project route		The horizontal and vertical alignment taken by the Project road.
South Portal		The South Portal of the Project (southern tunnel entrance) would be located to the south-east of the village of Chalk. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
The tunnel		Proposed 4.25km (2.5 miles) road tunnel beneath the River Thames, comprising two bores, one for northbound traffic and one for southbound traffic. Cross-passages connecting each bore would be provided for emergency incident response and tunnel user evacuation. Tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations. Emergency access and vehicle turn-around facilities would also be provided at the tunnel portals.

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