

Lower Thames Crossing

9.53 Comments on WRs

Appendix C – Relevant Local Authorities & Transport Bodies

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REP1-219 Brentwood Borough Council

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REP1-219	Brentwood Borough Council	<p>WR: WR link: REP1-219</p> <p>Overview: Brentwood Borough Council is a host authority in respect of the application and as such is a category 'B' local authority under section 43 of the Planning Act 2008. Under s42(1)(b) of the Planning Act, Brentwood Borough Council was notified of pre-application consultation and given opportunities to respond to each phase of statutory and non-statutory consultation. Brentwood Borough Council supports the need for the Project and notes that the Project Lower Thames Crossing needs to support economic growth aims in the borough and wider area (extracted from the Statement of Common Ground (SoCG) between Brentwood Borough Council and the Applicant). The Applicant notes that Brentwood Borough Council submitted a Local Impact Report (LIR) at Deadline 1 and the Applicant has responded to this separately at Deadline 2. The Applicant's response to the Council's Written Representation is below.</p> <p>Applicant's Response: 2. Impact on the delivery of Strategic Employment Allocation E11 Brentwood Enterprise Park The Applicant will continue to liaise with stakeholders to ensure that the Project or Brentwood Enterprise Park (BEP) can proceed independently. The Applicant has been engaging with the promoter of BEP, St. Modwen, and the landowner, Mr. Padfield, for several years. The details of the interfaces between BEP and the Applicant are set out in Section 6.8 of Interrelationship with other Nationally Significant Infrastructure Projects and Major Development Schemes [APP-550]. The Applicant and St. Modwen continue to work collaboratively to address the outstanding interfaces between the two projects. Should BEP obtain consent and be developed ahead of the Project, the proposed BEP vehicular bridge over the A127, combined with the existing structure, would provide equivalent walker, cyclist and horse rider (WCH) connectivity to that proposed by the Applicant. In this circumstance the Applicant would not construct the WCH</p>

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		<p>structure to the east of M25 junction 29 proposed in the draft DCO. This is stated in the Design Principles [APP-516], see design principle S14.22.</p> <p>The alternative circumstance is that the WCH structure to the east of M25 junction 29 proposed in the DCO is constructed prior to the development of BEP. The Applicant is continuing to engage with St. Modwen regarding design coordination on this matter.</p> <p>Similarly, the access proposals from the B186 have been agreed in principle between the Applicant and St. Modwen. If BEP is developed prior to, or at a similar time to, the proposed Project access, then the Project access would be altered to connect to the BEP access. This is stated in the Design Principles [APP-516], see design principle S14.19. The Applicant is continuing to engage with St. Modwen regarding design coordination for this matter should the Project be constructed prior to BEP, to ensure there are no future design conflicts.</p> <p>3. Growth Assumptions in Lower Thames Area Model (LTAM)</p> <p>The LTAM forecast demand has been developed in accordance with Department for Transport's (DfT) Transport Analysis Guidance (TAG) Unit M4 - Forecasting and Uncertainty. The core scenario includes developments which were under construction or had planning applications or permissions as of 30 September 2021. The proposed Brentwood Enterprise Park is not explicitly included in the core scenario as it did not have a sufficient level of certainty, but the Dunton Hills Garden Village is included. The LTAM demand is constrained to TEMPro 7.2 forecasts to ensure that overall growth is in line with Government projections. The demand development process is described in detail in Chapter 4 of the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package [APP-522], and the full list of developments included is provided in Annex A in the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package Annexes [APP-523].</p> <p>A high growth scenario was also developed to understand the implications if travel demand exceeds Government central projections. The high growth scenario is detailed in Section 8.6 of the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package [APP-522].</p> <p>4. Construction Traffic Impacts</p> <p>This matter is addressed by SoCG [REP1-094] item 2.1.13 and item 2.1.15 as follows.</p> <p><i>[SoCG item 2.1.13] The Applicant welcomes Brentwood Borough Council's agreement as to the importance of the CoCP [REP1-157]. It should also be noted that construction routes are now covered in the outline Traffic Management Plan for Construction (oTMPfC) [REP1-174]. This will be the framework document for contractors to develop Traffic Management Plans (TMPs), post DCO consent, in consultation with the relevant local authorities.</i></p> <p><i>The Applicant has set out in the Code of Construction Practice (CoCP) [REP1-157] and the outline Traffic Management Plan for Construction (oTMPfC) [REP1-174] how it will establish a range of groups and forums to</i></p>

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		<p><i>communicate with local stakeholders and receive feedback on matters. For example, the Traffic Management Forum (TMF), active travel forum, and the Community Liaison Group.</i></p> <p><i>The monthly TMF committed to in the oTMPfC [REP1-174], is designed to bring the Applicant, the Contractors and stakeholders together to discuss proposals, issues and performance of all things related to construction works and associated traffic management.</i></p> <p><i>At a meeting with Brentwood Borough Council on 10 August 2022, the Applicant detailed the processes above and the options for escalation to the Applicant. It was confirmed that Automatic Number Plate Recognition was an example of a tool to be used to monitor vehicles. Rules including project HGV bans and their enforcement may be incorporated into Traffic Management Plans and Materials Handling Plans developed post-consent through dialogue such as the TMF. These plans would become binding in line with the DCO provisions. Brentwood Borough Council welcomed the explanation and commitment to dialogue throughout the life of the Project.</i></p> <p><i>At a meeting on 22 May 2023, the Applicant set out its approach to HGV restrictions, which is set out in Table 4.4 of the oTMPfC and the impracticalities of implementing additional HGV restrictions to manage incidents. Rather, the Project would manage incidents as set out in Section 5.7 of the oTMPfC. The Applicant also proposed to establish two monitoring locations during the construction period: 1) at the north side of the A127/A128 roundabout to monitor traffic travelling north or south via Brentwood town centre including A128-Shenfield Rd (Wilson's Corner), and 2) the junction of the A1023 and Mascalls Lane to monitor traffic travelling the western orbital route through Brentwood. At the meeting, Brentwood Borough Council indicated that the matter could be moved to agreed, but the Applicant is currently seeking further approvals, including consultation with Essex County Council as the Highway Authority before moving the matter to Matter Agreed.</i></p> <p><i>The Applicant acknowledges the updated comment and will provide a response in a future version of the SoCG.</i></p> <p><i>[SoCG item 2.1.15] The Framework Construction Travel Plan (FCTP) Framework Construction Travel Plan [APP-546] sets out that Site-Specific Travel Plans (for each compound or Utility Logistics Hub (ULH) or groups of compounds or ULH where they are closely located with similar levels of accessibility) will be produced and these would reflect the local environs at the time of production. The FCTP also sets out details of the Travel Plan Liaison Group (TPLG), which Brentwood Borough Council would be invited to, and this would offer an opportunity to raise such matters at the time.</i></p> <p><i>The FCTP requires the development of targets aligned with sustainable transport principles, which must be appropriate to the circumstances of each individual compound. These targets would be consulted with the TPLG and subject to their agreement. This is considered a sufficient mechanism to deliver the proposed emphasis on the use of public transport where it is readily available.</i></p>

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		<p>5. Monitoring of the Project when operational</p> <p>The Applicant is proposing to monitor the impacts of the Project on traffic on the local and strategic road networks as set out in the Wider Network Impacts Management and Monitoring Plan (WNIMMP) [APP-545]. The WNIMMP provides information about the approach to traffic monitoring and the proposed monitoring locations. If the monitoring identifies issues or opportunities related to the road network as a result of traffic growth or new third-party developments, then local authorities would be able to use this as evidence to support scheme development and case making through existing funding mechanisms and processes. The relevant stakeholders listed in Table 2.1 of the WNIMMP (which include Brentwood Borough Council), would be consulted on the traffic impact monitoring, which among other discussions, would revisit the monitoring locations. The traffic impact monitoring scheme would begin at least one year before the Project area opens. The traffic impact monitoring scheme is secured in Schedule 2 of the draft DCO [REP1-042] and would require approval by the Secretary of State.</p>

REP1-242 and REP1-243 Kent County Council

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REP1-242 REP1-243	Kent County Council	<p>WR: WR summary: REP1-242 WR link: REP1-243</p> <p>Overview: Kent County Council (KCC) is a host authority in respect of the application and as such is a category 'C' local authority under section 43 of the Planning Act 2008. As a county council, it is the highway authority for non-strategic roads and holds responsibilities including strategic, transport planning, waste management, environment, education and skills, archaeology and public health within its boundary. KCC works with other highway authorities to manage interfaces between their highway networks and liaises closely with district and borough councils on planning issues. This Written Representation sets out KCC's continued support for the Project and the investment in additional road capacity that will unlock new opportunities for Kent, the South East and the wider UK. It identifies where the authority considers that further information, clarification, changes to the application and interventions may be needed. The Applicant notes that KCC submitted a Local Impact Report (LIR) at Deadline 1 and the Applicant has responded to this separately at Deadline 2. The Applicant's response to the Council's Written Representation is below.</p> <p>Applicant's Response: 2. Kent County Council's Overall Position This comment is noted and the Applicant appreciates the support of KCC. 4. Highways and Transport (as local highway and transport authority) Transport Impact A: Impacts of the LTC on the strategic road network (SRN) This matter is partly addressed by the SoCG between the Applicant and Kent County Council [REP1-103] item 2.1.157 (DL-1) which in summary sets out that: As part of the development of the design of the A122 Lower Thames Crossing, the flow and capacity of individual merges and diverges on the new road and on connections between the existing road network and the new road have been assessed, and are forecast to be within the appropriate standards. Regarding the performance of the M2/A2/A122 Lower Thames Crossing junction, the LTAM uses SATURN software and the highway network has been coded such that it is also possible in the LTAM (as it is in the Kent Transport</p>

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		<p>Model (KTM)), to assess highway “nodes” within an intersection, such as merges, diverges and roundabouts. In the LTAM output none of the nodes within the A2/M2/A122 junction are forecast to be operating at over 100% capacity in 2030 or 2045. This is confirmed by the microsimulation VISSIM modelling of the SATURN software.</p> <p>The Applicant submitted details of the localised traffic modelling at this location within Localised Traffic Modelling Appendix G - Traffic Operational Appraisal – VISSIM Local Model Validation Report [REP1-193] and Localised Traffic Modelling Appendix H - Traffic Operational Appraisal - VISSIM Forecasting Report [REP1-194].</p> <p>The Applicant has requested a cordon from the KTM for this area in order to investigate more fully how the Project has been coded into the KTM.</p> <p>In relation to Circular 01/2022 and the delivery of future transport technology to the network such as the installation of high-powered charge points for electric vehicles, the Applicant notes that the DCO is being developed in accordance with national guidance and latest policy in road user emissions. As a consequence, the DCO submission is not linked to any further additional initiatives by the Applicant generally or the Project locally, relating to road user emissions. Through ‘Project Rapid’, the Applicant is committed to increasing the number of rapid charging points at existing roadside service facilities on the strategic road network. This will be delivered at a strategic regional/national level to ensure the most effective rollout to meet growing demand for EV infrastructure.</p> <p>As set out in the SoCG [REP1-103] at 2.1.17, a summary of the Applicant’s position is that:</p> <p>The Applicant does not agree that the removal without replacement of a service area within the Project means that it does not comply with Circular 01/22. The Circular notes that ‘in most cases it is for the private sector to promote roadside facilities’. A roadside facility does not need to be on A122 Lower Thames Crossing for the Project to operate safely.</p> <p>The Applicant has established a Roadside Facilities Working Group to encourage suitable new developments in areas of the network where there is a need. The Working Group strategy would potentially bring forward suitable facilities faster than if included within the Project application.</p> <p>This is a wider issue occurring on roads within and outside the Project area, and is being considered by the Applicant’s Operational Directorate across the SRN.</p> <p>Once the Project opens for traffic, there will be changes in how traffic flows across the region. Many parts of the network would experience significant benefits on both journey times and journey reliability, while other locations would experience increased traffic flows and adverse impacts. Overall, the benefits on the road network would outweigh the adverse impacts, which is reflected in the positive economic benefit of the Project.</p> <p>Regarding comments made on monitoring locations, the Applicant notes that the monitoring locations set out in the Wider Network Impacts Management and Monitoring Plan (WNIMMP) [APP-545] require that traffic data collection</p>

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		<p>be undertaken at least one year prior to the opening of the Project (mainline), not prior to construction as proposed by KCC.</p> <p>The monitoring locations set out in the WNIMMP were selected on the following basis:</p> <ul style="list-style-type: none"> • Locations situated on the SRN that are geographically close to the A122 junctions as informed by the ‘scale of impacts’ analysis in the Transport Assessment [APP-529] (the nearest and second nearest junctions on the SRN and major road network (MRN) located adjacent to the junctions with the A122, the A2, the A13 and the M25) • Locations requested for monitoring from local highway authorities following a review of the consultation feedback. <p>A mechanism allowing for review of the proposed monitoring locations is provided through Requirement 14 in Schedule 2 of the draft DCO, which requires the preparation of an operational traffic monitoring plan, which must be approved by the Secretary of State following consultation with the relevant highway authorities. Relevant highway authorities will be able to propose locations for inclusion, which will be considered by the Applicant during the development of the operational traffic monitoring plan. The final decision on inclusion will be made by the Secretary of State through the approval process, as set out in Part 2 of Schedule 2 of the draft DCO [REP1-042].</p> <p>The Applicant does not consider it necessary to include additional locations at this time, as the mechanism set out above will allow for the introduction of new locations at a future date, following a consultation with relevant authorities on actual traffic flows closer to the opening year.</p> <p>Transport Impact B: Wider Network Impacts (WNI)</p> <p>The Applicant and KCC have been working together to finalise Stage 1 of the WNI study referred to by KCC, and are now working on the scope for remaining stages to complete the study. A first draft of that report was shared by KCC with the Applicant in February, and following discussions, a final draft has been received on 17 July 2023. The Applicant can confirm that the conclusions and recommendations of the Stage 1 report have been agreed for the purposes of Stage 2 (tasks 2-8): the options appraisal stage. The Applicant would add that the WNI study is a KCC-owned study, funded by the Applicant, to investigate impacts on the wider network in Kent. The Applicant does not consider that the proposed interventions are required to make the Project acceptable, but considers instead that they should be developed in line with Government policy and funding mechanisms outside the Project application. The Applicant has stated, pursuant to its licence, that it will cooperate with KCC in this matter.</p> <p>Further to this, the Applicant remains of the view as set out within the SoCG [REP1-103] at items 2.1.25 and 2.1.26, summarised below.</p> <p>The Applicant recognises that as a result of the Lower Thames Crossing opening, people will choose to make different journeys. In many places on the network, and within Kent, this will lead to beneficial transport impacts on</p>

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		<p>the network, and in some cases will lead to adverse impacts. Overall, the benefits on the road network outweigh the adverse transport impacts, and this is reflected in the positive economic benefit of the Project within Kent.</p> <p>The Applicant has identified the adverse impacts on traffic flows across the local road network, and this assessment has been set out in the Transport Assessment [APP-529].</p> <p>The Applicant has assessed the wider network impacts of the Project and has considered these against the requirements set out in the National Policy Statement for National Networks (DfT, 2014), and based on the policy approach set out there, does not agree that the adverse impacts are unacceptable.</p> <p>The Applicant is obligated to work with local highway authorities and others to align national and local plans and investments, balance national and local needs and support better end-to-end journeys for road users (Licence, from DfT, para 5.19 (DfT, 2015)) and will continue to deliver against this obligation in its collaborative work with local authorities¹.</p> <p>The Applicant has produced a WNIMMP [APP-545], which was updated in the pre-application period to take on board comments received. If the monitoring outputs from the monitoring plan identify issues/opportunities related to the road network as a result of traffic growth or new third-party developments, local authorities will be able to use this as evidence within their intervention case making.</p> <p>The WNIMMP provides clarity on the proposition, including the expectations on funding streams.</p> <p>The Applicant agrees that there are some likely increases in traffic across the network, which will in part be caused by the Project, but not wholly, and this is set out within the Transport Assessment and traffic modelling data issued to KCC.</p> <p>While the Applicant does not consider that there are any transport impacts requiring intervention by the Project, nor any subsequent intervention options needed, it notes that:</p> <p>National Highways is considering the need for enhancements along the A2/M2 corridor which are within the RIS3 pipeline.</p> <p>National Highways is continuing to progress the M2 junction 5 project separately from the Lower Thames Crossing.</p> <p>National Highways operates a route strategy (a rolling programme setting out its plan for the SRN. It is a key research element underpinning the Road Investment Strategy (RIS), which informs the process of future road investment) for the M25 south of the proposed connection with the Lower Thames Crossing, the M20, A2 west of the junction with the Lower Thames Crossing, and to the M2 east of junction 1.</p>

¹ Licence, from DfT, para 5.19 (DfT, 2015): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/431389/strategic-highways-licence.pdf

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		<p>In addition, the Applicant has agreed a scope of work and funded this through a Planning Performance Agreement for KCC to undertake a Strategic Outline Business Case (SOBC) study to identify the impacts of the Project on the Kent road network and to assess the business case of potential interventions to optimise the network.</p> <p>The outputs of this study will enable KCC to develop more advanced business cases over the course of the next 10 years through existing processes.</p> <p>On a matter of detail, the LTAM outputs provided to KCC both in a cordon model and in GIS shapefiles do not show an increase in Heavy Goods Vehicles (HGVs) of 160 vehicles an hour on the A228 in any modelled time period. This increase is seen on the A229, in 2045 in the interpeak period only. The maximum increase in HGVs on the A228 is 77 vehicles in the 2045 AM peak modelled hour.</p> <p>Transport Impact C: Impacts of the LTC on the A229 Blue Bell Hill</p> <p>The Applicant remains of the view as set out within the SoCG [REP1-103] at items 2.1.25 and 2.1.26 which in summary set out that:</p> <p>The Applicant recognises that, as a result of the Lower Thames Crossing opening, people will choose to make different journeys. In many places on the network, and within Kent, this will lead to beneficial transport impacts on the network, and in some cases will lead to adverse impacts. Overall, the benefits on the road network outweigh the adverse transport impacts, and this is reflected in the positive economic benefit of the Project within Kent.</p> <p>The Applicant has worked collaboratively with KCC on the council's bid for funding to DfT for works to the A229 and its junctions. This has included modelling scheme design options provided by KCC's consultants in the full LTAM and providing the forecast traffic flows and other outputs, including cordon models to KCC and their consultants.</p> <p>The Applicant has agreed a scope of work and funded this through a Planning Performance Agreement for KCC to undertake a Strategic Outline Business Case (SOBC) study to identify the impacts of the Project on the Kent road network and to assess the business case of potential interventions to optimise the network.</p> <p>The outputs of this study will enable KCC to develop more advanced business cases over the course of the next 10 years through existing processes.</p> <p>Transport Impact D: Road Safety Impacts of the Project</p> <p>This matter is addressed by SoCG [REP1-103] item 2.1.119 (DL-1) as follows:</p> <p><i>The Applicant considers that junctions were taken into account in the COBALT appraisal - the appraisal combines links and junctions, which means that although junctions were not individually assessed, the impact of the Project on them is included in the accident numbers and costs.</i></p>

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		<p><i>As a result of the Project the overall accident rate decreases per vehicle kilometre driven is as stated in paragraph 9.3.12 of 7.9 Transport Assessment [APP-529].</i></p> <p><i>Combined link/junction accident rates were used in the Cobalt appraisal, including the A226, A227, A228 and A229. The Applicant is currently undertaking a Wider Network Impacts (WNI) study with Kent County Council, specific to the corridors mentioned, with safety being a key aspect. National Highways would welcome further discussions with regards to the benefits and rationale of carrying out iRAP assessments in addition to the existing study.</i></p> <p><i>The Applicant has committed to the implementation of the CLOCS standard in Environmental Statement Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan (CoCP) [REP1-157] and the Outline Traffic Management Plan for Construction [REP1-174].</i></p> <p><i>This matter remains under discussion.</i></p> <p>Transport Impact E: Public Transport and Active Travel Impacts of the Project</p> <p>This matter is addressed by SoCG [REP1-103] item 2.1.108 (DL-1) which in summary sets out that:</p> <p>Section 8.9 of the Transport Assessment [APP-529], outlines the impacts on public transport during the construction period (which is broken down into 11 phases for assessment).</p> <p>A number of temporary traffic management measures are such as the construction of site haul routes to reduce usage on the public network are set out within the oTMPfC and are considered as part of the Transport Assessment. The Transport Assessment references the relevant control documents which set out the measures and mechanisms which would be in place during construction.</p> <p>Notably, the oTMPfC [REP1-174] details the mechanisms throughout the document which would be in place (such as the Traffic Management Forum, Section 3.2) which would allow for discussions to take place on matters such as appropriate mitigation for public transport impacts during construction. When developing the TMP, specific measures are outlined to address and minimise the impacts on public transportation, including public transport users and operators; this is set out in Table 2.3 of the oTMPfC [REP1-174]. These measures are designed to keep the impacts on public transport users and operators, which includes buses, to a minimum, demonstrating a commitment to maintaining the service and accessibility of public transportation during the Project.</p> <p>It should be noted that while the Transport Assessment outlines the envisaged impacts based on a possible construction scenario, the actual impacts will only become known once construction commences, and monitoring as set out in para 2.4.8–2.4.24 of the oTMPfC [REP1-174] is put in place.</p> <p>The results of this monitoring would be discussed within the TMF, as would the development of appropriate mitigation where required at the appropriate time, such as the impacts on bus routes in terms of possible delays due</p>

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		<p>to the Project works. KCC would be able to recommend mitigation packages at the TMF which would be discussed and agreed where appropriate.</p> <p>The Applicant welcomes continued engagement and mitigation proposals from KCC that can be discussed and explored before construction commences and during the construction via the TMF.</p> <p>It should be noted that there are no bus routes on the section of Thong Lane which would be closed so the bus route that uses the northern section of Thong Lane will not be affected.</p> <p>The Applicant's position regarding walking, cycling and public transport is set out within the SoCG [REP1-103] at 2.1.57. In summary:</p> <p>The Applicant has considered various options during the development of the Project to provide improved river crossings for walkers and cyclists. The options investigated included using the tunnel, upgrading the existing ferry, relocating the ferry, building a separate bridge or cable car, and providing a shuttle service through the tunnel.</p> <p>It was decided that none of these options would be taken forward for reasons including lack of technical feasibility, operational issues, lack of commercial viability, cost and poor safety. This is set out at page 48 of the Project Design Report Part G [APP-514].</p> <p>Latent demand for walking and cycling across the River Thames at the Project crossing point is low and therefore unlikely to unlock enough trips to make the required infrastructure for a shuttle service economically viable. In addition, journey times and distances for a shuttle would be excessive because the most suitable collection and drop-off points would be at the proposed M2/A2/A122 Lower Thames Crossing junction and as far north as the proposed A13/A1089 junction. For more information about the proposed walking, cycling and horse riding routes, see the Project Design Report: Part E [APP-512].</p> <p>The WCH provision in the Project is set out specifically in the Rights of Way and Access Plans [REP1-025] and [REP1-026] and Schedule 5 of the draft DCO [REP1-042].</p> <p>Further information on the provision is set out in the Project Design Report Part E [APP-512].</p> <p>The Applicant's position relating to public transport provision within the Project is set out within the SoCG [REP1-103] at item 2.1.58, which in summary sets out the following.</p> <p>The Applicant has considered the approach to public transport within the Project.</p> <p>A number of constraints prevent public transport access to the Project via the emergency accesses. The emergency access roads/merges/diverges have been specifically designed to optimise emergency service accessibility and response times and are not for public use. The operation of the emergency accesses (as designed) is to be supported by the National Highways Regional Operations Centre and appropriate interventions.</p>

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		<p>As such, while it is agreed that public transport use can help to reduce congestion and air quality effects, and unlock economic growth, the Applicant has assessed options for inclusion within the Project appropriately and has provided alternative means that facilitate and support public transport schemes outside of the DCO application (via the Sustainable Transport Working Group).</p> <p>The Applicant recognises the opportunity to, and importance of, improving sustainable transport provision across and along the river, but as complementary measures to the Project which provides the infrastructure improvements that can facilitate measures. By providing the north-south connection and junction improvements, the whole of the Project route will be accessible to local and longer distance public transport routes, if operators choose to make use of it, including operators supporting e.g., cross-river WCH transit (by bus). The Applicant considers that local authorities are best placed to lead on the development and appraisal of future public transport projects including ferry and bus services across the river.</p> <p>The Applicant has set up a Sustainable Transport Working Group involving local authority stakeholders to investigate sustainable travel and cross-river connectivity enhancements that could be delivered in future to complement the Project. The Group has proposed several local priorities and opportunities for feasibility studies for future funding applications for Designated Funds. Designated Funds are very much considered the appropriate mechanism for providing these measures, which fall outside of the remit of the DCO but can be facilitated by it to lead to improvements in sustainable modes and forms of transport across the river.</p> <p>Transport Impact F: Severance Issues for Walkers, Cyclists and Horse Riders (WCH)</p> <p>This matter is addressed by SoCG [REP1-103] item 2.1.126 (DL-1) which sets out in summary that:</p> <p>Tables 7.17 and 7.18 of the Distributional Impact Appraisal report [APP-525] show the 'Distributional analysis for links potentially impacted by traffic related severance' Regional and England & Wales respectively. This has informed a more detailed analysis of potential impacts arising from traffic-related severance, which is presented in the Health and Equalities Impact Assessment (HEqIA) [APP-539].</p> <p>Table 7.9 of the HEqIA lists locations where there may be a moderate increase or decrease in traffic-related severance during the operational phase of the Project; this is followed by a closer review of these locations in Table 7.10, which takes into account factors such as land-use and local demographics.</p> <p>Paragraph 7.3.31 of the HEqIA notes that <i>'further actions may be required in certain locations to enhance the road crossing provision for local residents and thereby ensure that effects do not impact on people's ability to cross roads and access community services and infrastructure. A commitment has been made as part of the Section 106 Agreements Heads of Terms for further investigation at identified locations to discuss the need for, and provision of,</i></p>

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		<p><i>pedestrian crossing infrastructure</i>'. This commitment is included within Section 106 Agreements – Heads of Terms [APP-505].</p> <p>Paragraph 7.5.3 of Section 106 Agreements – Heads of Terms [APP-505] states that '<i>National Highways will pay a sum to the relevant local highway authorities to implement the identified improvements from the feasibility assessment. Local highway authorities are afforded powers under section 62 the Highways Act 1980 which enables them to undertake agreed improvement works to the local highway. All works can be accommodated within the existing highway extent</i>'. Locations specified include Elaine Avenue (Strood), Brennan Drive (Tilbury) and Valley Drive (Gravesham).</p> <p>Wrotham Road is included as part of the qualitative assessment presented in Table 7.10 of the HEqIA [APP-539]. Although there are various land-uses along Wrotham Road including residential development, services and facilities, there are also a number of pedestrian refuges at a number of locations. As such traffic-related severance at this location was not considered to be significant.</p> <p>The Applicant agrees with the statement by KCC that in light of the nature of the highway and the land use along its length, no mitigation would be required along Forstal Road.</p> <p>Transport Impact G: Dangerous Goods Vehicles and Oversized Vehicles</p> <p>The Project does not seek to alter existing operational regimes at Dartford Crossing nor propose that all Dangerous Goods Vehicles (DGVs) and oversized vehicles will be diverted to the A122, but provides an alternative route for those vehicles. For some DGVs and oversized vehicles that currently travel on the M25, a diversion to the Project would often involve them travelling a greater overall distance. For example, for a vehicle on the M25 anticlockwise south of the River Thames going to the Purfleet oil refinery would have to travel along the A2, A122 and then the A13 and M25 southbound. With the construction of the Project, however, there will be a reduction in Heavy Goods Vehicles (HGVs) and DGVs using the existing crossing and it is anticipated that the duration, and therefore impact, of escorts will reduce.</p> <p>Transport Impact H: Construction Shifts and Deliveries</p> <p>The intention of the Applicant's construction modelling was to highlight the forecast impacts on the highway network, in order to inform discussion as to where and how the proposed impacts could be managed. Further information on the management of construction traffic is set out in the outline Traffic Management Plan for Construction [REP1-174] and the construction workforce in the Framework Construction Travel Plan [APP-546].</p> <p>Transport Impact I: Construction Traffic Routing</p> <p>This matter is addressed by SoCG [REP1-103] item 2.1.102 (DL-1) which sets out in summary that:</p>

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		<p>It is confirmed that there will be a left-turn ban for construction-related HGVs when exiting the southern tunnel entrance compound, joining the A226 – this is set out in Table 2.2 of the oTMPfC.</p> <p>The oTMPfC [REP1-174] is secured by draft DCO Schedule 2 Requirement 10 [REP1-042] and delivered through a Traffic Management Plan which must be substantially in accordance with the oTMPfC.</p> <p>In order to adapt to changes in journey times across the SRN and Local Road Network the performance of traffic management will be monitored and reviewed at the Traffic Management Forum. This monitoring system will capture real-time data to confirm the effectiveness of traffic and vehicle control measures and ensure the arrival and departure times of vehicles from compounds are controlled. Various monitoring measures such as automatic number plate recognition, traffic flow monitors, and possibly web-based camera systems or similar systems will be implemented to capture data on traffic composition, traffic flow, journey times (to a limited extent), and traffic safety (collision) data. The monitoring system will capture and report information related to construction traffic such as compliance with vehicle routing, and incident/accident reporting. Emerging trends and any lessons learnt will be used to adapt existing traffic management and shape any future phases of construction so as to minimise the impact on the travelling public. The Traffic Manager will escalate any changes required that cannot be agreed at the forum to the Joint Operations Forum for resolution (Code of Construction Practice, paragraph 4.3.3 [REP1-157]).</p> <p>The Applicant would seek to maximise the use of the A2 and haul road, subject to availability, to reduce concerns.</p> <p>Transport Impact J: Construction Impacts on the Condition of the existing Local Road Network (LRN)</p> <p>This matter is addressed by SoCG [REP1-103] item 2.1.8 which sets out in summary:</p> <p>The Applicant continues to engage with KCC to agree an appropriate approach to monitoring and mitigating potential effects.</p> <p>The Applicant agrees with the principle of mitigating significant adverse effects related to the Project, and considers that joint inspections are a good way forward.</p> <p>The Applicant considers that details of the approach should be agreed subject to KCC's programme/plan of capital works.</p> <p>KCC and the Applicant are engaging in order to develop an approach to identifying where routes that the Project will use for its construction logistics may be known to require short to medium-term asset maintenance activity, and to bring forward a method to deliver works where practicable.</p> <p>The outline Traffic Management Plan for Construction (oTMPfC) [REP1-174] addresses this issue of HGV movements and local roads. Access routes are outlined in the oTMPfC [REP1-174].</p>

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		<p>KCC has provided an estimate for a mitigation package that the Applicant is currently reviewing ahead of further engagement.</p> <p>Transport Impact K: Highways Asset generation and impact of transference from National Highways to Kent County Council</p> <p>This matter is addressed by SoCG [REP1-103] items 2.1.12 and 2.1.122 (DL-1) which set out in summary: Regarding Green Bridges specifically: the Applicant will maintain the structure (up to and including the waterproof layer), as well as bridge parapets and the green element (via third party at the Applicant's cost); the remainder being the responsibility of the local highway authority.</p> <p>The Applicant has shared a draft Side Agreement with KCC, and will continue to work with KCC to discuss the transfer of assets and maintenance agreements in relation to WCH routes including resourcing for the Council's representations for the design stage, and then 'sign-off' via a final certificate to confirm transfer of the asset once works are complete.</p> <p>Maintenance is proposed to be in-line with existing approaches in terms of roles and responsibilities, and so subject to KCC confirmation (and further discussion on transfer of WCH assets). The Applicant considers that this is likely to be a matter agreed in subsequent drafts.</p> <p>The maintenance of both local highways and the SRN is funded by the Department for Transport. Local highway funding is mainly based on a formula linked to the total mileage of A roads, B and C roads, and unclassified roads in each area, together with the numbers of bridges, lighting columns, cycleways and footways. This funding is refreshed every few years to take account of changes in road length and number of highway structures. Accordingly, as local highway works are carried out under the DCO, the amount of funding that each local highway authority receives will be amended to recognise these additional responsibilities. Given that this process already exists, it is not appropriate to require the Applicant to provide funding for the maintenance of parts of the local network out of the money given to it to maintain the strategic road network. The Applicant notes that it is making a significant and substantial capital contribution to the delivery of these assets, and in light of the existing funding arrangements, it is not appropriate for the Applicant to have an ongoing and indeterminate responsibility. The Applicant notes that this position has been endorsed, with limited and rare exceptions, on a number of transport DCOs (see, for example, article 14 of the M42 Junction 6 Development Consent Order 2020, article 12 of the A428 Black Cat to Caxton Gibbet Development Consent Order 2022 and article 9 of the A303 (Amesbury to Berwick Down) Development Consent Order 2023).</p> <p>Article 10(1) of the draft DCO [REP1-042] provides that where a new local highway is constructed, it must be completed to the reasonable satisfaction of the local highway authority, which becomes responsible for its</p>

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		<p>maintenance from completion. Article 10(2) of the draft DCO makes provision for alterations or diversions of existing local roads. Both provisions enable the Applicant and the local highway authority concerned to reach different arrangements for specific maintenance responsibilities, but otherwise the default position is that once the local highway authority is satisfied that the highway has been properly completed, the local highway authority becomes responsible for the maintenance of these highways.</p> <p>This arrangement is well-precedented for local highway works carried out by National Highways in connection with Nationally Significant Infrastructure Projects . It strikes an appropriate balance between National Highways' ability to carry out its works, and local highway authorities' duties to maintain public highways in their areas.</p> <p>The Wider Network Impacts Management and Monitoring Plan [APP-545]</p> <p>The Applicant has provided a detailed response to issues raised by KCC regarding the approach to the WNIMMP within the SoCG [REP1-103] at items 2.1.25, 2.1.136 (DL-1), 2.1.137 (DL-1), 2.1.138 (DL-1) and 2.1.157 (DL-1) – a precis of the Applicant's position is as follows:</p> <p>The Applicant has produced the WNIMMP [APP-545], which was updated during the pre-application stage to take on board comments received. If the monitoring outputs from the monitoring plan identify issues/opportunities related to the road network as a result of traffic growth or new third-party developments, local authorities will be able to use this as evidence within their intervention case making.</p> <p>The WNIMMP provides clarity on the proposition, including the expectations on funding streams.</p> <p>The monitoring locations set out in the WNIMMP require that traffic data collection be undertaken at least one year prior to the opening of the Project (mainline), not prior to construction as proposed by KCC.</p> <p>The monitoring locations set out in the WNIMMP were selected on the following basis:</p> <ul style="list-style-type: none"> • Locations situated on the SRN that are geographically close to the A122 junctions as informed by the 'scale of impacts' analysis in the Transport Assessment [APP-529] (the nearest and second-nearest junctions on the SRN and MRN located adjacent to the junctions with the A122, the A2, the A13 and the M25) • Locations requested for monitoring from local highway authorities following a review of the consultation feedback. <p>A mechanism allowing for review of the proposed monitoring locations is provided through Requirement 14 in Schedule 2 of the draft DCO, which requires the preparation of an operational traffic monitoring plan, which must be approved by the Secretary of State following consultation with the relevant highway authorities. Relevant highway authorities will be able to propose locations for inclusion, which will be considered by the Applicant during the development of the operational Traffic Monitoring Plan. The final decision on inclusion will be made by the Secretary of State through the approval process, as set out in Part 2 of Schedule 2 of the draft DCO [REP1-042].</p>

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		<p>The Applicant does not consider it necessary to include additional locations at this time, as the mechanism set out above will allow for the introduction of new locations at a future date, following a consultation with relevant authorities on actual traffic flows closer to the opening year.</p> <p>The monitoring scheme must include the following information:</p> <ul style="list-style-type: none"> • Details of a before-and-after survey to establish the baseline traffic levels and the changes in traffic • The locations to be monitored • The methodology to be used to collect the required data • The periods over which operational traffic is to be monitored • The method of assessment of traffic data • Programme for the provision of the collected data to local highway authorities. <p>It would not be appropriate to define the requirements at this time, because new technologies may become available that would better deliver the objectives of the monitoring scheme. Relevant authorities will have the opportunity to advise on their requirements through the consultation necessary as part of the process of discharging.</p> <p>5. Public Rights of Way</p> <p>With regard to future improvements to the specified structures, the Applicant has set out some information relevant to this issue within the SoCG [REP1-103] at items 2.1.120 (DL-1) and 2.1.121 (DL-1) and through information provided via direct engagement outside of the SoCG process. In summary:</p> <p>WCH routes within Kent are shown on the General Arrangement drawings found within the General Arrangement Plans (Volume B) [APP-016].</p> <p>The proposed WCH routes are also shown within the Rights of Way and Access Plans (Volume B) [REP1-025]. These drawings should be read in conjunction with the draft Development Consent Order [REP1-042], with reference to Schedule 4 – Permanent Stopping Up of Streets and Private Means of Access.</p> <p>Details on all WCH routes can be found within the Project Design Report Part E: Design for Walkers Cyclists and Horse Riders [APP-512]. The design specifications for these WCH routes will be dependent upon the environment within which they are located and their intended users.</p> <p>Defining the widths/surfacing will be undertaken at the detailed design stage. Specific WCH design principles can be found within Table 4.1 Project-wide design principles: Connecting people, within the Design Principles [APP-516]. All WCH routes will be designed to the latest design standards and guidance listed under Clause No. PEO.04.</p>

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		<p>Part E of the Project Design Report sets out the preliminary design for Public Rights of Way (PRoW) and permissive paths including diversions, resurfacing/upgrades, crossings, designations; and the Design Principles sets out how the Applicant and Contractor must consider and accord with design guidance/standards as set out in PEO.01 to PEO.13.</p> <p>The Applicant and KCC are working on Side Agreements which would set out how assets would be transferred to the local highway authority, resourcing for the Council's representations for the design input stage, and then 'sign-off' via a final certificate to confirm transfer of the asset once works are complete.</p> <p>With regard to the closure of routes during construction and the restoration of routes, temporary restrictions due to construction are shown in the Streets Subject to Temporary Restrictions of Use Plans [APP-027 and REP1-030], which shows roads that would be subject to temporary alteration, diversion and restriction of use. The Applicant has sought to ensure that all WCH routes that will be severed by the route (and historic severances where reasonably practicable) will be reconnected. As part of the wider WCH strategy, routes have been upgraded to improve connectivity and access for more users. Where appropriate, bridges have been designed to accommodate active travel, and tie into the wider footpath and bridleway network. The WCH strategy has also explored improving and enhancing WCH network connectivity between the surrounding communities.</p> <p>Where required, temporary diversion routes would be put in place until the construction works are complete. The Register of Environmental Actions and Commitment (REAC) contained in the Code of Construction Practice [REP1-157] includes a commitment reference PH001 regarding the importance of reducing the durations that footpaths, cycleways and bridleways would need to be closed and mitigation measures to be followed. These would also be included and therefore have to meet the requirements of the Traffic Management Plan (TMP) as described in the outline Traffic Management Plan for Construction (oTMPfC) [REP1-174].</p> <p>The Applicant has consulted with relevant stakeholders in developing the temporary diversions for impacted routes, which are detailed in Appendix B of the oTMPfC [REP1-174]. This engagement would continue in advance of closing PRoWs, whereby the temporary diversion route would be determined through discussions with the local highway authority.</p> <p>Information about the impact of the Project on PRoWs can be found in the Transport Assessment [APP-529]. Impacts on PRoW during the construction and operational phases of the Project are also assessed in Environmental Statement Chapter 13: Population and Human Health [APP-151].</p> <p>With regard to the provision of travel counters, the Applicant is considering this request from KCC subject to further discussions on the purpose of the proposed counters, their location and management, installation and data sharing arrangements.</p>

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		<p>WCH routes within Kent are shown on the General Arrangement drawings found within the General Arrangement Plans (Volume B) [APP-016]. The proposed WCH routes are also shown within the Rights of Way and Access Plans (Volume B) [REP1-025]. These drawings should be read in conjunction with the draft DCO [REP1-042], with reference to Schedule 4 – Permanent Stopping Up of Streets and Private Means of Access. Details on all WCH routes can be found within the Project Design Report Part E: Design for Walkers Cyclists and Horse Riders [APP-512]. The design specifications for these WCH routes will be dependent upon the environment within which they are located and their intended users. Defining the widths/surfacing will be undertaken at the detailed design stage. Specific WCH design principles can be found within Table 4.1 Project-wide design principles: Connecting people within the Design Principles [APP-516]. All WCH routes will be designed to the latest design standards and guidance listed under Clause No. PEO.04. The Applicant considers that the information requested by KCC has been provided and therefore this is matter is agreed.</p> <p>Regarding the maintenance of WCH routes, the Applicant has shared a draft Side Agreement with KCC, and will continue to work with KCC to discuss the transfer of assets and maintenance agreements in relation to WCH routes including the council's representations for the design input stage, and then 'sign-off' via a final certificate to confirm transfer of the asset once works are complete. Maintenance is in-line with existing approaches in terms of roles and responsibilities, and so subject to KCC confirmation (and further discussion on transfer of WCH assets), the Applicant considers that this is likely to be a matter agreed in subsequent drafts.</p> <p>The exact type of surface for WCH routes has not been determined. The type of surface and widths would be specified during the detailed design phase in accordance with design standards and the Design Principles [APP-516], with the most appropriate option being used for each route. The Project Design Report [APP-506 to APP-515] includes indicative information about surfacing for new and upgraded routes, although the final details of these would be decided by the appointed Contractors within the parameters of the assessment.</p> <p>Regarding commuted sums, the Applicant's position is set out above under the heading "The Wider Network Impacts Management and Monitoring Plan".</p> <p>6. Sustainable Urban Drainage Systems SUDS Impact A: Departure on Peak Rainfall</p> <p>Following engagement on matters raised within KCC's Relevant Representation [RR-0557], a matter referring to the above comment was added to the SoCG [REP1-103] at item 2.1.154 (DL-1) which in summary sets out that:</p> <p>Given the Design Manual for Roads and Bridges (DMRB) requirement within CG 501 - Design of highway drainage systems to ensure no overtopping of attenuation features during all events up to and including the 100-year event</p>

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		<p>(1% AEP) (inclusive of climate change allowance), a departure specific to the 30 year (3.3% AEP) event was not discussed with the EA.</p> <p>Sensitivity testing has been undertaken to demonstrate that the attenuation features are effective in response to consecutive 1 in 30-year (3.3%) and 1 in 10 year (10% AEP) storms, in addition to the 1% AEP storm with a 40% uplift for climate change. In all these events there would be no overtopping of attenuation features.</p> <p>The modelling has therefore demonstrated that the drainage attenuation features would have sufficient capacity to accommodate the runoff generated by the 1 in 30-year critical rainfall event inclusive of the climate change uplift factor. There would be no negative impact to the local area due to increased risk of flooding. Following engagement undertaken in May 2023 on matters raised by KCC in its Relevant Representation and subsequent sharing of information the Applicant considers this matter is now agreed.</p> <p>SUDS Impact C: Watercourse Channels</p> <p>The Project has limited interactions with surface waters in areas where KCC has responsibility. However, as shown on Section 4, Sheet 4 of the Environmental Masterplan [APP-162] creation of wetland habitat is proposed just north of the Thames Medway Canal. This area covers the reinstatement of a construction compound and is to be handed back to Royal Society for the Protection of Birds (RSPB) as landowners, in an enhanced way for the benefit of water vole and great crested newts (GCN), with creation of additional slow-flowing ditches, a pond, as well as grassland and scrub habitats. Commitment TB022 within the REAC, part of the Code of Construction Practice [REP1-157] provides further details.</p> <p>SUDS Impact E: Surface Flooding 1</p> <p>As secured by commitments RDWE001 and RDWE006 within the REAC, part of the Code of Construction Practice [REP1-157] the Contractor shall develop:</p> <ul style="list-style-type: none"> • a construction phase flood risk assessment (FRA) that considers all construction phase activities and temporary works necessary to deliver the Project. The construction phase FRA shall consider on-site and off-site flood risk and include details of how offsite impacts would be prevented; and • a construction phase drainage plan, demonstrating how surface water runoff across worksites would be managed, including details of how offsite impacts would be prevented. <p>Implementation of the FRA's recommendations and the drainage plan would therefore prevent areas of flooding occurring where they did not before. During operation of the Project any redistribution of surface water flooding would be highly localised given the efficacy of the operational drainage system and it is considered that any impacts would not be perceptible.</p>

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		<p>SUDS Impact H: Surface water flow path</p> <p>The Applicant can confirm that the flow path noted emanates from just north of the Order Limits, flowing towards the south, crossing through the Project boundary, illustrated in the figure above. The works in this area comprise woodland planting and below ground multi utility diversion works, as illustrated on the General Arrangement Plans (Sheet 7) [APP-016]. Works would not interfere with this existing flow path therefore there would be no increase in the risk of surface water flooding and no associated negative impact on the local area.</p> <p>SUDS Impact I: Groundwater Flooding</p> <p>ES Appendix 14.5: Hydrogeological Risk Assessment (Part 2 of 2) [APP-459], Annex M Infiltration basins detailed assessment south of the River Thames, assesses the effects of the drainage infiltration from a 1 in 100-year storm (24 hours infiltration), associated with a 20% increase in peak rainfall intensity due to climate change and a further sensitivity test carried out with a 40% increase in peak rainfall intensity due to climate change (Scenario 3). Under this scenario, the assessment demonstrates that there will be no flooding due to excessive mounding below the infiltration basins. The 1:100-year storm event assessed is equivalent to 1% AEP plus climate change uplift which, in terms of infiltration below ground, is a worst case when compared to a 3.3% AEP plus climate change uplift. Therefore, there would be no negative impacts in the local area.</p> <p>SUDS Impact J: Flooding from sewers and water mains</p> <p>The design, planning and management of the works, coupled with typical working practices and continued engagement and consultation with the relevant utility undertaker are measures proposed to mitigate this risk. The Applicant and the relevant undertakers are agreeing Protective Provisions as per Schedule 14 Part 1 of the draft DCO [REP1-042] or separate agreements to protect the interests of those undertakers, including provisions ensuring those utility undertakers have reviewed the Applicant's proposals prior to commencement of the works.</p> <p>SUDS Impact K: Surface water runoff</p> <p>As illustrated on Sheets 11 and 13 of the Drainage Plans [APP-048], the pumping station that serves the approaches to the South Portal would discharge into a ditch that would convey surface water flows into a cascading infiltration basin system. The system will collect water from the approach roads only, not the tunnel itself, which will drain via the North Portal. Detailed assessments of the potential for discharge of operational road drainage have been undertaken, using both the HEWRAT methodology from the DMRB, and detailed groundwater modelling. The results of these assessments are presented in Annex O and Annex M of ES Appendix 14.5: Hydrogeological Risk Assessment [APP-459], which concluded there are no significant risks to groundwater quality.</p>

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		<p>SUDS Impact N: Permanent Drainage System</p> <p>New drainage attenuation features constructed to serve the Project road during its operation all provide for restricted discharges to receiving surface watercourses at greenfield runoff rates or infiltration to ground, following settlement of sediments and treatment via vegetative systems.</p> <p>Should the ponds receive runoff from completed sections of road, this runoff would therefore be treated and attenuated prior to its release into the water environment so as to have no negative impact on the local area. Any new retention pond used to manage construction phase drainage that is to form part of the operational drainage system of the Project would be renovated following the construction phase, inclusive of silt removal to ensure no compromise to function of the ponds during operation of the Project. This is secured by commitment RDWE043 within the REAC, part of the Code of Construction Practice [REP1-157].</p> <p>SUDS Impact O: Box Culvert Installation</p> <p>Following engagement on matters raised within KCC's Relevant Representation [RR-0557], a matter referring to the above comment was added to the SoCG [REP1-103] at item 2.1.150 (DL-1) as follows:</p> <p><i>'Noted. The Applicant is seeking the views of the Environment Agency as to their acceptance of this aspect.'</i></p> <p>The Applicant notes KCC's concerns. As noted in paragraph 2.7.73 of ES Chapter 2: Project Description [APP-140], the final methodology to be followed would depend on the sensitivity of the watercourse and would be subject to consultation and agreement with the relevant Lead Local Flood Authority or the Environment Agency during detailed design.</p> <p>SUDS Impact R: Ponds</p> <p>Where ponds that support protected species are being removed, replacement ponds would be provided in advance of existing ponds being removed. This requirement is embedded in legally binding protected species licensing requirements. In addition, REAC commitment LV029 (with ES Appendix 2.2: CoCP [REP1-157]) ensures that planting identified on the Environmental Masterplan [APP-159 to APP-168] would be undertaken at the earliest practicable opportunity following conclusion of construction activities, and REAC commitment TB021, which specifically relates to watercourse diversion planting, commits to providing successful reinstatement of vegetation (with higher levels of planting diversity) with an achievement criteria that requires successful reinstatement of vegetation at these locations within 12 months. This should avoid any shortfall in availability of wetland habitats resulting from construction activities so far as possible.</p>

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		<p>SUDS Impact S: Infiltration basins</p> <p>Commitment RDWE043 in the REAC, within ES Appendix 2.2: CoCP [REP1-157] distinguishes between existing drainage attenuation features that currently serve the A2/M2 and would be affected by the Project and the new drainage features that would be constructed by the Project.</p> <p>The commitment states that <i>'In order not to compromise their function, existing drainage features ... affected by the Project ... would not be used to receive construction work site runoff'</i>.</p> <p>The commitment goes on the state that any new retention pond used to manage construction phase drainage that is to form part of the operational drainage system of the Project would be renovated following the construction phase, inclusive of silt removal, and the new infiltration basins that are proposed to form part of the operational drainage system serving the Project to the south of the River Thames <i>'shall only be used to receive runoff from completed sections of highway; general site runoff shall not be discharged to these infiltration basins'</i>.</p> <p>This strategy would ensure no compromise to function of drainage attenuation features.</p> <p>SUDS Impact T: Rainfall runoff</p> <p>As secured by commitment RDWE033 within the REAC, part of the Code of Construction Practice [REP1-157], the nature of the temporary discharge of surface water drainage from the southern tunnel entrance construction compound, in terms of its quality and quantity, would be governed by the conditions of an Environment Agency Discharge Consent.</p> <p>A likely condition of the Discharge Consent will be monitoring of the water quality of the receiving ditch to demonstrate the efficacy of the treatment systems in place. Should the monitoring detect change in the pre-construction baseline water quality above pre-determined trigger levels, adjustment to treatment would be required and implemented to prevent negative impacts to water quality in the local area.</p> <p>As the receiving watercourse is not a main river, it is expected that the EA would engage with the owner of the watercourse to shape the conditions attached to the discharge consent.</p> <p>7. Public Health</p> <p>Health Impact A: Air Quality during construction</p> <p>The Applicant has noted KCC's concerns regarding the need for further information to determine how the assessed changes in air quality during construction and operation will impact on human health. This has been reflected within the SoCG [REP1-103] at items 2.1.140 (DL-1) and 2.1.141 (DL-1) which set out the Applicant's position that:</p> <p><i>The air quality assessment presented in Environmental Statement Chapter 5 Air Quality [APP-143] has been carried out in accordance with DMRB LA 105 (Highways England, 2019). The predicted pollutant concentrations at</i></p>

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		<p>receptors are compared to the appropriate legal thresholds including Limit Values and Air Quality Strategy Objectives. This is to ensure compliance with the National Networks National Policy Statement (NN NPS), particularly when determining whether the scheme has a significant impact on air quality. The change in pollutant concentration is described in the assessment both positive and negative in Chapter 5 Air Quality [APP-143] between paragraphs 5.6.30 and 5.6.112. The WHO air quality guidelines are not legally binding limits, they are designed to offer guidance on reducing the health impacts of air pollution which world governments can use to inform air quality policy based on their own specific circumstances. The WHO guidelines have not been adopted as legal air quality thresholds in the UK and so it would not be appropriate to consider these in the Environmental Statement.</p> <p>Section 7.8 of the Health and Equalities Impact Assessment [APP-539] draws from the findings of the air quality assessment presented in Environmental Statement Chapter 5: Air Quality [APP-143]. The assessment of health outcomes relating to changes in air quality during the operational phase is set out in Table 7.28. The assessment refers to the fact that, across the study area for air quality, there are locations predicted to experience both improvements and deteriorations in air quality and that the majority of changes in air quality are forecast to be imperceptible or small at human receptors. The table also notes that groups particularly sensitive to deteriorations or improvements in air quality and who may be more likely to experience changes to health outcomes as a result of air quality changes include children, older people and people with existing respiratory conditions.</p> <p>The Environmental Statement - Chapter 5 - Air Quality [APP-143] concluded that the Project is not expected to lead to a significant air quality effect on human health. The air quality assessment has been undertaken in line with DMRB LA 105 (Highways England, 2019). The LA105 Standard requires an assessment of whether the impacts of the scheme are significant or not significant on human health based on the approach described in paragraphs 2.89 to 2.96. of the standard. This is required to determine compliance with Paragraph 5.12 of the National Networks National Policy Statement.</p> <p>Paragraphs 5.6.132 and 5.6.133 of Chapter 5 of the Environmental Statement: Air Quality [APP-143] state: 'There are a total of nine receptors which experience a worsening in NO2 concentrations, and 16 receptors which experience an improvement in NO2 concentrations where the annual mean NO2 AQS objective is exceeded. When judging whether the Project leads to a significant effect, the change in concentration and the total number of receptors are considered against the guideline bands in DMRB LA 105 (Highways England, 2019) as described in paragraphs 5.3.132 to 5.3.137'.</p> <p>Further, there are no exceedances of AQS objectives predicted for PM2.5 or PM10 with or without the Project.</p> <p>The health assessment in relation to air quality is presented within Section 7.8 of the Health and Equalities Impact Assessment (HEqIA) [APP-539]. This describes the positive and negative impacts reported in Environmental Statement -Chapter 5 - Air Quality [APP-143] and concludes a neutral health outcome in relation to construction and</p>

Rep ID	WR Submitter	WR/Overview/Applicant's Response
		<p><i>operation phases. The sensitivity of particular populations to deteriorations or improvements in air quality (for example children, older people and people with existing respiratory conditions) has been taken into account in the assessment.</i></p> <p><i>Paragraph 3.6.18 of the HEqIA describes the limitations and assumptions for the assessment, stating that for all topics, the assessment has been aggregated to ward level unless otherwise specified. Health effects are therefore considered at a population, rather than an individual level. A neutral assessment has been recorded for air quality on the basis that no significant impacts are reported in Environmental Statement Chapter 5 – Air Quality and that both positive and negative changes in air quality are reported along the route.</i></p> <p><i>The Environmental Statement included an appropriate air quality assessment (6.1 Environmental Statement– Chapter 5 – Air Quality [APP-143]) This considered worst case receptors and was assessed against the relevant Air Quality Objectives and Limit Values, which are inherently protective of the environment and health.</i></p> <p><i>The methodology applied follows the National Highways DMRB LA105 and concluded that the operational phase does not present any significant effect on human receptors.</i></p> <p><i>While sufficient for determining compliance with the National Networks National Policy Statement (2014), residual concerns were noted though wider engagement, and additional work has been initiated to set potential risk into context and respond to concerns regarding non-threshold pollutants by assessing the potential health risk from changes in pollutant concentration regardless of the absolute levels and whether these exceed legal thresholds.</i></p> <p><i>An Air Quality Quantitative Health Impact Assessment (AQQHIA) was carried out, applying the approach and supporting evidence base collated by the Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP) and the Clean Air for Europe (CAFE) programme. The adopted methodology utilises robust concentration response functions recommended for quantification by COMEAP, as well as the existing health burden and population numbers at the local level, and the effect of the proposed Scheme on NO2 and PM2.5 concentrations, as assessed in 6.1 Environmental Statement Chapter 5 – Air Quality [APP-143]. The assessment has no lower threshold to the assessment, so changes of all magnitudes, no matter how small are considered.</i></p> <p><i>The assessment is ongoing and the Applicant will provide a technical report detailing the rationale, methodology and findings of the AQQHIA to the Planning Inspectorate at Examination Deadline 3.</i></p> <p>Health Impact B: Active Travel Impacts by Ward</p> <p><i>The assessment of impacts on active travel during construction and operational phases of the Project is presented in Section 7.5 of the HEqIA [APP-539]. As noted by KCC, there are several wards affected by the diversion and closure during the construction phase of PRowS which have been categorised as being of high sensitivity (for example Westcourt ward), by virtue of the demographic, economic and health characteristics of the ward population.</i></p>

Rep ID	WR Submitter	WR/Overview/Applicant's Response
		<p>Paragraph 7.5.24 of the HEqIA notes that, through engagement with stakeholders, the Applicant has committed to the creation of two Community Funds – one each covering affected communities to the north and south of the River Thames. This would be secured via Section 106 (S106) agreement [APP-505]. Grants would be available for eligible community-led initiatives across four key themes identified based on the impacts/opportunities arising from the development, one of which is connecting communities and may include projects that enhance or encourage active travel. Eligible wards include those, such as Westcourt ward, which are in close proximity to construction activities, with funding available annually across the six years of construction and one year post construction.</p> <p>The Applicant welcomes a continued discussion with KCC about opportunities to raise awareness of active travel routes and the associated health benefits.</p> <p>8. Biodiversity</p> <p>A: Foraging / commuting bats and associated habitat</p> <p>This matter is addressed in the Applicant's response to paragraphs 13.8 to 13.10 of the Council's LIR as follows:</p> <p><i>"Data gathered through field survey and analysis of biological records indicates predominantly common species of bats are active in this area (over 90% activity recorded was from the pipistrelle species group), with the highest levels of activity occurring south of the A2 and HS1 railway where the Project is having minimal impact. The overall valuation of the bat assemblage south of the River Thames is assessed as being of County level importance (i.e. the geographic scale at which the loss of the bat assemblage would be felt would be a county level). It is considered that this baseline dataset is robust and allows the characterisation of potential impacts to be determined and the likely effect of those impacts to be assessed, as reported in ES Chapter 8: Terrestrial Biodiversity [APP-146], paragraphs 8.6.130 – 8.6.153.</i></p> <p><i>Surveys of bats commuting across the A2/HS1 railway line were undertaken and recorded bats crossing this infrastructure but at relatively low levels of activity, and not representative of the activity levels recorded in adjacent woodlands (e.g. Ashenbank Wood). It is therefore considered that there is not a clear and regularly used flightpath for bats crossing the A2/HS1 railway line. The existing vegetated central reserve may be beneficial to bats looking to cross this infrastructure as it could function as a hop-over for bats, although it is certainly not designed as such. Although the central reserve would be lost as a result of the Project, the two bridges at Thong Lane South and Brewers Road would be converted to green bridges with vegetation planting tying into the adjacent habitats. These would provide strong commuting opportunities in this area which do not currently exist and therefore would be beneficial for bats. The green bridges are shown in ES Figure 2.4: Environmental Masterplan Sections 1 & 1A and 2 [APP-159 and APP-160], with the associated design principles secured in the Design Principles [APP-516], clauses STR.08, S1.04, S1.17, S2.12.</i></p>

Rep ID	WR Submitter	WR/Overview/Applicant's Response
		<p><i>The general loss of woodland habitats used for foraging and roosting, and hedgerows used for commuting and foraging would be offset through the landscape design for the Project which would result in a significant increase in high quality woodland, scrub, and semi-natural species-rich grassland than is currently present. These newly created habitats are also designed to link into existing semi-natural habitats across the wider landscape, helping establish coherent ecological networks and facilitating movements of species throughout these networks. It is acknowledged that these habitats would take time to establish so would be a resource available to bats in the long-term, but there is significant available resource within the wider landscape to support the extant bat assemblage.</i></p> <p><i>The long-term management proposals for newly created habitats are reported in the outline Landscape and Ecology Management Plan [REP1-173], which include objectives to maximise value for species such as bats. The commitment to monitoring habitats and structures for bats over a ten year period is reported in ES Appendix 8.16: Draft EPS Mitigation Licence Application – Bats [APP-408].”</i></p> <p>In addition to the Applicant's response to paragraphs 13.8 to 13.10 of the Council's LIR, see the comments below:</p> <p>Description/selection of transects: Transect routes were selected within habitats and landscape features that would be affected by the Project, and that could provide suitable bat habitat. Routes were initially identified through a detailed review of Ordnance Survey mapping, high resolution aerial imagery, desk study data and Phase 1 Habitat Survey data. They were then reviewed to ensure the identified routes were practical, safe and included a representative sample of appropriate habitats.</p> <p>Walked surveys of each transect route were complemented by deployment of Song Meter SM4BAT FS automated static bat detectors using SMM-U1 microphones. Depending on the length of the transect and the variation and quality of the habitats, between one and four automated static bat detectors were deployed in suitable locations along the transect route and left in place for five days. The locations of the automated static detectors were determined according to a professional judgement sampling protocol, as other, more randomised detector deployment strategies were not practical. This was due to access limitations, risk of interference from the public and types of land use.</p> <p>The selection of automated static detector locations was determined to ensure automated static detectors were distributed across the transect to gain maximum representative sampling of habitats to determine bat activity, and were positioned within or adjacent to a range of habitats within and around the Order Limits, ensuring all broad habitats received coverage from the automated static detectors.</p> <p>For a full description of the habitat types, transect lengths and number of statics per transect, please refer to Table 1 below. This information has been summarised from Environmental Statement Appendix 8.8: Bats [APP-397], and is</p>

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		<p>based on Table B.1 in Annex B, with the addition of transect length, which is displayed on Environmental Statement Figure 8.25: Bat Transect and Crossing Point Locations [APP-286].</p> <p>Table 1. Bat transect descriptions</p> <table border="1" data-bbox="526 386 2016 1061"> <thead> <tr> <th data-bbox="526 386 696 466">Transect number</th> <th data-bbox="696 386 920 466">Transect name</th> <th data-bbox="920 386 1070 466">Transect length</th> <th data-bbox="1070 386 1263 466">Number of detectors</th> <th data-bbox="1263 386 2016 466">Habitat description</th> </tr> </thead> <tbody> <tr> <td data-bbox="526 466 696 529">Transect 1</td> <td data-bbox="696 466 920 529">Great Wood, Rochester</td> <td data-bbox="920 466 1070 529">3.48 km</td> <td data-bbox="1070 466 1263 529">2 detectors</td> <td data-bbox="1263 466 2016 529">Broadleaved woodland bounding the M25 and HS1</td> </tr> <tr> <td data-bbox="526 529 696 625">Transect 2</td> <td data-bbox="696 529 920 625">Rochester & Cobham Park Golf Club</td> <td data-bbox="920 529 1070 625">5.78 km</td> <td data-bbox="1070 529 1263 625">2 detectors</td> <td data-bbox="1263 529 2016 625">Managed landscape on golf course with amenity grassland and surrounding broadleaved woodland</td> </tr> <tr> <td data-bbox="526 625 696 721">Transect 3</td> <td data-bbox="696 625 920 721">Ashenbank Wood</td> <td data-bbox="920 625 1070 721">6.90 km</td> <td data-bbox="1070 625 1263 721">2 detectors</td> <td data-bbox="1263 625 2016 721">Mostly ancient broadleaved semi-natural woodland. 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The results of these surveys are presented in Bat Draft European Protected Species Licence (Environmental Statement Appendix 8.16: Draft EPS Mitigation Licence Application – Bats [APP-408]): “Bats were seen crossing the HS1 and A2. However, the activity recorded does not represent the known high numbers of bats that have been recorded in the local area (i.e. Ashenbank Wood, Transect 3) and therefore there is not an obvious flightpath in which bats use to cross these linear structures”.</p> <p>Monitoring proposals have been discussed with Natural England, and all proposals are detailed in the Bat Draft European Protected Species Licence (Environmental Statement Appendix 8.16: Draft EPS Mitigation Licence Application – Bats [APP-408]).</p>	Transect number	Transect name	Transect length	Number of detectors	Habitat description	Transect 1	Great Wood, Rochester	3.48 km	2 detectors	Broadleaved woodland bounding the M25 and HS1	Transect 2	Rochester & Cobham Park Golf Club	5.78 km	2 detectors	Managed landscape on golf course with amenity grassland and surrounding broadleaved woodland	Transect 3	Ashenbank Wood	6.90 km	2 detectors	Mostly ancient broadleaved semi-natural woodland. 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		<p>B: Roosting Bats</p> <p>This matter is addressed in the Applicant's response to paragraph 13.11 of the Council's LIR as follows:</p> <p><i>"Of the known bat roosts being impacted, all but one are considered to be day roosts, the one exception being a hibernation roost used by brown long-eared (Plecotus auritus), Natterer's (Myotis nattereri), and Daubenton's bats (M. daubentonii), within an air raid shelter in Shorne Woods. The baseline for bats south of the River Thames is reported in ES Chapter 8: Terrestrial Biodiversity [APP-146], paragraphs 8.4.52 – 8.4.60. Bat boxes would be used to compensate for the loss of tree roosts and, where appropriate, roosts in other structures. The type of bat box used would be based on its similarity in size and function to the roost being lost. In addition to compensation for the loss of roosts, bat boxes would also be provided to compensate for the loss of trees with suitable roosting features as these contribute to the roosting resource within the area.</i></p> <p><i>Bat boxes would be installed within areas of retained woodland either within the Project Order Limits, such as areas within Ashenbank Woods, or within woodland under agreement with the landowner such as Shorne Woods. The amount of woodland that will be lost south of the River Thames is 47.9ha (including 34.8ha of plantation woodland). The area of woodland in which bat boxes will be installed is 148.6ha including 97ha of woodland within Shorne Country Park. These woodland blocks are shown on ES Appendix 8.16: Draft EPS mitigation licence application – Figure E3, pg. 136 [APP-408]. For the potential loss of structures supporting roosts which cannot be adequately mitigated through the provision of bat boxes (e.g. maternity or hibernation roosts of certain species), the Project includes the provision for the construction of four bespoke bat structures south of the River Thames. These structures are located adjacent to retained foraging and commuting habitats, in areas proposed for semi-natural habitat creation as part of the Project design."</i></p> <p>In addition to the Applicant's response to paragraphs 13.11 of the Council's LIR, see the comments below:</p> <p>Structures: A total of 26 structures were identified that would either be demolished as a result of the Project, or potentially disturbed by its construction and/or operation. Of these:</p> <ul style="list-style-type: none"> • Seven were assessed as having negligible potential for roosting bats • Nine were not surveyed due to access or health and safety restrictions. Five of these were able to be ground assessed, with three being of moderate potential and two being low potential for roosting bats. • Ten had emergence and/or internal inspections completed at the following properties (these include sub-buildings such as garages etc): White House, Southern Valley Golf Club, 1 Longview, St Mary's Church, Marling Manor and Shorne Woods Air Raid Shelters 1 and 2.

Rep ID	WR Submitter	WR/Overview/Applicant's Response				
		<p>An additional 60 structures within the Project Order Limits and a 50m buffer around them, but not considered to be affected by the Project through loss or disturbance, were assessed for their potential to support roosting bats. This was to provide an understanding of the extent of roost resource available within the vicinity of the Project. Of these:</p> <ul style="list-style-type: none"> • 8 had no access • 6 had negligible potential • 6 had low potential • 21 had moderate potential • 18 had high potential • 1 was a confirmed roost (confirmed by desk study) <p>For full details of this, please see ES Appendix 8.8: Bats – Pages 35, 36, 63, 64 [APP-397] and ES Appendix 8.16: Draft EPS mitigation licence application – Section A: Executive Summary, pg. 39 [APP-408].</p> <p>A total of 278 trees were identified south of the River Thames within the Project Order Limits and a 50m buffer around them. Of these, 163 trees were located within the Order Limits, with a total of 108 trees identified as requiring further surveys following ground based assessment. Ninety-eight trees were assessed as requiring climbing surveys, with 78 of these trees having climbing surveys carried out. One tree was identified as having a confirmed noctule roost from the climbing surveys (T911), however this roost is located adjacent to an ecological mitigation area and would not be disturbed or removed during construction.</p> <p>Ten trees were identified as requiring emergence/re-entry surveys, with eight of these trees having emergence/re-entry surveys carried out. One soprano pipistrelle was recorded emerging from a knot hole on Tree 284 in 2018. Tree 284 was subject to a further survey in 2021 and a brown long-eared was recorded emerging from it. No bats were recorded emerging from any of the other trees.</p> <p>For full details on these surveys including dates and results, see ES Appendix 8.8: Bats – Annex E: Tree Climbing and Emergence/Re-entry survey results, pages 101-107 [APP-397].</p> <p>Tree roost presence/absence and type: A total of 278 trees were identified within the Project Order Limits and a 50m buffer around them south of the River Thames. See Table 2 below for a breakdown of the bat roost suitability of the trees identified.</p> <p>Table 2. Bat tree roost suitability</p> <table border="1" data-bbox="526 1300 1265 1380"> <thead> <tr> <th data-bbox="526 1300 981 1348">Bat roost suitability</th> <th data-bbox="981 1300 1265 1348">Number of trees</th> </tr> </thead> <tbody> <tr> <td data-bbox="526 1348 981 1380">Confirmed Roost</td> <td data-bbox="981 1348 1265 1380">2</td> </tr> </tbody> </table>	Bat roost suitability	Number of trees	Confirmed Roost	2
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Rep ID	WR Submitter	WR/Overview/Applicant's Response																					
		Probable Roost	0																				
		Possible Roost	0																				
		High	67																				
		Moderate	128																				
		Low	49																				
		Negligible	32																				
		Total	278																				
		<p>For full details refer to ES Appendix 8.8: Bats, Table 8.6: Summary of tree assessment survey results with the Project Order Limits and 50m buffer to the south of the River Thames, pg. 27 [APP-397].</p> <p>Impact on structure/roosts: Four roosts south of the River Thames are due to be lost or disturbed during construction/operation of the Project. These roosts are listed in the Table 3 below, with details on the species and number of individuals potentially impacted.</p> <p>Table 3. Roosts to be impacted</p> <table border="1"> <thead> <tr> <th>Structure (Sx) or tree (Tx) reference number</th> <th>Impacts</th> <th>Species present</th> <th>Peak count</th> </tr> </thead> <tbody> <tr> <td>T284</td> <td>Roost removed</td> <td>Soprano pipistrelle Brown long-eared bat</td> <td>1 1</td> </tr> <tr> <td>1 Longview (S2)</td> <td>Roost demolished</td> <td>Common pipistrelle</td> <td>1</td> </tr> <tr> <td>Marling Manor (S14)</td> <td>Roost demolished</td> <td>Brown long-eared bat Common pipistrelle</td> <td>1 2</td> </tr> <tr> <td>Shorne Woods air rad shelter 1 (S328)</td> <td>Roost disturbed</td> <td>Brown long-eared bat Daubenton's bat Natterer's bat</td> <td>2 1 3</td> </tr> </tbody> </table> <p>All of the roosts listed in Table 2 above are considered to be day roosts, except for S328 which is a hibernation roost. For full information see the 'Known roosts to be lost or damaged' table on page 4 of ES Appendix 8.16: Draft EPS mitigation licence application [APP-408]. For a plan of the lost/retained roost and the temporary habitat loss, see ES Appendix 8.16, Figure D [APP-408].</p>		Structure (Sx) or tree (Tx) reference number	Impacts	Species present	Peak count	T284	Roost removed	Soprano pipistrelle Brown long-eared bat	1 1	1 Longview (S2)	Roost demolished	Common pipistrelle	1	Marling Manor (S14)	Roost demolished	Brown long-eared bat Common pipistrelle	1 2	Shorne Woods air rad shelter 1 (S328)	Roost disturbed	Brown long-eared bat Daubenton's bat Natterer's bat	2 1 3
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Shorne Woods air rad shelter 1 (S328)	Roost disturbed	Brown long-eared bat Daubenton's bat Natterer's bat	2 1 3																				

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		<p>C: Dormouse</p> <p>This matter is addressed in the Applicant's response to paragraphs 13.12 to 13.24 of the Council's LIR as follows. <i>"The non-standard persuasion method as detailed within [APP-414] has been developed by the Project, and has been discussed with Natural England in multiple meetings.</i></p> <p><i>Proposed receptor sites have also been discussed with Natural England during licensing meetings. The habitat found within the major receptor site of Shorne Woods Country Park is already in the process of being managed for the benefit of dormice, and this will be further enhanced using dormouse boxes to increase the number of nest sites. Woodland, scrub and hedgerow creation would provide more high quality habitat which dormice would begin to use within 5-10 years of planting. The long-term management of these habitats is reported in the outline Landscape and Ecology Management Plan [REP1-173] together with objectives to maximise their value for dormice. Monitoring of dormouse populations within the area is detailed in ES Appendix 8.18: Draft EPS Mitigation Licence Application – Dormouse [APP-414]."</i></p> <p>In addition to the Applicant's response to paragraphs 13.12 to 13.24 of the Council's LIR, see the comments below: Supplementary feeding has also been proposed within the receptor site at Shorne Woods Country Park which will increase the carrying capacity of the dormouse receptor site.</p> <p>D: Badger</p> <p>This matter is addressed in the Applicant's response to paragraphs 13.15 to 13.17 of the Council's LIR as follows. <i>"At the request of Kent County Council and subject to a Non-Disclosure Agreement, the Applicant shared the following confidential documents with Kent County Council on 12 January 2023:</i></p> <ul style="list-style-type: none"> • <i>ES Figure 8.29: Badger Survey Results [APP-290]</i> • <i>ES Appendix 8.12: Badger [APP-401]</i> • <i>ES Appendix 8.19: Draft Badger Development Licence Application [APP-415]</i> <p><i>In relation to long term management there are a number of securing mechanisms in place including:</i></p> <ul style="list-style-type: none"> • <i>ES Figure 2.4: Environmental Masterplan [APP-159 to APP-168],</i> • <i>Specific REAC commitments (e.g. for badgers TB008) within ES Appendix 2.2: Code of Construction Practice [REP1-157]</i> • <i>the draft protected species licence [APP-415]</i> • <i>oLEMP [REP1-173]</i>

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		<ul style="list-style-type: none"> • <i>draft DCO (Schedule 2 Requirement 7) [REP1-042]</i> <p><i>These will all compel the Contractor and the Applicant to implement the necessary mitigation measures and to ensure its adequately monitored and maintained.</i></p> <p><i>The approach to badger mitigation has been agreed with Natural England and the Applicant has received a Letter of No Impediment with respect to badgers.</i></p> <p><i>A wide range of semi-natural habitats which would provide good quality foraging and shelter for badgers is proposed, including grassland, open mosaic habitat, scrub and woodland. The long-term management of these habitats is reported in the outline Landscape and Ecology Management Plan [REP1-173].”</i></p> <p>In addition to the Applicant's response to paragraphs 13.15 to 13.17 on page 57 of the Council's LIR, see the comments below:</p> <p>The Applicant has assessed the impacts on foraging and commuting badgers, and the mitigation for these impacts is stated in both ES Chapter 8: Terrestrial Biodiversity [APP-146], paragraphs 8.6.197 – 8.6.202 and Section 5.4 of ES Appendix 8.19: Draft Badger Development Licence Application [APP-415]. As previously noted the Applicant's approach to badger mitigation has been agreed with Natural England and the Applicant has received a Letter of No Impediment with respect to badgers.</p> <p>E: Water Voles</p> <p>The Applicant recognises and will comply with Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), relating to requirements for the translocation of species in the Order Limits prior to the commencement of construction. Detailed information on the mitigation strategy for water vole is provided in ES Appendix 8.20: Draft Water Vole Conservation Licence Application [APP-416].</p> <p>In addition to the Applicant's response to the Council's LIR, see the comments below:</p> <p>Pre-construction surveys will be carried out prior to the submission of a formal Natural England water vole mitigation licence. These surveys will include all areas where water vole will be impacted and will be carried out as close to construction activities starting as reasonably practicable. The mitigation proposals have been discussed with Natural England and can be found in ES Appendix 8.20: Draft Water Vole Conservation Licence Application [APP-416].</p> <p>It is noted that displacement is not advised after 31st March in the South-east in the Water Vole Conservation Handbook (Dean 2016). Preferentially animals will be displaced up until 31st March, however the 15th of April end date has been included within the mitigation proposals as a precaution against bad weather or other factors that might impede the displacement process.</p>

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		<p>The addition of a new watercourse to the North of the Thames and Medway canal is not predicted to impact the existing water levels within the current ditch network. Water vole displacement mitigation will be suitable to allow the habitat creation work to take place. This area is covered in a specific REAC commitment within the Code of Construction Practice [REP1-157] – ‘The land would be reinstated to create additional slow-flowing ditch, pond and grassland with scrub habitats for use by species such as water vole and GCN, as well as to provide suitable bird foraging and nesting habitat. These habitat enhancements have been agreed in principle with the RSPB, who are the landowners for this area’ (REAC Ref. TB022). This methodology has been discussed with NE and has been included in the NE water vole licence.</p> <p>The Applicant recognises that managing low suitability watercourses in this area would enhance the habitat for water voles, however these low suitability watercourses are outside of the Order Limits and therefore the Applicant will not be able to manage these watercourses for the enhancement for water voles.</p> <p>The mitigation licence application timetable is detailed in Section 7 of ES Appendix 8.20: Draft Water Vole Conservation Licence Application [APP-416].</p> <p>F: Otter</p> <p>The requirement for pre-construction surveys is secured in the draft Development Consent Order [REP1-042], specifically Schedule 2 Requirement 7 – Protected Species. These would include surveys for otter to ensure appropriate measures were provided should they return positive presence of otter in the zone of influence of the Project.</p> <p>G: Invertebrate</p> <p>The SoCG [REP1-103] at item 2.1.132 (DL-1) confirms that:</p> <p><i>For all surveys undertaken to develop an ecological baseline against which the assessment of likely significant effects has been made, any limitations around extent of surveys and divergence from best practice have been detailed within the relevant technical appendices supporting the application. Any assumptions made in relation to such limitations are also reported, and support a precautionary approach that provided a robust assessment of likely significant effects and an appropriate and proportionate mitigation/compensation strategy.</i></p> <p><i>With respect to terrestrial invertebrates, notably moths, baseline survey data is reported in ES Appendix 8.3: Terrestrial Invertebrates, Section 6: Assumptions and limitations being the relevant section and paragraph 6.1.2 specifically relating to moths.</i></p> <p><i>Further pre-construction survey work is secured within the draft DCO, specifically Schedule 2 Requirement 7 – Protected Species.</i></p>

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		<p>REAC commitment TB018 [REP1-157] sets out that “<i>Habitat features of value to protected species that can themselves be moved to mitigation areas/receptor sites (for example dead-wood features for terrestrial invertebrates, and refugia for amphibians and reptiles) would be translocated where appropriate, to be determined by the Environmental Clerk of Works</i>”.</p> <p>The SoCG [REP1-103] also provides specific information regarding KCC’s position on veteranised hulks and retention of standing deadwood, retention of scrub material and dead hedging within items 2.1.50 and 2.1.134 (DL-1):</p> <p><i>It is agreed that where possible, the loss of veteran trees and ancient woodland should be avoided.</i></p> <p><i>The Applicant has worked to avoid impacts, but where they are unavoidable, has sought to design a compensatory package of planting and other measures, in discussion with the Kent Downs AONB [Area of Outstanding National Beauty] unit, Kent County Council, the Forestry Commission and Natural England.</i></p> <p><i>Where the loss of veteran trees is unavoidable, the hulks of those trees would be translocated. Other trees will be ‘veteranised’ as further compensation.</i></p> <p><i>The removal of trees to facilitate construction of the Project is discussed in ES Appendix 7.12: Arboricultural Impact Assessment [APP-387].</i></p> <p><i>The worst-case assumption on the likely loss of trees in paragraph 5.2.11 of the Arboricultural Impact Assessment is that six potential veteran trees (trees identified during Project surveys as displaying the features of a veteran tree but not recorded on the Ancient Tree Inventory) would be removed to facilitate the Project. Three of these six potential veteran trees would be lost south of the River Thames. However, commitment LV001 of the REAC mandates an aim for the detailed design for the Project, including diverted utilities, to reduce the removal of trees and vegetation as far as reasonably practicable. This includes potential veteran trees.</i></p> <p><i>In accordance with commitment LV032 set out in the REAC, a minimum of 30 specimen trees would be replanted as replacement for lost veteran trees, 15 of which would be planted to the south of the River Thames in Kent. This specimen tree planting would be in addition to the extensive native woodland planting also proposed south of the River Thames, as shown on the Environmental Masterplan Sections 1 & 1A, 2, 3 & 4.</i></p> <p><i>Where felling of veteran trees cannot be avoided, the intact hulk would be retained and relocated in close proximity to a nearby veteran tree or within a parkland to allow fungi and invertebrates to relocate and promote habitat creation (in the form of standing dead wood). This measure is secured via the REAC commitment LV031.</i></p> <p>The REAC was submitted as part of the DCO application – ES Appendix 2.2 (Code of Construction Practice) [REP1-157]. As set out above, the REAC includes commitments relating to veteran trees and deadwood (LV001, LV032 and LV031).</p>

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		<p>The omission of arboreal moth surveys is recognised as a limitation in ES Appendix 8.3: Terrestrial Invertebrates [APP-392]. A precautionary approach was taken in evaluating arboreal sites to account for such limitations. Of the five woodland sites identified, two were of national importance, one was of regional importance and two were of county importance. As such the assessment of importance is deemed suitably precautionary.</p> <p>For full details of the lighting assessment, please refer to K Lighting below.</p> <p>In addition to the Applicant's response to the Council's LIR, see the comments below:</p> <p>The disposal and placement of removed scrub and young woodland will be part of the detailed design process, but there will be a preference for the reuse of material onsite, as part of brush piles or reptile/GCN hibernacula.</p> <p>H: Loss of Ancient Woodland</p> <p>The Applicant's position regarding this matter is detailed within the SoCG [REP1-103] at items 2.1.46, 2.1.50, 2.1.51, and 2.1.53 – in summary:</p> <ul style="list-style-type: none"> • <i>The Applicant agrees that loss of ancient woodland cannot be mitigated, and acknowledges the impact on irreplaceable habitats, and is proposing compensatory habitat. The Applicant notes that effects on archaeology of all areas of woodland planting have been considered within Environmental Statement Chapter 6: Cultural Heritage [AS-044]. Effects on ecology and woodlands themselves are considered in ES Chapter 8: Terrestrial Biodiversity [APP-146].</i> • <i>The Applicant has worked to avoid impacts, but where they are unavoidable, has sought to design a compensatory package of planting and other measures, in discussion with the Kent Downs AONB unit, Kent County Council, the Forestry Commission and Natural England.</i> • <i>Ancient woodland soils will be salvaged where possible for use in new areas of compensatory planting.</i> • <i>The Applicant has altered the design throughout the pre-application period to minimise the footprint of the road itself through the AONB. The lanes of the A2 previously shown as widening the corridor would now be within the existing highway boundary and would not impact Shorne Woods Country Park, and revisions to the requirements of construction and utility diversions have further reduced the requirements for loss of ancient woodland.</i> • <i>In terms of land-take for utilities, the diversion design has been developed and the easement width – previously estimated at 60m – has been reduced to around 15m (subject to discussions with utility companies). The route would be largely aligned with an existing access track, in order to limit the impact on the woods. Impacts remain between the Inn on the Lake and the Brewers Road overbridge.</i>

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		<ul style="list-style-type: none"> <i>The Applicant has provided a detailed response to these concerns which sets out the evolution of the proposals in an effort to mitigate likely adverse effects on SSSIs as far as possible, reducing the overall area of land-take and developing sensitive mitigation and compensation measures.</i> <p>In terms of veteran trees within this classification, the SoCG [REP1-103] item 2.1.134 (DL-1) sets out that: <i>The removal of trees to facilitate construction of the Project is discussed in ES Appendix 7.12: Arboricultural Impact Assessment [APP-387].</i></p> <p>The worst-case assumption on the likely loss of trees in paragraph 5.2.11 of the Arboricultural Impact Assessment is that six potential veteran trees (trees identified during Project surveys as displaying the features of a veteran tree but not recorded on the Ancient Tree Inventory) would be removed to facilitate the Project. Three of these six potential veteran trees would be lost south of the River Thames. However, commitment LV001 of the REAC mandates an aim for the detailed design for the Project, including diverted utilities, to reduce the removal of trees and vegetation as far as reasonably practicable. This includes potential veteran trees.</p> <p>In accordance with commitment LV032 set out in the REAC, a minimum of 30 specimen trees would be replanted as replacement for lost veteran trees, 15 of which would be planted to the south of the River Thames in Kent. This specimen tree planting would be in addition to the extensive native woodland planting also proposed south of the River Thames, as shown on the Environmental Masterplan Sections 1 & 1A, 2, 3 & 4.</p> <p>Where felling of veteran trees cannot be avoided, the intact hulk would be retained and relocated in close proximity to a nearby veteran tree or within a parkland to allow fungi and invertebrates to relocate and promote habitat creation (in the form of standing dead wood). This measure is secured via the REAC commitment LV031.</p> <p>In addition to the Applicant's response to the Council's LIR, see the comments below:</p> <p>Contamination includes both the potential for invasive species to be present, but also for potentially harmful substances such as asbestos. These contamination surveys will be carried out prior to any soil translocation. The Applicant acknowledges KCC's recommendations for the scope of future pre-construction survey work and would welcome the opportunity to discuss the detail of this further with the council to ensure requirements are fully addressed.</p> <p>I: Bird</p> <p>As set out in paragraph 4.6.2 of ES Appendix 2.2 (Code of Construction Practice) [REP1-157], '<i>Habitat and protected species surveys for the following species have been undertaken to inform the ES and subsequent delivery and management of mitigation measures identified in the REAC to control environmental effects:... g. breeding birds... h. wintering and 'on passage' wetland birds.</i>'</p>

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		<p>This also includes the following relevant commitments to wintering birds in the SPA in Kent:</p> <ul style="list-style-type: none"> • REAC commitment HR001 – <i>‘Works to construct the infrastructure for the new South Portal construction drainage discharge would not take place within the Thames Estuary and Marshes Ramsar, and any work within functionally linked land, as shown on HRA Figure 2 (6.5) would only be undertaken during April, May, June and July to avoid disturbance to passage and overwintering birds associated with European designated sites unless otherwise agreed with SoS in consultation with Natural England.’</i> • REAC reference no HR003 – <i>‘To avoid impacts to wintering birds during prolonged periods of sub-zero temperatures, activities potentially causing disturbance to wintering bird qualifying interests of the Thames Estuary and Marshes Special Protection Area (SPA)/Ramsar the Joint Nature Conservation Committee’s ‘Scheme to reduce disturbance to waterfowl during severe winter weather’ (https://jncc.gov.uk/our-work/severe-weather-scheme/) will be adopted.’</i> • REAC reference no HR012 – <i>‘The construction of the permanent outfall for the operational tunnel drainage will be carried out in April, May, June and July only. This is to avoid disturbance of birds in the passage and winter period.’</i> <p>In addition to the Applicant’s response to the Council’s LIR, see the comments below:</p> <p>The Applicant acknowledges that <i>“suitable habitat could expand across the Order Limits as land gets taken out of current management (for example, the closure of Southern Valley Golf Course) and the breeding bird interest increases across the site”</i>. The Applicant has committed to managing the former Southern Valley Golf Course site consistent with the previous management strategy to maintain the current terrestrial biodiversity value.</p> <p>J: Outline Landscape and Ecology Management Plan (OLEMP)</p> <p>Details of long-term management of these sites will be set out in the Landscape and Ecology Management Plan (LEMP). An outline LEMP [REP1-173] was submitted with the DCO application. The LEMP will be further developed by the Contractor for approval by the Secretary of State in consultation with relevant stakeholders. The final version of the LEMP created by the Contractor will provide more detail as the detailed design emerges and will inform the detailed establishment, management, and maintenance regimes. The Applicant acknowledges that securing the long-term management and maintenance is a responsibility that lies with them.</p> <p>K: Lighting</p> <p>The Applicant’s position regarding this matter is detailed within the SoCG [REP1-103] at item 2.1.129 (DL-1):</p> <p><i>‘The Applicant notes that the location of operational lighting is shown on the General Arrangement Plans (Volume B) and (Volume C).</i></p>

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		<p>As described in ES Chapter 2: Project Description [APP-140], proposed lighting has been designed with consideration of associated environmental impacts including the use of luminaires that emit no light above the horizontal to reduce skyglow, directing lighting to reduce light spill, and the use of warm white LEDs to reduce the impact of light spill. ES Appendix 8.15: Construction and Operational Light Spill Calculations [APP-407] provides details on changes in light levels during the operational phase.</p> <p>These measures are reinforced in principle LST.02 and principle LST.03 of the Design Principles to preserve the nocturnal character of the landscape.'</p> <p>The effect of light spill on European sites is assessed in paragraphs 6.2.107 to 6.2.115 in the Habitats Regulations Assessment – Screening Report and Statement to Inform an Appropriate Assessment [APP-487]. The calculations that support the assessment of the effects of light spill on ecological receptors are reported in ES Appendix 8.15: Construction and Operational Light Spill Calculations [APP-407].</p> <p>The effect of light spill on ecological receptors including bats, invertebrates, badgers and dormice is reported in ES Chapter 8: Terrestrial Biodiversity [APP-146], paragraphs 8.6.451 to 8.6.482, and concludes permanent impacts on some receptors which would not adversely affect the integrity or key characteristics of those receptors and would therefore not be significant effects.</p> <p>In ES Appendix 8.15: Construction and Operational Light Spill Calculations [APP-407], paragraph 3.5.2 states that lighting technologies and standards are reviewed and updated regularly and would be assessed as part of detailed design to minimise light spill into adjacent habitats as far as practicable. Commitment TB024 in ES Appendix 2.2: CoCP [REP1-157] commits to complying with industry best practice around lighting and light spill, and to consulting with an Ecological Clerk of Works on lighting around any sensitive ecological features such as retained badger setts.</p> <p>L: Biodiversity Net Gain</p> <p>In the context of this statement, it should be noted that the Project is applying the Natural England Biodiversity Metric several years ahead of this being a mandatory requirement. For Nationally Significant Infrastructure Projects, mandatory Biodiversity Net Gain (BNG) requirements are likely to commence in November 2025.</p> <p>The Applicant acknowledges the detailed response provided by KCC on this matter and will look to hold a meeting with them to discuss in more detail.</p> <p>The Project's biodiversity metric forecasts, reported in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417], are based on the preliminary design and a number of limitations and assumptions (as detailed in Section 5 of that appendix) that have had to be made to allow a quantitative forecast of biodiversity unit change. It is considered that this assessment provides a realistic worst-case scenario of the likely performance of the Project in terms of net biodiversity, given the necessarily precautionary nature of the assumptions made. As stated within the</p>

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		<p>technical appendix, the Project recognises that it would result in the loss of irreplaceable habitats such as ancient woodland, and that this would prevent any overall claim of Biodiversity Net Gain for the Project (paragraph 1.1.10). As discussed in Appendix 8.21 there are a number of opportunities for refining the forecast and for improving the outcomes for biodiversity as the Project progresses. It is expected that the forecast Metric performance would improve during detailed design as design refinements would seek to further reduce habitat loss during construction, minimise lags between habitat loss and creation and to maximise the condition and distinctiveness of habitats created. The Project would seek to maximise biodiversity performance over the full project lifecycle.</p> <p>The Applicant provided information in a technical note shared with KCC on 26 June 2023 which included a detailed position statement on trading rules, accuracy of assessment information, and additionality with regard to protected species. This is provided below:</p> <p>Trading:</p> <p>The results of the calculations reported in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417], have been derived by following Natural England's published User Guide for Metric 3.1. Where guidance on issues such as compensation for ancient woodland loss doesn't comprehensively inform an approach to follow within the metric calculator, assumptions have been made which apply the precautionary principle and these assumptions are detailed within the Biodiversity Metric Calculations document. The output reported in this document must, therefore, be interpreted within the context of published guidance and associated assumptions (as described below).</p> <p>The trading rules referred to concern the general Biodiversity Metric 3.1 rule (Rule 3) that habitat losses should be compensated for by creating habitats on a like-for-like, or like-for-better basis. The Biodiversity Metric figures for the Project are reported in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417]. For Kent, the trading rule is reported as not being met in Metric 3.1 for woodland due to the loss of 5.46ha of the high distinctiveness habitat lowland mixed deciduous woodland (excluding ancient woodland loss). This is shown as offset in the Metric by medium distinctiveness woodland, proposed as a precautionary approach to achieving target habitat type at this stage of the Project. While there is a net increase in woodland extent in the BNG assessment for Kent of 18ha post-development (this figure excludes all woodland planting proposed for ancient woodland compensation and nitrogen deposition planting – see below), the classification of the woodland to be created as medium distinctiveness, and the low biodiversity units scores generated by woodland creation in the Metric, results in a trading failure.</p> <p>It should be noted that not all habitat loss and creation activities are included in the BNG calculations and the forecast BNG performance should be considered in the context of these exclusions.</p> <p>The loss of ancient woodland habitat (5.01ha in the Kent area) and the corresponding ancient woodland compensation planting (48.75ha in the Kent area) is excluded from the metric calculation (in accordance with the</p>

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		<p>Metric guidance). In this assessment, the baseline value of the land proposed for ancient woodland compensation planting has been included in the metric calculation (thereby raising the baseline unit value). There is no published guidance around this approach, so it has been adopted on a precautionary basis.</p> <p>Nitrogen deposition compensation planting is also excluded from the assessment due to ES Appendix 8.21: Biodiversity Metric Calculations [APP-417] for further details). In Kent, this represents 125ha of habitat creation comprising a mosaic of grassland and scrub/woodland habitat for which Priority Habitat types would be targeted in line with the information reported within the outline Landscape and Ecology Management Plan [REP1-173].</p> <p>Accuracy of assessment:</p> <p>Field survey (undertaken between 2017-2020) for the Project started before the first Biodiversity Metric Condition Assessment criteria were released in July 2019. There were two further updates to the Metric and associated condition criteria, prior to DCO submission, Metric 3.0 (July 2021) and Metric 3.1 (April, 2022). Given the scale of the Project (the area representing the Project's baseline is greater than 2,000ha) and the number of different landowners involved, it is not considered proportionate to re-survey the entire site to meet the changing Metric condition criteria requirements. This limitation has been acknowledged in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417].</p> <p>However, as stated in the assessment, a detailed exercise has been undertaken to review the desk and field survey data available, including consideration of Priority Habitat information, to assign appropriate condition using the Metric 3.1 condition criteria. Where assumptions have been made, these have been based on the information available and have been precautionary to avoid potentially under-valuing the baseline.</p> <p>Likewise other elements of the assessment have been precautionary so that it is considered a realistic worst-case scenario at the preliminary design stage. During detailed design, further refinements will be sought to reduce habitat loss during construction, to minimise lags between habitat loss and creation and to maximise the condition and distinctiveness of habitats created, which would likely improve the BNG outcome as measured by the Metric.</p> <p>Additionality:</p> <p>Para. 5.3.22 of ES Appendix 8.21: Biodiversity Metric Calculations [APP-417] states the following, <i>“The assessment of the Project does however include biodiversity units generated by essential ecological mitigation areas included within the Order Limits to mitigate and compensate for effects on protected species. For these areas, the direct impacts they are addressing fall within the Order Limits and do not relate to irreplaceable habitats. Including these areas gives a full assessment of the biodiversity units generated by the current landscape design within the Environmental Masterplan (6.2)”</i>. The assessment does therefore include assessment of units generated in protected species mitigation/compensation areas. However, at the time of writing the appendix it was not clear what</p>

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		<p>the Government's position was in terms of including protected species mitigation and additionality i.e. what contribution was/was not appropriate. Therefore, the specific contribution these areas make to the BNG assessment was not specified. However, the February 2023 consultation response on the BNG regulations and implementation subsequently clarified this. As per the 2023 Defra consultation response, "<i>mitigation and compensation for protected species and protected sites can be counted within a development's BNG calculation</i>", and it is clarified that this can be up to the point of no net loss in biodiversity. For Kent, the contribution of protected species mitigation and compensation sites comprises only 5% of the post-intervention units generated i.e. of the total reported in ES Appendix 8.21: Biodiversity Metric Calculations [APP-417]. As only 5% of all the post-intervention units in Kent are generated through these essential mitigation areas, it is considered that the Project aligns with the current approach for protected species mitigation/compensation additionality.</p> <p>M: Green Bridges</p> <p>The Applicant's position regarding this matter is detailed within the SoCG [REP1-103] at item 2.1.128 (DL-1): <i>The design of all green bridges proposed as part of the Project is reported in the Project Design Report – Part D – General Design South of the River [APP-509].</i></p> <p><i>All three green bridges within Kent are maintaining road connections that already exist in those locations to avoid severance impacts as a result of the Project.</i></p> <p><i>In respect of the green bridges at Brewers Road and Thong Lane South, these are providing new habitat connections where they are currently absent due to the existing transport corridors of the A2 and HS1. The provision of green bridges in these locations is, therefore, a benefit as a result of the project, and is reported in ES Chapter 8: Terrestrial Biodiversity [APP-146] paragraph 8.5.8, and the Outline Landscape and Ecology Management Plan [REP1-173] paragraph 5.6.6.</i></p> <p><i>In respect of Thong Lane North green bridge, this is the widest green bridge proposed by the Project and will connect into the wider habitat connections being provided as a result of the landscape planting and habitat enhancements proposed as part of the Project. Thong Lane North green bridge planting zones shall be maximised. Their width shall vary across the length of the bridge but shall have a 7m minimum width at pinch points to provide habitat connection across the bridge and will also provide new WCH connections to Shorne Woods Country Park where WCH access is currently limited from the west.</i></p> <p><i>The specific design principles for green bridges are reported in Design Principles [APP-516]; notably:</i></p> <ul style="list-style-type: none"> • <i>Clause STR.08 states that planting would tie in with the broader landscape to ensure connectivity.</i> • <i>Clause S1.04 states that detailed design would provide connectivity of habitats for a range of protected species between Shorne Woods and Ashenbank Woods, Jeskyns and Cobham Park. This connectivity is currently absent</i>

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		<p><i>given the habitat severance caused by the existing A2 and the HS1 railway line, so the provision of new green bridges at Thong Lane South and Brewers Road would help address this existing impact.</i></p> <ul style="list-style-type: none"> • <i>Clause S2.04 states that Thong Lane North green bridge would be designed to extend the character of the well-vegetated Thong Lane and to connect woodland to the east and west to provide a habitat corridor for mammals. This connectivity between habitats adjacent to and within the green bridges would facilitate movement of a range of species across them.</i> <p>The Applicant will ensure the replanting of vegetation where possible to either side of the A2. There is no space for a planted central reserve – it was considered preferable to limit widening and associated impacts on the AONB and country parks. The green bridges would provide better flight lines for species to cross the A2, and would strengthen links between either side.</p> <p>The Applicant has considered and incorporated elements suggested by KCC where practicable, alongside advice from the Kent Downs AONB Unit, KCC, Gravesham Borough Council and Natural England. The Applicant continues to engage with all parties to seek a balanced approach through detailed design. The Applicant notes that local authorities would need to be consulted on any modifications to the scheme within the parameters of the Environmental Masterplan and oLEMP and therefore this provides the appropriate balance of certainty and flexibility. In addition to the Applicant's response to the Council's LIR, see the comments below:</p> <p>The Applicant has committed to design the operation phase lighting as part of the Project design and mitigation measures to preserve nocturnal character and habitats, and maintain dark corridors for wildlife (Design Principles [APP-516] Clause no. LST.02; LST.03).</p> <p>N: Nitrogen Deposition</p> <p>As set out within the SoCG [REP1-103] at items 2.1.130 (DL-1) and 2.1.131 (DL-1):</p> <p><i>The short and long-term management of mitigation measures is secured within the Outline Landscape and Ecology Management Plan (oLEMP) [REP1-173]. The Contractors will be responsible for the establishment of mitigation measures and management for up to five years during the maintenance period. The Applicant will be responsible for the long-term management. Identification of funding mechanisms and procurement of suitably qualified management partners, to act on the Applicant's behalf, is ongoing to facilitate the management where the measures lay outside the maintainable highway boundary. The Applicant's operational teams will manage mitigation measures within the maintainable highway boundary.</i></p> <p><i>The establishment, retention and long-term management of woodlands that are to be created to compensate for the potential impacts of nitrogen deposition is described in the oLEMP. The oLEMP sets out proposals for appropriate long-term adaptive management, which will be informed by long-term monitoring.</i></p>

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		<p><i>The assessment of impacts of nitrogen deposition (ES Appendix 8.14: Designated Sites Air Quality Assessment [APP-403]) identified a lack of management in a number of the woodland sites that were surveyed. Management intervention would contribute to improving the condition of such habitats. However, Table 6.1 of ES Appendix 5.6: Project Air Quality Action Plan (PAQAP) [APP-350] explains that site management measures would not avoid or reduce the nitrogen deposited from the Project itself and are therefore not mitigation but compensation measures. In the detailed consideration of potential compensation measures (Section 7.3 of the PAQAP), three options were assessed against a number of criteria:</i></p> <ul style="list-style-type: none"> <i>• Habitat management measures within affected sites</i> <i>• Habitat creation or enhancement measures adjacent or near the affected sites</i> <i>• Habitat creation measures at an ecological network scale</i> <p><i>The assessment concluded that habitat creation measures at an ecological network scale, with a small number of larger compensation measures in carefully selected locations associated with identifiable habitat networks would provide the most suitable and certain option for compensation. This would provide permanent, meaningful, landscape-scale habitat creation areas that would be a long-term habitat resource of a comparable area to that affected by degradation in the affected sites.</i></p> <p>Appropriate Assessment / Habitats Regulations Assessment</p> <p><i>The matter regarding the “conclusions of no adverse effect are based on the implementation of best practice guidelines” has been included in the Statement of Common Ground between KCC and the Applicant [REP1-103] as item 2.1.135 (DL 1).</i></p> <p><i>In summary, the Applicant’s response is as follows: The Habitats Regulations Assessment – Screening Report and Statement to Inform an Appropriate Assessment [APP-487] sets out the Project design and environmental measures in Section 3.3 and mitigation measures in Section 7.1. The measures that are established good practice methods are highlighted and their effectiveness at avoiding or reducing impacts has been reported within the assessment of likely significant effects Section 6.2 under the heading “Efficacy of committed measures” and within Section 7.1 under the heading “Confidence of success”. The Applicant considers this an appropriate approach to setting out.</i></p> <p><i>With regards to the concerns regarding groundwater, a Habitats Regulations Assessment (HRA) [APP-487 and APP-488] has also been carried out to identify any likely significant effects of the Project on European designated sites, including the Thames Estuary and Marshes Special Protection Area and Ramsar site. The HRA contains proposed mitigation measures to reduce potential adverse effects. The HRA concludes that there would be no</i></p>

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		<p>adverse effects on the integrity of the Thames Estuary and Marshes Special Protection Area and Ramsar site or any other European designated site.</p> <p>O: Reptiles and great crested newts (GCNs)</p> <p>As referred to by KCC, the Applicant has provided further information on the approach to mitigation and receptor sites for reptiles/GCNs and this is detailed within the SoCG [REP1-103] at item 2.1.133 (DL-1):</p> <p><i>Thong Open Mosaic Habitat has been identified as a receptor site for reptiles in the oLEMP, Section 5.9) [REP1-173]. The relevant habitat typologies for this management area are reported in Sections 8.22 (LE8.1: Open mosaic habitat) and 8.26 (LE8.5: Ecological ponds).</i></p> <p><i>For all habitat typologies within the oLEMP, their time to target condition has been aligned to that set out within Natural England's biodiversity metric calculator (v3.1). This considers the habitat type and the proposed target condition and provides an establishment period to meet the criteria set out for that habitat within the metric. In the case of open mosaic habitat, this establishment period to meet the metric criteria is 10 years.</i></p> <p><i>For the site to offer valuable reptile habitat it needs to provide the following (Edgar et al., 2010):</i></p> <ul style="list-style-type: none"> • <i>Warmth (to facilitate temperature regulation)</i> • <i>Structural complexity (to offer shelter, foraging, hibernation opportunities)</i> • <i>Habitat connectivity (to provide links into the wider landscape and facilitate genetic interchange and offer resilience to challenges such as climate change)</i> <p><i>The Thong Open Mosaic Habitat management area is positioned immediately adjacent to Shorne Woods Country Park on its northern, eastern and southern sides. These links would be maintained throughout Project construction. The Project landscape design in Environmental Masterplan Sections 1 & 1A, 2, 3, 4 and 9 details how this area would then connect into Thong Lane green bridge north, linking this site with habitats west of the Project such as Open space north of Claylane Wood, and Chalk Park and environs as detailed in Sections 5.7 and 5.12 of the oLEMP; [REP1-173] both management areas would provide high quality reptile habitat.</i></p> <p><i>The Thong Open Mosaic Habitat management area is currently horse-grazed pasture which would develop structural diversity within 12–18 months of removing this grazing pressure. Its structure would be further enhanced by the creation of areas of sparsely-vegetated nutrient-poor substrate, refuge habitats and hibernacula which would offer opportunity for thermoregulation, shelter and hibernation. Ecological ponds would provide additional habitat structural diversity.</i></p>

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		<p><i>The Thong Open Mosaic Habitat management area is therefore considered an appropriate site for reptile translocation within 12-18 months of habitat creation, but that, to align with the biodiversity metric criteria for open mosaic habitat, the metric calculator presents a 10 year establishment period.</i></p> <p><i>Recent discussions between Kent County Council and LTC have covered the additional provision of potential reptile translocation sites. Two offsite receptor areas are proposed for reptiles, both situated north of the River Thames in Essex. In Kent, habitat creation within areas identified for nitrogen deposition compensation would provide additional suitable habitat for reptile translocation. The woodland and grassland habitat proposals for these areas would offer suitable reptile habitat in the grassland and woodland edge areas. With habitat creation being split on a roughly 70% woodland and 30% grassland basis, there would be approximately 13ha of suitable receptor area for reptiles. These areas would be used to release reptiles in preference over the offsite receptors north of the River Thames, which would only be used as a last resort.</i></p> <p>The long-term management of Thong Open Mosaic Habitat, the nitrogen deposition compensation sites and Chalk Park as habitats which would support reptiles is reported in the oLEMP [REP1-173] in sections 5.5, 5.9, 5.12, 5.14 and 5.15.</p> <p>Clause LSP.28 of the Design Principles [APP-516] states that “<i>the use of gully pots shall be avoided where a viable alternative is available</i>”. The SoCG [REP1-103] sets out, at item 2.1.148 (DL-1), the Applicant’s position that <i>the use of gully pots is sought to be avoided where possible to reduce risks of amphibians and small mammals becoming trapped. Within catchment EFR-1, based on the preliminary drainage design, proposed edge of pavement detail includes a mixture of surface water channels and kerb and gully systems. These details would be confirmed during detailed design.</i></p> <p>In addition to the Applicant’s response to the Council’s LIR, see the comments below:</p> <p>The reptile surveys were targeted to be carried out in the most suitable habitat to establish the precautionary reptile population baseline. As reptiles were found across the Project, they have precautionarily been assumed to be present in all suitable habitats found within the Order Limits. The majority of the reptile habitat south of the River Thames is of low quality (as evidence by the low to good population of common reptile species). As such the mitigation habitat is deemed sufficient as this will be of significantly higher quality than the habitat to be lost. In addition to the designated reptile receptor at Land East of Thong, a number of other sites have the potential for use as reptile receptors including the Nitrogen Deposition compensation sites.</p> <p>The Applicant acknowledges KCC’s recommendations for the scope of future pre-construction survey work and would welcome the opportunity to discuss the detail of this further with the council.</p>

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		<p>The use of gully pots or more suitable alternatives for GCN will be developed during detailed design. The Applicant welcomes KCC's views on these alternatives and would welcome the opportunity to discuss the detail of this further with the council.</p> <p>Environmental Statement Chapter 9: Marine Biodiversity [APP-147] has assessed potential underwater noise impacts on marine mammals. Due to the limited interaction of the Project with the River Thames and the control measures proposed to limit works such as piling to periods of low water (REAC commitment MB001), and the application of good piling practices (REAC commitment MB002 [REP1-157]), no significant impacts on marine mammals are predicted. As a result, it is not considered necessary to update the baseline information regarding marine mammals.</p> <p>9. Climate Change Climate Change Impact A</p> <p>The Applicant notes KCC's position regarding the provision of EV charging points along the route and prioritisation of public transport.</p> <p>The Applicant considers that it is compliant with Circular 01/2022 in terms of consideration of the delivery of future transport technology to the network such as the installation of high-powered charge points for electric vehicles. The Applicant notes that the DCO is being developed in accordance with national guidance and latest policy in road user emissions. As a consequence, the DCO submission is not linked to any further additional initiatives by the Applicant generally or the Project locally relating to road user emissions. Through 'Project Rapid', the Applicant is committed to increasing the number of rapid charging points at existing roadside service facilities on the strategic road network. This will be delivered at a strategic regional/national level to ensure the most effective rollout to meet growing demand for EV infrastructure.</p> <p>The Applicant has provided a detailed position relating to the provision and prioritisation of public transport within the Project within the SoCG [REP1-103] at items 2.1.57 and 2.1.58.</p> <p>The Applicant recognises the opportunity to, and importance of, improving sustainable transport provision across and along the river. The Applicant notes that the Project will provide the infrastructure improvements that may facilitate this. By providing the north-south connection and junction improvements, the whole of the Project route will be accessible to local and longer distance public transport routes, if operators choose to make use of it, including operators supporting, e.g., cross-river WCH transit (by bus). The Applicant considers that local authorities are best placed to lead on the development and appraisal of future public transport projects including ferry and bus services across the river.</p>

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		<p>The Applicant has set up a Sustainable Transport Working Group involving local authority stakeholders to investigate sustainable travel and cross-river connectivity enhancements that could be delivered in future to complement the Project. The Group has proposed several local priorities and opportunities for feasibility studies for future funding applications for Designated Funds. Designated Funds are very much considered the appropriate mechanism for providing these measures, which fall outside of the remit of the DCO, but may be facilitated by it to lead to improvements in sustainable modes and forms of transport across the river.</p> <p>10. Heritage Conservation</p> <p>A Conservation Areas</p> <p>Clause LSP.07 of the Design Principles [APP-516] states that <i>'to protect views across historic landscape, the new landscape design shall take account of local landscape character, respect historic features and reference historic land use, landforms, field patterns and boundaries'</i>.</p> <p>Areas where earthworks and planting are proposed would be subject to appropriate archaeological mitigation in accordance with the draft AMS-OWSI (Environmental Statement Appendix 6.9: Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation [APP-367]). The detailed design of archaeological mitigation in landscape mitigation areas will be agreed in collaboration with KCC's archaeological advisors.</p> <p>B Designated built heritage (Listed Buildings)</p> <p>The Applicant refers the reader to the answer provided to A Conservation Areas, above.</p> <p>C Non-designated built heritage south of the Thames</p> <p>This matter is addressed in the Applicant's response to paragraphs 15.20 to 15.22 on pages 65 and 66 of the County Council's LIR.</p> <p>The Applicant acknowledges and agrees that Level 3 recording of Asset 1562 and Asset 1875 would be carried out, if required.</p> <p>The Applicant refers the reader to the answer provided to A Conservation Areas, above.</p> <p>Heritage Conservation Impacts D-F</p> <p>The Applicant notes that Site-Specific Written Schemes of Investigation will be approved by the SoS in consultation with the relevant LPAs and their archaeological advisors.</p> <p>D Scheduled Monuments</p> <p>The Applicant refers the reader to the answer provided to A Conservation Areas, above.</p>

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		<p>E Geoarchaeology and Palaeolithic / Early Holocene</p> <p>The Applicant notes that archaeological investigations and mitigation will be carried out as specified in the following documents: the ES Chapter 6: Cultural Heritage [AS-044]; draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) [APP-367]; Palaeolithic and Quaternary Deposit Model (PQDM) and Desk-based Assessment of Palaeolithic Potential and Standalone Palaeolithic [APP-358]; and the Archaeological Assessment and Research Framework (SPAA-&RF) [APP-359]. The updated versions of the AMS-OWSI, PQDM and SPAA-&RF will be shared with stakeholders.</p> <p>The Applicant notes that the staged approach to Palaeolithic archaeological investigations is set out within the draft AMS-OWSI (section 6.4.37). The subject of preservation in situ is addressed in paragraphs 6.43 to 6.46, including specifically for Palaeolithic remains at paragraph 6.4.38. Specific areas, e.g. PQ-9 where tunnel boring will impact upon sediments of geoarchaeological interest, will be dealt with in detail within the individual Site-Specific Written Schemes of Investigation (see paragraph 7.3.37 of the draft AMS-OWSI).</p> <p>The Applicant notes that "Archaeological excavation and recording", as stated in the Environmental Statement Chapter 6: Cultural Heritage, refers to mitigation types 4.1, 4.2, 4.3, 4.4, 4.5, 4.6 and 5.1 in Table 3.1 of the draft AMS-OWSI [APP-367]. It can include one or any combination of these types, to be agreed with KCC's archaeological advisors in site-specific WSI as appropriate for each archaeological asset or mitigation area (see REAC commitment CH001 in Environmental Statement Appendix 2.2 (Code of Construction Practice) [REP1-157]. "Archaeological Survey", as stated in Environmental Statement Chapter 6, refers to mitigation types 2.1, 2.2, 2.3, 2.4, 3.1 and 3.2 in Table 3.1 of the draft AMS-OWSI. It can include one or any combination of these types, to be agreed with KCC's archaeological advisors in site-specific WSI as appropriate for each archaeological asset or mitigation area. It should be noted that the ES sets out very broad categories of mitigation. Detailed mitigation will be agreed in the site-specific WSI. Options for preservation in-situ are set out in the draft AMS-OWSI at 1.1, 1.2, 1.3, 1.4 and 1.5 in Table 3.1 of the draft AMS-OWSI. These options will be considered for inclusion within site-specific WSI, where appropriate and feasible.</p> <p>The Applicant refers the reader to their response to paragraph 9.10, above. Furthermore, the "later Pleistocene/early Holocene gravels and sands" are predominantly the Shepperton gravels in PQ-9. The Shepperton gravels are repeatedly mentioned in the PQDM as being of little interest. From the assessment of PQ-9 in the PQDM: "Artefacts unlikely in Shepperton Gravel and likely to be reworked if present". The reasons are twofold. Firstly, they are likely late Devensian in date in that area (c. 18,000 years BP) and thus were deposited at a time of non-occupation of Britain. Secondly, they are high-energy fluvial deposits and any artefacts within them will be reworked and from much earlier periods (therefore it would not be possible to locate any finds from the Shepperton gravels "back to their origin" even if they were recorded in situ).</p>

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		<p>There is however some archaeological interest in the surface of these gravels, at the interface between the Shepperton gravels and Holocene alluvium where a land surface may exist. However, it would be impossible to target or recover these with any accuracy from slurry from a tunnel boring machine. Moreover, the period of interest (where artefacts of late Upper Palaeolithic/Mesolithic type may be present) also represents a period where the most numerous artefacts (stone tools) become considerably smaller than earlier flint tools, e.g. handaxes. It may be possible to identify large (Palaeolithic) handaxes among a predominantly finer grained gravel. However, it would be near impossible to recover tools of a smaller size – i.e. similar or less than the grain size of the Shepperton gravels – from within slurry.</p> <p>F Non-designated archaeology (within and outside the Order Limits)</p> <p>The Applicant notes that the procedure for mitigating impacts to archaeological remains is set out within the draft AMS-OWSI [APP-367]. Archaeological interests will primarily be controlled by means of site-specific written schemes of investigation. The Applicant proposes that the DCO would include a requirement to the effect that no part of the authorised development is to commence until, for that part, a site-specific written scheme for the investigation of areas of archaeological interest, reflecting the relevant mitigation measures set out in the draft AMS-OWSI, has been submitted to and approved in writing by the Secretary of State, following consultation by the undertaker with the relevant planning authority on matters related to its function. This allows for the Council to be directly involved in the archaeological mitigation process.</p> <p>The REAC provides further commitments. The draft AMS-OWSI [APP-367] presented in ES Appendix 6.9 includes details of specifically identified measures to mitigate the impact to known heritage assets and a range of generic mitigation measures from which appropriate mitigation would be applied for currently unknown heritage assets that could be physically damaged by construction of the Project.</p> <p>The Applicant will carry out archaeological investigations as early as is feasible.</p> <p>Regarding paragraphs 9.15, 9.16, 9.17, 9.18 of KCC's Written Representation [REP1-243], these matters are addressed in item 2.1.113 (DL-1) of the SoCG [REP1-103] and in the Applicant's response to the KCC LIR, responding to the points made at LIR paragraphs 15.12, 15.36, 15.38 and 15.39.</p> <p>Regarding paragraphs 9.19, 9.20 and 9.21 of KCC's Written Representation [REP1-243] archaeological mitigation will take place only in areas where archaeology is being impacted upon by the Project. Archaeological remains would be preserved in situ wherever feasible. A community archaeology project is an important part of the Public Archaeology and Community Engagement (PACE, see Annex A of ES Appendix 6.9: Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation [APP-367]) and while the area west of Thong would be appropriate no decisions have been made at this stage.</p>

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		<p>Regarding paragraph 9.23 of KCC's Written Representation [REP1-243] this matter is addressed in item 2.1.113 of the SoCG and in the Applicant's response to the KCC LIR, responding to the points made at LIR paragraphs 15.12 and 15.39.</p> <p>Regarding paragraph 9.24 of KCC's Written Representation [REP1-243], protection of archaeological sites during construction is secured in the REAC (in Environmental Statement Appendix 2.2 (Code of Construction Practice) [REP1-157]) via REAC commitments CH005 Fencing of heritage assets; CH006 Covering of heritage assets; and CH007 Surveillance of heritage mitigation. Long-term management of archaeological sites within National Highways ownership is secured via commitment CH008 Management of Heritage Assets.</p> <p>Regarding paragraph 9.25 of KCC's Written Representation [REP1-243] the Applicant has undertaken detailed studies of the water balance of the designated wetland site, documented in Annex D of the Hydrogeological Risk Assessment [APP-459] and has demonstrated, to the satisfaction of the Environment Agency and Natural England, that construction of the Project in passing beneath the wetland would not result in a significant detrimental effect to existing surface hydrology or underlying groundwater conditions.</p> <p>Regarding paragraph 9.26 of KCC's Written Representation [REP1-243] the Applicant refers the reader to their answer to paragraph 9.25, above.</p> <p>Regarding paragraph 9.27 of KCC's Written Representation [REP1-243] this matter is addressed in the Applicant's response to the KCC LIR paragraphs 15.12 and 15.38.</p> <p>Regarding paragraph 9.28 of KCC's Written Representation [REP1-243] where works are taking place that have the potential to impact upon archaeological remains, appropriate mitigation would be agreed with KCC's archaeological advisors in the site-specific WSI. This would include areas of Soil Scrape.</p> <p>Regarding paragraph 9.30 of KCC's Written Representation [REP1-243] the matter of a research-focussed approach is addressed by the Applicant in its response to paragraphs 15.36 and 15.36 of the LIR. Provisions for scientific analysis are set out in the draft AMS-OWSI at paragraph 7.3.76 [APP-367].</p> <p>Regarding paragraph 9.32 of KCC's Written Representation [REP1-243] this matter will be covered in the on-going discussions with each stakeholder on the draft AMS-OWS [APP-367]. On a project of this scale consistency in archaeological standards and reporting is appropriate to ensure that the same level of archaeological mitigation is provided across the Project. As such the KCC specifications should be considered by all the key heritage stakeholders for adoption or amendment.</p> <p>Regarding paragraph 9.33 of KCC's Written Representation [REP1-243] relevant local authority archaeological advisors will be consulted on all such documents, but details such as these will be subject to further discussions.</p>

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		<p>Regarding paragraph 9.34 of KCC's Written Representation [REP1-243] this matter has been addressed by the Applicant in its response to the KCC LIR paragraphs 15.36 and 15.38. Mapping data showing areas of proposed archaeological mitigation will be included within the draft AMS-OWSI [APP-367] as part of the collaborative mitigation design process.</p> <p>Regarding paragraph 9.35 of KCC's Written Representation [REP1-243] this can be discussed as part of the ongoing collaborative discussions with each stakeholder on the content of the draft AMS-OWSI [APP-367]. However, this is a Project-wide issue and therefore should be addressed for the Project as a whole with input from all relevant stakeholders.</p> <p>G Registered Parks and Gardens</p> <p>Regarding paragraph 9.36 of KCC's Written Representation [REP1-243] the Applicant refers the reader to the answer provided to paragraph 9.1, above.</p> <p>H Historic Landscapes</p> <p>Regarding paragraph 9.37 of KCC's Written Representation [REP1-243] the proposals to retain an open character in the setting of Thong Conservation Area is set out in the outline Landscape and Ecology Management Plan [REP1-173] at Section 5.7.</p> <p>Regarding paragraph 9.38 of KCC's Written Representation [REP1-243] archaeological research, analysis and publication of the results would be carried out as set out in the draft AMS-OWSI (Section 5 and Section 8 [APP-367]).</p> <p>Regarding paragraph 9.39 of KCC's Written Representation [REP1-243], the Applicant notes that paragraph A4.6, bullet point Q of the draft AMS-OWSI [APP-367] commits to "Provision of permanent information panels at suitable locations". The Applicant notes that paragraph 6.4.1 bullet point F of the draft AMS-OWSI [APP-367] already identifies "Outreach and engagement: for example, a programme of activities, lectures, regular briefings, and engagement activities as set out in the "Public Archaeology and Community Engagement Plan" as a proposed archaeological mitigation measure.</p> <p>Regarding paragraph 9.40 of KCC's Written Representation [REP1-243] the Applicant refers the reader to the answer provided to A Conservation Areas, above.</p> <p>Regarding paragraph 9.41 of KCC's Written Representation [REP1-243] this matter has been addressed by the Applicant in its response to the LIR paragraphs 15.58 and 15.59.</p>

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		<p>Regarding paragraph 9.42 of KCC's Written Representation [REP1-243] the Applicant will collaborate with KCC's archaeological advisors to further develop and refine the AMS-OWSI including Appendix A Public Archaeology and Community Engagement Strategy [APP-367].</p> <p>Regarding paragraph 9.43 of KCC's Written Representation [REP1-243] the Applicant is currently undertaking a research-focussed approach to mitigation in collaboration with KCC's archaeological advisors. This matter is also addressed in the Applicant's response to the LIR paragraphs 15.36 and 15.38.</p> <p>Regarding paragraph 9.44 of KCC's Written Representation [REP1-243] the Applicant notes KCC's observations on the volume of archaeological work required and the opportunity presented by the rephrasing of the Project. The Applicant will continue to engage with KCC on our programme of investigation.</p> <p>10. Skills and Employability – Construction Workforce</p> <p>Matters related to the final and detailed offer of the skills employment and education strategy are addressed in items 2.1.30 and 2.1.31 on pages 66 and 67 of the SoCG between the Applicant and KCC [REP1-103]. The Applicant and KCC continue to engage on this matter to be reflected in a Draft Section 106 Agreement.</p> <p>11. Impacts on community Assets</p> <p>Loss of revenue at Shorne Woods Country Park</p> <p>This matter is addressed in the Applicant's response to the same point made in the paragraphs 16.12 to 16.15 on pages 82 and 83 of Council's LIR as follows:</p> <p><i>"As set out within the SoCG [REP1-103] (items 2.1.32 and 2.1.34), the Applicant recognises that Brewers Road will be closed for a period of likely between 16–19 months (based on a reasonable 'worst case', and this is necessary in order to demolish the existing structure and construct the new green bridge which is considered a positive measure. More information is provided in the oTMPfC [REP1-174] on the justification for this closure.</i></p> <p><i>The oTMPfC sets out that there would be an increase in journey times (around 6 mins) due to the closure and diversion (via Three Crutches roundabout), but that access would be maintained through illustrative diversion routes, which are subject to refinement on engagement with relevant authorities (as other factors may need to be taken into account, such as other works in the nearby area at the time of closure).</i></p> <p><i>The Applicant notes that landowner losses as a result of the Project's temporary occupation will be payable in line with the Compensation Code. Compensation arrangements for affected landowners and businesses are noted in ES Chapter 13 (6.3).</i></p> <p><i>As presented in ES Chapter 13: Population and Human Health [APP-151], the main access to the Country Park would not be impacted, and direct access to the site from the central car park within the Country Park would be</i></p>

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		<p><i>retained. It is considered that the proposals for replacement open space and additional links between isolated parcels of woodland would add benefits to the wider community and Shorne Woods Country Park users, with re-provided land being more accessible by PRoW. Therefore, the assessment concluded a slight adverse effect during construction, which is not significant.</i></p> <p><i>The Register of Environmental Actions and Commitments in ES Appendix 2.2: Code of Construction Practice [REP1-157] outlines the construction noise and dust mitigation measures that will be implemented by the Contractor to ensure that the impacts of construction activities are not significant.”</i></p> <p>Tree removal and replanting at Shorne Woods Country Park</p> <p>This matter is addressed in the Applicant's response to the same point made in the paragraphs 16.16 to 16.19 on pages 83 and 84 of Council's LIR as follows:</p> <p><i>“The Applicant believes that formal consent to undertake work within a SSSI would be disapplied through the provisions of the DCO should it be granted. The Applicant would seek to minimise the extent of parkland loss during the detailed design process, and protect retained habitats during construction, as secured in ES Appendix 2.2: Code of Construction Practice [REP1-157], LV001, LV028, LV029, TB002 and TB003. Long-term management requirements for these areas are detailed in Sections 5.2, 5.3 and 5.8 of the outline Landscape and Ecology Management Plan [REP1-173].”</i></p> <p>Proposed car park at Thong Lane</p> <p>This matter is addressed in the Applicant's response to the same point made in the paragraphs 16.20 to 16.21 on page 83 of Council's LIR as follows:</p> <p><i>“As set out within the SoCG [REP1-103] (items 2.1.5 and 2.1.6), the Applicant considers that it is agreed that the use of the A2 compound as an operational car park is appropriate, and has been designed to appropriate standards for the benefit of its users, Kent County Council, and Shorne Woods Country Park. Routes for walkers, cyclists and horse riders (WCH) have been connected to and from the car park as far as technically possible (within the site constraints), and a new bridleway leads into the proposed car park from the west and a new direct entrance (bridleway) to Shorne Woods Country Park has been provided via a Pegasus crossing on Thong Lane.</i></p> <p><i>The Applicant notes that the outline design of the new car park has been developed in close co-ordination with Kent County Council to ensure it will provide an adequate revenue stream.</i></p> <p><i>The Applicant and Kent County Council will continue discussions on the approach to detailed design and future management of the proposed car park.”</i></p>

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		<p>Blighted property – Woodlands Cottage, Thong Lane</p> <p>This matter is addressed in the Applicant's response to the same point made in the paragraph 16.22 on page 84 of Council's LIR as follows:</p> <p><i>"The Property mentioned above does not sit within the Order Limits and therefore does not meet the requirements for blight as defined under the National Highways' Blight Policy which follows the statutory framework.</i></p> <p><i>Air quality impacts have been predicted at worst-case human receptors on Thong Lane (those closest to the A122 Lower Thames Crossing) and these are presented in ES Chapter 5: Air Quality [APP-143]. The annual mean nitrogen dioxide concentrations predicted at these receptors is less than 20 µg/m³ with the operation of the Project which is well below the annual mean national air quality objective of 40 µg/m³.</i></p> <p><i>Noise impacts on noise sensitive receptors on Thong Lane are presented in ES Chapter 12: Noise and Vibration [APP-150]. Negligible changes in road traffic noise are predicted at these receptors during the operation of the Project as shown in ES Figure 12.7: Opening Year Noise Change Contour (DSOY minus DMOY) [APP-315]."</i></p> <p>12 Representations relating to the draft Development Consent Order and Highways Related Documents</p> <p>Articles:</p> <p>Article 2 (definitions):</p> <p>The Applicant has inserted a definition of "relevant highway authority" and this is used article 6 as per KCC's request.</p> <p>Article 10 (Construction and maintenance of new streets etc) and Article 15 (classification of roads):</p> <p>KCC requests that commuted sums be secured under the Order or by agreement. The Applicant is a strategic highways company and is not responsible for the local highway network, which is the responsibility of the local highway authority. Under National Highway's licence issued by the Secretary of State, it has statutory responsibility for the strategic road network. In particular, in exercising its functions and duties in relation to the strategic road network, the Applicant must act in a manner which it considers is best calculated to ensure efficiency and value for money (paragraph 4.2(d)) and must demonstrate how it has achieved value for money (paragraph 5.12(c)). Accordingly, the Applicant does not consider it appropriate for a public sector body, delivering nationally significant infrastructure which will have significant economic benefits, to be liable for payment of commuted sums or ongoing maintenance costs.</p> <p>The Applicant notes that funding for the operation and maintenance of the local road network is a matter which ordinarily forms part of central government funding decisions. The Applicant considers it appropriate that the maintenance of roads which will form part of the local road network is a function which is proposed to be discharged</p>

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		<p>by the local highway authority. The maintenance of both local highways and the strategic road network is funded by the Department for Transport. Local highway funding is mainly based on a formula linked to the total mileage of A roads, B and C roads, and unclassified roads in each area, together with the numbers of bridges, lighting columns, cycleways and footways. This funding is refreshed every few years to take account of changes in road length and number of highway structures. Accordingly, as local highway works are carried out under the DCO, the amount of funding that each local highway authority receives will be amended to recognise these additional responsibilities. Given that this process already exists, it is not appropriate to require the Applicant to provide funding for the maintenance of parts of the local network out of the money given to it to maintain the strategic road network. The Applicant notes that it is making a significant and substantial capital contribution to the delivery of these assets, and in light of the existing funding arrangements, it is not appropriate for the Applicant to have an ongoing and indeterminate responsibility.</p> <p>The Applicant notes that this position has been endorsed, with limited and rare exceptions, on a number of transport DCOs (see, for example, article 14 of the M42 junction 6 Development Consent Order 2020, article 12 of the A428 Black Cat to Caxton Gibbet Development Consent Order 2022 and article 9 of the A303 (Amesbury to Berwick Down) Development Consent Order 2023).</p> <p>Accordingly, insofar as the Project involves the Council incurring expense for the management of the local road network, this is matter between DfT and the Council, particularly in the context of the significant capital contribution from the Applicant in delivering new or altered assets. Introducing a new funding mechanism for the road network separate from these existing processes is not considered appropriate in the context of the Project.</p> <p>Article 17 (traffic regulation – local roads):</p> <p>The 28-day deemed consent period is considered appropriate. the Applicant considers this is to be appropriate for the following reasons:</p> <ul style="list-style-type: none"> • The Road Investment Strategy, which sets out a statutory programme of road works across the country and time frame in which the Applicant's resources are to be used to ensure value for money. Prolonging the programme would have a detrimental effect on the delivery of this programme and risk the inefficient use of public funds for construction contractors to be put on standby while a consent is provided. • The Council, and other authorities will have had sufficient time during the consultation and examination of the Project, and beyond, to understand better (compared to any usual approval unrelated to a DCO) the particular impacts and proposals forming part of the DCO.

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		<ul style="list-style-type: none"> The fact that deemed consent provisions take effect in relation to a failure to reach a decision, not a failure to give consent, is also relevant. It is, of course, open to the Council and other local authorities, if so minded, to refuse consent or to request further information within the time periods specified. <p>The concept of deemed consent is well precedented including on complex projects: see, for example, article 15(6) of the A30 Chiverton to Carland Cross Development Consent Order 2020, article 13(8) of the Southampton to London Pipeline Development Consent Order 2020 and article 15(6) of the A303 Sparkford to Ilchester Dualling Development Consent Order 2021. The Council's position is an <i>in principle</i> objection which would equally apply to these projects mentioned, but the Secretary of State has nonetheless consented these provisions.</p> <p>An eight-week period for publicity in connection with such matters is entirely inappropriate in the context of the Project where a Traffic Management Plan will be consulted upon, and that management plan also secures a Traffic Management Forum which ensures ongoing engagement in connection with traffic regulation measures.</p> <p>Article 21 (surveys and investigation of land):</p> <p>KCC objects to deemed consent. For the reasons set out in relation to article 17, the Applicant considers deemed consent to be proportionate, necessary and in line with Government policy on ensuring the expeditious delivery of nationally significant infrastructure projects.</p> <p>Requirements:</p> <p>Requirement 1 (interpretation) and Requirement 2 (time limit):</p> <p>The Applicant further refers to its response provided on article 6 and article 2(10) in its responses to Annex A of the agenda for Issue Specific Hearing 2² and [REP1-184]. Given the scale of activities involved in “beginning” the development, it is considered sufficient and adequate for this discharge the Time Limits requirements.</p> <p>Draft Requirement 3:</p> <p>It is not clear which mitigation KCC believes needs to be subject to the preliminary scheme design. The Applicant is therefore not proposing to amend Requirement 3. Appropriate mitigation (such as ecological mitigation) is secured under the terms of Requirement 3 as it has been emended in the design, and is shown in the General Arrangements.</p> <p>New Requirement – WNI – SRN and New Requirement – WNI – LRN and New Requirement – WNI – general monitoring and management:</p>

² ISH2 Discretionary Submission Annex A Responses: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010032/TR010032-002424-AS%20National%20Highways.pdf>

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		<p>The Applicant does not consider these Requirements to be necessary in light of its position on the Wider Network Impacts set out above.</p> <p>New Requirement – Public Transport and New Requirement – Active Travel Provision: The Applicant does not consider these Requirements to be necessary in light of its position on public transport impacts set out above.</p> <p>New Requirement – Construction Impacts on the LRN: The Applicant is in discussions with KCC on matters relates to highways but does not consider it appropriate or necessary to include these unprecedented provisions on the face of the Order.</p>

REP1-250 and REP1-253 London Borough of Havering

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REP1-250 REP1-253	London Borough of Havering 2.6	<p>WR: WR summary: REP1-250 WR link: REP1-253</p> <p>Overview: The London Borough of Havering (LBH) is a host authority in respect of the application and as such is a category 'B' local authority under section 43 of the Planning Act 2008. Under s42(1)(b) of the Planning Act, Havering was notified of pre-application consultation and given opportunities to respond to each phase of statutory and non-statutory consultation.</p> <p>London Borough of Havering supports the Project in principle and the benefits a new river connection will bring to residents and businesses. The Council remains concerned about a number of aspects of the proposal, including disruption during construction and the adverse impact the Project will have on traffic and the environment.</p> <p>The Applicant notes that the London Borough of Havering submitted a Local Impact Report (LIR) at Deadline 1 and the Applicant has responded to this separately at Deadline 2. The Applicant's response to the Council's Written Representation is below.</p>

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		<p>Applicant's Response:</p> <p>The Applicant welcomes the 'in principle' support for the Project confirmed in the London Borough of Havering's Written Representation.</p> <p>Policy Compliance with NPSNN</p> <p>The Applicant submitted a Planning Statement [APP-495] in the Development Consent Order (DCO) application, building upon the draft structures shared on 16 March 2022 and 12 August 2022. This contains an assessment of the Project against the draft National Policy Statement for National Networks (NPSNN) (Chapter 6 of the Planning Statement [APP-495], supported by Appendix A [APP-496]), and in the light of emerging and adopted local planning policy (Chapter 7 [APP-495], supported by Appendix C [APP-498]). It is important to note that a DCO application must demonstrate accordance with national policy albeit that relevant local policy is capable of being an 'important and relevant' matter under the provisions of section 104(2)(d) of the 2008 Planning Act. A meeting was held with London Borough of Havering 10 February 2022 to explain this position, with written responses issued 25 May 2022. It is the Applicant's position that the Project complies with the NPSNN and that the DCO application demonstrates accordance. This matter is under discussion pending further clarifications between the Applicant and the London Borough of Havering.</p> <p>Road User Charging Strategy</p> <p>Following feedback from the 2018 Statutory Consultation, the Applicant has accepted feedback from the consultation stakeholders that it is important to have consistency in charging between the crossings at Dartford and Lower Thames Crossing. Hence all charges, hours of operation, exemptions, enforcement are proposed to be the same at both crossings. Charging regimes at Blackwall and Silvertown tunnels are a matter for the Mayor of London and the level of charges has not yet been announced. However, the Applicant and Transport for London (TfL) are in ongoing discussions about the evolution of their plans and how they may interact for the primary purpose of operational coordination. The Applicant notes that Silvertown Tunnel is a Public Private Partnership scheme with different financing arrangements, objectives and governance which is why different charging arrangements may be necessary.</p> <p>Although charging revenue would not directly fund the Project, it would go to the Government and hence distribute the cost of the Lower Thames Crossing between the taxpayer and users. This is aligned with the NPSNN paragraph 3.25. Further information is available in the Road User Charging Statement [APP-517].</p> <p>Without prejudice to any decision by the Secretary of State on the grant of development consent, the Department for Transport (DfT) has reviewed details of the proposed road user charging regime for the Project and confirmed, in a letter to the Applicant on 8 November 2022, that they are in line with government policy.</p>

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		<p>This matter is recorded in the Statement of Common Ground (SoCG) as under discussion pending consideration by London Borough of Havering [REP1-105], progress will be reported at future relevant examination deadlines.</p> <p>Local Residents' Discount Scheme (LRDS)</p> <p>It is proposed to offer a Local Residents' Discount Scheme (LRDS) on the same basis as that provided at Dartford. That is, the discount will be offered to residents living in boroughs that host a tunnel portal, which Havering does not. The option to include business travel within the LRDS, as well as to modify the geographical extent, were among several matters reviewed by DfT in 2012. Inclusion of business travel was rejected, as recorded in the 2013 Local Residents Discount Scheme and Dart-Tag Review report (DfT, 2013) since it would generate more traffic and reduce income and would be an extra cost to administer. The report also concluded that any extension of the LRDS to other boroughs or parts thereof would generate more traffic and lead to further boundary issues.</p> <p>Upminster Cemetery and South Essex Crematorium</p> <p>At a meeting on 20 April 2022, it was explained that the Applicant appreciates the impacts the closure of Ockendon Road would cause and is actively seeking to reduce the closure duration by using methods such as rephrasing a water diversion and opening the underpass earlier. Any change will be accounted for in the outline Traffic Management Plan for Construction (oTMPfC) [REP1-174] road closure table, although the proximity of the railway means a significant closure of Ockendon Road is considered unavoidable at this stage.</p> <p>Effects on businesses will be considered in line with a standard methodology – taking into account business type and localised effects (such as the closure of Ockendon Road) – within the Environmental Statement (ES) [APP-138] to [APP-486]. On 17 August 2022, the Applicant received a letter detailing the Council's evidence of the impacts. On 3 February 2023 the Applicant responded with its conclusion that no compensation would be payable. Temporary or permanent changes to traffic flows are a commercial risk that all businesses are likely to face at some point. Section 10 of the Compulsory Purchase Act 1965 provides persons with an interest in land, but where no land is acquired, to a right to compensation for injurious affection to the claimant's interest caused by the execution of the works. Any potential claim would be considered by the Applicant on its own merits in due course.</p> <p>Through regular meetings and emails up to May 2023 and a meeting with the Council Leader on 7 February 2023, the Applicant advised that work continues to seek a reduction in the Ockendon Road closure duration, aided by the Contractor beginning to mobilise. The Applicant is considering a variety of other options to address the Council's requests and provided a detailed update at a meeting on 21 February 2023 and a site visit on 19 May 2023.</p> <p>At the site visit it was confirmed that the closure duration will be capped at 10 months through a commitment in the Stakeholder Commitments and Actions Register (SACR) [REP1-176].</p> <p>The SACR [REP1-176] was updated at Examination Deadline 1 to include this as commitment SACR-007:</p>

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		<p><i>'The temporary full closure of Ockendon Road (as defined below) shall not exceed 10 months. The temporary full closure is the closure which is in place between point 38/D and point 38/C in the Streets Subject to Temporary Restrictions of Use Plans [REP1-030], with the reference RNTM58 in the outline Traffic Management Plan for Construction [REP1-174].'</i></p> <p>With respect to the Council's request for work to ensure resilience of the diversion routes, the Applicant would refer to its response regarding suitability of diversion routes and engagement processes for traffic management issues included under 'Impacts during construction', below.</p> <p>This matter is recorded in the SoCG as under discussion pending consideration by London Borough of Havering [REP1-105]; progress will be reported at future relevant examination deadlines as opportunities to reduce the impact are explored.</p> <p>Impacts during construction</p> <p>The suitability of diversion routes is under discussion pending further negotiations between the Applicant and the London Borough of Havering in light of the DCO application submission. It should be considered alongside the other mitigations being discussed regarding impacts on community facilities (namely Upminster Cemetery and South Essex Crematorium; refer to above). To address specific concerns regarding the Ockendon Road diversion, further engagement and discussions with the local highway authority would be carried out in determining suitable diversion routes, which would be set out in the Traffic Management Plan (TMP). Table 4.5 in the oTMPfC [REP1-174] has set a proposed diversion route as a start point for further discussion via the Traffic Management Forum as stated in paragraph 4.7.3: <i>'The diversion route would be determined through discussions with the local highway authority closer to the time as other factors may need to be taken into account to make the decision (e.g., other works in the nearby area which may be external from the Project works).'</i></p> <p>While every effort has been made to identify all compound accesses and all works required to those accesses, it is possible that unknown or informal accesses exist or the need to improve an access or lay out a further access will only come to light at the detailed design stage once the full construction methodology has been determined. For example, the precise layout of accesses to construction compounds will need to take into account factors such as the swept path of the construction vehicles together with appropriate landscape mitigation which cannot be determined at this stage. In addition, accesses may change because of developments which are themselves not yet consented or anticipated. In addition, the exercise of the power would be subject to the requirements, in particular Requirement 4 which secures compliance with the measures in the Code of Construction Practice (CoCP) [REP1-157], and (the updated) Requirement 10 which requires compliance with the oTMPfC [REP1-174]. Accesses are indicatively shown in the latter document.</p>

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		<p>At a meeting on 20 April 22, it was explained that the oTMPfC [REP1-174] commits the Project to a Traffic Manager and Traffic Management Forum (TMF), with attendees, consultees and contributors listed. The TMF, specifically, is intended to resolve issues through consultation and exploring the local knowledge that the relevant authority possesses and incorporating that knowledge into the Traffic Management Plans (TMPs). These TMPs will be developed post consent and in line with the controls and commitments in the oTMPfC. London Borough of Havering will be a consultee when developing TMPs. As part of the preparation of TMPs, temporary traffic management measure proposals will be consulted on with the relevant authority as set out in the oTMPfC. As such, the exact length, nature and duration of temporary traffic management measures will be discussed and relevant authority comments and issues considered and incorporated where reasonably practicable. The level of detail sought by London Borough of Havering will be developed by the Contractor as part of the TMPs, which will include principles and mechanisms that allow interface and dialogue between relevant stakeholders.</p> <p>The Applicant appreciates that there will be changes in traffic flows during construction and has sought to avoid or reduce construction impacts where feasible. The oTMPfC [REP1-174] sets out measures to minimise disruption to users of the highway network and details the monitoring system that will be implemented by the Contractors and utilities contractors. This monitoring system will capture real-time data to confirm the effectiveness of traffic and vehicle control measures and ensure the arrival and departure times of vehicles from compounds are controlled. Various monitoring measures such as automatic number plate recognition, traffic flow monitors, and possibly web-based camera systems or similar systems will be implemented to capture data on traffic composition, traffic flow, journey times (to a limited extent), and traffic safety (collision) data. The monitoring system will capture and report information related to construction traffic such as compliance with vehicle routing, incidents and accidents reporting. The monitoring data will be collected and held by the Contractors and utilities contractors as part of their supplier set up procedures, and the systems will be coordinated across all contracts and utility works to ensure consistency and ease of reporting and appraisal. The data will be used to inform reporting to the TMF on a monthly basis, allowing for the analysis of the performance of temporary traffic measures, including identification of any non-compliance or complaints, and the impact of construction traffic. The TMF will then be able to assess perceived impacts and actual impacts to determine necessary actions to resolve any issues.</p> <p>Information about the impact of the Project on Public Rights of Way (PRoWs) can be found in the Transport Assessment [APP-529]. Impacts on PRoWs during the construction and operational phases of the Project are also assessed in ES Chapter 13: Population and Human Health [APP-151]. This matter is recorded in the SoCG as under discussion pending consideration by London Borough of Havering [REP1-105]; progress will be reported at future relevant examination deadlines as opportunities to reduce the impact are explored.</p>

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		<p>The Transport Assessment [APP-529] presents the Project's impact on the strategic and local highway networks, road safety, and local sustainable modes of transport, including public transport.</p> <p>All new routes would be designed to the latest standards. Where walkers, cyclists and horse riders (WCH) share routes, the Applicant would ensure they are able to do so safely by providing appropriate width and segregation where practicable. The proposals were formulated after engagement with stakeholder groups including local authorities, Sustrans, Cycling UK, the Ramblers Association and the British Horse Society. The Design Principles [APP-516] explain which standards would be applied to new and upgraded WCH routes.</p> <p>Public Transport Impacts</p> <p>The oTMPfC [REP1-174] explains how existing public transport routes and services will be maintained as far as reasonably practicable during construction. Section 8.9 of the Transport Assessment [APP-529] details the bus routes which are forecast to experience an increase of more than two minutes during construction. Route 347 is expected to experience an increase in journey time of up to 3.4 minutes in the northbound direction and 3.6 minutes in the southbound direction during construction phase 2. Route 370 is also expected to experience increases in journey times as the service re-routes due to the closure of Ockendon Road, with the Transport Assessment predicting a maximum delay of 6.4 minutes in the southbound direction in the PM peak of construction phase 4.</p> <p>The Applicant appreciates the closure of Ockendon Road would have impacts on bus services, but the proximity of the railway means a significant closure of Ockendon Road is considered unavoidable at this stage. Minimising the duration of the closure of Ockendon Road is a valuable way to reduce the impacts. The Applicant is actively seeking to reduce the closure duration by using methods such as rephasing a water diversion and opening the underpass earlier. The outcome of this work was to cap the closure duration at 10 months. This commitment has been included in the Stakeholder Commitments and Actions Register (SACR) [REP1-176], which was updated at Examination Deadline 1, as SACR-007:</p> <p><i>'The temporary full closure of Ockendon Road (as defined below) shall not exceed 10 months. The temporary full closure is the closure which is in place between point 38/D and point 38/C in the Streets Subject to Temporary Restrictions of Use Plans [REP1-030], with the reference RNTM58 in the outline Traffic Management Plan for Construction [REP1-174].'</i></p> <p>Through the oTMPfC the Applicant is committed to the provision of a Traffic Manager and setting up a Traffic Management Forum, with attendees including the London Borough of Havering. Possible diversion routes which are suitable for all traffic including local bus services are identified in the oTMPfC [REP1-174], and these will be agreed in consultation with relevant stakeholders via the Traffic Management Forum. The Traffic Management Forum is intended to resolve issues through consultation and exploring the local knowledge that the relevant authority possesses and incorporating that knowledge into the TMPs. These TMPs will be developed post consent and in line</p>

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		<p>with the controls and commitments in the oTMPfC. London Borough of Havering will be a consultee when developing TMPs. The TMP, which must substantially accord with this oTMPfC, is legally secured under Requirement 10 in Schedule 2 to the draft DCO [REP1-042].</p> <p>Non-motorised Users Benefits</p> <p>National Highways is one of the biggest builders of WCH routes in the UK. The Project's total provision of additional and improved routes equates to 64km of routes, which encourage active travel. These are summarised in Table 13.54 of ES Chapter 13: Population and Human Health [APP-151]. The Project Design Report Part E: Design for Walkers, Cyclists and Horse Riders [APP-512] and Chapter 5 of the Planning Statement [APP-495] set out the proposals and explain the WCH strategy that helped formulate them.</p> <p>The Project makes considerable additional provision for new accessible transport measures in terms of walkers, cyclists and horse riders as identified at paragraph 7.5.40 of the Health and Equalities Impact Assessment [APP-539].</p> <p>The plans include seven new green bridges to provide safe and easy crossings for people and wildlife, including an 84m-wide green bridge in Kent, one of the widest in Europe. New footbridges, two over the A127 and one over the M25, would create safe and comfortable crossings and restore WCH links that have been severed by historic road building.</p> <p>The Council's support for new WCH route provision is welcomed.</p> <p>The Applicant proposes to provide a safe crossing for WCH across the A127 in light of the necessary changes needed at M25 junction 29 in order to maintain connectivity and provide for the north–south desire line while not unduly impacting on WCH journey time. This connects to the existing shared use cycle/footway routes along the A127, and access to Moor Lane and Folkes Lane. It is noted that improvements to Moor Lane and Folkes Lane may be needed to upgrade existing WCH provision. However, although improvements may be achievable on Moor Lane, this may not necessarily be the case for Folkes Lane, due to factors including the narrow road and overlapping properties. The Applicant is currently investigating the opportunity to include these as part of designated funding whereby a feasibility study would be needed to assess potential improvements to these existing WCH routes, for implementation prior to the Project opening. The study is currently underway and a workshop was held with the Council on 8 March 2023 to take feedback on the initial proposals, including an off-road WCH route parallel to Folkes Lane. A further meeting will be held to demonstrate progress. This matter is under discussion pending further negotiations between the Applicant and the London Borough of Havering in light of study progress.</p> <p>The Applicant notes the Council's support for the designated funds scheme to deliver a cycle route between Upminster and Thorndon Park in Brentwood and its concern that as with the Folkes Lane proposals above, this is</p>

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		<p>not secured as part of the Project. The Applicant further notes the comment that the cycle route would provide mitigation for severance created by the Project. The assessment of traffic-related severance is presented in Section 7.3 of the Health and Equalities Impact Assessment [APP-539] for both construction and operational phases of the Project. No specific locations have been identified within London Borough of Havering where additional mitigation is considered necessary. Section 7.5 relates specifically to active travel and the PRoWs that would be affected during construction and operation phases. Key points to note in paragraph 7.5.17 include that the impact on footpaths (including roadside footways), cycleways and bridleway links along the route of the Project has been reduced, in so far as reasonably practicable, through the design process; and that the general approach to mitigation includes constructing new PRoWs before closing any existing PRoWs, where reasonably practicable.</p> <p>The Applicant continues to work with the Council to develop a solution to both the concern regarding the existing footbridge over the M25 linking Folkes Lane woodland and Hole Farm and the cycle route to Thorndon Park, both of which are included in the feasibility study discussed above. The Applicant will report progress on these discussions through the SoCG with the London Borough of Havering at the relevant examination Deadlines.</p> <p>Concerns regarding the Applicant's Transport Assessment</p> <p>The Applicant notes the comments submitted by the Council that were appended to their Local Impact Report. Due to the limited time allocated for the Applicant to respond to the LIRs submitted at Deadline 1 in the Examination timetable, the Applicant has focused on the Local Impact Report contents and would expect that the Council has summarised issues of detail raised in the associated appendices to the LIRs. Therefore, the Applicant wishes to reserve the right to provide further comment on these items at a later date in the examination.</p> <p><u>Scale of plans within the Transport Assessment</u></p> <p>The Applicant provided a cordon model from the Lower Thames Area Model (LTAM) and the GIS shapefiles showing model outputs to the Council to enable them to review the anticipated impacts of the Project on the surrounding road network once open, to assist them in interpreting and understanding the impacts of the Project within the borough. The Applicant also provided GIS shapefiles showing model outputs of the anticipated impacts on the surrounding road network during construction.</p> <p>The Transport Assessment should be read in conjunction with various appendices of the Transport Assessment [APP-530 to APP-538], the Traffic Forecasts Non-Technical Summary [APP-528], and the Community Impact Report [APP-549].</p> <p><u>Construction diversion routes</u></p>

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		<p>The Applicant agrees that local conditions need to be considered when proposing diversion routes during construction, and notes that the possible diversion routes identified in the oTMPfc [REP1-174] would be agreed in consultation with relevant stakeholders via the Traffic Management Forum.</p> <p><u>Impacts on bus services</u></p> <p>The impact on bus journey times during construction is examined in Section 8.9 of the Transport Assessment [APP-529]. The journey times for each of the bus routes in Havering, Brentwood, Thurrock, Medway, Dartford and Gravesham have been extracted from the LTAM with and without construction for each phase. The Transport Assessment focuses on the routes which have forecast changes in journey times of at least two minutes in any direction in any modelled time period. This threshold was set at a level at which to identify journey time changes on routes which would be more than negligibly impacted. The services in the Havering area that have been assessed are shown in Plate 7.38 of the Transport Assessment. The Applicant would like to clarify that services 269, 347, 370 and Z2 also run through the London Borough of Havering as well as Thurrock.</p> <p><u>Journey time assessment</u></p> <p>The Applicant has determined that, with apologies, there is an error within Tables 7.12 and 7.13 and will correct these at a later deadline.</p> <p><u>Road safety</u></p> <p>The area appraised within the collision analysis was determined as set out in paragraph 9.3.4 of the Transport Assessment, and as shown on Plate 9.1 does include roads on the local road network.</p> <p>The Applicant does not consider it would be appropriate at this stage to provide a collision analysis for the construction phase of the Project, given that the assessment presented in the DCO application represents a scenario to enable assessment of the reasonable worst case.</p> <p>Wider Network Impacts</p> <p>The Applicant is proposing to monitor the impacts of the Project on traffic on the local and strategic road networks as set out in the Wider Network Impacts Management and Monitoring Plan (WNIMMP) [APP-545]. The monitoring locations set out in the WNIMMP were selected on the following basis:</p> <ul style="list-style-type: none"> • Locations situated on the strategic road network (SRN) that are geographically close to the A122 junctions as informed by the 'scale of impacts' analysis in the Transport Assessment [APP-529] (the nearest and second nearest junctions on the SRN and major road network (MRN) located adjacent to the junctions with the A122, the A2, the A13 and the M25) • Locations requested for monitoring from local highway authorities following a review of the consultation feedback

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		<p>The current locations are set out on page 18 of the WNIMMP (Plate 5.1). A mechanism allowing for review of the proposed monitoring locations is provided through Requirement 14 in Schedule 2 of the draft DCO, whereby an operational traffic impact monitoring scheme must be approved by the Secretary of State following consultation with the relevant highway authorities (which includes London Borough of Havering). Relevant highway authorities will be able to propose locations for inclusion, which will be considered by the Applicant during the development of the operational traffic monitoring plan. The final decision on inclusion will be made by the Secretary of State through the approval process, as set out in Part 2 of Schedule 2 of the draft DCO [REP1-042].</p> <p>Once the Project opens for traffic, there will be changes in how traffic flows across the region. Many parts of the network would experience significant benefits on both journey times and journey reliability, while other locations would experience adverse impacts. Overall, the benefits on the road network would outweigh the adverse impacts, and this is reflected in the positive economic benefit of the Project.</p> <p>Chapter 7 of the Transport Assessment [APP-529] presents locations which are forecast to see either beneficial or adverse impacts as a result of the Project. If the monitoring identifies issues or opportunities related to the road network because of traffic growth or new third-party developments, then highway authorities would be able to use this as evidence to support scheme development and case making through existing funding mechanisms and processes.</p> <p>The Applicant considers the arrangements under Requirement 14 of the draft DCO to remain appropriate.</p> <p>The local junction modelling exercise undertaken by the Applicant for the Council was designed to check, given the flows shown in the LTAM, which junctions may merit further consideration under future Project scoping and initiation. The use of traffic data directly from the LTAM forecasts for 2030 was set out clearly in the technical note supplied to the Council. As observed data was not available at the time this work was undertaken in 2022 it was not possible to build and validate 2022 base year local junction modelling at these sites.</p> <p>The Applicant submitted Localised Traffic Modelling [REP1-187] at Deadline 1. This sets out the Applicant's approach to localised traffic modelling, where this work has been completed and the criteria that the Applicant has used to determine whether localised traffic models should be produced.</p> <p>Mitigation</p> <p>With regards to the Council's comments that it remains concerned about the impacts of the Project, the need for mitigation, it should be noted that the mitigation referred to in the Environmental Statement is secured directly through the legally binding Requirements of the DCO. The Register of Environmental Actions and Commitments (REAC) [REP1-157] sets out the mitigation measures arising from the environmental impact assessment process. The delivery of these measures would be legally secured under Requirement 4 of Schedule 2 to the DCO.</p>

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		<p>Requirement 9 of the draft DCO [REP1-042] addresses the management and delivery of archaeological mitigation in line with the draft Archaeological Mitigation Strategy – Outline Written Scheme of Investigation (AMS-OWSI) [APP-367]. With respect to Ockendon Channel, the presence of important Middle Palaeolithic remains has been identified and assessed within ES Chapter 6 [AS-044]. The importance of these buried archaeological remains, and the complexity of the mitigation is reflected in the approach to the proposed mitigation and is set out in more detail in the AMS-OWSI [APP-367] and will be developed further with LBH's archaeological advisors. The Applicant's Palaeolithic specialists have updated their assessment based on further work within the area of the Ockendon Channel. The draft AMS-OWSI will be updated in consultation with London Borough of Havering's archaeological advisors to set out appropriate mitigation prior to consent.</p> <p>In addition to measures set out in ES Appendix 2.2: Code of Construction Practice [REP1-157], the Contractors will secure Section 61 consent under the Control of Pollution Act 1974 (REAC NV004) at relevant stages of the Project as necessary, which is outlined in Table 4.2 of the CoCP. In consultation with the relevant local authority, additional control measures will be agreed upon as part of the Section 61 process, to effectively manage potential disruptions and impacts resulting from the Project construction activities, including temporary traffic management and associated diversion routes. Such measures may include traffic calming measures and physical interventions such as acoustic barriers where these are proved to be necessary, effective and reasonably practicable.</p> <p>Commitments made within ES Appendix 2.2: Code of Construction Practice [REP1-157] under REAC item NV009 (Noise and Vibration Monitoring) require monitoring be undertaken, with NV001, NV002 and NV004 securing the need for further noise assessment once exact specifics of the working practices and programme are fully understood in consultation with the relevant local authorities.</p> <p>REAC commitment NV017 (Vibration from Piling) specifically covers the issue of vibration from piling and the mechanisms in place to control this. These requirements would be consulted on, and where appropriate included within the scope of any CoPA s61 applications made under NV004 with London Borough of Havering. The need for monitoring will be considered during the drafting of the Section 61 applications.</p> <p>With respect to the Council's request for improvements to Folkes Lane Woodland access, the Applicant would refer back to its answer regarding 'Non-motorised Users Benefits', above.</p> <p>With respect to the Council's request for bespoke mitigation at North Ockendon Pit Site of Importance for Nature Conservation (SINC), the 7.3% of the SINC area reported in ES Chapter 8: Terrestrial Biodiversity [APP-146], would be subject to vegetation clearance and surfacing with inert hoggin substrate. Following the surfacing of the bridleway, vegetation would be allowed to regenerate naturally to the edge of the path with the path itself offering an area free from vegetation to support invertebrates and enable reptiles to bask in the transition between vegetated cover and exposed sunnier areas. The assessment of likely significant effects from the Project to North Ockendon</p>

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		<p>Pit SINC therefore concluded that the site would be subject to a temporary reversible impact which would not adversely affect its integrity. This effect would therefore constitute a slight adverse effect which is not significant. Approximately 2.0ha of open mosaic habitat would be created immediately adjacent to Ockendon Railsides SINC on its western edge. This would avoid a net loss in open mosaic habitat in close proximity to North Ockendon Pit SINC. This area of habitat creation is detailed in ES Figure 2.4: Environmental Masterplan [APP-167], with its long-term management secured in the outline Landscape and Ecology Management Plan [REP1-173], Section 7.7.</p> <p>The Applicant notes the mitigation requests for schools including roaming crossing patrols during construction. These will be considered, and the Applicant will continue to work with the Council to seek to develop an agreed understanding of the issue and resolution of the concern raised. If appropriate, the Applicant will report progress on this matter through the SoCG, throughout the examination process.</p> <p>Notwithstanding the mitigations already proposed and secured as referenced above, the Applicant will continue to consider the justification for any additional measures proposed by the Council during negotiations, to be secured through a Section 106 agreement. This matter is under discussion pending further negotiations between the Applicant and the London Borough of Havering.</p> <p>Draft DCO</p> <p>The Council has raised a number of concerns in relation to the Clauses and Requirements set out within the draft DCO in its Written Representation and accompanying the Applicant's amended dDCO [REP1-251] document. These matters were the subject of a meeting with the Council shortly after submission of this Written Representation.</p> <p>The key concerns about the draft DCO are as follows: There is inconsistency between the requirements and the supporting strategies (e.g. the Charging Strategy) and these inconsistencies need to be addressed. The removal of the words 'reasonable' and 'best endeavours', in line with the consented M25 junction 28 DCO is required for the revisions of all Control Documents. Protective provisions for local highway authority vehicular and non-vehicular networks are required. Deemed consent is required to be extended to 42 days, in line with the consented M25 junction 28 DCO.</p> <p>The Applicant has responded separately to the comments on the draft DCO in the Applicant's response to IP comments made on the draft DCO at Deadline 1 [Document Reference 9.63].</p> <p>Section 106</p> <p>The Applicant provided draft Heads of Terms for comment on 23 September 2022 and provided a detailed update to the Council's response of 26 October 2022 at a meeting on 21 February 2023.</p> <p>With regards to the Council's comments that it remains concerned about the impacts of the Project, the need for mitigation and surety provided in this regard, it should be noted that the mitigation referred to in the Environmental</p>

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		<p>Statement is secured directly through the legally binding Requirements of the DCO rather than a Section 106 Agreement. The REAC [REP1-157] sets out the mitigation measures arising from the environmental impact assessment process. The delivery of these measures would be legally secured under Requirement 4 of Schedule 2 to the draft DCO.</p> <p>The Applicant has held regular Skills, Education and Employment (SEE) meetings with the Council to develop the strategy and notes the request for ring fencing of social value (in this case sourcing of labour) in the London Borough of Havering. The Applicant's SEE Lead provided an update on SEE workforce figures at the SEE working group meeting on 31 January 2023.</p> <p>The Applicant has committed to a target of 45% of its workforce based within 20 miles of the Project in its s106 Heads of Terms [APP-505]. Contractors will be required to engage with local job brokerage services and education providers to advertise jobs, and share details of roles for publication through local communication channels.</p> <p>The Applicant also commits to providing at least 1,000 local business leaders across the region with the opportunity to develop the skills needed to bid for work on the Project. This will improve their capability and capacity to gain new work not only on the Project but across the wider region. This will also support the Project's local workforce target.</p> <p>A skills and employment working group will operate throughout construction. This will provide a forum for the local authority to work with the Applicant to share emerging needs and local priorities and identify other opportunities to maximise local economic benefits. The use of a regional target rather than borough-specific targets is a proportionate way of maximising the use of the local workforce without unduly constraining the delivery of a Nationally Significant Infrastructure Project, ensuring there is a flexible approach to labour market issues.</p> <p>The workforce and business leader target, advertising requirement and skills and employment working group commitments referred to above are contained in the SEE Strategy, a document that will be appended to and secured through the Section 106 Heads of Terms [APP-505].</p> <p>This matter is under discussion pending feedback from the London Borough of Havering regarding their proposals for revised SEE Strategy targets.</p> <p>With regard to the community fund, the Applicant provided a detailed update at a meeting on 21 February 2023 and continues to engage with the Council regarding the fund in cross-authority working groups. This matter is under discussion pending further negotiations between the Applicant and the London Borough of Havering.</p> <p>Responses to the asks made by the London Borough of Havering are as follows:</p> <ul style="list-style-type: none"> • The effects on Upminster Cemetery and South Essex Crematorium during construction have been addressed above.

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		<ul style="list-style-type: none"> • With regard to financial contribution to sustainable travel and road safety education schemes for schools, the Applicant notes the mitigation requests including named pedestrian crossings, sustainable travel training and contributions to cover potential school transport implications. These will be considered, including against the Section 106 planning tests, and the Applicant will continue to work with the council to seek to develop an agreed understanding of the issue and resolution of the concern raised. If appropriate, the Applicant will report progress on this matter through the SoCG, throughout the examination process. • Regarding the DCO Project Manager and Ongoing Technical Resource support, this matter is addressed by SoCG [REP1-105] item 2.1.81 as follows: <i>'The Applicant is considering a variety of options to address the Council's requests and provided a detailed update at a meeting on 21/2/23. This matter is under discussion pending further negotiations between the Applicant and the London Borough of Havering.'</i> • Regarding the Community Fund, this matter is addressed by SoCG [REP1-105] item 2.1.85 as follows: <i>'The Applicant provided a detailed update at a meeting on 21/2/23 and continues to engage with the Council regarding the fund in cross-authority working groups. This matter is under discussion pending further negotiations between the Applicant and the London Borough of Havering.'</i> • The Applicant notes the request for more funding. This will be considered, including against the Section 106 planning tests, and the Applicant will continue to work with the Council to seek to develop an agreed understanding of the issue and resolution of the concern raised. If appropriate, the Applicant will report progress on this matter through the SoCG, throughout the examination process. <p>Production of Documentation following DCO being Granted</p> <p>The oTMPfC [REP1-174] and CoCP [REP1-157] provide a framework that would apply to the design, management and communications of the Project, around which the Contractors must develop their future proposals. This process is required under Schedule 2 of the draft DCO [REP1-042]. The oTMPfC sets out how the TMPs will be determined and developed by the Contractors through consultation with all relevant stakeholders via the Traffic Management Forum. Additionally, the oTMPfC sets out the minimum requirements the TMP would address for each stakeholder category, i.e. residents, businesses, schools, etc., as shown 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>

REP1-256 and REP1-259 Medway Council

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REP1-256 REP1-259	Medway Council	<p>WR: WR summary: REP1-259 WR link: REP1-256</p> <p>Overview: Medway Council is a neighbouring authority in respect of the application and as such is a category 'B' local authority under section 43(1) of the Planning Act 2008. Medway Council is the local planning, transport, minerals and waste authority for the unitary authority area. The Written Representation (WR) sets out Medway Council's support for the Lower Thames Crossing, which would help to address priorities set out in Medway Council's policy framework, subject to actions and commitments concerning local impacts. Medway Council supports the need for the Project as set out in [APP-494] which states the Scheme Objectives, in particular "to support sustainable local development and regional economic growth in the medium to long term." It follows that the Project should support relevant planned development and Medway's emerging Local Plan. The Applicant notes that Medway Council submitted a Local Impact Report (LIR) at Deadline 1 and the Applicant has responded to this separately at Deadline 2. The Applicant's response to the Council's Written Representation is below.</p> <p>Applicant's Response: Overview (WR points 1-3) These comments are noted at the Applicant appreciates Medway Council's support for the Project. Relevant planned development (WR points 4-11) Section 6.3 of the Combined Modelling and Appraisal Report [APP-518] describes the process for the creation of the forecast year matrices used in the Lower Thames Area Model (LTAM). Details of specific developments are only included in the core scenario if they have the required degree of certainty of delivery. Medway Council is still developing its Local Plan and the specific location of the developments to deliver its housing plans are unknown. The LTAM forecast demand has been developed in accordance with DfT's Transport Analysis Guidance (TAG) Unit M4 - Forecasting and Uncertainty. The core scenario includes developments which were under construction</p>

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		<p>or had planning applications or permissions as of 30 September 2021. The LTAM demand is constrained to TEMPro 7.2 forecasts to ensure that overall growth is in line with Government projections. The demand development process is described in detail in Chapter 4 of the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package [APP-522], and the full list of developments included is provided in Annex A in the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package Annexes [APP-523]. A high growth scenario was also developed to understand the implications if travel demand exceeds Government projections. The high growth scenario is detailed in Section 8.6 of the Combined Modelling and Appraisal Report Appendix C: Transport Forecasting Package [APP-522].</p> <p>The Applicant provided Medway Council with further information on the assumptions within the core scenario in the form of a technical note in August 2021. Further discussions are being planned for National Highways and Medway Council to discuss potential new pieces of work in relation to the development of Medway's local plan.</p> <p>The Applicant notes the comments from Medway Council regarding the Applicant's Uncertainty Log (both developments and highway schemes). The Applicant has responded to these matters in detail in Comments on LIRs, Appendix G – Medway Council. However, the Applicant does not consider that the comments made by the Council would affect the outputs of the Applicant's transport modelling.</p> <p>Medway's emerging Local Plan (WR points 12-15)</p> <p>The Environmental Statement (ES) considers Medway Council's emerging Local Plan both through growth considered within the traffic model (which informs the air quality and noise modelling) and developments included in the inter-project Cumulative Effects Assessment (ES Chapter 16 [APP-154] and Appendix 16.2: Developments in the Cumulative Shortlist [APP-330]).</p> <p>As Medway Council notes in its representation, the emerging local plan is at a very early stage in its preparation. Medway Council has undertaken three rounds of Regulation 18 consultation with a fourth round on development alternatives expected in summer / autumn 2023. A draft Regulation 19 plan is not anticipated to be published until summer 2024. With this ongoing uncertainty about the local plan growth proposals and further uncertainty over the application of the Standard Method evident in Government planning policy announcements in recent days, it is not certain that the 4,600 additional dwellings referred to by Medway Council will be delivered in Medway by 2040. Overall, the Applicant considers the approach taken to factoring in local growth forecasts is reasonable and appropriate in the circumstances though, as noted above, further discussions are planned between National Highways and Medway Council to consider this matter.</p>

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		<p>Actions and commitments (WR points 16-22)</p> <p>A mechanism allowing for review of the proposed monitoring locations is provided through Requirement 14 in Schedule 2 of the draft DCO [REP1-042], which requires the preparation of an operational traffic monitoring plan, which must be approved by the Secretary of State following consultation with the relevant highway authorities (including Medway Council). Relevant highway authorities will be able to propose locations for inclusion, which will be considered by the Applicant during the development of the operational traffic monitoring plan. The final decision on inclusion will be made by the Secretary of State through the approval process, as set out in Part 2 of Schedule 2 of the draft DCO [REP1-042].</p> <p>The Applicant is not proposing to provide funding for future investments to optimise the highway network, and would not agree to being identified as a funding source in any future IDP. The Applicant has an obligation under its licence to support local authorities as they develop their local plans and will continue to work with Medway Council. However, as set out in Transport Assessment Appendix F: Wider Network Impacts Management and Monitoring Policy Compliance [APP-535], the Applicant considers that it is not appropriate to apply the process for obtaining a Development Consent Order under the Planning Act 2008 to substitute the existing process which allows the Government to operate a transparent funding process, which can fairly consider requests for intervention and investment locally on a par with the way in which other projects which may be unrelated to Project are considered. This allows the Secretary of State to make decisions based on the merits in the context of government policy and government spending priorities. The existing system is fit for purpose and should not be set aside by this or any other DCO application.</p> <p>In response to paragraph 16 of Medway Council's Written Representation, this matter is addressed in item 2.1.8 of the SoCG [REP1-107] as follows:</p> <p><i>In response to paragraph 16 of Medway Council's Written Representation, the Applicant is working with Kent County Council and Medway Council to conduct a series of modelling exercises to interrogate the impacts of the Project on the wider road network in more detail, led by the outputs from the main Project modelling which has been shared with authorities.</i></p> <p><i>In line with the Wider Network Impact Monitoring and Management Plan (WNIMMP), [APP-545] these outputs will be discussed with Kent County Council and Medway Council, and the Applicant will continue to engage in accordance with the licence obligations to work with others to align national and local plans and investments, balance national and local needs and support better end-to-end journeys for road users. Progress is being reviewed at monthly meetings with Kent County Council and Medway Council.</i></p>

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		<p><i>Following DCO resubmission, the possibility of further collective work to advance the understanding of the Project's impacts on the wider road network was discussed at a meeting on 12 May 2023. This has led to an outline scope of work being progressed and agreed.</i></p> <p>The qualification for noise insulation under the Noise Insulation Regulations is applicable to dwellings and other buildings used for residential purpose located within 300m of a new or altered highway as specified within Regulation 7 of The Noise Insulation Regulations 1975 (as amended 1988). The receptors identified in Cuxton and Halling ward are located more than 300m away from any new or altered highway and as such would not qualify for noise insulation.</p> <p>The impacts and significant effects reported with Environmental Statement (ES) Chapter 12: Noise and Vibration [APP-150] on the wider road network identified in Cuxton and Halling wards 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 impacts 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 Environmental Statement Figure 12.2 Construction Traffic Noise – Affected Links [APP-310]. 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 are not considered to be sustainable or proportionate measures.</p> <p>Specific control of construction traffic noise would therefore be 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 the outline Traffic Management Plan for Construction [REP1-174].</p> <p>The air quality assessment has concluded that there are no significant effects on human health receptors. Furthermore, the Project does not delay compliance with the Air Quality Directive. No mitigation is therefore required in relation to these effects. Operational phase air quality monitoring is not required within for example in air quality management areas due to the absence of significant air quality effects. It is worth nothing that National Highways would be required to work with any local authority as part of the Environment Act 2021 as an air quality partner if future exceedances of Air Quality Objectives were identified as a result of roads managed by National Highways.</p> <p>The Project Air Quality Action Plan presented in ES Appendix 5.6 [APP-350], was required due to significant effects identified on designated ecological receptors and as a result mitigation and compensation measures have been investigated for the sites affected. Monitoring will not aid in determining whether the mitigation is effective as</p>

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		<p>there is no ability to monitor conditions with and without the Project. Given that the impacts are as a result of the change in nitrogen deposition rather than for example absolute concentrations against Air Quality Strategy objectives, monitoring would only provide information related to the conditions at the time the monitoring was undertaken.</p> <p>In response to paragraph 22, bullet point 4 of Medway Council's written representation, this matter is addressed in item 2.1.15 of the SoCG [REP1-107] as follows:</p> <p><i>The Applicant recognises the opportunity that the use of the river for material transportation presents for reducing impacts of vehicle movements. The outline Materials Handling Plan [APP-338] sets out a commitment on the use of port facilities to import bulk aggregates.</i></p> <p>In response to paragraph 22, bullet point 5 of Medway Council's Written Representation, this matter is partly addressed in the SoCG item 2.1.14 of the SoCG [REP1-107]. In addition, the Applicant does not consider the off-site recycling feasibility study suggested by Medway Council necessary. The Design Manual for Roads and Bridges (DMRB) LA 110: Material assets and waste (Highways England, 2019) does not require consideration of the reuse/recycling facilities in the study area. However, Table 11.7 in ES Chapter 11: Material Assets and Waste [APP-149] provides information of the annual permitted tonnage of recycling/recovery sites in the study area and Figure 11.1 illustrates these sites. It shows that there are over 65 million tonnes of permitted annual capacity within the study area for recycling, treatment and recovery. Commitment MW012 in the Register of Environmental Actions and Commitments, contained within ES Appendix 2.2 Code of Construction Practice, First Iteration of Environmental Management Plan [[REP1-157] relates to the Excavated Materials Assessment [APP-435]. Unlike the recovery and disposal sites that have been identified in the Excavated Materials Assessment, the off-site recycling facilities aren't necessarily the final destination.</p> <p>Road User Charging (WR points 23-27)</p> <p>This matter is addressed by Statement of Common Ground [REP1-107] item 2.1.6 as follows:</p> <p><i>It is proposed to offer a Local Resident Discount Scheme (LRDS) on the same basis as that provided at Dartford. That is, the discount will be offered to residents living in boroughs that host a tunnel portal, which Medway does not. The option to include business travel within the LRDS, as well as to modify the geographical extent, was among several reviewed by the Department for Transport (DfT) in 2012. Inclusion of business travel was rejected, as recorded in the 2013 report since it would generate more traffic and reduce income and would be an extra cost to administer. The report also concluded that any extension of the LRDS to other boroughs or parts thereof</i></p>

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		<p><i>generates more traffic and leads to further boundary issues. In the 2018 Statutory Consultation comments were invited on charging flexibility in particular in relation to:</i></p> <ul style="list-style-type: none"> <i>• Charge amounts</i> <i>• Charged and non-charged hours</i> <i>• Application of peak charges</i> <i>• Vehicle classifications</i> <i>• Emissions-based charging</i> <i>• Accounts, discounts and exemptions</i> <p><i>The majority of local authority stakeholders that commented on charging flexibility stated that their preference was for charges at the Lower Thames Crossing to mirror those at Dartford. National Highways supported this preference on the grounds of economies of scale, the performance of the Project and better customer experience. The draft DCO states that there will be a charge mirroring that at Dartford and that the charge will apply from the Project's day of opening. The Secretary of State is the charging authority and will always have the power within the relevant legal framework to amend the charge as appropriate.</i></p>

REP1-304 Transport for London

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REP1-304	Transport for London	<p>WR: WR Link: REP1-304</p> <p>Overview: Transport for London (TfL) was notified under s42(1)(a) of the Planning Act of pre-application consultation and given opportunities to respond to each phase of statutory and non-statutory consultation. TfL has no objection to the Project in principle, subject to being satisfied that it will not result in an increase in the overall number of car or goods vehicle trips in London, and subject to any adverse impacts on London's road network and environment being adequately mitigated.</p> <p>Applicant's Response: Transport for London's (TfL) expressions of support for the principle of the Project are noted and welcomed.</p> <p>Wider Network Impacts This matter is addressed by SoCG [REP1-108] items 2.1.27 and 2.1.28 as follows: [SoCG item 2.1.27] <i>The Applicant has undertaken traffic modelling to support understanding of the forecast impacts of the Project on the road network as set out in the application. As is customary for a scheme such as the Project, which will have impacts over a sizeable area, a strategic transport model - the Lower Thames Area Model (LTAM) - has been used. The LTAM base year has been calibrated and validated in line with Department for Transport (DfT) Transport Analysis Guidance (TAG), details of which are provided within Combined Modelling and Appraisal report - Appendix B - Transport Model Package [APP-520]. Since the LTAM is a strategic transport model and covers a vast area, it is not possible to achieve validation on every road. However, it should be noted that care has been taken to reflect the traffic conditions in the areas where the Project would interface with the existing road network as closely as possible. The outputs from the LTAM have been used to inform the appraisal of Project impacts and to support the decision-making process.</i> <i>Local junction models were also developed to support the interrogation of the LTAM results. It should be noted that the local junction models were not produced to develop detailed plans for each junction. The transport modelling to support such an exercise would involve building a calibrated base year model from freshly collected data of current observations for each junction. The Applicant does not consider it appropriate to develop such local junction models to the level proposed by TfL. [The Applicant submitted Localised Traffic Modelling [REP1-187] which set out the</i></p>

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		<p>localised traffic modelling work completed by the Applicant and its approach to considering where this should be undertaken, together with a series of Appendices which provided detailed reports for a number of junctions at [REP1-188 to REP1-194].]</p> <p><i>The Applicant also notes that this was an exploratory modelling exercise rather than the predictive modelling typically supplied by developers. As a consequence, while discussion of these findings will continue, in particular to focus on the potential inclusion of specific locations into the monitoring proposals set out within the Wider Network Impacts Management and Monitoring Plan (WNIMMP) [APP-545], it is not proposed to develop these local junction models further through validation or further refinement.</i></p> <p><i>[From SoCG item 2.1.28] The Applicant does not consider that there is a need for an additional framework to support the joint working between the Applicant and affected highway authorities on the future optimisation of the road network following the opening of the Project. The licence under which the Applicant operates (Highways England: Licence, DfT, 2015) requires that the Applicant works with local highway authorities and others to align national and local plans and investments, balance national and local needs and support better end to end journeys for road users. The Applicant will continue to deliver against this obligation in its collaborative work with local authorities and Transport for London. The approach the Applicant takes to working with relevant authorities is set out in the publication The strategic road network Planning for the future - A guide to working with Highways England on planning matters (Highways England, 2015).</i></p> <p><i>An approach to joint working that was required solely for the consideration of changes in traffic flow that are solely associated with the operation of the Project would not provide the strategic overview of changes across the wider road network. Over time, further developments will be brought forward in the region, local plans will evolve and economic changes (such as fuel price changes) will occur. As a consequence, there is a level of uncertainty over what, if any, interventions to enhance the operation of the road network might be beneficial. The Applicant, in its capacity as a strategic highway authority, produces Route Strategies which take a strategic approach across England, and these involve engagement with a wide range of stakeholders, including local authorities.</i></p> <p><i>Over time, it will be very difficult to demonstrate that traffic flow changes on the road network were solely as result of the Project and not other factors such as wider demand for travel, nearby new development, or changes in the way the road network was managed. As such National Highways considers it appropriate that the existing framework for managing the road network, supported by the existing obligations placed on the Applicant by the licence, remain the appropriate way to make decisions about future investment priorities.</i></p> <p>Junction Assessments</p> <p>As described in the Transport Assessment [APP-529] at paragraphs 9.2.7 – 9.2.10, the Project is subject to the full Road Safety Audit process. Section 7.12: Impacts on walkers, cyclists and horse riders, explains the Project's</p>

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		<p>standard approaches and actions commonly used on infrastructure projects. Please refer to Section 12.5 of ES Chapter 12: Noise and Vibration [APP-150] for the full details of the noise assessment undertaken and proposed mitigation.</p> <p>The Applicant assumes the reference to a 'large increase in traffic flows' on the A127 west of M25 junction 29 is with reference to ES Figure 12.3: Operational Road Noise Study Area [APP-311], which shows an increase in noise of more than 1 dB on a short section of the eastbound A127. On the other nearby sections of road (i.e. the slip roads and the westbound carriageway of the A127) the increase in traffic equates to less than 1 dB increase in noise. Taking all the road links into consideration, including the noise from the nearby M25, the increase in noise at the closest sensitive receptors to this location is less than 1 dB and therefore negligible in accordance with DMRB LA111.</p> <p>In response to the request for monitoring, the Applicant has set out in Section 12.8 of ES Chapter 12: Noise and Vibration [APP-150], the reasons it is not intending to undertake post completion noise monitoring in lieu of other mechanisms for compliance monitoring.</p> <p>The assessment completed for the Environmental Statement, set out in Chapter 12: Noise and Vibration [APP-150], is based on calculated annual average road traffic noise levels with and without the proposed scheme to ensure a like for like comparison. Ambient noise levels are not constant and vary on a day-to-day basis depending on the contributions to the noise climate from factors such as traffic, railways, agriculture, industry, human activity, as well as weather conditions. To account for the varying nature of environmental noise, any monitoring would need to be over a very long period to gain average levels; additionally, any noise measurement captured as part of the monitoring would likely be influenced by contributions from extraneous sources such as people, agriculture activities, and rail, etc. For these reasons, the comparison of a measured noise level with that predicted in a model space scenario is considered to provide an unreliable indication of scheme performance and cannot therefore be reasonably relied upon to base the conclusions of earlier surface replacement interventions.</p> <p>Section 4.2 of the DMRB LA 111, as referenced in Section 12.8 of the ES, states that routine operational noise monitoring "cannot provide a reliable gauge for whether the predicted magnitude and extent of operational adverse impacts are greater or less than those predicted in the assessment" citing the reasons stated in the paragraph above.</p> <p>Checking that mitigation measures will perform as they should is best undertaken prior to or during installation. This would be undertaken through checks on the performance specification sheets of the products being supplied, confirmations of lateral extents and locations of mitigation and on-site checks during installation. This way any deviation can be identified early while there is still time to change, and any costly rectification is avoided.</p>

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