



Application by National Highways for the Lower Thames Crossing
The Examining Authority's third written questions and requests for information (ExQ3)
Issued on 14 November 2023

The following table sets out the Examining Authority's (ExA's) third written questions and requests for information - ExQ3. The examination timetable enables the ExA to issue further requests for information in due course. If this is done, these requests will proceed under Rule 17 of the Examination Procedure Rules 2010 (EPR).

Questions are set out using an issues-based framework derived from the Initial Assessment of Principal Issues provided as Annex B to the Rule 6 letter of 25 April 2023. Questions have been added to the framework of issues set out there as they have arisen from representations and to address the assessment of the application against relevant policies.

Column 2 of the table indicates which Interested Parties (IPs) and other persons each question is directed to. The ExA would be grateful if all persons named could answer all questions directed to them, providing a substantive response, or indicating that the question is not relevant to them for a reason. This does not prevent an answer being provided to a question by a person to whom it is not directed, should the question be relevant to their interests.

Each question has a reference number. When you are answering a question, please start your answer by referring to ExQ3 and then quoting the question reference number.

If you are responding to a small number of questions, answers in an email will suffice. If you are answering a larger number of questions, it will assist the ExA if you use a table based on this one to set out your responses. An editable version of this table in Microsoft Word is available on request from the case team: please contact lowerthamescrossing@planninginspectorate.gov.uk and include 'LTC Request for ExQ3 in Word' in the subject line of your email.

Responses are due by Deadline 8: Tuesday 5 December 2023.



Abbreviations used:

PA2008	The Planning Act 2008	LIR	Local Impact Report
Art	Article	LPA	Local planning authority
ALA 1981	Acquisition of Land Act 1981	MP	Model Provision (in the MP Order)
BoR	Book of Reference	MP Order	The Infrastructure Planning (Model Provisions) Order 2009
CA	Compulsory Acquisition	NPS	National Policy Statement
CPO	Compulsory purchase order	NSIP	Nationally Significant Infrastructure Project
dDCO	Draft DCO	R	Requirement
EM	Explanatory Memorandum	SI	Statutory Instrument
ES	Environmental Statement	SoS	Secretary of State
ExA	Examining authority	TP	Temporary Possession

The Examination Library

References in these questions set out in square brackets (eg [APP-010]) are to documents catalogued in the Examination Library. The Examination Library can be obtained from the following link:

[Lower Thames Crossing | National Infrastructure Planning \(planninginspectorate.gov.uk\)](https://planninginspectorate.gov.uk)

It will be updated as the examination progresses.

Citation of Questions

Questions in this table should be cited as follows:

Question reference: issue reference: question number, eg ExQ3 1.1.1 – refers to question 1 in this table.



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ExQ3	Question to:	Question:
1.	Project definition	
There are no questions relating to this issue at this time.		
2.	Climate change and carbon emissions	
Q2.1.1	Applicant Climate Emergency Policy and Planning (Dr Andrew Boswell).	A47 Judicial Challenges in the Court of Appeal The ExA understands that the case of <i>R (Boswell) v Secretary of State for Transport</i> [2023] EWHC 1710 has been granted permission to be heard by the Court of Appeal. Dr Boswell provided an update at Deadline 6 [REP6-171] to which the Applicant has not yet responded. The Applicant's response is sought at Deadline 7. However, at Deadline 7 and at each successive deadline until the closure of the Examination, the Applicant and Dr Boswell are requested to put in a position statement explaining any changes to the circumstances of this litigation. The statements should cover both substantive change (if any judgment or relevant direction or order of the Court is made) and procedural matters (including an update on the anticipated timing of hearings and possible judgment). If there has been no change since the previous deadline, please enter a 'nil return'.
3.	Consideration of alternatives	
Q3.1.1	Applicant	Loss of Ancient Woodland and Local Wildlife Sites Refer to ExQ3 11.1.7. Responses to that question will be evaluated by the ExA with reference to the consideration of alternatives as well as to biodiversity effects. Please answer that question with this in mind.
4.	Traffic and transportation	
4.1	Local network effects and modelling	
The ExA is conscious that, further to delays affecting the Applicant's local modelling work, addressed in our Procedural Decision 41 [PD-044] establishing new Deadline 6A for the submission of relevant responses to this work on 14 November 2023, information relevant to its review of this topic was not available at the point at which these questions were approved for publication. For the same reason, the currently published Agenda for ISH13 (Traffic and Transportation) addresses this topic in outline terms only. The ExA will review Deadline 6A submissions and may issue a request for further information under EPR Rule 17 and/ or update the Agenda for ISH13 (Traffic and Transportation) to address this issue in the light of submissions and evidence available following Deadline 6A. A Rule 17 request on this issue is not likely to be made until after ISH13 is complete and the need for one will be considered carefully following that hearing.		

ExQ3	Question to:	Question:
4.2 Construction access and traffic		
Q4.2.1	Applicant	<p>Connection of haul roads to the SRN: access and timing</p> <p>A matter arising from the ExA's ASI4 to the Chiltern Tunnel South compound was an observation that construction traffic on the HS2 project had been handled using two main measures:</p> <ul style="list-style-type: none"> • The early construction of construction traffic access points to the strategic road network (SRN), in that instance by the formation of a slip to the main tunnelling compound directly from the M25. • The early construction of 'on alignment' haul roads, connected to the SRN and interconnecting the main works compounds. <p>The main observed effects of this approach were to reduce the extent to which construction traffic was required to use the local road network (LRN).</p> <p>Please provide a summary statement setting out the degree to which a similar approach is being or can be used for the LTC, with reference to relevant control documents (CDs). Please address questions of timing relating to SRN access construction (with a view to limiting to the minimum practicable the extent to which substantial construction traffic movements on the LRN would be required). How are or will the necessary measures be secured?</p>
LB Havering Response		<p>LB Havering remains concerned that there continues to be a degree of uncertainty as to when access points from the M25 compound and Ockendon Road compound onto the Strategic Road Network (in this case the M25) will be built.</p> <p>It is welcome that the Outline Traffic Management Plan for Construction submitted at Deadline 7 (REP7-148) confirms a reduction in the period the local road network will be used by construction traffic to 6 – 12 months from the original period of 12 to 24 months.</p> <p>However, the newly stated timeframe is referenced against the start of the compound's operation. In direct contradiction to this time reference, the traffic management required on the M25 is stated to be construction periods 3 and 4. There is no alignment with these different time horizons.</p> <p>LBH considers that the 6-12 month time frame is still too broad and needs to be 1) reduced and 2) be more timescale specific and aligned to the related M25 traffic management.</p>

ExQ3	Question to:	Question:
Q4.2.2	PLA Applicant	<p>River access and jetties for construction</p> <p>The respective positions of the Applicant and PLA in relation to the use of the River Thames as a means of construction transport and access has already been discussed and agreement has not been fully reached. There are outstanding concerns by PLA that the Applicant has not given adequate in-principle consideration to the use of the River Thames to serve the element of the construction site south of the River Thames, or is seeking to defer consideration to a later stage than current of the Materials Handling Plan (MHP) [REP6-160]. Please keep the ExA updated at Deadline 7 and successive deadlines on any changed positions emerging from discussions on this point. Please ensure that if agreement is not reached, a final position is reflected in a final PADS statement for the PLA.</p>
5. Air quality		
5.1 Effects on Human Receptors		
Q5.1.1	IPs interested in air quality (human receptor effects)	<p>Delay to proposed ban on the sale of new petrol and diesel cars</p> <p>Within the Applicant's responses to ExQ2 [REP6-106 – 117] can be found responses to ExQ2 5.1.1 on the delay to the proposed ban on the sale of new petrol and diesel cars [REP6-109]. In summary terms the Applicant concludes that the delay:</p> <ul style="list-style-type: none"> • <i>has no significant implications for the air quality modelling and assessment</i> • <i>does not give rise to a significant increase in the duration and/or extent of adverse air quality effects</i> • <i>does not require any additional air quality monitoring</i> • <i>does not require any changes to the design, extent and/or duration of mitigation or compensation that would be required.</i> <p>Observations (if any) on those conclusions and the reasoning underlying them are sought.</p>
	LB Havering Response	The London Borough (LB) of Havering has no further comment to make. LB Havering has reviewed the Applicant's previous response on this matter and is content with this.
5.2 Effects on Ecological Receptors and Designated Habitats		
Q5.2.1	IPs interested in air quality (biodiversity effects) Natural England	<p>Delay to proposed ban on the sale of new petrol and diesel cars</p> <p>To the extent possible and appropriate, please provide observations (if any) on the biodiversity implications (if any) of the position set out by the Applicant in its response to ExQ 2 on this matter [REP6-109] (see also ExQ3 5.1.2). Does this have any implications for the air quality assessment</p>

ExQ3	Question to:	Question:
		which has been used to inform impacts on protected sites. Respondents are requested to set out views in relation to the ES and HRA.
	LB Havering Response	LB Havering recognises that this air quality matter is for Natural England to deal with and also notes the Applicant's response to ExQ2 air quality questions set out in REP6-109. LB Havering has no further comment to make.
6. Geology and soils		
Q6.1.1	Applicant	<p>Agricultural land reinstatement and soil management</p> <p>For the purposes of this ExQ and the following ExQ3 6.1.2, the term soil management includes the removal, storage, re-conditioning, placement and aftercare of soils.</p> <p>The Environmental Statement (ES) Appendices, Appendix 2.2 – Code of (CoCP), First Iteration of the Environmental Management Plan (EMP) and Register of Environmental Actions and Commitments (REAC) document [REP6-038] suggests:</p> <ul style="list-style-type: none"> • GS009 Placement/Reinstatement based upon '<i>DEFRA Construction Code of Practice for the Sustainable Use of Soil on Construction Sites (2009) and the MAFF Good Practice Guide for Handling Soils (2000)</i>.' Construction Practice • GS014 5-year after care period. <p>GS009 also states that in relation to soil reconditioning (where required), soil reuse would be set prior to any stripping work commencing.</p> <ul style="list-style-type: none"> • Who is to determine the reconditioning requirement and when is it to be determined; and where is that secured?
Q6.1.2	Applicant	<p>Agricultural land reinstatement and soil management</p> <p>In continuation from ExQ3 6.1.1 above, given that there are suggested monitoring periods in excess of 5 years, is the 5-year after care period justified and if not, what length of time is appropriate for:</p> <ul style="list-style-type: none"> • Agricultural land reinstatement? • Other habitat creation? <p>If longer after care periods than 5 years are justified in specific circumstances, can the Applicant confirm that relevant CoCP/ REAC amendments have been made to bring those into effect?</p>
Q6.1.3	Applicant	Agricultural land use adjacent to site and reinstatement

ExQ3	Question to:	Question:
		<p>In the REAC referenced above, RDWE015 and RDWE016 are intended to protect two specific individuals. RDWE006 is to provide protection for the site to allow the proposed project to be constructed.</p> <ul style="list-style-type: none"> • Where is the provision located that protects other land and property where the proposed project interferes with existing land drainage or irrigation systems? • How is this secured?
Q6.1.4	Applicant Bodies expected to accept future maintenance responsibilities	<p>Health and safety file</p> <p>In the REAC, referenced above GS017 suggests contamination locations are available for ‘... <i>inclusion within the operations Health and Safety file or equivalent ...</i>’. However, in GS018, confined spaces are not afforded the same method of information transmittal.</p> <ul style="list-style-type: none"> • Why not? • Are there other matters that should be considered as being placed within an Operations Health and Safety File that are not specifically noted in the REAC?
Q6.1.5	Applicant	<p>Groundwater protection during the tunnelling process</p> <p>In the REAC, referenced above, RDWE059 states that the Highway bored tunnels will utilise closed face tunnelling techniques. How does this tunnelling process protect groundwater from contamination by the water required to operate the tunnel boring machine?</p>
Q6.1.6	Applicant	<p>Historically filled land (contamination)</p> <p>The North Portal is recognised as having potential contaminants from historical land uses, as indicated in the REAC (reference GS021 and others).</p> <ul style="list-style-type: none"> • How is it proposed to undertake the proposed construction at this site in relation to preventing contamination of adjacent non-contaminated land and on both human health and that of birds, mammals, etc who may come into close proximity to the workings and the transferral process to its final location? • Is the material at this location proposed for re-use and /or where is the envisaged final destination? • Where is this secured?
<p>7. Tunnelling considerations</p>		
<p>There are no questions relating to this issue at this time.</p>		

ExQ3		Question to:	Question:
8.		Waste and materials	
There are no questions relating to this issue at this time.			
9.		Noise and vibration	
There are no questions relating to this issue at this time.			
10.		Road drainage, water environment and flooding	
Q10.1.1	Applicant EA LLFAs IDB	<p>Flood Risk Assessment: locationally specific provisions</p> <p>In general terms, standard guidance has been followed in the current Flood Risk Assessment [APP-460 to 477 and REP1-171] that has been submitted for the project as a whole.</p> <p>The following additional assessments have been provided:</p> <ul style="list-style-type: none"> • [REP6-102] Deadline 6 Submission - 9.147 Coalhouse Point Flood Risk Assessment • [REP4-225] Deadline 4 Submission - 9.103 Hole Farm Appx F.3 Flood Risk Assessment <p>Are there any other particular locations where non-standard considerations should be included and if so why?</p> <p>If there are such locations, can the Applicant provide copies of such assessments or the indication of when/if they will be undertaken alongside the reasons why they have not been undertaken thus far?</p>	
	LB Havering Response	There are no areas where non-standard assessments are considered to be required within Havering.	
Q10.1.2	Applicant	<p>Construction flood risk</p> <p>The ES Appendices, Appendix 2.2 – CoCP, First Iteration of the EMP and REAC document [REP6-038] RDWE002 suggests that the site drainage systems would be inspected and maintained.</p> <p>Can the Applicant explain why inspection timeframes, say minimum of fortnightly or before/after extreme events etc., have not been proposed in certain risk evaluated locations?</p>	
Q10.1.3	Applicant	<p>Integrated design</p> <p>In the Design Principles (Volume 7) [REP6-046], PRO.02 suggests that design is to be undertaken in a coordinated manner as a cohesive process. Given that accommodation is being made to utilities to place diversions outside highway construction limits, why are culverts being constructed for long</p>	

ExQ3	Question to:	Question:
		lengths under the highway and how does the requirement for future maintenance make this acceptable?
Q10.1.4	Applicant	<p>Landscape earthworks</p> <p>In Design Principles (Volume 7) [REP6-046], LSP.08 the purpose is clear; however there is no principle suggesting the need to consider the potential for overland or exceedance flow deflection, to reduce the risk of affecting land and property outside the Order Limits or situated adjacent to the highway. Please explain why such a principle is not necessary?</p>
Q10.1.5	Applicant	<p>New, diverted and reinstated watercourses</p> <p>In Design Principles (Volume 7) [REP6-046], LSP.12 the additional diversion of watercourses is considered as a last resort “ ... <i>unless they would afford benefits such as a more natural alignment</i> ... “. At what point will a review be undertaken and by whom?</p> <p>Given the statements made by the EA with respect to culverting and the provisions of the Water Framework Directive, is there a case for reviewing the route of the proposed culverting to reduce ‘sterile’ lengths? If so, how can this be achieved and secured?</p>
Q10.1.6	Applicant Environment Agency LLFAs IDBs	<p>Culvert design</p> <p>In RDWE013 of the REAC document [REP6-038], and similar clauses, it is suggested that the SoS approves designs in consultation with the Environment Agency. Are there conditions, such as on non-Main River watercourses, where it would be more appropriate for the Drainage Authority or LLFA to be the consultation body?</p>
	LB Havering Response	The suggestion that LLFAs should be consulted on any proposed works to ordinary watercourses (including new culverts) is supported. This could be done through the Ordinary Watercourse Consent application process.
Q10.1.7	Applicant	<p>Operational drainage: infiltration basins</p> <p>RDWE034 of the REAC document [REP6-038] suggests provisions for the basins. Should there be a clause that provides that they are to be constructed and operational before being required to operate to serve the development?</p> <p>Additionally in this clause, and the other clauses dealing with the various ponds and basins, should there be a requirement to make certain any overland flows from a new asset will flow on an existing route and be of no greater volume or rate than may be currently expected to occur?</p>

ExQ3	Question to:	Question:
Q10.1.8	Applicant	<p>Integration of infiltration basins and retention ponds</p> <p>How is future maintenance provision determined in the Design Principles (Volume 7) [REP6-046] (LSP17)?</p> <p>Additionally in the Design Principles S12.05 it is stated that designs will: “ ... <i>facilitate access by the Environment Agency to these watercourses to undertake maintenance activities ...</i>”. What other arrangements are required for maintenance access and where are these secured? If the Applicant considers that additional provision is required to address this point, then please make the necessary changes and direct us to their location.</p>
Q10.1.9	Applicant	<p>Watercourse protection</p> <p>The Design Principles Volume 7 [REP6-046], S12.07 states: “ [w]here reasonably practicable, vegetation shall be retained along the Mardyke, and along tributary watercourses and ditches, to maintain the existing fenland landscape character ...”. Have other watercourses outside the Mardyke valley been considered in a similar manner? If so, where are these measures secured? If the Applicant considers that additional provision is required to address this point, then please make the necessary changes and direct us to their location.</p>
Q10.1.10	Applicant	<p>Watercourses in ‘The Wilderness’</p> <p>The Design Principles Volume 7 [REP6-046], S12.19 confirms that trees and vegetation loss is to be minimalised but there is no specific design principle in relation to the watercourses that lie in ‘The Wilderness’ and how these could be affected and protected. Where is their protection secured? If the Applicant considers that additional provision is required to address this point, then please make the necessary changes and direct us to their location.</p>
Q10.1.11	Environment Agency Applicant	<p>Water Framework Directive: culverting</p> <p>At ISH9 (transcript [EV-075]), it was suggested that the River Basin Management Plan (RBMP) and Water Framework Directive (WFD) requirements were developed in the Mardyke area, alongside the Environment Agency but that the WFD Assessment in ES Appendix 14.7 - Water Framework Directive [APP-478] concluded that the proposed culverting had a negligible risk of deterioration at the waterbody scale. There being three waterbodies to be considered within the project’s ‘Zone of Influence’.</p> <p>The Environment Agency has additionally suggested that the proposed culverting is the ‘least bad option’, but that they are only concerned with those watercourses defined as “Main River”.</p> <ul style="list-style-type: none"> • The ExA would like to know why non ‘Main River’ watercourses are not covered by the WFD and RBMP requirements and why it is only those bodies listed in paragraph 4.2.1 of the Environmental Statement Appendices, Appendix 14.7?

ExQ3	Question to:	Question:
		<p>In the ISH9 Transcript it is confirmed that there was a “Choosing by Advantage Workshop” which has allowed the design of the West Tilbury Main (Main River designated watercourse) culvert to be refined.</p> <ul style="list-style-type: none"> • Which other watercourses have had the benefit of such a process? • If West Tilbury Main is unique, then why have other watercourses not been considered worthy of such attention?
Q10.1.12	Applicant LLFAs IDB	<p>Water Framework Directive: culverting</p> <p>Paragraph 8.1.3 of Post-event submissions for ISH9 [REP6-090] states that ‘... <i>the Applicant’s preference is for a culvert that is as short as it practically can be ...</i>’.</p> <p>Compared with an open channel it is suggested that there is an increased risk of blockage once a culvert is installed, it will create less permeable bed to a watercourse can increase the speed of water flow, possibly:</p> <ul style="list-style-type: none"> • increasing flood risk downstream, • preventing local recharge of groundwater, • creating or exacerbating downstream or upstream bank and bed erosion, • promoting sediment deposition, and/ or • disrupting the natural transport of sediment. <p>Culverting can have a detrimental impact on the environment, resulting in a complete loss of features within a watercourse, thereby it can break the continuity of the watercourse corridor, adversely affecting the ecological value of the watercourse for migrating species.</p> <ul style="list-style-type: none"> • The Applicant should provide an example of the methodology that has been gone through to come to the conclusion that the shortest length of culvert possible at the crossing X-EFR-2-04 (as shown in ES - Appendix 14.6 - Flood Risk Assessment - Part 10 [APP-477]) is the preferred option? • Who was consulted during the process? • What other options were considered and why were they discarded? • The shortest culvert length would be one that perpendicularly crosses the highway. Why has this not been chosen as a design option at the various locations?
	LB Havering Response	LB Havering has no comment to make; crossing X-EFR-2-04 is outside of the London Borough of Havering boundary.
Q10.1.13	LLFA	Water Framework Directive: culverting policy

ExQ3	Question to:	Question:
	IDB	<p>Proposed culverting of non 'Main Rivers' is regulated by the Lead Local Flood Authorities (LLFAs) and Internal Drainage Boards (IDBs). Under the Environment Act 2021, when exercising functions (including consenting), LLFAs and IDBs are required to have regard to conserving and enhancing biodiversity.</p> <ul style="list-style-type: none"> • Can the LLFAs and IDBs provide copies of the guidance to applicants who intend to culvert watercourses under their control, and how the duty under the Environment Act is met? • What other guidance is offered when the LLFA and IDB are approached to consent a culverting proposal? • From the information currently available, is it likely that the culverting proposals could meet the consenting policy of the organisation?
	LB Havering Response	<p>LB Havering does not have local guidance or policy specific to culvert design. The LLFA would expect the Applicant to follow industry standard guidance such as <i>CIRIA786 Culvert, screen and outfall manual</i>.</p> <p>Within the London Borough of Havering, one ordinary watercourse diversion and culverting is proposed (Watercourse DI-1N14ZZZ2). The LLFA considered that the ditch diversion should be given further consideration, with a view to minimise culverting and ensure changes to the gradient do not cause increase flooding or maintenance burdens. This matter has been conveyed to the Applicant and discussions are ongoing.</p>
Q10.1.14	<p>Applicant</p> <p>All IPs who are expected to adopt or otherwise be responsible for the future maintenance of ditches etc.</p>	<p>Definition of ditches and other watercourses etc</p> <p>The Applicant's response to ExQ2 10.1.3 [REP6-112] is noted, however, although the response notes that the assets under consideration are 'swales', the sections presented in the Document Deadline 5 Submission - 9.123 Whitecroft Care Home Cross-sections [REP5-092] show those assets as 'proposed drainage ditches' which would normally be classed as watercourses. The response also suggests that the Whitecroft Care Home Cross-sections' defined 'proposed drainage ditches' are / or could be linear storage ponds.</p> <ul style="list-style-type: none"> • The Applicant is requested to provide clarity for all locations on the 'proposed ditch' network and indicate which are: <ul style="list-style-type: none"> • Watercourses (ie ditches that convey water) • Swale (ie shallow artificial body) • Linear Storage ponds/basins • Filter drains and formed regular drainage channels.

ExQ3	Question to:	Question:
		<ul style="list-style-type: none"> By defining the assets as 'proposed ditches', the ExA considers that all may be considered as 'watercourses' in the dDCO and dealt with accordingly, albeit there does not appear to be a definition of a 'pond' and be subject to the monitoring etc as suggested by the Flood and Water Management Act 2010? Are the bodies who are likely to become responsible for the future maintenance of these 'proposed ditches' content that they are aware of the function in each case?
	LB Havering Response	<p>It is the understanding of LB of Havering, as the LLFA, that the responsibility for the maintenance of drainage ditches or watercourses (referred to in ExA Written Question Q10.1.14 as "<i>Watercourses (ie ditches that convey water)</i>") within the scheme boundary will fall with National Highways as the landowner and riparian owner. Maintenance of any attenuation/drainage features within the scheme will also be carried out by National Highways. We are therefore satisfied that watercourses and attenuation/conveyance drainage features within the London Borough of Havering portion of the scheme are being considered as National Highways' assets in regard to maintenance responsibilities.</p> <p>A maintenance schedule has been provided and is considered to be sufficiently robust. It has also been proposed that a specific maintenance plan for the scheme would be prepared as part of the design. This shall set out the proposed maintenance regime for the different drainage features.</p> <p>National Highways would be obliged to carry out maintenance in accordance with DMRB and the maintenance plan.</p>
Q10.1.15	Applicant	<p>Landscaping effect on proposed ditches</p> <p>Where proposed landscaping directs surface flow to a "proposed drainage ditch" such as the embankment at the Whitecroft Care Home, as shown in the Document Deadline 5 Submission - 9.123 Whitecroft Care Home Cross-sections [REP5-092]:</p> <ul style="list-style-type: none"> has a site-specific risk assessment been undertaken to determine the risk of overtopping and affecting land and property outside the highway boundary, with the appropriate maintenance regime? if one has not been considered necessary what was the process that came to that conclusion?

ExQ3	Question to:	Question:
		<ul style="list-style-type: none"> Are there any locations that may benefit from such considerations and where would the results of the analysis be recorded, and mitigation suggestions/requirements secured?
Q10.1.16	Applicant	<p>Future maintenance of proposed ditches</p> <p>Although reference has been made to the appropriate DMRB maintenance standards in the Applicant's response in ExQ2 10.1.3 [REP6-112], can the ExA be directed to the location of the evidence:</p> <ul style="list-style-type: none"> that sufficient land has been reserved within the Order Limits to allow appropriate and safe access to future operational staff to undertake these tasks; for the plant that has been assumed to be considered necessary to be used to meet the requirements of the future maintenance laid down in the DMRB; and, the proposed access routes that meet the proposed plant's requirements? <p>If the maintenance operation has not been considered at this stage, can the Applicant provide the location of the information showing that there is sufficient space provided within the Order Limits to allow the maintenance work, and access to the relevant areas, to be safely undertaken?</p>
11. Biodiversity		
Q11.1.1	Applicant	<p>Species surveys limitations</p> <p>The response to ExQ2_Q11.1.1 Deadline 6 Submission - 9.152 Responses to the Examining Authority's ExQ2 Appendix G – 11 Biodiversity [REP6-113] is noted.</p> <ul style="list-style-type: none"> Is the approach suggested for Water Voles translocation consistent across all species? <p>Confirm that the general approach is to be used at all locations.</p>
Q11.1.2	Applicant Local Authorities Environmental Authorities / Agencies	<p>Compensatory Planting</p> <p>Where it is proposed to affect areas that constitute compensatory habitat for previous projects, should such areas be provided with any special provision in relation to consideration of the earlier project requirements?</p>
	LB Havering Response	LB Havering notes that any loss of compensatory habitat provided for previous projects must be added to the total loss of compensatory habitat needed for this NSIP to avoid baseline "creep".
Q11.1.3	Applicant	Engineered Earthworks

ExQ3	Question to:	Question:
		Document 7.5 Design Principles Volume 7 [REP6-046], LSP.09 suggests 5m planting beyond the toe of embankment, whereas LSP.14 suggests that hedgerow at the toe of the embankment. Is this a contradiction?
Q11.14	Applicant Other IPs	<p>Wildlife pond provision</p> <p>Document 7.5 Design Principles Volume 7 [REP6-046], LSP.31 states that “ ... <i>The design of all ponds shall follow the guidance given in the Great Crested Newt Conservation Handbook ...</i>”.</p> <p>Why are other species not considered as being the species on which ponds are designed?</p> <p>Are there other species that should be considered in the design of the proposed Wildlife Ponds?</p>
	LB Havering Response	LB Havering supports the design of naturalistic infiltration basins and retention ponds using Great Crested Newts (GCN) as a proxy for other wildlife. Features have been included in REP6-046 Design Principles e.g., shallow slopes and planting to soften edges which are great for a range of wildlife.
Q11.15	Applicant Environmental IPs	<p>Green Bridges and habitat connectivity</p> <p>It is acknowledged that, in its Responses to the Examining Authority's ExQ2 Appendix G – 11 Biodiversity (Part 1 of 2) [REP6-114], the Applicant is considering the introduction of mammal culverts at Brewers Road Green Bridge and Thong Lane Green Bridge south.</p> <ul style="list-style-type: none"> • Can preliminary details be provided to indicate how these are intended to operate and how these are to be secured? • Are there other locations where site-specific habitat connectivity is proposed for mammals and other animals, etc in addition to ‘Green Bridges’ and ‘mammal ledges’ in culverts? If so, how these are intended to operate and how these are to be secured?
	LB Havering Response	LB Havering has no comment to make as there are no Green Bridges proposed in the Borough as part of the project.
Q11.16	Applicant Environmental IPs	<p>Green Bridges and habitat connectivity</p> <p>With reference to the Design Principles [REP6-046], where STR.08 suggests that the principle is to “... <i>[p]rovide an enhanced user experience for those using the crossing and living in the immediate area ...</i>” and also to the Applicant’s response to ExQ2 11.2.5 [REP6-114] where the comment “... <i>no data is available yet on the success or otherwise of the green bridges...</i>” is made, it is suggested that the provision is of a similar nature to that made for other projects:</p>

ExQ3	Question to:	Question:
		<ul style="list-style-type: none"> • What data is to be collected on the success or otherwise of the Green Bridges in this project, and those Bridges listed in the response to ExQ2 11.2.5 across all types of users, including ‘non-human’ users/ mobile species? • What are the indicators for success that will be used in monitoring the success of the ‘green bridges’ and where are these secured in the Design Principles and OLEMP documents? • What process is proposed to be utilised to determine best practice and how are the lessons that may be being learnt at the other sites being made available to the LTC Design Team? • Referencing S11.03 in the Design Principles [REP6-046], is there lighting proposed for the Green Bridges and if so, to what extent might it act as a barrier for use by mobile species that the bridges seek to encourage? • Similarly, are the surrounding and connecting highways and junctions intended to be lit, and if so to what extent will lighting act as a barrier for the species that the bridges are looking to encourage?
Q11.1.7	Applicant Natural England Environmental IPs	<p>Green Bridges</p> <p>Why should the ExA consider that Thong Lane and Brewers Road bridges are effective ‘green bridges’ in biodiversity terms, having regard to concerns about the potential lack of effective connectivity for those species that these are intended to deliver?</p> <p>In a similar manner, the ExA would like to receive evidenced representations on each of the bridges identified in the Proposed Development as ‘green bridges’ on the question of whether they should be considered as such in biodiversity terms?</p> <p>Respondents with broader interests in ‘green bridge’ design than biodiversity are referred to ExQ3 16.1.4 which seeks a balance of views on ‘green bridges’ performance against a range of objectives and outcomes.</p>
Q11.1.8	Applicant	<p>Loss of Ancient Woodland and Effects on SSSIs and Local Wildlife Sites</p> <p>In determining the route of the highway works and those utility diversions, there is still ambiguity as to the need to remove component elements of ancient woodland and other protected sites.</p> <ul style="list-style-type: none"> • The Applicant’s response to ISH9 Agenda Item 3b is noted within the transcript for that hearing [EV-074], alongside the relevant post event submission [REP6-090]; however, although it is acknowledged that utility diversion routes (G1a, G1b, G2 and G3, OH1, and MU7) result in the loss of Ancient Woodland, even noting that land take was reduced in locations and the Design Principles document intention is to reduce it further, why could a route not be determined that allowed the Ancient Woodland to remain untouched? Please respond to this question in general terms but also make specific reference to the latest position on ‘The Wilderness’.

ExQ3	Question to:	Question:
		<ul style="list-style-type: none"> In a similar manner the proposed route affects SSSIs, Local Wildlife Sites and Sites of Importance for Nature Conservation (SINCs). For those areas where damage is proposed, such as Low Street Pit and Goshems Farm, whether by the proposed highway alignment or utility works etc, please provide an explanation of why alternative routes, or minor adjustments to the proposed alignment (in effect micro-siting) that leave these areas untouched could not be provided? Please respond to this question in general terms but also make specific reference to the latest position on Shorne Woods SSSI. <p>Refer to ExQ3 3.1.1. The response to this question will be considered by the ExA in relation to the consideration of alternatives as well as in relation to biodiversity effects.</p>
Q11.1.9	Applicant Natural England Kent County Council Gravesham Borough Council Shorne Parish Council	<p>Shorne Woods SSSI and Car Park</p> <p>Clarification is requested in relation to the proposed car park retention question at Shorne Woods SSSI. The matter was raised at ISH9 and the decision appears to be, as referenced in the transcript [EV-074], and submission [REP6-090], that no carpark is to be retained.</p> <ul style="list-style-type: none"> Are those bodies listed content that this is the position? The Applicant should also confirm how the land is proposed to be restored after removal of the construction compound and where the restoration proposals are secured.
Q11.1.10	Applicant Natural England	<p>Species monitoring</p> <p>Within Natural England's Deadline 6 Submission - Annex 4 Response to ExA's Second Written Questions [REP6-155] - it is suggested that further discussions are required over the monitoring of various species, particularly those where a protected species licence is not required, such as breeding birds, nationally important invertebrate assemblages, widespread reptiles and amphibians.</p> <ul style="list-style-type: none"> Has a strategy for the approach been agreed? Can such a monitoring strategy be utilised to monitor the effectiveness of the Green Bridges for all the target species highlighted within the Design Principles document?
Q11.1.11	Applicant	<p>Invasive species</p> <p>The ES Appendix 2.2 – CoCP, First Iteration of EMP and REAC document [REP6-038] TB005 is noted. However, should there be a requirement for identification and remedial action to be undertaken during the construction phase? If so, please prepare such a measure and submit it for consideration.</p>
12.	Physical effects of development and operation	
12.1	Historic Environment & Archaeology	

ExQ3	Question to:	Question:
Q12.1.1	Applicant Historic England	<p>Thatched Cottage, Baker Street – Update Required post EXQ1 Response</p> <p>At ExQ1 12.1.15 the Applicant was asked to advise whether it had considered relocation, rather than demolition of the heritage asset. The ExA notes the Applicant’s response [REP4-200] and further commentary in the Statement of Common Ground with Historic England [REP5-037] stating the Applicant it is involved in discussions with Essex Place Services and Historic England over the potential for a suitable alternative location. The ExA considers that it is possible that there may be other potential alternative custodian bodies and would also flag the value of discussions with others, with a view to securing agreement as to whether relocation is an achievable outcome in principle. The ExA would like an update at Deadline 9 on this situation.</p>
Q12.1.2	Historic England Local Authorities	<p>Construction vibration monitoring: heritage assets</p> <p>In response to EXQ2 9.1.5, the London Borough of Havering [REP6-143] has suggested that four listed buildings in North Ockendon, which are adjacent to utility diversions, should have pre-commencement condition surveys carried out to provide a baseline record of the condition of the buildings. The properties are noted as:</p> <ul style="list-style-type: none"> • Kilbro (Project ID. LB5; List Entry No. 1079868) • Russell Cottage (Project ID. LB6; List Entry No. 1079869) • The Forge (Project ID. LB7; List Entry No. 1079870) • Castle Cottages (Project ID. LB8; List Entry No. 1079871) <p>Can Historic England advise if it supports this request and if so how and where in the control documents they would like to see these measures captured?</p> <p>In addition, can Historic England and relevant Local Authorities advise whether there are any other heritage assets where pre-commencement condition surveys should be carried out for vibration purposes?</p>
	LB Havering Response	<p>The ExA have noted the four listed buildings immediately adjacent to the utility diversions in North Ockendon and have asked relevant Local Authorities to advise whether there are any other heritage assets where pre-commencement condition surveys should be carried out for vibration purposes.</p> <p>In answer to ExQ2 Q9.1.6 regarding the same issue, the Applicant provided a list of heritage assets within 30m of utility diversions, access routes or work areas. There are REAC commitments regarding noise and vibration in terms of stopping work in the event of unacceptable impacts, monitoring vibration, and reducing vibration (or providing other mitigation). However, there is no commitment to the production of pre-commencement</p>

ExQ3	Question to:	Question:
		<p>condition surveys which would provide a baseline from which any impacts could be identified and assessed.</p> <p>It may be the case that heritage assets within the 30m buffer could experience impacts from vibration caused by HGV movements during construction phase, although the extent of potential vibration impacts is uncertain. As the Applicant has put forward this list of assets within 30m, it may suggest impacts may potentially arise. If there is potential for impacts, then all of the buildings on this list may benefit from a baseline condition survey prior to the commencement of works.</p> <p>In addition to the four Grade II listed buildings in North Ockendon already identified, the additional heritage assets within the Borough as identified on the Applicant's list (in answer to ExQ2_Q9.1.6) are:</p> <p>Barn and Stable Block to the North of Broadfields Farmhouse (Project ID. LB109, Grade II listed).</p> <p>Bankes House, Ockendon Road, Upminster (Project ID. 4158, non-designated heritage asset).</p> <p>Manor Farm, including buildings adjoining farmhouse, Ockendon Road, Upminster (Project ID. 4165, non-designated heritage asset).</p> <p>Orsett Post Mill Round House (Project ID. 116, non-designated heritage asset).</p>
Q12.1.3	Applicant	<p>Missing archaeological fieldwork: update required post EXQ1 responses</p> <p>The Applicant's responses to EXQ1 12.1.11 and EXQ1 12.1.12 are noted; however, the ExA still requires clarity from the Applicant on what mechanism will be put in place to engage and agree with stakeholders about the design, avoidance of and mitigation of harm to archaeological assets once the result of that archaeological work is available for those sites that have not yet been surveyed, such as nitrogen deposition/ancient woodland compensation sites or landscape mitigation sites?</p>
<p>12.2 Landscape Impact including riverscapes and visual severance</p>		
Q12.2.1	Applicant	<p>Compensatory woodland planting and wider effects on the Kent Downs AONB landscape</p> <p>Can the Applicant please direct the ExA to where it can find the assessment of the effect on the landscape character of the proposed woodland planting site between Brewers Road and Great Crabbles Wood to the north of Park Pale? The ExA notes that the area in question retains a former historic parkland character and not a woodland character. It would like to understand where the</p>

ExQ3	Question to:	Question:
		<p>assessment of the impacts of compensatory woodland planting on the existing landscape character in this location has been reported.</p> <p>Several IP's have raised concerns that the landscape scale strategy for compensatory woodland appears to relate to solely to ecological factors and does not consider the effects of compensatory woodland sites on the landscape character, visual amenity or cultural heritage of the AONB. The ExA asks the Applicant to direct the ExA to where it can specifically find the reporting of the wider assessment or to explain why such an assessment has not been undertaken. The Applicant should note that simply referring the ExA to other ES chapter references will not be adequate; the ExA would like specific reference points to the relevant assessments if these have been undertaken.</p>
13. Social, economic and land-use considerations		
There are no questions relating to this issue at this time.		
14. The draft Development Consent Order (dDCO), planning obligations, agreements and the adequacy of security for project delivery and mitigation		
Questions relating the dDCO have been consolidated into the ExA's Commentary on the dDCO, published on 14 November 2023		
15. The acquisition and temporary possession of land and rights (CA & TP)		
There are no questions relating to this issue at this time.		
16. General and overarching questions		
Q16.1.1	Applicant	<p>BREEAM (environmental performance standards) for the tunnel services building</p> <p>In the Design Principles (Volume 7) [REP6-046], STR.02 suggests that the proposed Tunnel Services Building "...shall be designed to achieve a BREEAM level of 'Excellent' ...".</p> <ul style="list-style-type: none"> • What is the proposal should this not be achievable?
Q16.1.2	Applicant	<p>Environmental performance standards more generally</p> <p>BREEAM includes what was known as 'CEEQUAL', listed as BREEAM INFRASTRUCTURE which is applicable to infrastructure and civil engineering projects.</p> <ul style="list-style-type: none"> • Why is it only the Tunnel Services Building where BREEAM excellent is sought? • Are other elements of the projects amenable to relevant BREEAM assessment? • If so which ones and how would that be secured?

ExQ3	Question to:	Question:
Q16.1.3	<p>Applicant</p> <p>Gravesham Borough Council, Thurrock Council, Kent County Council, Essex County Council, Kent Downs AONB Unit, Natural England, Other IPs interested in the design, function and operation of Green Bridges</p>	<p>Green Bridges: serving multiple objectives</p> <p>ExQ3 11.1.5 and 11.1.6 refer to the functions of the proposed Green Bridges in relation to biodiversity and habitat connectivity. However, evaluation of the proposed Green Bridges requires consideration of their performance in terms of multiple objectives and outcomes, including but not limited to:</p> <ul style="list-style-type: none"> • Biodiversity • Habitat connectivity • The provision of non-motorised user (NMU) routes for people • Landscape and landscape mitigation, in general terms and (with reference to the Kent Downs) to AONB landscapes. <p>With reference to these objectives but also to such other functions and outcomes as are considered relevant, please provide your summary assessment of the effectiveness of each Green Bridge proposed within your area of interest. If objectives and outcomes appear to be in competition or to pull in different directions, please indicate the particular objectives considered to be the most important and why.</p>
Q16.1.4	<p>Applicant</p>	<p>Design Principles</p> <p>Clause No. PEO.05 of the Design Principles document [REP6-047] states that “<i>certain points of access into the PRow network shall be designated as WCH hubs ... facilities such as seating and parking for WCH users wishing to access the network.</i>”</p> <p>Can the Applicant please identify the location of such proposed hubs, particularly where new or additional parking areas are proposed?</p>
<p>17. Habitats Regulation Assessment</p>		
Q17.1.1		
Q17.1.2	<p>All IPs</p>	<p>Habitats Regulations Assessment and the Report on the Implications for European Sites</p> <p>The ExA directs all IPs but specifically NE, MMO, PLA, EA and Local Authorities to the questions posed within the Report on the Implications for European Sites (RIES) as issued by the ExA on 14 November 2023. The questions relate to clarifying matters or seeking information required to inform the Habitats Regulations Assessment (HRA) and the recommendation to the Secretary of State. Comments on the RIES and responses to questions are timetabled for Deadline 8 (5 December 2023).</p> <p>At this time, should disagreements about any aspect of the HRA remain, the Applicant and any relevant IP are requested to submit a statement setting out what is required, in their view, to enable agreement.</p>

ExQ3: 14 November 2023

Responses due by Deadline 8: Tuesday 5 December 2023

ExQ3	Question to:	Question:
		There will be circumstances where to be of practical use, this will need to be in the form of a 'without prejudice' statement, where one party may acknowledge that they do not agree with an in-principle position taken by another, but they also set out in practical terms the actions that would be necessary to address the issue, without conceding their basic point that such actions are not necessary.
	LB Havering Response	LB Havering has no comments to make on the HRA or Report on the Implications or European Sites

ExQ3: 14 November 2023

Responses due by Deadline 8: Tuesday 5 December 2023

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