

Lower Thames Crossing

9.197 Applicant's comments on the Report on the Implications for European Sites (RIES)

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1 Comments on RIES

1.1 Introduction

- 1.1.1 This document has been prepared by National Highways (the Applicant) to set out the responses to questions contained within the Report on the Implications for European Sites issued by the Examining Authority on 14th November 2023 [\[PD-048\]](#).
- 1.1.2 These can be found in the Table 1.1 below.

Table 1.1 Response to RIES questions

Reference	Content of RIES	Applicant’s response
QR1 – QR2		No response required, as these questions were directed to the Port of London Authority (PLA) and Natural England respectively.
QR3	To the Applicant: In relation to LSE from tunnel construction, please provide evidence of where you have addressed the concerns of the PLA in relation to effects on bird feeding behaviour.	<p>The assessment of the effects of tunnel construction are considered in paragraphs 6.2.23 to 6.6.28 of the Habitats Regulations Assessment Screening Report and Statement to Inform an Appropriate Assessment [APP-487]. The assessment provides clear evidence, in the form of modelled underwater noise and vibration, that the birds are unlikely to react, and therefore would not be affected, when the tunnel boring machine (TBM) is in use. This is because the changes would not be perceived above the background noise levels which are dominated by from shipping in this location. Further information was shared with Natural England in a technical note (Annex C.8 in the Statement of Common Ground [REP7-106]) that provided information in relation to the following topics, in response to specific points raised by Natural England that are similar to the concerns of the PLA:</p> <ul style="list-style-type: none"> • An explanation of the approach used by the Applicant in the assessment of the effects of changes in underwater noise on the bird features of the Thames Estuary and Marshes Special Protection Area (SPA) and Ramsar site as submitted in the Development Consent Order (DCO) application. • Following Natural England’s advice, a literature review on the sensitivity of diving birds to underwater noise. • Based on the evidence found within the literature review, appropriate consideration as to whether or not the approach to reporting the effect of underwater noise on the bird features (including bird feeding behaviour) of the Thames Estuary and Marshes SPA and Ramsar site is appropriately reported. <p>If agreement cannot be achieved on this matter, the Applicant considers that sufficient information is available to the Secretary of State (SoS) to undertake their appropriate assessment as Natural England (who have similar concerns on this matter) only consider the disagreement to relate to a procedural matter as to whether the assessment should conclude no likely significant effects or no adverse effects on integrity. As such, no further action or information is necessary for the purposes of complying with the Habitats Regulations.</p>
QR4		No response required, as this question was directed to Natural England and the Port of London Authority.
QR5	To the Applicant: Please provide clarification on your position in relation to the underwater noise and vibration impact pathway for each of the qualifying features of Thames Estuary and Marshes SPA and Ramsar site in your updated HRA Report.	<p>The assessment of the effects of tunnel construction, including with respect to underwater noise and vibration, are considered in paragraphs 6.2.23 to 6.6.28 of the Habitats Regulations Assessment (HRA) Screening Report and Statement to Inform an Appropriate Assessment [APP-487].</p> <p>Natural England has agreed, as set out in their Deadline 4 [REP4-324] response, that <i>‘there is no risk of an ‘adverse effect on site integrity’, and therefore that this is a procedural risk rather than an ecological risk for the Examining Authority to consider. We are content that the Applicant has sufficiently assessed matters in support of the ‘no adverse effect on site integrity’ conclusion within their HRA screening.’</i></p> <p>The Applicant anticipates that this should provide sufficient clarification of the position to the Examining Authority and does not therefore propose to submit any update to the HRA report with regard to this matter.</p> <p>If agreement cannot be achieved on this matter, the Applicant considers that sufficient information is available to the SoS to undertake their appropriate assessment as Natural England only considers the disagreement to relate to a procedural matter as to whether the assessment should conclude no likely significant effects or no adverse effects on integrity. As such, no further action or information is necessary for the purposes of complying with the Habitats Regulations.</p>
QR6 – QR10		No response required, as these questions were variously directed to the Port of London Authority, Natural England and local authorities.

Reference	Content of RIES	Applicant’s response
QR11	To the Applicant: Noting further transport modelling information is due to be submitted into the Examination at Deadline 6a, please provide commentary as to any implications this may have for the HRA.	The transport modelling submitted at Deadline 6A is limited to: <ul style="list-style-type: none"> • Assessment of the A1089 Asda roundabout for the construction phase (Asda roundabout construction impact assessment [REP6A-008]). • Modelling of the Orsett Cock junction during operation of the Project (Localised Traffic Modelling Appendix C: Orsett Cock Forecasting report [REP6A-006]) to provide outputs of the Rectory Road sensitivity tests which formed Action Points 9 and 10 as set out in Annex A of Joint Position Statement: Orsett Cock junction [REP5-084]. • Localised Traffic Modelling [REP6A-004] to correct a minor error in the Deadline 6 version (relating to the letter assigned to the appendix) and to provide some updated journey time information that was discussed with the Interested Parties that were party to the Joint Position Statement: Orsett Cock junction [REP5-084]. <p>These submissions do not have any implications for the HRA.</p>
QR12	To the Applicant: without prejudice to your position but taking work in progress up to DL8 into account, what measures would you propose to deliver to respond to a possible AEol (if such cannot be excluded) and how would those measures be secured	There are no viable mitigation options for the air quality effects on Thames Estuary and Marshes Ramsar site or North Downs Woodlands SAC and if compensation was required that this would result in the need for additional land, likely outside the Order Limits, to compensate for any adverse effects. If this was needed it would likely require a material change to the Order Limits to be secured. <p>The Assessment of air quality effects on European sites following Natural England advice [Document Reference 9.199] submitted at Deadline 8 concludes no adverse effects on the Thames Estuary and Marshes Ramsar site, Epping Forest SAC and North Downs Woodlands SAC. No mitigation measures are proposed and notwithstanding Natural England’s view of the Epping Forest conclusion, Natural England has indicated in paragraph 72 of its Deadline 5 submission [REP5-109] that no further mitigation measures are required for effects on the Thames Estuary and Marshes Ramsar site and North Downs Woodlands SAC.</p> <p>The Applicant anticipates that agreement will be reached with Natural England on this matter within Examination.</p>
QR13	To the Applicant: Please demonstrate where you have ensured that adequate time is allowed for the construction of ecological functioning habitat at Coalhouse Point is secured.	The habitat at Coalhouse Point must be constructed prior to the main works at the North Portal site (as per Register of Environmental Actions and Commitments (REAC) commitment HR010 which is secured in the Code of Construction Practice (CoCP) [REP7-122]). Therefore, the works are programmed for as early as possible based on the expected date for grant of DCO being the trigger to then release related elements, for instance surveys, consenting and design work. This leads to physical works being undertaken in spring 2025, allowing the ecological habitat to become functional and thus release the remainder of the working area by mid-2025. <p>See proposed indicative programme in Plate 1.1:</p>

Reference	Content of RIES	Applicant’s response
		<p style="text-align: center;">Plate 1.1 Indicative programme for the Coalhouse Point mitigation works</p> <p>COALHOUSE POINT Ecological Mitigation WORKS (Programme assumes DCO Grant Summer 2024)</p> <p>There are two major workstreams at Coalhouse Point:</p> <ul style="list-style-type: none"> • Coalhouse Point ecology mitigation area • Water inlet works for Coalhouse Point <p>Ecology mitigation area: The works required in this area involve the creation of shallow scrapes and ditches. The works will be carried out during normal working hours as per the CoCP. Spoils generated will be utilised locally in the area or for the open mosaic habitat area in the north. This is existing agricultural land with some existing water channels. Potential constraints identified in the area are:</p> <ul style="list-style-type: none"> • Presence of water voles in channel closer to the river • Utilities such as UKPN low voltage and gas mains • Works have seasonality constraint

Reference	Content of RIES	Applicant’s response
		<p>Water inlet works: The works will require construction of a temporary cofferdam to facilitate works for the water inlet valve.</p> <p>The following constraints apply to the inlet works:</p> <ul style="list-style-type: none"> • The works requiring access to the inter-tidal zone would be completed to suit tidal cycle and at periods of low water. • Works have seasonality constraints. • All piling works would be completed during periods of lower water to avoid transmission of underwater noise. • All piling works would utilise soft start piling and other good practice techniques, as per the Joint Nature Conservation Committee (JNCC) guidance (JNCC, 2010), to help avoid noise and vibration impacts (REAC commitment HR011). • Excavated arisings would be retained within the cofferdam or stored on a support barge (REAC commitment HR011). • The proposed final structure arrangement would be passable by eel, in line with commitment HR010. • The new structure would include a self-regulating arrangement to ensure water levels within the habitat are consistent with the guidance in Manage lowland wet grassland for birds (DEFRA, 2021). <p>The Applicant anticipates that agreement will be reached with Natural England within examination on the efficacy of the Coalhouse Point proposals.</p>
QR14 – QR19		<p>No response required, as these questions were variously directed to the Marine Management Organisation, the Port of London Authority, Thurrock Council, the Environment Agency, Natural England and all Interested Parties.</p>
QR20	<p>To the Applicant and NE: Please provide full commentary on the timing of the works for wetland creation at Coalhouse Point by Deadline 8. It would assist the ExA if the updated SoCG could identify where an agreed position has been reached.</p>	<p>Please see also the response to QR13 above on the matter.</p> <p>The timing of the works for the wetland creation at Coalhouse Point is dependent on the date that the DCO is granted. The habitat at Coalhouse Point must be constructed prior to the main works at the North Portal site (as per REAC commitment HR010, as noted above).</p> <p>Paragraphs 7.1.28 to 7.1.31 of the Habitats Regulations Assessment Screening Report and Statement to Inform an Appropriate Assessment [APP-487] consider the timing of the tidal gate construction and assess the potential disturbance to birds if it is not possible to construct it within the April to August window. The assessment concluded that the construction of the tidal gate, which affects the most important intertidal habitat, would not result in significant disturbance of SPA/Ramsar qualifying species.</p> <p>HR011 has been updated to reflect Natural England advice in examination and includes the following commitment in relation to timing:</p> <p>Construction of the water inlet and associated works to excavate scrapes and ditches will be undertaken between 1st April and 30th August where reasonably practicable. Where these works are taken outside of these months they shall be undertaken within a localised area over the shortest reasonably practicable time period.</p> <p>The Applicant anticipates that agreement will be reached with Natural England within examination on the efficacy of the Coalhouse Point proposals.</p>
QR21	<p>To the Applicant: What concerns do you have about NE’s proposed approach to the introduction of the speed limit?</p>	<p>The Applicant has no concerns with Natural England’s proposed approach to the introduction of the speed limit on the M25, other than it considers the speed limit unnecessary. The Applicant has identified the speed limit as a without prejudice measure as set out in paragraph 6.1.4 of the Assessment of air quality effects on European sites following Natural England advice [Document Reference 9.199] submitted at Deadline 8 but does not consider any mitigation necessary.</p> <p>If the SoS were to require implementation of the without prejudice speed limit, then they could also require the monitoring of ammonia and extension of the timeframe of the speed limit from a similar without prejudice basis if agreement were not to be reached with Natural England.</p>
QR22	<p>To the Applicant: Can you set out why you do not consider that the Proposed Development will prevent or slow the restoration of site specific critical levels and critical loads? What does the Applicant consider to be the implications of the Dutch Nitrogen Case for the conclusion of no AEOI?</p>	<p>The Assessment of air quality effects on European sites following Natural England advice [Document Reference 9.199] submitted at Deadline 8 considers the effect of the Project on the restoration of site-specific critical levels and loads in paragraphs 6.2.29 to 6.2.33 in relation to Epping Forest SAC and paragraphs 6.2.79 to 6.2.83 in relation to North Downs Woodlands SAC.</p> <p>Any theoretical slowing of the achievement of the conservation objective of restoring pollutants to threshold levels would be inconsequential in the context of the relatively small contribution that the Project would add to background levels and the extended period of time required to achieve the restore objective in relation to the change required from multiple sources.</p> <p>The Applicant has provided a without prejudice mitigation measure to prevent adverse effects on integrity on Epping Forest SAC if agreement with Natural England cannot be reached.</p> <p>The Applicant does not consider that the Dutch Nitrogen Case (2018) has any implications for the conclusion of no adverse effect on integrity (AEOI). In that case, the Court of Justice of the European Union (CJEU) held that where the conservation status of a natural habitat is ‘unfavourable’, the possibility of authorising activities which may affect the ecological situation of the sites concerned was ‘necessarily limited’.</p> <p>Subsequent UK case law (see for instance R (Wyatt) v Fareham Borough Council [2022] EWCA Civ 983) and Natural England’s advice on Water Quality and Nutrient Neutrality (NE785), published in 2019 (and updated in March 2022) (Natural England, 2022) make clear that assessments should be undertaken on a case-by-case basis; it therefore should not be assumed from the Dutch Nitrogen Case that all sites with existing exceedances should be considered as having an adverse effect if further exceedances were predicted from a project.</p>

References

Joint Nature Conservation Committee (JNCC) (2010). Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise. <https://hub.jncc.gov.uk/assets/31662b6a-19ed-4918-9fab-8fbcff752046>

Natural England (2022). Water Quality and Nutrient Neutrality Advice (NE785). <https://publications.naturalengland.org.uk/publication/4792131352002560>

DEFRA. (2021). Manage lowland wet grassland for birds. Retrieved April 2022, from <https://www.gov.uk/guidance/manage-lowland-wet-grassland-for-birds>

Glossary

Term	Abbreviation	Explanation
A122		The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO [REP5-024]
A122 Lower Thames Crossing	Project	A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing.
A122 Lower Thames Crossing/M25 junction		New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon.
A13/A1089/A122 Lower Thames Crossing junction		Alteration of the existing junction between the A13 and the A1089, and construction of a new junction between the A122 Lower Thames Crossing and the A13 and A1089, comprising the following link roads: <ul style="list-style-type: none"> • Improved A13 westbound to A122 Lower Thames Crossing southbound • Improved A13 westbound to A122 Lower Thames Crossing northbound • Improved A13 westbound to A1089 southbound • A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout • A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout • Orsett Cock roundabout to the improved A13 westbound • Improved A13 eastbound to Orsett Cock roundabout • Improved A1089 northbound to A122 Lower Thames Crossing northbound • Improved A1089 northbound to A122 Lower Thames Crossing southbound
A2		A major road in south-east England, connecting London with the English Channel port of Dover in Kent.
Abnormal Indivisible Load(s)	AIL	A load that cannot be divided for the purpose of being carried on a road without undue expense or risk of damage.
Affected Road Network	ARN	In air quality assessment, the network of roads to be considered within the air quality model (selection of the roads within the model depends on a number of criteria such as changes in Heavy Duty Vehicle flows).
Air Pollution Information System	APIS	A website managed by the Centre for Ecology and Hydrology, providing a searchable database and information on pollutants and their impacts on habitats and species.
Air Quality Management Area	AQMA	An area, declared by a local authority, where air quality monitoring does not meet Defra’s national air quality objectives.
Air Quality Strategy	AQS	A strategy defined by the Government for improving air quality in the UK in the medium term.

Term	Abbreviation	Explanation
Ancient Woodland	AW	Designated land that has been continuously wooded since at least 1600AD. Ancient woodland is regarded as irreplaceable habitat and is protected by the National Planning Policy Framework.
Ammonia	NH₃	A gas with the formula NH ₃ which is released from natural and manmade sources. It contributes to air pollution and can damage the environment through processes such as soil acidification and eutrophication.
Annual Average Weekday Traffic	AAWT	The daily number of vehicles passing a point in the road network, averaged over a full year excluding weekends.
Application Document		In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent.
Archaeological Trial Trenching	ATT	A method of on-site archaeological investigation where trenches are dug at intervals across a site to identify any archaeological remains.
Area of Outstanding Natural Beauty	AONB	Statutory designation intended to conserve and enhance the ecology, natural heritage and landscape value of an area of countryside.
Automated Number Plate Recognition	ANPR	Automated Number Plate Recognition is a technology that reads vehicle registration plates to create vehicle location data.
Automatic Traffic Count	ATC	Equipment placed on a road that counts traffic.
Automatic Urban and Rural Network	AURN	The UK’s largest automatic monitoring network and the main network used for compliance reporting against the Ambient Air Quality Directives.
Baseline Noise Level	BNL	A measure of source noise.
Best and Most Versatile	BMV	Agricultural land which is the most versatile, produces the highest yield or output, produces consistent yields and requires the least input. BMV agricultural land is graded 1, 2 and 3a in the Agricultural Land Classification.
Best Practicable Means	BPM	A term used under the Control of Pollution Act 1974 and Environmental Protection Act 1990 to refer to measures which are reasonably practicable, having regard to local conditions and circumstances, to the current state of technical knowledge and to financial implications, concerning the mitigation of noise and other potential nuisance.
Building Research Establishment	BRE	n/a
Calculation of Road Traffic Noise	CRTN	Provides a methodology originated by the National Physical Laboratory for calculating road traffic noise levels in some situations. It is linked to the procedure issued by the Department for Transport.
Chartered Institute of Ecology And Environmental Management	CIEEM	CIEEM provides a variety of services to develop the competency and standards of professional ecologists and environmental managers and also to promote ecology and environmental management as a profession.
Climate Emergency Policy and Planning	CEPP	n/a

Term	Abbreviation	Explanation
Code of Construction Practice	CoCP	Contains control measures and standards to be implemented by the Project, including those to avoid or reduce environmental effects.
Common Analytical Scenario(s)	CAS	A set of seven standardised, off-the-shelf, cross-modal scenarios exploring national level uncertainties which have been developed by DfT for use in forecasting and appraisal.
Community Impacts and Public Health Advisory Group	CIPHAG	n/a
Conceptual Site Model	CSM	Refers to the source-pathway-receptor (SPR) linkage approach for identifying pollutant linkages. Development and refinement of the CSM is part of the process defined in Environment Agency guidance Land Contamination: Risk Management (Environment Agency, 2020).
Conservation Area	CA	An area of special environmental or historic interest or importance, of which the character or appearance is protected by law against undesirable changes (Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990).
Construction		Activity on and/or offsite required to implement the Project. The construction phase is considered to commence with the first activity on site (e.g. creation of site access), and ends with demobilisation.
Construction Site Waste Management Plan	CSWMP	A document which sets out how resources will be managed, and waste controlled during the Project. Plans usually involve recording the amount of waste that will be produced and details the proposed methods of waste disposal.
Contaminated Land: Applications in Real Environments	CL:AIRE	CL:AIRE is an independent not-for-profit organisation established in 1999 to stimulate the regeneration of contaminated land in the UK by raising awareness of, and confidence in, practical and sustainable remediation technologies.
Control of Pollution Act 1974	CoPA	An Act to make further provision with respect to waste disposal, water pollution, noise atmospheric pollution and public health; and for purposes connected with the matters aforesaid.
Department for Environment, Food and Rural Affairs	Defra	The government department responsible for environmental protection, food production and standards, agriculture, fisheries and rural communities in the United Kingdom of Great Britain and Northern Ireland. Activity on and/or offsite required to implement the Project.
Department for Transport	DfT	The government department responsible for the English transport network and a limited number of transport matters in Scotland, Wales and Northern Ireland that have not been devolved.
Department for Levelling Up, Housing and Communities	DLUHC	The UK Government department for housing, communities, local government in England and the levelling up policy. Formerly called the Ministry of Housing, Communities and Local Government.

Term	Abbreviation	Explanation
Design Manual for Roads and Bridges	DMRB	A comprehensive manual containing requirements, advice and other published documents relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations (National Highways, Transport Scotland, the Welsh Government or the Department for Regional Development (Northern Ireland)) is highway authority. For the A122 Lower Thames Crossing the Overseeing Organisation is National Highways.
Development Consent Order	DCO	Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.
Development Consent Order application	DCO application	The Project Application Documents, collectively known as the ‘DCO application’.
Do-Minimum	DM	A future year scenario in LTAM which includes changes to the road network and planned development that is forecast to go ahead, but not the Lower Thames Crossing.
Do-Minimum Future Year Scenario	DMFY	A future year (2045) scenario in the Project traffic model (LTAM) which includes changes to the road network and planned development that is forecast to go ahead, but not the Lower Thames Crossing.
Do-Minimum Opening Year Scenario	DMOY	An opening year (2030) scenario in the Project traffic model (LTAM) which includes changes to the road network and planned development that is forecast to go ahead, but not the Lower Thames Crossing.
Do-Something	DS	A future year scenario in LTAM which includes changes to the road network and planned development that is forecast to go ahead, and the Lower Thames Crossing.
Do-Something Future Year Scenario	DSFY	A future year (2045) scenario in the Project traffic model (LTAM) which includes changes to the road network and planned development that is forecast to go ahead, and also the Lower Thames Crossing.
Do-Something Opening Year Scenario	DSOY	An opening year (2030) scenario in the Project traffic model (LTAM) which includes changes to the road network and planned development that is forecast to go ahead, and also the Lower Thames Crossing.
DP World London Gateway	DPWLG	Dubai Ports World, London Gateway Port
Draft Development Consent Order	dDCO	The Project’s draft Development Consent Order [REP5-024] .
Draft National Policy Statement National Networks	dNPSNN	The revised draft National Policy Statement for National Networks by the Department for Transport, which was consulted on in March 2023.
Electric vehicle	EV	n/a
Emissions Factors Toolkit	EFT	The Emissions Factors Toolkit (EFT) is published by Defra and the Devolved Administrations to assist local authorities in carrying out review and assessment of local air quality as part of their duties under the Environment Act 1995.
Environmental Clerk of Works	ECoW	A key role on sites where ecological receptors may be affected by development. The presence of an ECoW is often a requirement of planning conditions, or a European Protected Species (EPS) licence, whereby the ECoW provides the mechanism to discharge conditions.

Term	Abbreviation	Explanation
Environmental Impact Assessment	EIA	A process by which information about environmental effects of a proposed development is collected, assessed and used to inform decision making. For certain projects, EIA is a statutory requirement, reported an Environmental Statement.
Environmental Management Plan	EMP	For the Project, a plan setting out the conclusions and actions needed to manage environmental effects as defined by the Design Manual for Roads and Bridges standard LA 120. The CoCP is the equivalent of the first iteration of the EMP (EMP1). The contractor’s EMP would be EMP2 and the end of construction EMP would be EMP3.
Environmental Statement	ES	A document produced to support an application for development consent that is subject to Environmental Impact Assessment (EIA), which sets out the likely impacts on the environment arising from the proposed development.
Essex Place Services	EPS	A public sector provider of integrated environmental assessment, planning, design and management services
Examining Authority Environmental Statement	ExAES	The Examining Authority is appointed by the Secretary of State to examine an application for a Development Consent Order and make a recommendation. A document produced to support an application for development consent that is subject to Environmental Impact Assessment (EIA), which sets out the likely impacts on the environment arising from the proposed development.
Flood Risk Assessment	FRA	An assessment of the risk of flooding from all flooding mechanisms, the identification of flood mitigation measures, and identification of actions to be taken before and during a flood.
Framework Construction Travel Plan	FCTP	A framework with regard to the implementation of travel planning for the movement of personnel to and from the construction worksites, compounds and ULHs during the construction phase of the Project.
GEH	-	A formula used to compare two traffic volumes, named after its originator, Geoff E. Havers. It is similar to a chi-squared test.
Generic Quantitative Risk Assessment	GQRA	Tier 2 of the risk assessment process according to LCRM guidance on the assessment of land contamination. A GQRA uses generic assessment criteria and assumptions to estimate risk.
Greenhouse gas	GHG	Gases able to absorb infrared radiation emitted from Earth's surface and reradiate it back to Earth's surface, thus contributing to the greenhouse effect. Carbon dioxide, methane, and water vapour are the most important greenhouse gases.
Guidelines for Landscape and Visual Impact Assessment (Third Iteration)	GLVIA3	Assessment guidelines issued by the Landscape Institute (version 3: GLVIA 3)
Highways England		Former name of National Highways.
Heavy Goods Vehicle Highways England	HGV	A large, heavy motor vehicle used for transporting cargo. Former name of National Highways.

Term	Abbreviation	Explanation
Habitats Regulations Assessment	HRA	A tool developed by the European Commission to help competent authorities (as defined in the Habitats Regulations) to carry out assessment to ensure that a project, plan or policy will not have an adverse effect on the integrity of any Natura 2000 or European sites (Special Areas of Conservation, Special Protection Areas and Ramsar sites), either in isolation or in combination with other plans and projects, and to begin to identify appropriate mitigation strategies where such effects were identified.
Health and Equalities Impact Assessment	HEqIA	A systematic process used to identify the potential health and equalities impacts arising from policies, plans, programmes and projects, to identify the distribution of those effects amongst the population and to identify mitigation measures to address these effects, thereby minimising adverse effects on the local population
High Speed 1	HS1	A 109km high-speed railway between London and the UK end of the Channel Tunnel. The line carries international passenger traffic between the UK and continental Europe; it also carries domestic passenger traffic to and from stations in Kent and east London, as well as Berne gauge freight traffic.
Institute of Air Quality Management	IAQM	A professional body for air quality professionals.
Integrated Care Board	ICB	A statutory NHS organisation which is responsible for developing a plan for meeting the health needs of the population, managing the NHS budget and arranging for the provision of health services in a geographical area.
Integrated Care Partnership	ICP	A statutory committee jointly formed between the NHS integrated care board and all upper-tier local authorities that fall within an Integrated Care System area. The ICP is responsible for producing an integrated care strategy on how to meet the health and wellbeing needs of the population in the Integrated Care System area.
Interested Party	IP	A person or persons with an interest in land affected by the application, or who has registered a relevant representation by the deadline set by the Planning Inspectorate after the application has been accepted.
Land Contamination Risk Management	LCRM	Guidance published by the Environment Agency used to identify and assess if there is an unacceptable risk, assess what remediation options are suitable to manage the risk, plan and carry out remediation, and verify that remediation has worked.
Landscape Character Area	LCA LLCA	The ‘discrete geographical areas of particular landscape type’ (source of definition: GLVIA3). Note: Local Landscape Character Area is referred to as LLCA.
Landscape and Ecology Management Plan	LEMP	A document which provides details on the delivery and management of the landscape and ecology elements identified in the Environmental Masterplan for the Project, including their success criteria.
Landscape and Visual Impact Assessment	LVIA	Part of a planning application or environmental assessment that looks at the impact of development on the character of a landscape.

Term	Abbreviation	Explanation
Lead Local Flood Authority	LLFA	LLFAs are county councils and unitary authorities. They lead in managing local flood risks (i.e. risks of flooding from surface water, ground water and ordinary (smaller) watercourses). This includes ensuring co-operation between the Risk Management Authorities in their area. The LLFA for the M25 area is Essex County Council who is acting on behalf of Thurrock.
Light detection and ranging process	LiDAR	A surveying method that measures distance to a target by illuminating that target with a laser light.
Light Duty Vehicle	LDV	A vehicle designed for light duty work, such as a small van.
Light Goods Vehicle	LGV	Vehicles meeting the Department for Transport VEH04 criteria.
Likely significant effects	LSE	n/a
Limit Value(s)	LV	A level for an air quality pollutant fixed on the basis of scientific knowledge, with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained.
Local Air Quality Management	LAQM	A process that requires local authorities across the UK to review, assess and manage the air quality within their geographical areas.
Local Impact Report	LIR	As set out in the Planning Inspectorate’s Advice Note One, as part of the Planning Act 2008 process, the relevant local authorities are invited to submit a Local Impact Report (LIR) giving details of the likely impact of the proposed development on the authority’s area.
Local Nature Reserve(s)	LNR	Locally designated nature site protected through the planning system.
Local Road Network	LRN	n/a
Local Wildlife Site(s)	LWS	Locally designated nature site protected through the planning system. See also the entry for 'LNR'.
London Borough of Havering	LBH	n/a
Lower Thames Area Model	LTAM	Transport model designed to forecast impacts of providing additional road based capacity across the River Thames at locations at or east of the existing Dartford Crossing.
Lower Thames Crossing	LTC	A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing.
Lowest Observed Adverse Effect Level	LOAEL	The lowest concentration or amount of a substance found by experiment or observation that causes an adverse alteration of morphology, function, capacity, growth, development or lifespan of a target organism distinguished from normal organisms of the same species under defined conditions of exposure.
M2 junction 1		The M2 will be widened from three lanes to four in both directions through M2 junction 1.
M2/A2/A122 Lower Thames Crossing junction		New junction proposed as part of the Project to the east of Gravesend between the A2 and the new A122 Lower Thames Crossing with connections to the M2.

Term	Abbreviation	Explanation
M25 junction 29		Improvement works to M25 junction 29 and to the M25 north of junction 29. The M25 through junction 29 will be widened from three lanes to four in both directions with hard shoulders.
Micrograms per cubic metre	µg/m³	The principal unit of measurement for the concentration of an air pollutant in ambient air.
Micrometre/micron	µm	One millionth of a metre.
Manual Classified Counts	MCCs	n/a
National Cycle Network	NCN	A series of traffic-free paths and quiet, on-road cycling and walking routes that connect to every major town and city. These routes are promoted for both recreational and active travel purposes.
National Cycle Route	NCR	A cycle route part of the National Cycle Network created by Sustrans to encourage cycling throughout Britain.
National Highways		A UK government-owned company with responsibility for managing the motorways and major roads in England. Formerly known as Highways England.
National Highways Design Review Panel	NHDRP	n/a
National Planning Policy Framework	NPPF	A framework published in March 2012 by the UK's Department of Communities and Local Government, consolidating previously issued documents called Planning Policy Statements (PPS) and Planning Practice Guidance Notes (PPG) for use in England. The NPPF was updated in February 2019 and again in July 2021 by the Ministry of Housing, Communities and Local Government.
National Policy Statement	NPS	Set out UK government policy on different types of national infrastructure development, including energy, transport, water and waste. There are 12 NPS, providing the framework within which Examining Authorities make their recommendations to the Secretary of State.
National Policy Statement for National Networks	NPSNN	Sets out the need for, and Government's policies to deliver, development of Nationally Significant Infrastructure Projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.
National Road Traffic Projections 2022	NRTP22	2022 report presenting the Department for Transport's updated strategic view of future road travel demand. Including long term projection data of road traffic, congestion and emissions in England and Wales from 2025 to 2060
Nationally Significant Infrastructure Project	NSIP	Major infrastructure developments in England and Wales, such as proposals for power plants, large renewable energy projects, new airports and airport extensions, major road projects etc that require a development consent under the Planning Act 2008.

Term	Abbreviation	Explanation
National Trip End Model	NTEM	A model that forecasts the growth in trip origin-destinations (or productions-attractions) up to 2051 for use in transport modelling. The forecasts take into account national projections of population, employment, housing, car ownership and trip rates.
Natural England	NE	An executive non-departmental public body, sponsored by the Department for Environment, Food & Rural Affairs, which is the government’s adviser for the natural environment in England, helping to protect England’s nature and landscapes for people to enjoy and for the services they provide.
Nature Improvement Areas	NIA s	Established to create joined up and resilient ecological networks at a landscape scale. These are run by partnerships of local authorities, local communities and landowners, the private sector and conservation organisations with funding provided by Defra and Natural England.
New Nuclear Local Authorities Group	NNLAG	n/a
Nitrogen	N	A chemical element
Nitrogen dioxide	NO₂	A reactive gas introduced into the environment by natural causes, including entry from the stratosphere, bacterial respiration, volcanos, and lightning. It is also introduced by the emissions of internal combustion engines burning fossil fuels.
Nitrogen oxides	NO_x	A group of seven gases and compounds composed of nitrogen and oxygen, sometimes collectively known as NO _x gases.
Noise and Vibration Management Plan	NVMP	Incorporates measures proposed and procedures for the management of noise and vibration arising during the construction phase.
Non-motorised users	NMUs	Users of non-motorised vehicles (eg cyclists, horse riders) and pedestrians
North Portal		The North Portal (northern tunnel entrance) would be located to the west of East Tilbury. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
Operation		Describes the operational phase of a completed development and is considered to commence at the end of the construction phase, after demobilisation.
Order Limits		The outermost extent of the Project, indicated on the Plans by a red line. This is the Limit of Land to be Acquired or Used (LLAU) by the Project. This is the area in which the DCO would apply.
Outline Written Scheme of Investigation	oWSI	Sets out the scope, guiding principles and methods for the planning and implementation of essential archaeological mitigation.
Particulate matter (2.5µm)	PM_{2.5}	Particulate matter with a diameter equal to or less than 2.5 micrometres.
Particulate matter (10µm)	PM₁₀	Particulate matter with a diameter between 2.5 and 10 micrometres.

Term	Abbreviation	Explanation
Passenger Car Unit(s)	PCU	A metric to allow different vehicle types within traffic flows in a traffic model to be assessed in a consistent manner. PCU factors used within the Project’s transport model are: 1 for a car or Light Goods Vehicle; 2 for a bus, 2.5 for a Heavy Goods Vehicle.
Personal Injury(ies) Accident(s)	PIA	An accident that involves personal injury occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence.
Planning Act 2008		The primary legislation that establishes the legal framework for applying for, examining and determining Development Consent Order applications for Nationally Significant Infrastructure Projects.
Pollution Climate Mapping model	PCM model	Defra’s Pollution Climate Mapping model
Port of London Authority	PLA	A self-funding public trust established by The Port of London Act 1908 to govern the Port of London. Its responsibility extends over the Tideway of the River Thames and its continuation (the Kent/Essex strait). It maintains and supervises navigation, and protects the river’s environment.
Port of Tilbury London Limited	PoTLL	n/a
Post Opening Project Evaluation	POPE	Checks whether investments in Major Projects are delivering the outcomes documented in the Appraisal Summary Table published prior to scheme approval. National Highways produces the reports ‘one year after’ and ‘five years after’ road opening.
Preliminary Navigational Risk Assessment	pNRA	A document which assesses the risk to water users associated with the works the Project is undertaking within the Tidal Thames.
Private Rented Sector	PRS	n/a
Project Air Quality Action Plan	PAQAP	The section of the air quality assessment where the proposed viable mitigation measures are set out and assessed.
Project road		The new A122 trunk road, the improved A2 trunk road, and the improved M25 and M2 special roads, as defined in Parts 1 and 2, Schedule 5 (Classification of Roads) in the draft DCO [REP5-024] .
Project route		The horizontal and vertical alignment taken by the Project road.
Public Right of Way	PRoW	A right possessed by the public to pass along routes over land at all times. Although the land may be owned by a private individual, the public may still gain access across that land along a specific route. The mode of transport allowed differs according to the type of Public Right of Way, which can consist of footpaths, bridleways and open and restricted byways.
Queen Elizabeth II Bridge	QEII Bridge	Queen Elizabeth II Bridge, part of the Dartford-Thurrock crossing.

Term	Abbreviation	Explanation
Register of Environmental Actions and Commitments	REAC	The REAC identifies the environmental commitments that would be implemented during the construction and operational phases of the Project if the Development Consent Order is granted, and forms part of the Code of Construction Practice (Application Document 6.3, ES Appendix 2.2).
Relevant Representation	RR	A form that is completed before the examination begins, to register as an Interested Party.
Road Investment Strategy	RIS	The Government’s long-term strategy to improve England’s motorways and major A roads. The first RIS (known as RIS 1) was published in 2015 and covers the period 2015-2020. A second RIS (RIS 2) was published in 2020, and covers the post-2020 period.
Roadside Nature Reserve	RNR	Highway verges that are protected for their special wildlife interest which help to complete the protection of non-statutory sites of wildlife interest, in parallel with the County Wildlife Site system.
Secretary of State	SoS	The Secretary of State has overall responsibility for the policies of the Department for Transport.
Significant Observed Adverse Effect Level	SOAEL	The noise level above which significant adverse effects on health and quality of life occur.
Simulation and Assignment of Traffic to Urban Road Networks	SATURN	Software used to build transport models.
Site of Importance for Nature Conservation	SINC	Locally designated nature site protected through the planning system.
Site(s) of Special Scientific Interest	SSSI	A conservation designation denoting an area of particular ecological or geological importance.
Site-Specific Written Scheme of Investigation	SSWSI	Site-Specific Written Schemes of Investigation will be prepared by the archaeological contractors, based on the outline Written Scheme of Investigation, to set out the detailed methodology for each area of fieldwork.
Site Waste Management Plan	SWMP	A document which sets out how resources will be managed, and waste controlled during the Project. Plans usually involve recording the amount of waste that will be produced and details the proposed methods of waste disposal.
Skills, Education and Employment	SEE	n/a
South East Local Enterprise Partnership	SELEP	The business-led, public/private body established to drive economic growth across East Sussex, Essex, Kent, Medway, Southend and Thurrock.
South Portal		The South Portal of the Project (southern tunnel entrance) would be located to the south-east of the village of Chalk. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.

Term	Abbreviation	Explanation
Special Area(s) of Conservation	SAC	A designation under EU Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, also known as the Habitats Directive.
Special Educational Needs and Disabilities	SEND	n/a
Special Protection Area(s)	SPA	A designation under EU Directive 2009/147/EC on the Conservation of Wild Birds.
Statement of Common Ground	SoCG	A Statement of Common Ground is a written statement containing factual information about the proposal which is the subject of the appeal that the appellant reasonably considers will not be disputed by the local planning authority.
Strategic Road Network	SRN	The core road network in England managed by National Highways.
Sulphur Dioxide	SO₂	A gas primarily arising from anthropogenic activities and, more specifically, combustion of fuels containing sulphur and sulphur compounds. Sulphur dioxide is emitted in negligible quantities during the combustion of natural gas but generally at higher concentrations for liquid fuels which have a higher sulphur content.
The tunnel		Proposed 4.25km (2.5 miles) road tunnel beneath the River Thames, comprising two bores, one for northbound traffic and one for southbound traffic. Cross-passages connecting each bore would be provided for emergency incident response and tunnel user evacuation. Tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations. Emergency access and vehicle turn-around facilities would also be provided at the tunnel portals.
Tonnes of CO₂ equivalent	tCO₂e	A metric relating to emissions of carbon dioxide and the resultant climate change impact adopted by the UN.
Traffic Management Forum	TMF	The TMF would review planned traffic management arrangements and receive comments as to their appropriateness. The TMF would also monitor, review, and provide updates to the TMPs when required
Traffic Management Plan for Construction	TMP	A plan setting out the strategy and measures to be adopted with respect to highway and transportation issues for the Project. The TMP supports the DCO application and would be embedded within the eventual construction contractor documentation and will form an overarching and comprehensive management procedure for the Contractor to adhere to.
Transport Analysis Guidance	TAG	National guidance document produced by the Department for Transport.
Transport Decarbonisation Plan	TDP	A plan published by the Department for Transport in 2021 which sets out the government’s commitments and the actions needed to decarbonise the entire transport system in the UK.
Trip End Model Presentational Program	TEMPro	DfT software for viewing data from the DfT’s National Trip End Model.

Term	Abbreviation	Explanation
Tunnel Boring Machine	TBM	Machine used to excavate tunnels with a circular cross-section.
Unexploded ordnance	UXO	Explosive ammunition that did not explode when they were deployed and still pose a risk of detonation. Sometimes referred to as UXBs.
Utility Logistics Hub(s)	ULH	Temporary compounds required for specific utility works. They would receive, store and distribute the plant machinery and materials for specific utility works. They may include offices, welfare facilities, refuelling stations, security hubs, vehicle/wheel washing sites and parking areas similar in size to the main works satellite compounds.
Variable Message Sign	VMS	A road sign able to display different messages, typically mounted on a portal gantry.
VISSIM	-	Micro-simulation traffic modelling software
VISUM	-	Strategic car and rail modelling software.
Walking, Cycling and Horse Riding	WCH	Walkers, cyclists and horse riders.
Water Framework Directive	WFD	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. The Directive establishes a framework for the protection of inland surface waters, estuaries, coastal waters and groundwater. The framework for delivering the WFD is through river basin management planning. The UK has been split into several river basin districts. Each river basin district has been characterised into smaller management units known as water bodies. The surface water bodies may be rivers, lakes, estuary or coastal.
Wider Network Impacts Management and Monitoring Plan	WNIMMP	This document sets out National Highways’ approach on the forecast wider network impacts of the Project.
Workers Accommodation Report	WAR	This document sets out the estimated number of workers at the peak construction phase of the Project who would require temporary accommodation. It considers what type of accommodation these workers are anticipated to seek and where, and a consideration of this demand in the context of supply and the operation of the accommodation market.
Workforce Accommodation Working Group	WAWG	n/a
Written Representation	WR	

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