

# Lower Thames Crossing

## 6.1 Environmental Statement Glossary and Acronyms for the Environmental Statement

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# Lower Thames Crossing

## 6.1 Environmental Statement

### Glossary and Acronyms for the Environmental Statement

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## Glossary and Acronyms

Term	Abbreviation	Explanation
<b>‘Do Minimum’ future year scenario</b>	<b>DMFY</b>	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.
<b>‘Do Minimum’ opening year scenario</b>	<b>DMOY</b>	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.
<b>‘Do Minimum’ scenario</b>	<b>DM</b>	A scenario in which the Lower Thames Crossing is not constructed.
<b>‘Do Something’ future year scenario</b>	<b>DSFY</b>	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.
<b>‘Do Something’ opening year scenario</b>	<b>DSOY</b>	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.
<b>‘Do Something’ scenario</b>	<b>DS</b>	A scenario in which the Lower Thames Crossing is constructed.
<b>2030 opening year</b>		A modelled year in the Project’s LTAM traffic model in which traffic flows and costs are estimated when the Project is opened.
<b>2045 design year</b>		A modelled year in the Project’s LTAM traffic model in which traffic flows and costs are estimated on which the Project design is based.
<b>21st Conference of Parties</b>	<b>COP21</b>	The 21st session of the Conference of the Parties (COP) and the eleventh session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol took place from 30 November to 11 December 2015, in Paris, France.
<b>A122</b>		The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1).
<b>A122 Lower Thames Crossing</b>	<b>Project</b>	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.
<b>A122 Lower Thames Crossing/M25 junction</b>		New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon.

Term	Abbreviation	Explanation
<b>A13/A1089/A122 Lower Thames Crossing junction</b>		<p>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:</p> <ul style="list-style-type: none"> <li>• Improved A13 westbound to A122 Lower Thames Crossing southbound</li> <li>• Improved A13 westbound to A122 Lower Thames Crossing northbound</li> <li>• Improved A13 westbound to A1089 southbound</li> <li>• A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout</li> <li>• A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout</li> <li>• Orsett Cock roundabout to the improved A13 westbound</li> <li>• Improved A13 eastbound to Orsett Cock roundabout</li> <li>• Improved A1089 northbound to A122 Lower Thames Crossing northbound</li> <li>• Improved A1089 northbound to A122 Lower Thames Crossing southbound.</li> </ul>
<b>A2</b>		A major road in south-east England, connecting London with the English Channel port of Dover in Kent.
<b>Above ordnance datum</b>	<b>AOD</b>	Vertical datum used by the Ordnance Survey as the basis for deriving altitudes on maps.
<b>Absorptive noise barrier</b>		An installed barrier that has been designed to absorb noise.
<b>Advanced Directional Sign</b>	<b>ADS</b>	Sign giving road users route information regarding a junction ahead.
<b>Advanced Motorway Indicator</b>	<b>AMI</b>	Variable signage, used for managed motorway schemes by delivering ‘live’ information to regulate motorway speeds and reduce congestion.
<b>Affected Road Network</b>	<b>ARN</b>	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).
<b>Affected Unaltered Traffic Links</b>		In noise assessment, existing roads predicted to demonstrate in a 1dB or greater change in road traffic noise as a result of the Project. However, these roads would not be physically altered by the Project.
<b>Agglomeration</b>		In traffic and economics assessment, benefits which come when firms and/or people locate near one another in geographical clusters.
<b>Aggregate</b>		An umbrella term for bulk raw particulate materials used in infrastructure construction.

Term	Abbreviation	Explanation
<b>Agricultural Land Classification</b>	<b>ALC</b>	A framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. Land is classified into one of five grades, from Grade 1 (excellent quality) to Grade 5 (very poor quality). Grade 3, which constitutes about half of the agricultural land in England and Wales, is divided into Subgrades 3a and 3b.
<b>AGS data format</b>		A text file format used to transfer data reliably, between organisations in the site investigation industry, independent of software, hardware or operating system.
<b>Air Pollution Information System</b>	<b>APIS</b>	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.
<b>Air Quality</b>		A measure of the level of various atmospheric pollutants.
<b>Air Quality Directive</b>		Refers to the 2008 Ambient Air Quality Directive (2008/50/EC), which sets legally binding limits for concentrations of major air pollutants in outdoor air to avoid, prevent or reduce harmful effects on human health and the environment.
<b>Air Quality Management Area</b>	<b>AQMA</b>	An area, declared by a local authority, where air quality does not meet Defra's national air quality objectives.
<b>Air Quality Strategy objective</b>	<b>AQS objective</b>	An objective set by the Air Quality Strategy for England, Scotland, Wales and Northern Ireland to improve air quality in the UK in the medium term. Objectives are focused on the main air pollutants to protect health.
<b>Alignment</b>		The horizontal (lateral) or vertical (height) position of a road. It can be defined by a series of horizontal tangents and curves or vertical crest and sag curves, and the gradients connecting them.
<b>All Lane Running</b>	<b>ALR</b>	The use of motorway hard shoulders as an additional lane for traffic.
<b>All-purpose trunk road</b>	<b>APTR</b>	A road available for all types of traffic to use, unless restricted by a Traffic Restriction Order. In contrast, a motorway is restricted to use only by certain types of traffic.
<b>Alluvium</b>		Deposits of clay, silt or sand left by running water.
<b>AM peak hour</b>		The hour between 07:00–08:00 in the Project traffic model (LTAM).
<b>AM peak period</b>		The period between 06:00–09:00 in the Project traffic model (LTAM).
<b>Ambient noise</b>		The total sound in a given situation at a given time, usually composed of sound from many sources.
<b>Amenity</b>		A term used to describe the character or attractiveness of an area. The assessment of amenity may consider landscape and visual, noise and vibration, and traffic and transport effects.

Term	Abbreviation	Explanation
<b>Ammonia</b>	<b>NH3</b>	A gas with the formula NH <sub>3</sub> 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.
<b>Analysis of Monetised Costs and Benefits</b>	<b>AMCB</b>	In transport and economic assessment, the conversion of changes due to a project into an estimated monetary value.
<b>Ancient semi-natural woodland</b>	<b>ASNW</b>	A type of ancient woodland, acknowledged as non-statutory designated sites and protected under the National Planning Policy Framework.
<b>Ancient woodland</b>	<b>AW</b>	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.
<b>Ancient Woodland Inventory</b>	<b>AWI</b>	A dataset managed by Natural England to identify and record information about ancient woodland sites in England.
<b>Annual Average</b>	<b>AA</b>	Concentration or parameter value average over 12 months and based on a minimum of 12 individual sample results.
<b>Annual Average Daily Traffic</b>	<b>AADT</b>	An estimate of the average daily traffic along a defined segment of road. This value is calculated from short-term counts taken along the same section, which are then factored to produce the estimate of AADT.
<b>Annual Average Weekday Traffic</b>	<b>AAWT</b>	The daily number of vehicles passing a point in the road network, averaged over a full year excluding weekends.
<b>Annual Population Survey</b>	<b>APS</b>	A combined statistical survey of households in Great Britain which is conducted quarterly by the Office for National Statistics (ONS). Key topics covered in the survey include education, employment, health and ethnicity. It is informed by the results of the UK Labour Force Survey (LFS), which provides the official measures of employment and unemployment.
<b>Anthropogenic</b>		Created by people or caused by human activity.
<b>Application Document</b>		In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent.
<b>Application Site</b>		The location in which the Project lies.
<b>Appraisal Summary Table</b>	<b>AST</b>	A table that appraises the performance of each option against economic, environmental, social and distributional sub-impacts and is used to directly inform the Value for Money assessment for the economic case.
<b>Appropriate Assessment</b>	<b>AA</b>	An assessment in accordance with stage 2 of the Habitats Regulations Assessment (HRA).

Term	Abbreviation	Explanation
<b>Aquifers – Principal</b>		Layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.
<b>Aquifers – Secondary A</b>		Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.
<b>Aquifers – Secondary B</b>		Mainly lower permeability layers that may store and yield limited amounts of groundwater through characteristics like thin cracks (called fissures) and openings or eroded layers.
<b>Aquifers – Secondary undifferentiated</b>		Aquifers where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. These have only a minor value.
<b>Aquitard</b>		A zone within the earth that restricts the flow of groundwater from one aquifer to another. A completely impermeable aquitard is called an aquiclude or aquifuge.
<b>Arboriculture</b>		The planting, care and study of trees and other woody plants. Arboriculture is primarily focused on individual woody plants and trees maintained for permanent landscape and amenity purposes.
<b>Archaeological trial trenching</b>	<b>ATT</b>	A method of on-site archaeological investigation where trenches are dug at intervals across a site to identify any archaeological remains.
<b>Archaeological watching brief</b>		A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons.
<b>Area of Outstanding Natural Beauty</b>	<b>AONB</b>	Statutory designation intended to conserve and enhance the ecology, natural heritage and landscape value of an area of countryside.
<b>Armour</b>		Rock or other material used to armour shorelines, streambeds, bridge abutments, pilings and other structures against scour, water or ice erosion (also known as riprap/rip-rap, shot rock, rock armour or rubble).
<b>Asset Delivery</b>		A reference to when National Highways is directly responsible for managing all aspects of the operation of the network.
<b>Asset Delivery Asset Maintenance requirements</b>	<b>ADAMr</b>	A DMRB document, GM 701, containing asset delivery asset maintenance requirements for motorways and all-purpose trunk roads.
<b>Association of South Essex Local Authorities</b>	<b>ASELA</b>	A partnership of six neighbouring councils that have come together to promote growth and prosperity in the region. The partners are Basildon Borough Council, Brentwood Borough Council, Castle Point Borough Council, Rochford District Council, Southend-on-Sea Borough Council and Thurrock Council.
<b>Atmospheric Dispersion Modelling System</b>	<b>ADMS</b>	Computer software for modelling road traffic pollution.

Term	Abbreviation	Explanation
<b>Attenuation (noise)</b>		The reduction of a sound level.
<b>Attenuation (water)</b>		The process of water retention on site and slow release in a controlled flow to surface water.
<b>Attenuation pond</b>		A pond designed to slow the passage of water from surface runoff to the ground/drainage system.
<b>At grade</b>		On the same level. For example, an at grade junction is two or more roads meeting or crossing on the same level.
<b>Automated Number Plate Recognition</b>	<b>ANPR</b>	Technology that reads vehicle registration plates to create vehicle location data.
<b>Automatic Urban and Rural Network</b>	<b>AURN</b>	The UK's largest automatic monitoring network and the main network used for compliance reporting against the Ambient Air Quality Directives.
<b>A-weighting</b>		A measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. A-weighting). This compensates for the varying sensitivity of the human ear to sound at different frequencies. Measured in db(A).
<b>Bad ecological status/potential</b>		Water Framework Directive term denoting a complete deviation from the 'reference condition' in a water body, for hydromorphological, physico-chemical and biological quality elements.
<b>Barn Owl Breeding Site</b>	<b>BOBS</b>	n/a
<b>Barrow</b>		A cultural heritage term for a mound of earth or stones, usually constructed over a human burial site.
<b>Baseline</b>		Describes the existing nature of the environment within the study area at a fixed point in time, as well as any changes likely to occur independently of the Project, including the legislative and planning context and any relevant published guidance.
<b>Basic Noise Level</b>	<b>BNL</b>	A measure of source noise.
<b>Batter slope</b>		A receding slope of a wall, structure, or earthwork. The term is used with buildings and non-building structures to identify when a wall is intentionally built with an inward slope.
<b>Bedrock geology</b>		Solid bedrock formations underlying superficial deposits (if present).
<b>Below ground level</b>	<b>bgl</b>	A term typically accompanied by a depth in metres to denote a point that occurs beneath the surface of the ground.
<b>Benefit Cost Ratio</b>	<b>BCR</b>	The ratio of benefits to costs.
<b>Benthic</b>		Living on or under the seabed.
<b>Benzene, Toluene, Ethylbenzene and Xylene</b>	<b>BTEX</b>	n/a



Term	Abbreviation	Explanation
<b>Best and Most Versatile</b>	<b>BMV</b>	Agricultural land which is the most versatile, produces the highest yield or output, produces consistent yields and requires the least input. BMV land is graded 1, 2 and 3a in the Agricultural Land Classification, maintained by Natural England.
<b>Best Available Techniques</b>		Use of best practice working methods.
<b>Best Practicable Means</b>	<b>BPM</b>	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.
<b>Biodiversity Action Plan</b>	<b>BAP</b>	National, local and sector-specific plans established under the UK Biodiversity Action Plan, with the intention of securing the conservation and sustainable use of biodiversity.
<b>Biological Oxygen Demand</b>	<b>BOD</b>	The amount of dissolved oxygen needed by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.
<b>Biotope</b>		An area defined by characterising species and associated physical characteristics.
<b>Black, Asian and Minority Ethnic</b>	<b>BAME</b>	n/a
<b>Bluewater</b>		An out-of-town shopping centre in Stone, Kent, outside the M25 Orbital motorway, approximately 17.8 miles (28.6km) east-south-east of London's centre.
<b>Bored tunnel</b>	<b>BT</b>	A circular tunnel at depth, without removing the ground above, created using a tunnel boring machine.
<b>Borehole</b>	<b>BH</b>	A hole bored into the ground, usually as part of investigations, typically to test the depth and quality of soil, rock and groundwater. A borehole can also be used to dewater the ground.
<b>Borrow pit</b>		A pit resulting from the excavation of material for use in construction.
<b>Brentwood Road</b>		The Project includes realignment of Brentwood Road and construction of a new bridge to carry the realigned Brentwood Road over the new A122 Lower Thames Crossing.
<b>Brewers Road green bridge</b>		Existing Brewers Road bridge over the A2 would be replaced with a green bridge as part of the Project.
<b>Bridge Management System</b>	<b>BMS</b>	A means for managing bridges throughout design, construction, operation and maintenance of the bridges.
<b>Bridleway</b>	<b>BR</b>	A route along which the general public has rights to travel on foot or horseback. Cyclists may use a bridleway but are obliged to give way to other users on foot or horseback.

Term	Abbreviation	Explanation
<b>British Geological Survey</b>	<b>BGS</b>	A partly publicly funded body which aims to advance geoscientific knowledge of the UK landmass and its continental shelf by systematic surveying, monitoring and research.
<b>British Pits</b>	<b>BritPits</b>	A database which holds information on: <ul style="list-style-type: none"> <li>names of mines, quarries, oil wells, gas wells, ash and desulphogypsum plants</li> <li>geographic location</li> <li>address</li> <li>operator</li> <li>mineral planning authorities</li> <li>geology</li> <li>mineral commodities produced</li> <li>end-uses (where known).</li> </ul>
<b>British Standard</b>	<b>BS</b>	Standards produced by the British Standards Institution, which is incorporated under royal charter and formally designated as the national standards body for the UK.
<b>British Standards Institution</b>	<b>BSI</b>	The national standards body of the UK, producing technical standards for various industries.
<b>British Trust for Ornithology</b>	<b>BTO</b>	An organisation founded in 1932 for the study of birds in the British Isles.
<b>Bronze Age</b>		A period between the Stone Age and Iron Age characterised by the use of weapons and implements made of cast bronze. Dated generally between 2500BC to 800BC in Britain.
<b>Buffer</b>		Specified area or distance surrounding a site or feature of interest.
<b>Building Research Establishment</b>	<b>BRE</b>	n/a
<b>Bund</b>		An embankment structure.
<b>Business Register and Employment Survey</b>	<b>BRES</b>	Survey of employee and employment estimates at detailed geographical and industrial levels. Regarded as the official source of employee and employment estimates by detailed geography and industry.
<b>C.RO Ports</b>		Brand name for the subsidiaries of C.RO Ports SA that operate roll-on/roll-off (vehicle) terminals in the UK, the Netherlands and Belgium.
<b>C40/50 <i>in situ</i> concrete</b>		C40/50 indicates that the average compressive strength of a cylindrical sample of such class of concrete is 40/50 megapascal units (MPa). In other words, it can carry up to 40/50 MPa of stresses without cracking when subjected to compressive forces. <i>In situ</i> concrete is a standard concrete which is poured into the specific formwork on the site and cured to get the strength of concrete elements.

Term	Abbreviation	Explanation
<b>C50/60 precast concrete</b>		C50/60 indicates that the average compressive strength of a cylindrical sample of such class of concrete is 50/60 MPa. In other words, it can carry up to 50/60 MPa of stresses without cracking when subjected to compressive forces. Precast concrete is transported to the construction site, lifted and positioned at the predetermined place.
<b>Calculation of Road Traffic Noise</b>	<b>CRTN</b>	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.
<b>Campaign to Protect Rural England</b>	<b>CPRE</b>	A countryside charity and environmental group which campaigns for a sustainable future for the English countryside.
<b>Candidate Special Area of Conservation</b>	<b>cSAC</b>	A site that has been submitted to the European Commission to be considered for designation under the Habitats Directive but not yet formally adopted.
<b>Capital expenditure</b>	<b>CAPEX</b>	The cost of developing or providing non-consumable parts of the product or system.
<b>Carbon and Energy Plan</b>	<b>CEP</b>	n/a
<b>Carbon budget</b>		Carbon budgets are a simplified way to measure the additional emissions that can enter the atmosphere whilst limiting global warming to defined levels, such as 1.5°C. Carbon budgets are based on the fact that the amount of warming that will occur can be approximated by total CO <sub>2</sub> emissions.
<b>Carbon dioxide</b>	<b>CO<sub>2</sub></b>	A colourless gas, naturally occurring in the Earth's atmosphere. CO <sub>2</sub> is a significant long-lived greenhouse gas. Anthropogenic emissions of CO <sub>2</sub> since the Industrial Revolution have rapidly increased its concentration in the atmosphere.
<b>Carbon dioxide equivalent</b>	<b>CO<sub>2</sub>e</b>	A standard unit for measuring carbon footprint. It describes, for a given amount of greenhouse gas emissions, the amount of CO <sub>2</sub> that would have the same Global Warming Potential (GWP), when measured over a timescale of 100 years.
<b>Carbon model</b>		Shows the quantity of each material, energy and water used in a project and applies the relevant emission factors to estimate a carbon footprint.
<b>Cascade</b>		National Highways' Technical Partner for the Project. A joint venture between Arcadis, Jacobs and COWI.
<b>Catchment</b>		A drainage/basin area within which precipitation drains into a river system and eventually into the sea.
<b>Catchment Flood Management Plan</b>	<b>CFMP</b>	A strategic planning tool through which the Environment Agency works with other key decision-makers within a river catchment to identify and agree policies for sustainable flood risk management.

Term	Abbreviation	Explanation
<b>Catchpit chamber</b>		A precast concrete drainage product recommended for use as a filter and collector in land drainage systems that does not use of any sort of geo-membrane. It is essentially an empty chamber with an inlet pipe and an outlet pipe set at a level above the floor of the pit. Any sediment carried by the system settles out while in the catchpit, from where it can be periodically pumped out or removed.
<b>Category 4 Screening Levels</b>	<b>C4SLs</b>	Screening Levels for assessment of land affected by contamination as published by DEFRA in document SP1010, produced by CL:AIRE.
<b>Centre for Environment, Fisheries and Aquaculture Science</b>	<b>CEFAS/Cefas</b>	An executive agency, sponsored by the Department for Environment, Food & Rural Affairs (Defra). It collects, manages and interprets data on the aquatic environment, biodiversity and fisheries.
<b>Centre for the Protection of National Infrastructure</b>	<b>CPNI</b>	n/a
<b>Cetacean</b>		A marine mammal of the order Cetacea, e.g. a whale, dolphin or porpoise.
<b>Chadwell St Mary link</b>		Proposed section of the Project between the Tilbury Loop railway line and A13 junction.
<b>Characteristics</b>		Elements or combination of elements, which make a particular contribution to distinctive character.
<b>Chart Datum</b>		The level of water from which charted depths displayed on a nautical chart are measured.
<b>Chartered Institute of Ecology and Environmental Management</b>	<b>CIEEM</b>	Institute providing services to develop the competency and standards of professional ecologists and environmental managers, and promoting ecology and environmental management as a profession.
<b>Chemical status</b>		The classification status for a surface water body or groundwater body. Assessed by compliance with the environmental standards for chemicals. The threshold values are provided in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.
<b>Chemical Oxygen Demand</b>	<b>COD</b>	The amount of oxygen required to oxidise all soluble and insoluble organic compounds present in a volume of water
<b>Chronic Obstructive Pulmonary Disease</b>	<b>COPD</b>	An obstructive lung disease characterised by chronically poor airflow that typically worsens over time.
<b>Circular economy</b>		An alternative to a traditional linear economy (make, use, dispose) in which resources are kept in use for as long as possible, extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each service life.
<b>Clean Air Zone</b>		A defined area where targeted action is taken to improve air quality.

<b>Term</b>	<b>Abbreviation</b>	<b>Explanation</b>
<b>Clean Seas Environment Monitoring Programme</b>	<b>CSEMP</b>	Formerly known as the UK National Marine Monitoring Programme.
<b>Client Scheme Requirements</b>	<b>CSR</b>	The formal means by which the DfT instructs National Highways to develop a scheme and define the scope of a project.
<b>Climate Change Committee</b>	<b>CCC</b>	An independent non-departmental public body, formed under the Climate Change Act 2008 to advise the UK and devolved Governments and Parliaments on tackling and preparing for climate change. Previously known as the Committee on Climate Change.
<b>Climate change impact</b>		The consequences of climate change – both expected and realised – for natural and human systems.
<b>Climate Change Risk Assessment</b>	<b>CCRA</b>	A report which outlines the UK and devolved Governments' views on the key climate change risks and opportunities that the UK faces.
<b>Climate hazard</b>		A physical process or event that can harm human health, livelihoods, or natural resources. Examples include thunderstorms, tornadoes, and temperature extremes.
<b>Clinical Commissioning Group</b>	<b>CCG</b>	Clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area. CCGs were created following the Health and Social Care Act in 2012, and replaced Primary Care Trusts on 1 April 2013.
<b>Closed-circuit television</b>	<b>CCTV</b>	National Highways CCTV cameras are used to monitor traffic flows on the English motorway and trunk road network primarily for the purposes of traffic management.
<b>Cobham Ashenbank Management Scheme</b>	<b>CAMS</b>	Formed as a consortium comprising National Trust, English Heritage, Cobham Hall, Natural England, Kent County Council and Gravesham Borough Council. CAMS carries out the restoration and continued maintenance of Cobham Park.
<b>Code of Construction Practice</b>	<b>CoCP</b>	Contains control measures and standards to be implemented by the Project, including those to avoid or reduce environmental effects.
<b>Combined Kerb and Drainage</b>	<b>CKD</b>	A system utilising kerbs on the road edge to direct runoff to the drainage system.
<b>Combined Modelling and Appraisal Report</b>	<b>ComMA</b>	The purpose of the Combined Modelling and Appraisal Report is to inform decision makers and stakeholders on how the evidence underpinning the business case has been developed, from the initial identification of the underlying problem through the collection of data and the production of any supporting traffic models and forecast impacts of the Project on traffic to the eventual economic appraisal.
<b>Commissioning</b>		The completion of the testing phase, at which point the new road would be brought into public use.
<b>Community Conservation Index</b>	<b>CCI</b>	Used to determine the conservation status of sites based on macro-invertebrate communities.

Term	Abbreviation	Explanation
<b>Community Impacts and Public Health Advisory Group</b>	<b>CIPHAG</b>	n/a
<b>Compactive effort</b>		The process of increasing the soil density by removing the air from the soil through mechanical means.
<b>Conceptual site model</b>	<b>CSM</b>	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).
<b>Concrete batching factory/ facilities</b>		Onsite facility for concrete production, for use during construction. This includes production of concrete items, for example tunnel segments.
<b>Conservation Area</b>	<b>CA</b>	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).
<b>Conservation Score</b>	<b>CS</b>	n/a
<b>Considerate Constructors Scheme</b>	<b>CCS</b>	A not-for-profit, independent organisation founded in 1997 to raise standards in the construction industry.
<b>Construction</b>		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.
<b>Construction Demolition Waste</b>	<b>CDW</b>	Waste arising from activities such as the construction or demolition of buildings and civil infrastructure, road surfacing and maintenance. Includes materials such as concrete, bricks, wood, glass, metals, plastic and excavated soil.
<b>Construction (Design and Management) Regulations 2015</b>	<b>CDM 2015</b>	n/a
<b>Construction Environmental Management Plan</b>	<b>CEMP</b>	The primary environmental management document that defines the procedures for achieving the objectives set out in the environmental policy. It incorporates environmental performance targets set for the Project.
<b>Construction Industry Research Information Association</b>	<b>CIRIA</b>	A not-for-profit, independent organisation that facilitates a range of collaborative activities to help improve the construction industry.
<b>Construction Logistics and Community Safety</b>	<b>CLOCS</b>	This is a national Standard which defines the primary requirements placed upon key stakeholders associated with a construction project.
<b>Construction Materials and Aggregates Terminal</b>	<b>CMAT</b>	n/a

<b>Term</b>	<b>Abbreviation</b>	<b>Explanation</b>
<b>Construction noise assessment</b>		An assessment which compares predicted noise levels from construction tasks to ambient noise levels at nearby noise sensitive receptors.
<b>Construction vibration assessment</b>		An assessment of magnitude of predicted vibration from construction activities.
<b>Construction workers</b>		Workers on construction sites responsible for a number of on-site tasks, such as removing debris, erecting scaffolding, loading and unloading building materials, and assisting with operating heavy equipment.
<b>Construction worksite</b>		Areas within the Order Limits where construction works take place. These are separate to construction compounds, Utility Logistics Hubs and haul roads. Also referred to as construction working area.
<b>Construction, Demolition and Excavation</b>	<b>CDE</b>	n/a
<b>Contaminants of concern</b>	<b>COC</b>	n/a
<b>Contaminated Land: Applications in Real Environments</b>	<b>CL:AIRE</b>	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.
<b>Contaminated Land Report</b>	<b>CLR</b>	n/a
<b>Continuous flight auger</b>	<b>CFA</b>	Piles are installed by drilling with a rotary continuous-flight auger to the required depth. Depending on the stability of the surrounding ground, concrete is then pumped through a hose fed down to the bottom of the unlined hole, or through the hollow stem drilling auger which is progressively withdrawn from the bottom of the hole.
<b>Contracts for Difference</b>		A contract where (a) certain payments under the contract are to be funded by electricity suppliers, and (b) a Contracts for Difference counterparty is required to enter into by virtue of section 10 or 14 of the Energy Act.
<b>Control of Pollution Act 1974</b>	<b>CoPA</b>	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.
<b>Core Scenario Model</b>		The expected or most likely level of traffic growth.
<b>Controlled Waters</b>		Waters including groundwater, freshwater and saline water as defined in the UK Water Resources Act 1991.
<b>Costs and Benefits Appraisal - Light Touch</b>	<b>COBALT</b>	Department for Transport (DfT) accidents appraisal software.
<b>Cost Estimation Summary Sheet</b>	<b>CESS</b>	National Highways' Commercial Services Division sheet, for estimating projects' costs.

Term	Abbreviation	Explanation
<b>Countryside and Rights of Way Act 2000</b>	<b>CRoW</b>	This Act implements the 'right to roam' on certain upland and uncultivated areas of England and Wales. The Act also effected changes in terms of nature conservation: offences of disturbing certain birds and animals were extended to cover reckless as well as intentional acts, and the maximum penalty was increased from a fine to a term of imprisonment.
<b>County Wildlife Sites</b>	<b>CWS</b>	A locally designated nature site protected through the planning system.
<b>Critical Drainage Area(s)</b>	<b>CDA</b>	As defined in the Town and Country Planning (General Development Procedure) (Amendment) (No. 2) (England) Order 2006 a Critical Drainage Area is ' <i>an area within Flood Zone 1 which has critical drainage problems and which has been notified... [to]...the local planning authority by the Environment Agency</i> '.
<b>Critical load</b>		A quantitative estimate of exposure to one or more pollutants, below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge. This is used to assess modelled nitrogen and acid deposition at ecological receptors.
<b>Cropmark</b>		A cultural heritage term for a feature formed when the underlying moisture levels vary and affect the growth of overlying vegetation. This can indicate the presence of ground features such as a ditch, pit or wall.
<b>Cumulative effects</b>		Incremental effects that result from the accumulation of a number of individual effects, either caused by different types of effect from the same project (intra-project effects), or by the interactions between the likely effects of other reasonably foreseeable developments with the likely effects of the proposed project (inter-project effects).
<b>Cumulative Effects Assessment</b>	<b>CEA</b>	n/a
<b>Cut and cover</b>		A method of tunnelling. Involves the digging of a trench, the construction of a tunnel, and then covering and returning the surface to its original state.
<b>Cut and fill balance</b>		Assessment outcome of the volume of materials generated through excavation (cut) and reused (fill, typically in embankments) to achieve a design.
<b>Cutting</b>		In road construction, where the route is cut into the ground such that its vertical alignment is lower than the surrounding ground level. Often used on hilly terrain and to achieve safe gradients for roads.
<b>Dangerous Goods Vehicle</b>	<b>DGV</b>	A vehicle which is transporting goods classified as dangerous by the relevant authorities.
<b>Dart Charge</b>		The Dartford Crossing free-flow electronic number plate recognition charging system (operates between 06:00 and 22:00).



Term	Abbreviation	Explanation
<b>Dartford Cable Tunnel</b>		An £11m tunnel upstream of the Dartford Crossing, built in 2003-4. It has a diameter of approximately 3m, and carries and allows for maintenance of 380kV National Grid electrical cable beneath the River Thames.
<b>Dartford Crossing</b>		Road crossing of the River Thames in England, carrying the A282 road between Dartford in Kent to the south with Thurrock in Essex to the north. It consists of two bored tunnels and the cable-stayed Queen Elizabeth II Bridge.
<b>Dartford Crossing Control Centre</b>	<b>DCC</b>	The building adjacent to the crossing from which the operations of the crossing are controlled.
<b>Dartford Free Flow Crossing</b>	<b>DDFC</b>	Traffic uses the crossing with an electronic number plate recognition charging system, avoiding the need to stop to pay.
<b>Deadweight Tonnage</b>	<b>DWT</b>	A measure of how much weight a ship is carrying or can safely carry.
<b>Decibel</b>	<b>dB</b>	The unit of measurement used for sound pressure levels and noise levels.
<b>Deneholes</b>		An underground structure consisting of a number of small chalk caves entered by a vertical shaft.
<b>Department of Energy and Climate Change</b>	<b>DECC</b>	The UK Government department formerly responsible for (among other things) energy and climate change issues, including the security of the UK's energy supplies. These functions have now been transferred to BEIS.
<b>Department for Business, Energy and Industrial Strategy</b>	<b>BEIS</b>	A department of the UK government, with responsibility for business, industrial strategy, and science and innovation with energy and climate change policy.
<b>Department for Communities and Local Government</b>	<b>DCLG</b>	The former name of the Ministry of Housing, Communities and Local Government, now the Department for Levelling Up, Housing and Communities.
<b>Department for Environment, Food and Rural Affairs</b>	<b>Defra</b>	The government department responsible for environmental protection, food production and standards, agriculture, fisheries and rural communities in the UK.
<b>Department for Levelling Up, Housing and Communities</b>	<b>DLUHC</b>	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.
<b>Department for Transport</b>	<b>DfT</b>	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.
<b>Deposit model</b>		Mapping of the underlying geology of an area, identifying the differing character of deposits.
<b>Deposition (dust)</b>		The settlement of a substance (e.g. dust) on a surface or the ground.
<b>Deposition (sediment)</b>		The laying down of part, or all, of the sediment load of a stream on the bed, banks or floodplain which forms various sediment features such as bars, berms and floodplain deposits.

Term	Abbreviation	Explanation
<b>Design Refinement Consultation</b>		An additional non-statutory consultation for the Project, held between July and August 2020 on further revisions to the Statutory Consultation and Supplementary Consultation proposals.
<b>Design Manual for Roads and Bridges</b>	<b>DMRB</b>	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.
<b>Design, Build, Finance, Operate</b>	<b>DBFO</b>	A way of creating 'public-private partnerships' (PPPs) by funding public infrastructure projects with private capital.
<b>Designated landscape</b>		Area(s) of land identified as being of importance at international, national or local levels, either defined by statute or identified in development plan or other documents.
<b>Designated sites</b>		Areas of interest which have been afforded a designation in recognition of the features within the site. These features may relate to habitats, water bodies, landscape or geology.
<b>Desk-based assessment</b>	<b>DBA</b>	An assessment based on review of existing data such as books and other publications, online sources, datasets.
<b>Detailed Archaeological Mitigation Strategy</b>	<b>DAMS</b>	Detailed archaeological mitigation strategy, accompanying an Overarching Written Scheme of Investigation (OWSI). Together these set out the scope, guiding principles and methods for the planning and implementation of essential archaeological mitigation.
<b>Detailed Quantitative Risk Assessment</b>	<b>DQRA</b>	Tier 3 of the risk assessment process according to LCRM guidance on the assessment of land contamination. A DQRA uses detailed site-specific information to estimate risk.
<b>Development</b>		Any proposal that results in a change to the landscape and/or visual environment.
<b>Development Consent Order</b>	<b>DCO</b>	Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.
<b>Development Consent Order application</b>	<b>DCO application</b>	The Project Application Documents, collectively known as the 'DCO application'.
<b>Diffusion tubes</b>		A passive sampler used to measure long-term average concentrations of air pollutants, typically nitrogen dioxide.
<b>Digital Surface Model</b>	<b>DSM</b>	A digital model which represents the earth's surface and includes all objects on it, including vegetation and features, such as buildings and roads.

Term	Abbreviation	Explanation
<b>Digital Terrain Model</b>	<b>DTM</b>	A bare-earth model that contains elevations of natural terrain features such as ridge tops and river valleys. Elevations of vegetation and features, such as buildings and roads, are digitally removed.
<b>Direct (or Primary) Impacts</b>		Impacts caused by activities which are an integral part of the Project resulting in a change in environmental conditions, for example loss of a hedgerow.
<b>Disbenefit</b>		A negative benefit.
<b>Dispersion modelling</b>		The mathematical simulation of how air pollutants disperse in the ambient atmosphere. A dispersion model is used to estimate or predict the downwind concentration of air pollutants emitted from sources such as industrial facilities or road traffic.
<b>Dissolved Organic Carbon</b>	<b>DOC</b>	n/a
<b>Dissolved oxygen</b>	<b>DO</b>	The amount of oxygen that is present in the water.
<b>Distributional Impact (transport)</b>	<b>DI</b>	These consider the variance of transport intervention impacts across different social groups. The appraisal of DIs is mandatory in the appraisal process and is a constituent of the Appraisal Summary Table (AST).
<b>Distributional Impact Appraisal</b>	<b>DIA</b>	n/a
<b>District Valuer Services</b>	<b>DVS</b>	The specialist property arm of the Valuation Office Agency (VOA). They provide independent, impartial, valuation and professional property advice across the entire public sector, and where public money or public functions are involved.
<b>Diversion route</b>		A set of approved routes to follow in case of closure of motorway/major A-roads.
<b>Do minimum</b>		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.
<b>Do something</b>		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.
<b>Drawdown</b>		A change in head or water level relative to background condition.
<b>Drinking Water Standards</b>	<b>DWSs</b>	Standards for a wide range of substances, organisms and properties of water as set by the European Drinking Water Directive (98/83/EC) and national standards in order to protect public health.
<b>Dual two-lane all-purpose road</b>	<b>D2AP</b>	A road that has four traffic lanes, with two lanes in each direction. An all-purpose road is available for all types of traffic.
<b>Dual three-lane all-purpose road</b>	<b>D3AP</b>	A road that has six traffic lanes, with three lanes in each direction. An all-purpose road is available for all types of traffic.

Term	Abbreviation	Explanation
<b>Dubai Ports World</b>	<b>DP World</b>	Dubai Ports World, London Gateway Port.
<b>Duplicate Sample</b>		A sample taken for quality assurance purposes. A duplicate sample is a sample which is obtained from the same location and depth, at the same time and on the same day, and via the same sampling method as the original or 'parent' sample.
<b>Duty of Care</b>		Duty of Care requirements apply under Section 34 of the Environmental Protection Act 1990 and require legal and compliant waste management services to be arranged, including the review of transfer of non-hazardous or hazardous waste.
<b>DVS Property Specialists</b>	<b>DVS</b>	The specialist property arm of the Valuation Office Agency (VOA).
<b>Dynamic clustering</b>		In traffic and economics assessment, benefits which come when firms and/or people locate near one another in geographical clusters by changing their spatial location
<b>East London Highway Assignment Model</b>	<b>ELHAM</b>	One of five sub-regional predictive transport models developed on behalf of TfL.
<b>East London Waste Authority</b>	<b>ELWA</b>	A Statutory Waste Disposal Authority (WDA) established on 1 January 1986. Responsible for the disposal of waste collected by the London Boroughs of Barking & Dagenham, Havering, Newham and Redbridge.
<b>East of England Forecasting Model</b>	<b>EEFM</b>	A model developed by Oxford Economics which can forecast future economic, demographic and housing trends, and allow users to produce theoretical scenarios under which the impacts can be monitored. It provides economic, demographic and housing forecasts for the East of England and its constituent local authorities.
<b>Eastbound</b>	<b>EB</b>	Direction of travel.
<b>East Tilbury Jetty at Goshem's Farm</b>		The larger of the two existing jetties at Goshem's Farm, East Tilbury, Essex.
<b>Eastern Southern Link</b>	<b>ESL</b>	A route alignment considered during route options assessment. The route would connect into junction 1 of the M2 and would pass to the east of Shorne and then north-west towards Church Lane and Lower Higham Road.
<b>Ecological Clerks of Work</b>	<b>ECoW</b>	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.
<b>Ecological status</b>		The overall ecological status assessed by a number of different quality elements (biological, physico-chemical and hydromorphological) that represent indicators of the overall quality of the water body.
<b>Effect</b>		Term used to express the consequence of an impact (expressed as the 'significance of effect').

Term	Abbreviation	Explanation
<b>Electric and Magnetic Fields</b>	<b>EMFs</b>	An area of moving electric charges that arise whenever electrical energy is used. These fields can come from natural sources such as thunderstorms, or they may be generated by human activity such as the use of electrical power and lighting.
<b>Electric vehicle</b>	<b>EV</b>	n/a
<b>Embedded mitigation</b>		Measures that form part of the engineering design of the Project, developed through an iterative design process.
<b>Embodied carbon</b>		The total greenhouse gas (GHG) emissions generated to produce a built asset. This includes emissions caused by extraction, manufacture/processing, transportation and assembly of every product and element in the asset.
<b>Emergency Area</b>	<b>EA</b>	On roads for use in emergency or breakdown only, located approximately every 800m and separated from the main carriageway.
<b>Emergency Roadside Telephones</b>	<b>ERT</b>	Telephones used to connect motorists who require assistance in an emergency.
<b>Emissions Factors Toolkit</b>	<b>EFT</b>	The 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.
<b>Enabling works</b>		Activities and preparations required to make a site construction ready for the main works to proceed, such as creation of access routes, and installation of security fencing, hoarding, signage and site compound(s). Enabling works are considered to form part of the construction phase.
<b>Enclosure</b>		A cultural heritage term for any area of land separated from surrounding land by earthworks, walls or fencing.
<b>Engagement and Communications Plan</b>	<b>ECP</b>	n/a
<b>England Coast Path</b>	<b>ECP</b>	A proposed long-distance National Trail which will follow the coastline of England. When complete, it will be 2,795 miles in length.
<b>Enhancement</b>		A beneficial measure that is over and above what is required to mitigate the adverse effects of a project.
<b>Environment Agency</b>	<b>EA</b>	A non-departmental public body of Defra, established under the Environment Act 1995. It is the leading public body for protecting and improving the environment in England and Wales. The organisation is responsible for wide-ranging matters, including the management of all forms of flood risk, water resources, water quality, waste regulation, pollution control, inland fisheries, recreation, conservation and navigation of inland waterways.

Term	Abbreviation	Explanation
<b>Environmental Clerk of Works</b>	<b>EnvCoW</b>	A key role providing advice on environmental issues during construction-related activities. Typical issues include pollution, surface water management, material management, air quality and noise.
<b>Environmental DNA</b>	<b>eDNA</b>	DNA collected from a variety of environmental samples such as soil, seawater, snow or even air rather than directly sampled from an individual organism. eDNA analysis was approved by Natural England (NE) in 2014 for the determination of great crested newt (GCN) presence or absence.
<b>Environmental Impact Assessment</b>	<b>EIA</b>	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 in an Environmental Statement.
<b>Environmental Lighting Zone</b>		A qualitative judgement on the night-time environment of a specific area based on Guidance Note 01/21 – The Reduction of Obtrusive Light (Institution of Lighting Professionals, 2021).
<b>Environmental Management Plan</b>	<b>EMP</b>	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.
<b>Environmental Masterplan</b>		A package of information on existing and future environmental commitments and objectives, ongoing actions and risks to be managed, handed over to those responsible for future management and operation of the asset. The Environmental Masterplan for the Project is provided as Figure 2.4 (Application Document 6.2) of the ES.
<b>Environmental Noise Directive</b>	<b>END</b>	An EU Directive (2002/49/EC) to give information to the public about the noise levels in their living environment, and to assess and manage environmental noise.
<b>Environmental Noise Directive quiet area</b>		A location formally designated as a 'quiet area' under the END, requiring local authorities to take measures to preserve their quietness and allowing them to refuse or impose conditions on development.
<b>Environmental Permit</b>		A permit required under the Environmental Permitting (England and Wales) Regulations 2016 for carrying out regulated activities.
<b>Environmental Permitting (England and Wales) Regulations 2016 (as amended)</b>	<b>EPR</b>	n/a

Term	Abbreviation	Explanation
<b>Environmental Quality Standard</b>	<b>EQS</b>	The standards set out in the Environmental Quality Standards Directive (2008/105/EC) which concern the presence in surface water of certain pollutants and substances or groups of substances identified as priority or 'priority hazardous', on account of the substantial risk they pose to or via the aquatic environment.
<b>Environmental Quality Standards Directive</b>		Directive 2008/105/EC, which sets out environmental quality standards concerning the presence in surface water of certain pollutants and substances or groups of substances identified as priority or 'priority hazardous', on account of the substantial risk they pose to or via the aquatic environment. Priority substances are defined by the Water Framework Directive (Directive 2000/60/EC).
<b>Environmental Statement</b>	<b>ES</b>	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.
<b>Equilibre Multimodal, Multimodal Equilibrium</b>	<b>EMME</b>	A complete travel demand modelling system for urban, regional and national transportation forecasting.
<b>Erosion</b>		Removal of sediment or bedrock from the bed or banks of the channel by flowing water. Mostly occurs during high flows and flood events. Forms various river features such as scour holes and steep outer banks.
<b>Estuary</b>		Downstream part of a river, where it widens to enter the sea.
<b>Essential mitigation</b>		Any Project-specific measures proposed in the ES to avoid, reduce or offset potential impacts that could otherwise result in effects considered to be significant in the context of the EIA Regulations. Essential mitigation is additional to the measures incorporated into the Project design ('embedded mitigation') and to good practice mitigation.
<b>Essex Biodiversity Action Plan</b>	<b>EBAP</b>	The county of Essex BAP.
<b>Essex Place Services</b>	<b>EPS</b>	A public sector provider of integrated environmental assessment, planning, design and management services.
<b>Essex Red Data List</b>	<b>ERDL</b>	Refer to description under 'Red Data Book'.
<b>Essex Wildlife Trust</b>	<b>EWT</b>	A conservation charity with the aim of protecting wildlife for the future and for the people of Essex.
<b>Essex Wildlife Trust Biological Records Centre</b>	<b>EWTBRC</b>	A Trust which collates and manages data collected by their staff, volunteers and members, to help promote evidence based conservation and land management in Essex.
<b>Euro 6/VI vehicles</b>		Vehicles that meet the latest European emission standards (Euro 6/VI) set for harmful exhaust gas and particulate emissions.

Term	Abbreviation	Explanation
<b>European Commission</b>	<b>EC</b>	The executive body of the European Union responsible for proposing legislation, enforcing European law, setting objectives and priorities for action, negotiating trade agreements and managing and implementing European Union policies and the budget.
<b>European Protected Species</b>	<b>EPS</b>	Animals and plants listed under the EU Habitats Directive and protected under the Conservation of Habitats and Species Regulations 2010 (as amended).
<b>European Protected Species Licence</b>	<b>EPSL</b>	The licence issued to permit an activity affecting European Protected Species which would otherwise be an offence under the Conservation of Habitats and Species Regulations 2010 (as amended).
<b>European Union</b>	<b>EU</b>	A politico-economic union of 27 member states that are located primarily in Europe.
<b>Examination</b>		A stage of no more than six months, during which the Examining Authority examines an application for a Development Consent Order, having regard to written and oral submissions made by Interested Parties.
<b>Examining Authority</b>		The Examining Authority is appointed by the Secretary of State to examine an application for a Development Consent Order and make a recommendation.
<b>Excavation (archaeological)</b>		A programme of controlled, intrusive fieldwork which examines and records archaeological deposits, features and structures and retrieves artefacts and ecofacts and other remains within a specified area.
<b>Facade sound level</b>		Sound level that is determined 1 metre (m) in front of a window or door in a facade.
<b>False cutting</b>		A means of screening a linear feature such as a road or railway by forming embankments on both sides of the feature.
<b>Fastrack</b>		A bus rapid transit scheme operating in the Thames Gateway area of Kent, operated by Arriva Southern Counties.
<b>Fatalities and Weighted Injuries</b>	<b>FWI</b>	A statistical measurement of all non-fatal injuries, with non-fatal injuries added up using a weighting factor to produce a total number of 'fatality equivalents'.
<b>Fauna</b>		The animals of a particular region and/or habitat.
<b>Ferrovial Laing O'Rourke</b>	<b>FLO</b>	A joint venture between Ferrovial and Laing O'Rourke.
<b>Field Blank</b>		A blank or 'clean' sample taken for quality assurance purposes and created in the field by the sampler.
<b>Findspot</b>		The place where an archaeological object has been found.
<b>Fissures</b>		A long, narrow crack opening along the surface of Earth.



Term	Abbreviation	Explanation
<b>Fleet Operator Recognition Scheme</b>	<b>FORS</b>	A voluntary accreditation scheme for fleet operators which aims to raise the level of quality within fleet operations and to demonstrate which operators are achieving exemplary levels of best practice in safety, efficiency and environmental protection.
<b>Flood Risk Assessment</b>	<b>FRA</b>	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.
<b>Flood Storage Area</b>	<b>FSA</b>	A natural or man-made area basin that temporarily fills with water during periods of high river levels.
<b>Flood Zone 1</b>	<b>FZ1</b>	Land having a less than 1 in 1,000 (<0.1%) annual probability of river or sea flooding.
<b>Flood Zone 2</b>	<b>FZ2</b>	Land categorised by the Environment Agency as having between a 1 in 100 (1%) and 1 in 1,000 (0.1%) annual probability of river flooding; or land having between a 1 in 200 (0.5%) and 1 in 1,000 (0.1%) annual probability of sea flooding.
<b>Flood Zone 3</b>	<b>FZ3</b>	Land categorised by the Environment Agency. Split into two separate sub-categories by local planning authorities: 3a and 3b. However, the Environment Agency does not use these sub-categories on its mapping:  Flood Zone 3a: Land having a 1 in 100 (1%) or greater annual probability of river flooding; or land having a 1 in 200 (0.5%) or greater annual probability of sea flooding.  Flood Zone 3b: Land where water has to flow or be stored in times of flood, classified as 'functional floodplain'. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency.
<b>Flora</b>		The plants of a habitat within a particular region.
<b>Fluvial</b>		Of, relating to, or living in a stream or river.
<b>Footpath</b>	<b>FP</b>	n/a
<b>Footpath 79</b>	<b>FP79</b>	Public footpath FP79 would be realigned and resurfaced as part of the Project, and cross over the new A122 Lower Thames Crossing on a new bridge. FP79 would be resurfaced and designated as a bridleway.
<b>Free-field (noise)</b>		An environment in which there are no reflective surfaces within the frequency region of interest.
<b>Freeboard</b>		An allowance to account for uncertainties involved in flood estimation, and other physical factors that vary between sites such as post-construction settlement or wave action.

Term	Abbreviation	Explanation
<b>Frequency</b>		Sound consists of vibrations transmitted to the ear as rapid variations in air pressure. The more rapid the variations in air pressure, the higher the frequency of the sound. Frequency is defined as the number of pressure fluctuations per second and is expressed in Hertz (Hz).
<b>Future baseline</b>		The situation and conditions that would prevail should a proposed development not proceed. Predicted impacts are compared against this theoretical scenario.
<b>General Practitioner</b>	<b>GP</b>	A medical doctor who treats acute and chronic illnesses and provides preventive care and health education to patients.
<b>Generic Assessment Criteria</b>	<b>GAC</b>	Parameter values, such as substance concentrations, defined based on generic assumptions (i.e., non-site-specific) for the quantitative assessment of risk. Concentrations below a GAC typically present a low or minimal risk to the receptor(s) which they are defined as protective of.
<b>Generic Quantitative Risk Assessment</b>	<b>GQRA</b>	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.
<b>Geographic Information System</b>	<b>GIS</b>	An integrated collection of computer software and data used to view and manage information about geographic places, analyse spatial relationships and model spatial processes.
<b>Global Positioning System</b>	<b>GPS</b>	A global navigation satellite system that provides geolocation and time information to a GPS receiver anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.
<b>Good chemical status</b>		A status for a water body when concentrations of pollutants do not exceed the EQSs established in Annex IX and under Article 16(7) of the Water Framework Directive (2000/60/EC) for surface waters and Table 2.3.2 of Annex V for groundwater.
<b>Good ecological potential</b>		A Water Framework Directive term, describing the degree to which the quality of the water body's aquatic ecosystem approaches the maximum it could achieve, given the heavily modified and artificial characteristics of the water body. There are five ecological potential classes: maximum, good, moderate, poor and bad.
<b>Good ecological status</b>		A Water Framework Directive term, denoting a slight deviation from 'reference conditions' in a water body, or the hydromorphological, chemical/physico-chemical and biological conditions associated with little or no human pressure.
<b>Good practice</b>		In the context of the Project, standard approaches and actions commonly used to avoid or reduce environmental impacts of infrastructure development. These are typically applicable across the whole Project.

Term	Abbreviation	Explanation
<b>Gravesend link</b>		Section of the Project between the proposed M2/A2/A122 Lower Thames Crossing junction and the South Portal.
<b>Gravesham Borough Council</b>	<b>GBC</b>	n/a
<b>Great crested newt</b>	<b>GCN</b>	A European protected species. The animals and their eggs, breeding sites and resting places are protected by law.
<b>Greater London Archaeological Advisory Service</b>	<b>GLAAS</b>	Part of Historic England's London Local Office, providing advice for the whole of Greater London, with the exception of the City of London and the London Borough of Southwark who have their own archaeological planning advisers.
<b>Green Belt</b>		A policy and land use zone designation used in land use planning to retain areas of undeveloped land surrounding urban areas.
<b>Green bridges</b>		Bridges over linear infrastructure projects like roads and railways, constructed to enable safe crossing by animals, reducing severance.
<b>Green Infrastructure</b>		A strategically planned and delivered network comprising high-quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering environmental and quality of life benefits. Its design and management should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types.
<b>Green Lane</b>		Green Lane is a bridleway and private means of access. Realignment is proposed northwards of Green Lane and construction of a new green bridge as part of the Project to carry the realigned Green Lane over the new A122 Lower Thames Crossing road.
<b>Greenhouse gas</b>	<b>GHG</b>	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.
<b>Greenhouse gas inventory</b>	<b>GHG inventory</b>	An atmospheric emission inventory. May be used for a variety of purposes, such as when developing atmospheric models, preparing strategies or policies, and to monitor changes.
<b>Greenhouse gas returns</b>		Estimated GHG emissions from specific activities.
<b>Gross Domestic Product</b>	<b>GDP</b>	Total value of all goods and services produced within an economy in one year.
<b>Gross Value Added</b>	<b>GVA</b>	The measure of the value of goods and services produced in an area, industry or sector of an economy.
<b>Ground-borne noise</b>		Noise as a result of ground vibration (resonance) at audible frequencies (from about 30 Hz to about 200 Hz).
<b>Ground-borne vibration</b>		Oscillatory waves that propagate from the source through the ground to the receiver.

Term	Abbreviation	Explanation
<b>Ground investigation</b>	<b>GI</b>	Several levels of investigation, from desk-based research to onsite sampling to evaluate challenges related to soil/ground.
<b>Ground Investigations Report</b>	<b>GIR</b>	A report detailing the results of ground investigations.
<b>Ground protection tunnel</b>		A small (approx. 5m diameter) tunnel installed from Milton compound to Lower Higham Road compound on the centre line of the main tunnel drives but at a higher vertical alignment. This tunnel is to allow the introduction of stabilisation materials (grouts and other cementitious material) into the river terrace gravels and alluvial materials from below ground.
<b>Groundwater</b>		Water below ground level.
<b>Groundwater body</b>		A distinct volume of groundwater within an aquifer.
<b>Groundwater Dependent Terrestrial Ecosystems</b>	<b>GWDTE</b>	A wetland that critically depends on groundwater flows and chemistries to support sensitive ecosystems.
<b>Groundwater status</b>		A Water Framework Directive (WFD) status of a body of groundwater, determined by the poorer of its quantitative status and its chemical status.
<b>Guidelines for Landscape and Visual Impact Assessment</b>	<b>GLVIA</b>	Assessment guidelines issued by the Landscape Institute (version 3: GLVIA3).
<b>H++ climate change scenario</b>		H++ scenarios are 'high-end' climate change scenarios, which are typically extreme scenarios on the margins or outside of the 10 <sup>th</sup> to 90 <sup>th</sup> percentile range presented in the UK Climate Change Projections 2009 (also known as 'UKCP09').
<b>H++ climate change assessment allowances</b>		Predictions of the anticipated extreme climate change for peak river flow uplift, peak rainfall intensity, sea level rise and offshore wind speed and extreme wave height.
<b>Habitat</b>		The natural home or environment of an animal, plant, or other organism.
<b>Habitat of principal importance</b>	<b>HoPI</b>	Habitats listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, considered to be the UK's most important habitats for wildlife.
<b>Habitat Suitability Index</b>	<b>HSI</b>	A technique used for evaluating the suitability of habitats for specific species of wildlife in order to assess the likelihood of their presence or absence.
<b>Habitats Regulations Assessment</b>	<b>HRA</b>	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.

Term	Abbreviation	Explanation
<b>Halcrow Hyder Joint Venture</b>	<b>HHJV</b>	n/a
<b>Halfpence Lane roundabout</b>		A roundabout junction between Halfpence Lane, Brewers Road, and local road between Halfpence roundabout and Henhurst Road.
<b>Hanson UK</b>	<b>HANSON</b>	Part of the Heidelberg Cement Group.
<b>Haul road/route</b>		Temporary routes used during construction by construction vehicles.
<b>Hazardous loads</b>		A dangerous good (also known as hazardous material or hazmat) is any substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce.
<b>Hazardous waste</b>		Waste which contains substances or has properties that might make it harmful to human health or the environment. Hazardous waste is currently defined in the Hazardous Waste List incorporated in the European Waste Catalogue (2001) and is regulated in England under the Hazardous Waste (England and Wales) Regulations 2005.
<b>Head (groundwater)</b>		In fluid dynamics, head is a concept that relates the energy in an incompressible fluid to the height of an equivalent static column of that fluid.
<b>Health and Equalities Impact Assessment</b>	<b>HEqIA</b>	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.
<b>Heavy Duty Vehicle</b>	<b>HDV</b>	Freight vehicles of more than 3.5 tonnes (e.g. lorries) or passenger transport vehicles of more than 8 seats (e.g. buses).
<b>Heavy Goods Vehicle</b>	<b>HGV</b>	A large, heavy motor vehicle used for transporting cargo.
<b>Hectare(s)</b>	<b>ha</b>	An SI unit of area primarily used in the measurement of land as a metric replacement for the imperial acre. An acre is about 0.405ha and 1ha is about 2.47 acres.
<b>His Majesty's Treasury</b>	<b>HMT</b>	The UK government's economic and finance ministry, which maintains control over public spending, setting the direction of the UK's economic policy.
<b>Heritage asset</b>		A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).
<b>Hertz</b>	<b>Hz</b>	Unit of frequency.

Term	Abbreviation	Explanation
<b>High-density polyethylene</b>	<b>HDPE</b>	HDPE is a thermoplastic polymer with a high strength-to-density ratio. HDPE is used to produce plastic bottles, corrosion-resistant piping, geomembranes and plastic lumber.
<b>High ecological status</b>		A Water Framework Directive term used for natural water bodies denoting only very minor or no deviation from undisturbed 'natural reference conditions' in a water body, for hydromorphological, physico-chemical and biological quality elements.
<b>High Growth Scenarios</b>		A scenario that reflects high traffic levels.
<b>High House Lane</b>		As part of the Project, High House Lane would be stopped up where it crosses the new A122 Lower Thames Crossing. High House Lane (south) would be realigned to join Brentwood Road south of the A122 Lower Thames Crossing. A bridleway would be created along the realigned section of High House Lane (south), to replace footpath FP78.
<b>High Speed 1</b>	<b>HS1</b>	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.
<b>Higher Level Stewardship</b>	<b>HLS</b>	n/a
<b>Highways Agency</b>	<b>HA</b>	Precursor to Highways England. No longer exists but still mentioned in reference to previous projects or in older documents.
<b>Highways England</b>	<b>HE</b>	Former name of National Highways.
<b>Highways England Digital Enforcement Camera System</b>	<b>HADECS</b>	A spot speed enforcement system used by National Highways in areas of Variable Mandatory Speed Limit. It can also enforce the use of signals displaying the Red-X symbol to close traffic lanes.
<b>Highways England Drainage Data Management System</b>	<b>HEDDMS</b>	A database recording the location and condition and existing highway drainage assets, including culverts and outfalls.
<b>Highways England Geotechnical Data Management System</b>	<b>HEGDMS</b>	A web-based Geographical Information System developed for the purpose of managing National Highways' Geotechnical Assets.
<b>Highways England Journey Time Database</b>	<b>HETRIS</b>	n/a
<b>Highways England Water Risk Assessment Tool</b>	<b>HEWRAT</b>	A spreadsheet tool that allows assessment of the effects of discharges of routine highways drainage on the water quality of receiving surface and groundwater bodies, as well as the assessment of pollution risk associated with a spillage.
<b>National Highways Network Development Directorate</b>	<b>NDD</b>	n/a

<b>Term</b>	<b>Abbreviation</b>	<b>Explanation</b>
<b>National Highways Professional and Technical Services Division</b>	<b>PTSD</b>	n/a
<b>Historic England</b>		The public body that looks after England's historic environment. An executive non-departmental public body of the UK Government sponsored by the Department for Digital, Culture, Media and Sport, and the Government's advisor on heritage.
<b>Historic Environment Record</b>	<b>HER</b>	A primary source of information for planning, development control and land management. Provides information on the archaeology, built heritage and history of an area.
<b>Historic landfill</b>		Sites where records of waste being received to be buried are now closed, meaning there is no Pollution Prevention and Control (PPC) permit or waste management licence in force. This also applies to landfills which had no permit to operate in the first instance, such as those which operated before the Control of Pollution Act 1974.
<b>Historic Landscape Characterisation</b>	<b>HLC</b>	The identification and interpretation of the history of the present-day landscape or townscape within a given area.
<b>Historic Landscape Type</b>	<b>HLT</b>	Landscape parcels with a common character such as land use or field pattern.
<b>Historic Land Use</b>	<b>HLU</b>	n/a
<b>Historical Land Use Data</b>	<b>HLUD</b>	Datasets captured by Landmark which have been sourced from Ordnance Survey historical mapping.
<b>Hoford Road</b>		Hoford Road is a road that is subject to a prohibition of driving order. As part of the Project, Hoford Road would be realigned southwards, with a new green bridge provided to carry the realigned Hoford Road over the new A122 Lower Thames Crossing.
<b>HoleBASE</b>		Geotechnical data knowledge management system.
<b>Holocene</b>		The warm climatic stage that has continued since the end of the last glacial (the Devensian) approximately 11,700 years ago up to the present day.
<b>Hour</b>	<b>hr</b>	Unit of time.
<b>Hydraulic gradient</b>		A measure of the change in groundwater head over a given distance.

Term	Abbreviation	Explanation
<b>Hydraulic head</b>		Hydraulic head (or 'piezometric head') is a measurement of liquid pressure above a vertical datum. It is usually measured as a liquid surface elevation, expressed in units of length, at the entrance (or bottom) of a piezometer. In an aquifer, it can be calculated from the depth to water in a piezometric well (a specialized water well), and given information of the piezometer's elevation and screen depth. The hydraulic head can be used to determine a hydraulic gradient between two or more points.
<b>Hydrocarbons</b>		A compound of hydrogen and carbon, such as any of those which are the chief components of petroleum and natural gas.
<b>Hydrofluorocarbons</b>	<b>HFCs</b>	Organic compounds that contain fluorine and hydrogen. Primarily used for cooling and refrigeration.
<b>Hydrogeological Risk Assessment</b>		An assessment to characterise the risks of a project causing adverse effect on groundwater resources, in terms of water quality and quantitative status.
<b>Hydrogeology</b>		Study of the distribution and movement of groundwater.
<b>Hydrology</b>		The properties of surface water, especially its movement in relation to the land.
<b>Hydromorphological quality element</b>		Parameters that define the hydrology and geomorphology of coastal and fluvial waters. Examples for coastal include intertidal zone structure and wave exposure and, for fluvial include the riparian zone and structure of the bed and banks.
<b>Hydromorphology</b>		The physical character and water content of water bodies, including factors such as flow processes, sediment movement, channel bed and bank form and function, floodplains and downstream and catchment connectivity.
<b>Ichthyoplankton</b>		Early life stages of fish present within marine plankton.
<b>Igneous rock</b>		Rock formed from the cooling and solidification of magma or lava.
<b>Immersed Tunnel</b>	<b>IT</b>	A shallow depth tunnel with the top of the finished tunnel structure lying just below the riverbed.
<b>Important Ecological Features</b>		A term established in CIEEM guidelines for ecological features requiring specific assessment. These can be important for a variety of reasons (e.g. quality and extent of designated sites or habitats, habitat/species rarity).
<b>Important Hedgerow</b>		A hedgerow defined as being important under the Hedgerows Regulations 1997, which meets certain criteria relating to its particular archaeological, historical, wildlife or landscape value.
<b>Improved A1089</b>		Improvement works proposed to the existing A1089 dual carriageway.
<b>Improved A13</b>		Improvement works proposed to the existing A13 dual carriageway.



Term	Abbreviation	Explanation
<b>Improved A2</b>		A section of the A2 immediately to the west of M2/A2/A122 Lower Thames Crossing junction and for approximately 2 miles (3.5km) to the east would be rebuilt as part of the Project. The A2 would remain as four lanes in both directions. Two new two-lane link roads would be provided north and south of the A2, connecting to the existing A289 and the old A2 at the eastern end.
<b>Improved M25</b>		Improvement works proposed to the M25 between the A122 Lower Thames Crossing/M25 junction and junction 29. A short section of the M25 would be reduced from four lanes to three lanes.
<b>Index of Multiple Deprivation</b>	<b>IMD</b>	Official measure of relative deprivation for 32,844 small census areas in England. A rank of 1 is the most deprived area.
<b>Indices of Deprivation</b>	<b>IoD</b>	A measure of the relative levels of deprivation. In England this considers 32,844 small areas or neighbourhoods, called Lower Layer Super Output Areas. The IoD 2019 is based on 39 separate indicators, organised across seven distinct domains of deprivation; these relate to income, employment, education, health, crime, living environment and barriers to housing and services.
<b>Indirect (or secondary) impacts</b>		Impacts due to activities that affect an environmental condition or receptor, which in turn affects other aspects of the environment or receptors, for example settlement of a feature as a result of dewatering during construction.
<b>Inert waste</b>		Waste that is not chemically reactive and does not undergo any significant physical, chemical or biological transformations. The current definition of inert waste is described in Regulation 7(4) of the Landfill Regulations 2002. Inert wastes are effectively non-hazardous wastes (in accordance with the European Waste Catalogue (2001)) which meet the requirements of Inert Waste Acceptance Criteria (WAC) limits and therefore can be landfilled at an inert waste landfill.
<b>Infrastructure Planning (Environmental Impact Assessment) Regulations 2017</b>	<b>EIA Regulations</b>	The EIA Regulations transpose amendments to Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment which were made by Directive 2014/52/EU. They implement the requirements for environmental impact assessment (EIA) procedures in the context of the nationally significant infrastructure regime in England and Wales.
<b>Ingrebourne Valley Ltd</b>	<b>IVL</b>	A land reclamation and restoration company in the south-east of England.
<b>Institute of Air Quality Management</b>	<b>IAQM</b>	A professional body for air quality professionals.

Term	Abbreviation	Explanation
<b>Institute of Environmental Management and Assessment</b>	<b>IEMA</b>	A professional body for environmental and sustainability professionals.
<b>Institution of Civil Engineers</b>	<b>ICE</b>	A representative organisational body for professional civil engineers.
<b>Intelligent Transportation System</b>	<b>ITS</b>	Advanced applications which aim to provide innovative services relating to different modes of transport and traffic management and enable various users to be better informed and make safer, more coordinated and 'smarter' use of transport networks.
<b>Interceptor</b>		Part of a wastewater treatment system that collects substances such as silt, grit and soil, as well as traces of oil and fuel prior to discharge or further treatment.
<b>Intergovernmental Panel on Climate Change</b>	<b>IPCC</b>	The international body for assessing the science related to climate change.
<b>Interim Advice Notice</b>	<b>IAN</b>	Issued by National Highways. They contain specific guidance, which should only be used in connection with works on motorways and trunk roads in England.
<b>International Commission on Non-Ionizing Radiation Protection</b>	<b>ICNIRP</b>	The International Commission on Non-Ionizing Radiation Protection (ICNIRP) aims to protect people and the environment against adverse effects of non-ionizing radiation. ICNIRP develops and disseminates science-based advice on limiting exposure to non-ionizing radiation.
<b>International Council for the Exploration of the Sea</b>	<b>ICES</b>	An intergovernmental organisation which delivers scientific publications, information and management advice requested by member countries, international organisations and commissions.
<b>International Organization for Standardisation</b>	<b>ISO</b>	An international standard setting organisation, composed of a network of national standards bodies.
<b>International Union for Conservation for Nature</b>	<b>IUCN</b>	The global authority on the status of the natural world and the measures needed to safeguard it.
<b>Internet Protocol</b>	<b>IP</b>	A set of rules governing the format of data sent over the Internet or other network.
<b>Inter-peak</b>	<b>IP</b>	An average hour within the Lower Thames transport model (LTAM) to represent an hour within the period 09:00–15:00.
<b>Inter-project effects</b>		The combined action of a number of different projects, in combination with the project being assessed, on a resource/ receptor.
<b>Intertidal zone</b>		The areas between the high and low tide marks. Rocky shores, mudflats and sandy beaches fall within this area (part of seabed).
<b>Intra-project effects</b>		The combined action of a number of different environmental topic specific effects upon on a resource/ receptor.
<b>Invasive Non-Native Species</b>	<b>INNS</b>	Non-native UK species of fauna and flora that are invasive e.g. Japanese Knotweed.
<b>Inventory of Carbon &amp; Energy</b>	<b>ICE</b>	A free embodied energy and embodied carbon database for materials.

Term	Abbreviation	Explanation
<b>Invertebrates</b>		Animals without backbones.
<b>Iron Age</b>		Period of human history when the use of iron became widespread. In Britain it begins around 800 BC and ends in AD 43 with the Roman invasion. The Iron Age was longer in Scotland, which was not conquered by the Romans.
<b>Jacked box tunnelling</b>		A method of construction that enables engineers to create underground space at shallow depth in a manner that avoids disruption of valuable infrastructure and reduces impact on the human environment.
<b>Joint Nature Conservation Committee</b>	<b>JNCC</b>	The public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation.
<b>Kent and Medway Biological Records Centre</b>	<b>KMBRC</b>	A charitable organisation which aims to collect, collate and disseminate information about the wildlife species and habitats found within the county.
<b>Kent and Medway Economic Partnership</b>	<b>KMEP</b>	An economic partnership for Kent and Medway which aims to drive forward economic growth and prosperity throughout the region.
<b>Kent County Council</b>	<b>KCC</b>	n/a
<b>Key characteristics (landscape)</b>		The combination of elements that are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
<b>Kilograms of nitrogen per hectare per year</b>	<b>Kg N/ha/yr</b>	The principal unit of measurement of nitrogen deposition (may also be written as Kg N ha <sup>-1</sup> yr <sup>-1</sup> ).
<b>Kilometres</b>	<b>km</b>	An SI unit of length, equivalent to a thousand metres.
<b>Kilometres per hour</b>	<b>km/h</b>	An SI unit of speed.
<b>Kilowatt</b>	<b>kW</b>	Unit of electric power.
<b>LA 101 – Introduction to environmental assessment</b>		A Design Manual for Roads and Bridges (DMRB) document setting out the over-arching requirements and principles that form an introduction to the environmental assessment of motorway and all-purpose trunk roads.
<b>LA 102 – Screening projects for Environmental Impact Assessment</b>		A DMRB document setting out the requirements on screening projects for Environmental Impact Assessment.
<b>LA 103 – Scoping projects for environmental assessment</b>		A DMRB document setting out the requirements for scoping motorway and all-purpose trunk road projects for environmental assessment.
<b>LA 104 – Environmental assessment and monitoring</b>		A DMRB document setting out the requirements for environmental assessment of projects, including reporting and monitoring of significant adverse environmental effects.
<b>LA 105 – Air quality</b>		A DMRB document setting out the requirements for assessing and reporting the effects of highway projects on air quality.

Term	Abbreviation	Explanation
<b>LA 106 – Cultural heritage assessment</b>		A DMRB document setting out the requirements for assessing and reporting the effects on cultural heritage as part of the environmental assessment process of construction, operation and maintenance projects.
<b>LA 107 – Landscape and visual effects</b>		A DMRB document setting out the requirements for assessing and reporting the landscape and visual effects of highway projects.
<b>LA 108 – Biodiversity</b>		A DMRB document setting out the requirements for assessing and reporting the effects of highway projects on biodiversity.
<b>LA 109 – Geology and soils</b>		A DMRB document setting out the requirements for assessing and reporting the effects of highway projects on geology and soils.
<b>LA 110 – Material assets and waste</b>		A DMRB document setting out the requirements for assessing and reporting the effects on material assets and waste from the delivery of motorway and all-purpose trunk road projects.
<b>LA 111 – Noise and vibration</b>		A DMRB document setting out the requirements for assessing and reporting the effects of highways noise and vibration from construction, operation and maintenance projects.
<b>LA 112 – Population and human health</b>		A DMRB document setting out the requirements for assessing and reporting the environmental effects on population and health from construction, operation and maintenance of highways projects.
<b>LA 113 – Road drainage and the water environment</b>		A DMRB document setting out the requirements for assessment and management of the impacts that road projects can have on the water environment.
<b>LA 114 – Climate</b>		A DMRB document setting out the requirements for assessing and reporting the effects of climate on highways (climate change resilience and adaptation), and the effect on climate of greenhouse gas from construction, operation and maintenance projects.
<b>LA 115 – Habitat Regulations Assessment</b>		A DMRB document setting out the requirements for assessment and reporting of the implications, from construction, operation and maintenance, of highways and/or roads projects on European sites.
<b>LA 116 – Cultural heritage asset management plans</b>		A DMRB document setting out the requirements to be applied to the identification, recording and management of cultural heritage assets.
<b>LA 120 – Environmental management plans</b>		A DMRB document setting out the requirements for the preparation and implementation of environmental management plans for construction of highways and/or roads projects.
<b>L<sub>A10</sub></b>	<b>L<sub>A10</sub></b>	The A-weighted sound level in dB that is exceeded 10% of the measurement period. This is the standard index used within the UK to describe traffic noise.

Term	Abbreviation	Explanation
<b>L<sub>A10,18h</sub></b>	<b>L<sub>A10,18h</sub></b>	The arithmetic mean of all the sound levels of L <sub>A10</sub> during the period from 06:00 to 24:00. From research it has been found that subjective response to road traffic noise is closely linked to higher noise levels experienced and is correlated well with the L <sub>A10,18h</sub> index.
<b>L<sub>A90</sub></b>	<b>L<sub>A90</sub></b>	The A-weighted sound level in dB that is exceeded 90% of the measurement period. The background noise level is commonly quoted using the L <sub>A90</sub> index.
<b>L<sub>Aeq</sub></b>	<b>L<sub>Aeq</sub></b>	The equivalent continuous sound level. The level of a notional steady sound, which at a given position and over a defined period of time, would have the same A-weighted acoustic energy as the fluctuating noise.
<b>Lakeside Shopping Centre</b>		A large out-of-town shopping centre located in West Thurrock, in the borough of Thurrock, Essex, just beyond the eastern boundary of Greater London.
<b>L<sub>Amax</sub></b>	<b>L<sub>Amax</sub></b>	The maximum A-weighted sound level measured during a given time period, used in noise assessment.
<b>Land Contamination: Risk Assessment</b>	<b>LCRA</b>	Formerly CLR11 Model Procedures for the Management of Land Contamination.
<b>Land cover</b>		The surface cover of the land, which is usually expressed in terms of vegetation cover or lack of it. This is related to but not the same as land use.
<b>Land use</b>		The purpose that land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.
<b>Landfill</b>		A site for the disposal of waste materials.
<b>Landform</b>		The shape and form of the land surface resulting from combinations of geology, geomorphology, slope, elevation and physical processes.
<b>Landscape and Ecology Management Plan</b>	<b>LEMP</b>	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.
<b>Landscape and visual impact assessment</b>	<b>LVIA</b>	Part of a planning application or environmental assessment that looks at the impact of development on the character of a landscape.
<b>Landscape character</b>		A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse (source of definition: GLVIA3).
<b>Landscape Character Area</b>	<b>LCA LLCA</b>	The ' <i>discrete geographical areas of particular landscape type</i> ' (source of definition: GLVIA3). Note: Local Landscape Character Area is referred to as LLCA.

Term	Abbreviation	Explanation
<b>Landscape Character Assessment</b>		The process of identifying and describing variation in character of the landscape - the unique combination of elements and features that make landscapes distinctive - to assist in managing change in the landscape (source of definition: GLVIA3).
<b>Landscape Character Type</b>	<b>LCT</b>	Distinct types of relatively homogeneous landscape, generic in nature but ' <i>...share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetics attributes</i> ' (source of definition: GLVIA3).
<b>Landscape element</b>		Individual parts of the landscape include physical influences (geology, soils, landform, drainage, and water bodies); land cover (different types of vegetation, patterns, and types of tree cover); and human influences (land use and management, character of settlements of buildings, and pattern and type of fields and enclosure) (source of definition: GLVIA3).
<b>Landscape quality / condition</b>		Measure of the physical state of the landscape based on judgements, which can include typical character represented in individual areas, integrity of the landscape, and condition of individual elements (source of definition: GLVIA3).
<b>Landscape receptor</b>		Defined aspect of the landscape resource that potentially could be affected by the Project (source of definition: GLVIA3).
<b>Landscape resource</b>		This term refers to the character and all features, elements and qualities of the landscape, which is defined by the European Landscape Convention (ELC) as follows: ' <i>Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and / or human factors</i> ' (Council of Europe, 2000). The landscape resource concerns all types of landscape within the study area and covers ' <i>natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as every day or degrade landscapes</i> ' (Article 2 of the ELC, Council of Europe, 2000).
<b>Landscape sensitivity</b>		Applied to specific landscape receptors, combining judgements of the susceptibility of the receptor to the specific type of change proposed and the value related to the receptor (source of definition: GLVIA3).
<b>Landscape value</b>		The relative value that is attached to landscapes by society, which may vary depending on the nature of the stakeholder.
<b>Land-take</b>		The temporary acquisition or permanent loss of land as a result of the construction and/or operation of the Project.
<b>Lane Control Signs</b>	<b>LCS</b>	n/a

Term	Abbreviation	Explanation
<b>Lead Local Flood Authority</b>	<b>LLFA</b>	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.
<b>Lesbian, gay or bisexual</b>	<b>LGB</b>	n/a
<b>Light Congestion</b>	<b>LC</b>	n/a
<b>Light Detection and Ranging</b>	<b>LiDAR</b>	A surveying method that measures distance to a target by illuminating that target with a laser light.
<b>Light Goods Vehicle</b>	<b>LGV</b>	Vehicles meeting the Department for Transport VEH04 criteria.
<b>Light-emitting diode</b>	<b>LED</b>	A semiconductor device that emits visible light when an electric current passes through it.
<b>Limits of deviation</b>	<b>LOD</b>	The tolerances, both laterally and vertically, that any parts of the Project can be constructed from the lines and situations shown on the Works Plans (Application Document 2.6) and the levels shown on the Engineering Section Drawings (Application Document 2.9).
<b>Limit Value</b>		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.
<b>Link road</b>		In the context of junctions, a one way connector road adjacent to but separate from the mainline carriageway carrying traffic in the same direction, which is used to connect the mainline carriageway to the local highway network where successive direct connections cannot be provided to an adequate standard because the junction spacing is too close.
<b>Listed building</b>	<b>LB</b>	A measure of a building's special architectural and historic interest, including it in the planning system so that it can be protected for future generations. Listing includes the interior, exterior and the setting of the building. There are three categories of listed buildings: <ul style="list-style-type: none"> <li>• Grade I buildings are of exceptional interest (only 2.5% of listed buildings are Grade I)</li> <li>• Grade II* buildings are particularly important buildings of more than special interest (5.8% of listed buildings)</li> <li>• Grade II buildings are of special interest (91.7% of all listed buildings).</li> </ul>
<b>L<sub>night</sub></b>	<b>L<sub>night</sub></b>	The L <sub>night</sub> index in the ES is a facade noise index derived from the L <sub>A10,18h</sub> index using TRL conversion method.

Term	Abbreviation	Explanation
<b>L<sub>night,outside</sub></b>	<b>L<sub>night,outside</sub></b>	For the purpose of night-time noise assessment in the ES, the L <sub>night,outside</sub> index is the equivalent continuous sound level L <sub>Aeq,8h</sub> for the period 23:00 to 07:00 hours assessed outside a dwelling and is free-field.
<b>Local Air Quality Management</b>	<b>LAQM</b>	A process that requires local authorities across the UK to review, assess and manage the air quality within their geographical areas.
<b>Local Air Quality Management</b>	<b>LAQM.TG(16)</b>	A technical guidance document designed to support local authorities in carrying out their duties under the Environment Act 1995, the Environment (Northern Ireland) Order 2002 and subsequent regulations.
<b>Local Climate Impact Profile</b>	<b>LCIP</b>	A simple tool designed to help organisations assess their exposure to the weather. It can be used as a standalone tool, or as a step in a risk-based framework.
<b>Local Enterprise Partnership</b>	<b>LEP</b>	A voluntary partnership set up between local authorities and businesses to drive local economic growth and job creation activities. There are 39 LEPs across England.
<b>Local Geological Site</b>	<b>LGS</b>	Locally non-statutory designated geological sites of local, national or regional importance.
<b>Local Nature Conservation Sites</b>	<b>LNCS</b>	Locally designated nature site protected through the planning system. Overarching term, covering various designations such as LWS and SINCS.
<b>Local Nature Reserve</b>	<b>LNR</b>	Locally designated nature site protected through the planning system.
<b>Local Plan</b>		A Local Plan sets out local planning policies and identifies how land is used, determining what will be built where. Adopted Local Plans provide the framework for local development across England.
<b>Local planning authority</b>		A local planning authority is the local authority or council that is empowered by law to exercise statutory town planning functions for a particular area of the UK. May also be referred to as 'local authority'.
<b>Local Wildlife Site</b>	<b>LWS</b>	Locally designated nature site protected through the planning system. See also the entry for 'LNR'.
<b>London Area Transport Surveys</b>	<b>LATS</b>	Annual travel demand survey of households in London by Transport for London.
<b>London Distribution Park</b>	<b>LDP</b>	Approximately 70 acres (28ha) of land identified for industrial and logistics development 6.5 miles from the M25, adjacent to Port of Tilbury, London.
<b>London Gateway</b>		A new deep-water port, able to handle the biggest container ships in the world, and part the London Gateway development on the north bank of the River Thames in Thurrock, Essex, 20 miles (32 km) east of central London.
<b>London Resort</b>		A proposed theme park and entertainment precinct on the Swanscombe peninsula, Kent.
<b>London Tilbury Southend railway</b>	<b>LTS railway</b>	A railway line linking London and the east coast.



Term	Abbreviation	Explanation
<b>Long Term Trend Gap Analysis Tool</b>	<b>LTT</b>	Long Term Trend Gap Analysis Tool for NO <sub>x</sub> and NO <sub>2</sub> .
<b>Low traffic growth</b>		A scenario that reflects low traffic levels
<b>Lower critical load</b>	<b>LCL</b>	A quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the ecosystem do not occur according to present knowledge
<b>Low Emission Zone</b>	<b>LEZ</b>	A defined area where access by some polluting vehicles is restricted or deterred with the aim of improving air quality.
<b>Lower Layer Super Output Area</b>	<b>LSOA</b>	A geographic hierarchy used to report statistics for small areas with an average population of 1,500 people in England and Wales.
<b>Lower Thames Area Model</b>	<b>LTAM</b>	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.
<b>Lowest Observed Adverse Effect Level</b>	<b>LOAEL</b>	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.
<b>Lux</b>		The SI unit of illuminance.
<b>M2</b>		A motorway in Kent, England. It is 26 miles (42 km) long and acts as a bypass of the section of the A2 road to run past the Medway Towns, Sittingbourne, Faversham, and to provide an alternative route to the Port of Dover, supplementing the M20.
<b>M2 junction 1</b>		The M2 will be widened from three lanes to four in both directions through M2 junction 1.
<b>M2/A2/A122 Lower Thames Crossing junction</b>		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.
<b>M25 junction 29</b>		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.
<b>M25</b>		Orbital motorway that encircles most of Greater London.
<b>Macroalgae</b>		Another term for seaweed, comprising red, green and brown algae.
<b>Macroinvertebrate</b>		Any invertebrate organism which can be seen with the naked eye.
<b>Macrophytes</b>		Aquatic plants that grow in or near water.

Term	Abbreviation	Explanation
<b>Made Ground</b>		Land where natural and undisturbed soils have largely been replaced by man-made or artificial materials. It may be composed of a variety of materials including imported natural soils and rocks with or without residues of industrial processes (such as ash) or demolition material (such as crushed brick or concrete).
<b>Magnitude</b>		The scale of the change caused to the baseline conditions.
<b>Main river</b>		A watercourse designated by the Environment Agency as a main river and marked as such on their main river map. A watercourse should be classified as a main river if it has a significant flood consequence to people and property or could lead to significant flooding across the river catchment.
<b>Mainline</b>		The through carriageway of a road, as opposed to a slip road or a connecting road at a junction.
<b>Major Accident Hazard Pipelines</b>	<b>MAHP</b>	A pipeline that conveys a dangerous fluid with the potential to cause a major accident.
<b>Major Events</b>		In the context of the Major Accidents assessment of the ES, a collective term covering major accidents and disasters.
<b>Major storms</b>		Any dangerous meteorological phenomenon with the potential to cause damage, serious social disruption, or loss of human life.
<b>Manual of Contract Documents for Highway Works</b>	<b>MCDHW</b>	The Model Contract documents for Highway Works which includes the instructions for tendering and typical contract documentation for the preparation of contracts for the construction, improvement and maintenance of the strategic road network in England, Scotland, Wales and Northern Ireland.
<b>Mardyke</b>		A small river, mainly in Thurrock, that flows into the River Thames at Purfleet, close to the QEII Bridge.
<b>Mardyke Viaduct</b>		New viaduct to carry the A122 Lower Thames Crossing road over the Mardyke and a farm access track. The Mardyke is a small river, mainly in Thurrock, that flows into the River Thames at Purfleet.
<b>Marine character area</b>	<b>MCA</b>	Nationally identified discrete local geographical areas of distinct and unique seascapes, due to their natural, cultural and perceptual influences.
<b>Marine Conservation Zones</b>	<b>MCZ</b>	A type of marine protected area that can be designated in English (and Welsh and Northern Irish) territorial and offshore waters.
<b>Marine Licence</b>		The licence required under the Marine and Coastal Access Act 2009 to undertake marine licensable activities (e.g. construction, dredging and deposit, removal or incineration of substances and objects).

Term	Abbreviation	Explanation
<b>Marine Management Organisation</b>	<b>MMO</b>	An executive non-departmental public body in the UK established under the Marine and Coastal Access Act 2009. The MMO exists to make a significant contribution to sustainable development in the marine area, and to promote the UK Government's vision for clean, healthy, safe, productive and biologically diverse oceans and seas.
<b>Marine Protected Areas</b>	<b>MPA</b>	Defined by the World Wildlife Fund for Nature as ' <i>An area designated and effectively managed to protect marine ecosystems, processes, habitats, and species, which can contribute to the restoration and replenishment of resources for social, economic, and cultural enrichment</i> '.
<b>Marine Strategy Framework Directive</b>	<b>MSFD</b>	European maritime policy designed to create a framework for the sustainable use of marine waters.
<b>Maximum Allowable Concentration</b>	<b>MAC</b>	The value (concentration) used to set environmental quality standards.
<b>Mean high water spring</b>	<b>MHWS</b>	The average level of high water springs over a period of time.
<b>Medieval Period</b>		Period between the 5th and 15th centuries in Europe.
<b>Medway Traffic Model</b>	<b>MTM</b>	n/a
<b>Meroplankton</b>		Organisms that only spend a proportion of their life within the plankton (e.g. the adult stage lives on the seabed).
<b>Mesolithic</b>		Period between approximately 9,500 BC and 4,000 BC, when continuous human occupation of Britain began as the climate improved at the end of the last glacial period.
<b>Metal Bioavailability Assessment Tool</b>	<b>M-BAT</b>	The toxicity of metals is dependent on a range of water quality parameters that influence the amount of dissolved metal that is bioavailable, i.e. responsible for toxic effects on aquatic plants and animal. The M-BAT tool allows the bioavailable concentration of metals dissolved in water to be calculated.
<b>Method Detection Limit</b>	<b>MDL</b>	The minimum concentration of a substance that can be measured and reported by a laboratory.
<b>Methyl Tert-Butyl Ether</b>	<b>MTBE</b>	An organic compound used as a fuel (petrol) additive.
<b>Metres</b>	<b>M</b>	SI unit of length.
<b>Metres per second</b>	<b>m/s</b>	SI unit of speed.
<b>Microgram</b>	<b>µg</b>	One millionth of a gram.
<b>Micrograms per cubic metre</b>	<b>µg/m<sup>3</sup></b>	The principal unit of measurement for the concentration of an air pollutant in ambient air.
<b>Micrometre/micron</b>	<b>µm</b>	One millionth of a metre.
<b>Middle Layer Super Output Area</b>	<b>MSOA</b>	A geographical dataset of census information, collated by the Office of National Statistics (ONS). Designed to contain 5,000 to 15,000 residents and 2,000 to 6,000 households.

Term	Abbreviation	Explanation
<b>Mineral Safeguarding Area</b>	<b>MSA</b>	An area designated by mineral planning authorities which covers known deposits of minerals which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development.
<b>Minerals Consultation Area</b>		An area identified in order to ensure consultation between the relevant mineral planning authority, the minerals industry and others before certain non-mineral planning applications made within the area are determined.
<b>Ministry of Agriculture, Fisheries and Food</b>	<b>MAFF</b>	A former department of the government responsible for agriculture, fisheries and food. In 2002, its responsibilities were merged with those of Defra.
<b>Ministry of Housing, Communities and Local Government</b>	<b>MHCLG</b>	Formed in January 2018, the MHCLG took over the duties of the former Department for Communities and Local Government. In September 2021, it was renamed the Department for Levelling Up, Housing and Communities.
<b>Mitigation</b>		Measures that have been identified through the assessment process to avoid or further reduce adverse effects.
<b>Mobile Information Centre</b>	<b>MIC</b>	Mobile van used by National Highways as a way of engaging with members of the public.
<b>Monin-Obukhov length</b>		The height at which atmospheric turbulence is generated more by buoyancy than by wind shear.
<b>Monitoring</b>		A programme of observation, measurement and recording of environmental variables and operational parameters over a period of time for a defined purpose.
<b>Motorway Incident Detection and Automatic Signalling</b>	<b>MIDAS</b>	A distributed network of traffic sensors designed to alert the local regional control centre to traffic flow and average speeds, and set variable message signs and speed limits.
<b>MS4</b>	<b>MS4</b>	The latest generation of Variable Message Signs, designed to display both pictograms and text; uses internationally recognised warning symbols and provides a dual colour display matrix for amber and red coloured characters or symbols.
<b>Muckingford Road</b>		Realignment of Muckingford Road and construction of a new green bridge with shared pedestrian and cycle facility to carry the realigned Muckingford Road over the A122 Lower Thames Crossing road.
<b>Multi-Agency Geographic Information for the Countryside</b>	<b>MAGIC</b>	A website based source of geographic information about the natural environment from across government. The information covers rural, urban, coastal and marine environments across Great Britain. It is presented in an interactive map which can be explored using various mapping tools that are included. Natural England manages the service under the direction of a Steering Group who represent the MAGIC partnership organisations.

Term	Abbreviation	Explanation
<b>Multi-functionality</b>		Refers to the integration and interaction of different functions or activities on the same piece of land. This is key to the efficient and sustainable use of land, especially in small and crowded urban environments where pressures on land are high.
<b>National Character Areas</b>	<b>NCA</b>	NCAs divide England into 159 distinct natural areas. Each NCA is defined by a unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries.
<b>National Cycle Network</b>	<b>NCN</b>	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.
<b>National Cycle Route</b>	<b>NCR</b>	A cycle route part of the National Cycle Network created by Sustrans to encourage cycling throughout Britain.
<b>National Grid Electricity Transmission</b>	<b>NGET</b>	A UK company that builds and maintains the electricity transmission network in England and Wales.
<b>National Grid Reference</b>	<b>NGR</b>	A system of geographic grid references used in Great Britain to enable positional reference on the Ordnance Survey National Grid.
<b>National Health Service</b>	<b>NHS</b>	The name of the public health services of England, Scotland and Wales, also commonly used in Northern Ireland.
<b>National Highways</b>		A UK government-owned company with responsibility for managing the motorways and major roads in England. Formerly known as Highways England.
<b>National Institute for Health and Care Excellence</b>	<b>NICE</b>	The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care.
<b>National Nature Reserves</b>	<b>NNR</b>	Reserves established to protect some of the most important habitats, species and geology in the UK, and to provide 'outdoor laboratories' for research. There are currently 224 NNRs in England with a total area of over 94,400 hectares - approximately 0.7% of the country's land surface. Natural England manages about two thirds of England's NNRs. The remaining reserves are managed by organisations approved by Natural England, for example the National Trust, Forestry Commission, RSPB, Wildlife Trusts and local authorities.
<b>National Planning Policy Framework</b>	<b>NPPF</b>	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.

Term	Abbreviation	Explanation
<b>National Policy Statement</b>	<b>NPS</b>	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.
<b>National Policy Statement for National Networks</b>	<b>NPSNN</b>	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.
<b>Overarching National Policy Statement for Energy (EN-1)</b>	<b>NPS EN-1</b>	Sets out the need for the Government's policy for delivery of major energy infrastructure. This Overarching National Policy Statement for Energy (EN-1) is part of a suite NPSs initially issued by the Secretary of State for Energy and Climate Change (now the Department for Business, Energy and Industrial Strategy). There are a further five technology-specific NPSs for the energy sector.
<b>National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4)</b>	<b>NPS EN-4</b>	Sets out the need for the Government's policy for delivery of major energy infrastructure and provides the primary basis for decisions by the Planning Inspectorate (previously the Infrastructure Planning Commission) on applications it receives for gas supply infrastructure and gas and oil pipelines.
<b>National Policy Statement for Electricity Networks Infrastructure (EN-5)</b>	<b>NPS EN-5</b>	Sets out the needs for the Government's policy for delivery of major energy infrastructure and provides the primary basis for decisions taken by the Planning Inspectorate (previously the Infrastructure Planning Commission) on applications it receives for electricity networks infrastructure.
<b>National Public Transport Access Nodes</b>	<b>NaPTAN</b>	A national dataset of all public transport 'stops' in England, Scotland and Wales. This includes bus stops and railway stations, tram, metro and underground stop and airports and ferry terminals.
<b>National Roads Telecommunications Services</b>	<b>NRTS</b>	The fibre-optic network of communication and control that National Highways uses to monitor England's roads.
<b>National Soil Resources Institute</b>	<b>NSRI</b>	An organisation which provides expertise in soil systems, soil and land management, soil geoscience and soil spatial information.
<b>National Technology Control Centre</b>	<b>NTCC</b>	A telematics project aimed at providing free, real-time information on England's network of motorways and trunk roads to road users, allowing them to plan routes and avoid congested areas.
<b>National Trails</b>		Long-distance footpaths and bridleways in England and Wales.

Term	Abbreviation	Explanation
<b>National Transmission System</b>		The network of gas pipelines that supply gas to power stations and large industrial users from natural gas terminals situated on the coast, and to gas distribution companies that supply commercial and domestic users.
<b>National Travel Survey</b>	<b>NTS</b>	A UK government household survey designed to monitor long-term trends in personal travel and to inform the development of policy.
<b>National Trip End Model</b>	<b>NTEM</b>	A DfT transport model which forecasts the growth in trip origin-destinations (or productions-attractions) up to 2051 for use in transport modelling.
<b>National Vegetation Classification</b>	<b>NVC</b>	One of the key common standards developed for nature conservation agencies. The original project aimed to produce a comprehensive classification and description of the plant communities of Britain, each systematically named and arranged and with standardised descriptions for each.
<b>National Vocational Qualification</b>	<b>NVQ</b>	Work-based awards in England, Wales and Northern Ireland that are achieved through assessment and training.
<b>Nationally Significant Infrastructure Project</b>	<b>NSIP</b>	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.
<b>Natura 2000</b>		A network of nature protection areas in the territory of the EU. It is made up of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated respectively under the Habitats Directive and Birds Directive. The network includes both terrestrial and marine sites (Marine Protected Areas (MPAs)).
<b>Natura 2000 sites</b>		Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) forming part of a European network of protected sites called Natura 2000.
<b>Natural England</b>	<b>NE</b>	An executive non-departmental public body, sponsored by Defra, 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.
<b>Natural Environment and Rural Communities Act 2006</b>	<b>NERC Act</b>	An Act of Parliament (2006) which created Natural England and the Commission for Rural Communities. It also extended the biodiversity duty set out in the Countryside and Rights of Way (CROW) Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity.
<b>Natural Environment Research Council</b>	<b>NERC</b>	A British Research Council that supports research, training and knowledge transfer activities in the environmental sciences.

Term	Abbreviation	Explanation
<b>Nature Improvement Areas</b>	<b>NIA</b>	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
<b>Neap tide</b>		Refers to a period of moderate tides when the sun and moon are at right angles to each other. Occurs seven days after a spring tide.
<b>NEETs</b>		Young people not in education, employment or training.
<b>Neolithic</b>		The later part of the Stone Age when ground or polished stone weapons and implements prevailed, between 4000BC to 2500BC in Britain.
<b>Net Present Value</b>	<b>NPV</b>	A measure of the total impact of a development on society, in monetary terms, expressed in 2010 prices.
<b>Network Development Directorate</b>	<b>NDD</b>	National Highways directorate responsible for the development and management of National Highways' maintenance renewals and local Network Management Schemes.
<b>Nitrate vulnerable zone</b>	<b>NVZ</b>	Areas covering 62% of England designated as a result of the European Union's Nitrates Directive in order to reduce the level of nitrates in surface and groundwater. Farmers with land in nitrate vulnerable zones have to follow mandatory rules to tackle nitrate loss from agriculture.
<b>Nitrogen deposition rate</b>		The rate at which nitrogen accumulates on a surface as a result of separation from the atmosphere. The principal unit of measurement of nitrogen deposition is kilograms of nitrogen per hectare per year (kgN/ha/yr).
<b>Nitrogen</b>	<b>N</b>	A chemical element.
<b>Nitrogen dioxide</b>	<b>NO<sub>2</sub></b>	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.
<b>Nitrogen oxides</b>	<b>NO<sub>x</sub></b>	A group of seven gases and compounds composed of nitrogen and oxygen, sometimes collectively known as NO <sub>x</sub> gases.
<b>Nitrogen trifluoride</b>	<b>NF<sub>3</sub></b>	A nitrogen-fluorine compound, which is a greenhouse gas.
<b>Nitrous oxide</b>	<b>N<sub>2</sub>O</b>	An oxide of nitrogen, which is a greenhouse gas.
<b>No Observed Effect Level</b>	<b>NOEL</b>	An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of any effect between the exposed population and its appropriate control.
<b>Noise and Vibration Management Plan</b>	<b>NVMP</b>	Incorporates measures proposed and procedures for the management of noise and vibration arising during the construction phase.



Term	Abbreviation	Explanation
<b>Noise Important Area</b>	<b>NIA(s)</b>	Defra published noise maps for England's roads in 2008, with the noise action plans following 2 years later in 2010. The action plans set out a framework for managing noise, and were designed to identify 'Important Areas' that are impacted by noise from major sources and therefore must be investigated. NIAs are where the 1% of the population that are affected by the highest noise levels from major roads are located, according to the results of Defra's strategic noise maps.
<b>Noise Insulation Regulations 1975</b>	<b>NIR</b>	n/a
<b>Noise Making Authority</b>		Authority responsible for a Noise-Important Area (NIA).
<b>Noise Policy Statement for England</b>	<b>NPSE</b>	The Noise Policy Statement for England was published on 15 March 2010. It sets out the long-term vision of government noise policy, to promote good health and a good quality of life through the management of noise.
<b>Noise sensitive receptor</b>	<b>NSR</b>	Receptors which are potentially sensitive to noise, such as dwellings, hospitals, schools, and community facilities.
<b>Nomis</b>		Online service provided by ONS providing access to UK labour market statistics.
<b>Non-recoverable Value Added Tax</b>	<b>NR VAT</b>	n/a
<b>Non-road mobile machinery</b>	<b>NRMM</b>	Any mobile machine, item of transportable industrial equipment, or vehicle – with or without bodywork – that is not intended for carrying passengers or goods on the road and is installed with an internal combustion engine.
<b>Non-statutory designated site</b>		A site designated at a local level for its biodiversity and/or geological value. These are not underpinned by legislation.
<b>Non-Technical Summary</b>	<b>NTS</b>	A summary of the Environmental Statement (ES) which presents the content of the main report in a simplified form, limiting the use of technical terms, to make the content accessible to a wide audience.
<b>North Portal</b>		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.
<b>North Portal emergency and maintenance access</b>		Emergency and maintenance access for the Tunnel, located at the North Portal.
<b>North Portal Tunnel Services Building</b>		Building located at the North Portal to accommodate mechanical, electrical and drainage equipment, and to control normal and maintenance operation of the tunnels.

Term	Abbreviation	Explanation
<b>North Road</b>		Realignment eastwards of North Road and construction of a new green bridge with shared pedestrian and cycle facility to carry the realigned North Road over the A122 Lower Thames Crossing road.
<b>Northbound</b>	<b>NB</b>	Direction of travel.
<b>Notable habitats</b>		Habitats that are material considerations in planning decisions and are derived from conservation lists (e.g. Priority Habitats as per the Natural Environment and Rural Communities Act 2006, local designations and Annex I habitats as per the Conservation of Habitats and Species Regulations 2017).
<b>Notable species</b>		Species which are legally protected under international or national legislation, and/or are of local conservation concern.
<b>Ockendon link</b>		Section of the A122 Lower Thames Crossing between the A13 junction/Green Lane and the A122 Lower Thames Crossing/M25 junction.
<b>Ockendon Road</b>		Vertical realignment of Ockendon Road and construction of a new bridge to carry Ockendon Road over the northbound carriageway of the A122 Lower Thames Crossing road.
<b>Offline</b>		Works that are to be undertaken that are not on the line of existing road (or rail) infrastructure.
<b>Off-peak period</b>	<b>OP period</b>	The hours between 18:00-06:00 within the Project traffic model (LTAM).
<b>Off-slip</b>		A slip road by which traffic leaves a major road such as a motorway.
<b>Office for National Statistics</b>	<b>ONS</b>	The executive office of the UK Statistics Authority, a non-ministerial department which reports directly to the UK Parliament.
<b>Oligochaete</b>		Small worms with few hairs on the body, some species are aquatic, living in marine, brackish freshwater environments.
<b>Online</b>		Works that are to be undertaken that are on the line of existing road infrastructure.
<b>On-slip</b>		A slip road by which traffic joins a major road such as a motorway
<b>Open access land</b>		Areas of land over which the public have a right of access pursuant to the Countryside and Rights of Way Act 2000.
<b>Open space</b>		Open space is defined in section 19 of the Acquisition of Land Act 1981 as <i>'any land laid out as a public garden, or used for the purposes of public recreation, or land being a disused burial ground'</i> .
<b>Operating expenditure</b>	<b>OPEX</b>	An ongoing cost for running a product, business or system. Also referred to as an operating expenditure.
<b>Operation</b>		Describes the operational phase of a completed development and is considered to commence at the end of the construction phase, after demobilisation.

Term	Abbreviation	Explanation
<b>Order Limits</b>		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.
<b>Ordinary watercourse</b>		A watercourse that does not form part of a main river. The Lead Local Flood Authority in whose area the watercourse lies has powers to consent works to ordinary watercourses and permissive powers to undertake works where necessary.
<b>Ordnance datum</b>	<b>OD</b>	A standardised point representing average (mean) sea level, used by the Ordnance Survey as the basis for measurement of height (altitude) on UK maps, reported as metres 'above ordnance datum'.
<b>Ordnance Survey</b>	<b>OS</b>	The national mapping agency of Great Britain.
<b>Orifice Plate</b>		A device used for measuring flow rate, for reducing pressure or for restricting flow (in the latter two cases it is often called a restriction plate). Either a volumetric or mass flow rate may be determined, depending on the calculation associated with the orifice plate.
<b>Origin-destination</b>	<b>OD</b>	Origin-destination data (also known as flow data) includes the travel-to-work and migration patterns of individuals, cross-tabulated by variables of interest (for example occupation).
<b>Orthotropic steel deck plate</b>		An orthotropic bridge or orthotropic deck is one whose deck typically comprises a structural steel deck plate stiffened either longitudinally or transversely, or in both directions. This allows the deck both to directly bear vehicular loads and to contribute to the bridge structure's overall load-bearing behaviour. The orthotropic deck may be integral with or supported on a grid of deck framing members such as floor beams and girders.
<b>OSPAR</b>		The mechanism by which 15 governments (including the UK) and the EU cooperate to protect the marine environment of the North East Atlantic.
<b>Other Sensitive Receptor</b>	<b>OSR</b>	Noise sensitive receptor which is not a dwelling (hospitals, healthcare facilities, education facilities, community facilities, quiet areas or potential quiet areas under the Environmental Noise Directive (END), international and national or statutorily designated sites, Public Rights of Way and cultural heritage assets).
<b>Outline Archaeological Mitigation Strategy</b>	<b>OAMS</b>	Presents a draft strategy in advance of archaeological evaluation results as the basis to develop a final strategy.
<b>Overarching Written Scheme of Investigation</b>	<b>OWSI</b>	Sets out the scope, guiding principles and methods for the planning and implementation of essential archaeological mitigation.
<b>Overhead line</b>	<b>OHL</b>	An electrical conductor, suspended on towers or poles, used for transmission and distribution of electrical energy. It consists of one or more conductors (commonly multiples of three).

Term	Abbreviation	Explanation
<b>Overwinter</b>		In a biodiversity context, species which spend the winter in a particular location/geography.
<b>Palaeolithic</b>		Period between approximately 900,000 and 11,500 years ago. The oldest cultural stage of human, or hominin, cultural history characterised by the manufacture of stone artefacts.
<b>Palaeolithic and Quaternary Deposit Model</b>	<b>PQDM</b>	An Application Document for the Project that provides an assessment of Palaeolithic and geo-archaeological potential of the proposed land required for the Project.
<b>Palisade</b>		In a cultural heritage context, a fence of wooden stakes fixed in the ground, forming an enclosure or defence.
<b>Parameters</b>		A limit or boundary which defines the scope of a particular process or activity.
<b>Parchmark</b>		A cultural heritage term for where the growth of a crop is stunted (by buried remains) where its roots cannot reach water. Results in cropmarks and soil marks where underlying archaeology shows through to the surface and may be observed, most easily from the air but also sometimes from the ground.
<b>Parliamentary Advisory Council for Transport Safety</b>	<b>FACTS</b>	A registered charity and an All-Party Parliamentary Group of the UK Parliament. Its charitable objective is to protect human life through the promotion of transport safety for the public benefit.
<b>Particulate matter</b>	<b>PM</b>	The sum of all solid and liquid particles suspended in air, many of which are hazardous. This can include both organic and inorganic particles, such as dust, pollen, soot, smoke and liquid droplets. These particles vary greatly in size, composition and origin.
<b>Particulate matter (10µm)</b>	<b>PM<sub>10</sub></b>	Particulate matter with a diameter between 2.5 and 10 micrometres.
<b>Particulate matter (2.5µm)</b>	<b>PM<sub>2.5</sub></b>	Particulate matter with a diameter equal to or less than 2.5 micrometres.
<b>Parts per million</b>	<b>ppm</b>	n/a
<b>Parts per thousand</b>	<b>ppt</b>	n/a
<b>Passenger Car Units</b>	<b>PCU</b>	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.
<b>Peak particle velocity</b>	<b>PPV</b>	A measurement of the magnitude of ground vibration, which is the greatest instantaneous velocity of particles in the ground through which the ground vibration wave travels during a given time interval, measured in millimetres per second (mm/s).
<b>Peel Ports</b>		Britain's second largest group of ports, part of the Peel Group.

Term	Abbreviation	Explanation
<b>Penstock</b>		A sluice or gate or intake structure that controls water flow, or an enclosed pipe that delivers water to hydro turbines and sewerage systems. It is a term that has been inherited from the earlier technology of mill ponds and watermills.
<b>Per-/Poly-Fluoroalkyl Substances</b>	<b>PFAS</b>	A family of human-made chemicals found in a wide range of products used by consumers and industry. Many PFAS are resistant to grease, oil, water, and heat.
<b>Perception / Perceptible</b>		A term used to describe the sensory (i.e. received through human senses) with the cognitive (i.e. knowledge and understanding gained from many sources and experiences).
<b>Perfluorocarbons</b>	<b>PFCs</b>	A group of human-made chemicals composed of carbon and fluorine.
<b>Permanent Threshold Shift</b>	<b>PTS</b>	An auditory (hearing) threshold representing an irreversible loss of hearing that results from exposure to intense impulse or continuous sound.
<b>Permissive paths</b>		A path over which there is no formal right of access (i.e. not a public right of way) whose use by the public is allowed by the landowner.
<b>Personal Injury Accident(s)</b>	<b>PIA</b>	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.
<b>Personal protective equipment</b>	<b>PPE</b>	n/a
<b>Petrol Filling Station</b>	<b>PFS</b>	n/a
<b>Phase 1 habitat survey</b>		A rapid system for the recording of semi-natural vegetation and other wildlife habitats first published by the Nature Conservancy Council in 1990.
<b>Photo-Ionisation Detector</b>	<b>PID</b>	A type of gas detector.
<b>Phyllite</b>		Fine-grained metamorphic rock with a well-developed laminar structure, intermediate between slate and schist.
<b>Physico-chemical quality element</b>		Parameters that support the assessment of the water quality in surface and groundwaters, for example transparency, thermal conditions, salinity, pH, nutrient conditions and specific pollutants.
<b>Phytoplankton</b>		Microscopic plants that occur in the water column in marine and freshwaters.
<b>Pinniped</b>		A marine mammal of the clade Pinnipedia (e.g. seal or walrus).
<b>Planning Act 2008</b>		The primary legislation that establishes the legal framework for applying for, examining and determining Development Consent Order applications for Nationally Significant Infrastructure Projects.

Term	Abbreviation	Explanation
<b>Planning Inspectorate</b>		An executive agency of the Department for Levelling Up, Housing and Communities. The Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
<b>Planning Practice Guidance</b>	<b>PPG</b>	Guidance to support the 2019 update of the National Planning Policy Framework.
<b>PM peak hour</b>		The hour between 17:00–18:00 within the Project traffic model (LTAM).
<b>PM peak period</b>		The hours between 15:00–18:00 within the Project traffic model (LTAM).
<b>Pollutant linkage</b>		The combination of a contaminant source, environmental and/or exposure pathway and sensitive receptor, the combination of which gives rise to a potential risk to the receptor. Also 'source-pathway-receptor (SPR) linkage'.
<b>Pollution Climate Mapping model</b>	<b>PCM model</b>	Defra's Pollution Climate Mapping model
<b>Polychaete</b>		Worms (mainly marine) with fleshy appendages (parapodia) and have many hairs on the body.
<b>Polychlorinated biphenyls</b>	<b>PCBs</b>	A group of man-made compounds that were widely used in the past, mainly in electrical equipment, but which were banned at the end of the 1970s in many countries because of environmental concerns. Because these compounds are generally very stable, they remain present in the environment today.
<b>Polycyclic aromatic hydrocarbons</b>	<b>PAHs</b>	A group of several hundred chemically related, environmentally persistent, organic compounds of various structures and varied toxicity.
<b>Poor ecological status/potential</b>		A Water Framework Directive term denoting a relatively significant deviation from the 'reference condition' in a water body, for hydromorphological, physico-chemical and biological quality elements.
<b>Port of London Authority</b>	<b>PLA</b>	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.
<b>Port of Tilbury London Limited</b>	<b>PoTLL</b>	n/a
<b>Posthole</b>		A cultural heritage term for a cut feature used to hold a surface timber or stone.
<b>Potential Special Protection Area</b>	<b>pSPA</b>	Sites which are approved by Government that are in the process of being classified as Special Protection Areas.
<b>Preferred Route Announcement</b>	<b>PRA</b>	Announcement by government of the preferred route for a new road or crossing.
<b>Preliminary Environmental Information Report</b>	<b>PEIR</b>	An early output of the EIA process, and part of the DCO application process.

Term	Abbreviation	Explanation
<b>Preliminary Navigation Risk Assessment</b>	<b>pNRA</b>	A document which assesses the risk to water users associated with the works the project is undertaking within the Tidal Thames.
<b>Preliminary Risk Assessment</b>		Tier 1 of the risk assessment process according to Environment Agency guidance Land Contamination: Risk Management (Environment Agency, 2020). A preliminary risk assessment develops an outline conceptual model.
<b>Preliminary Sources Study Report</b>	<b>PSSR</b>	Used to provide geotechnical assessments for the Project.
<b>Prescribed consultee</b>		The bodies/organisations required to be consulted as listed in Schedule 1 of the Infrastructure Planning (Applications: Prescribed Forms & Procedure) Regulations 2009.
<b>Present Value of Benefits</b>	<b>PVB</b>	The discounted value of benefits. The ratio of the PVB to the PVC constitutes the BCR.
<b>Present Value of Costs</b>	<b>PVC</b>	A measure of the monetary cost of a scheme, minus revenues, discounted to and expressed in 2010 prices.
<b>Preservation <i>in situ</i></b>		Conservation of an archaeological asset in its original location and condition.
<b>Priority habitat</b>		Habitats identified in the UK Biodiversity Action Plan (BAP) as being the most threatened and requiring conservation action under the UK BAP.
<b>Priority species</b>		Any species which is of particular conservation importance throughout the UK, recognised in national and local planning policy.
<b>Private means of access</b>		An existing or proposed means of accessing a private property, for example a private road or gated access to an agricultural land holding.
<b>Private water supply</b>		Any water supply which is supplied to a property that is not provided by a water company. About 1% of the population of England and Wales use a private water supply. Most of these supplies are situated in remote, rural parts of the country and can originate from a range of sources, including boreholes, natural springs, and watercourses.
<b>Probable effect level</b>	<b>PEL</b>	Represents the lowest concentration of a substance that is known to have an adverse effect on aquatic organisms.
<b>Production and attraction metrics</b>	<b>PA metrics</b>	Production and attraction metrics.
<b>Project Air Quality Action Plan</b>	<b>PAQAP</b>	The section of the air quality assessment where the proposed viable mitigation measures are set out and assessed.
<b>Project Control Framework</b>	<b>PCF</b>	National Highways Project Control Framework process. Setting out how National Highways, together with DfT, manages and delivers major improvement projects.
<b>Project Enhanced Structures</b>		Structures where the design and appearance of specific parts of the project infrastructure is particularly important due to the wider impact they have.

Term	Abbreviation	Explanation
<b>Project road</b>		The new A122 trunk road, the improved A2 trunk road, and the improved M25 and M2 special roads, as defined in Parts 1 and 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1).
<b>Project route</b>		The horizontal and vertical alignment taken by the Project road.
<b>Protected Lane</b>		A lane with historic and landscape value, often with traditional banks, ditches and/or verges, that is important to the character of an area.
<b>Public Health England</b>	<b>PHE</b>	PHE was an executive agency of the Department of Health and Social Care in the UK that began operating on 1 April 2013. PHE's mission was ' <i>to protect and improve the nation's health and to address inequalities</i> '. From 1 October 2021, PHE's health protection functions were formally transferred into the UK Health Security Agency, while its health improvement functions were transferred to the Office for Health Improvement and Disparities, NHS England and NHS Digital.
<b>Public Information Events</b>		An event where members of the public are informed and, where appropriate, consulted regarding a development scheme. National Highways held a total of 24 Public Information Events in 20 locations during the six-week public consultation period between January and March 2016; almost 13,000 people attended.
<b>Public Right of Way</b>	<b>PRoW</b>	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.
<b>Pulverised fly ash/ pulverised fuel ash</b>	<b>PFA</b>	One of the coal combustion products, composed of the fine particles that are driven out of the boiler with the flue gases. Also known as 'pulverised fuel ash' in the UK.
<b>Pumping test</b>		A field experiment in which a well is pumped at a controlled rate and the water-level response (drawdown) is measured to estimate hydraulic properties.
<b>Qualifying feature/habitats/species</b>		Habitats or species that are the reasons (features) that a designated site is designated for.
<b>Qualitative Risk Assessment</b>		Refinement of the CSM by reviewing qualitative and quantitative information sources.
<b>Quality and Outcomes Framework</b>	<b>QOF</b>	A voluntary annual reward and incentive programme for all doctor (GP) surgeries in England, detailing practice achievement results. The QOF contains four main components, known as domains, which are Clinical, Public Health, Public Health – Additional Services, and Quality Improvement.



Term	Abbreviation	Explanation
<b>Quaternary</b>		The most recent period of geological time, starting approximately 2.6 million years ago, and containing two epochs: the Pleistocene and the Holocene.
<b>Queen Elizabeth II Bridge</b>	<b>QEII</b>	Part of the Dartford-Thurrock crossing.
<b>Queues and Delays at Roadworks</b>	<b>QUADRO</b>	A National Highways sponsored computer program to estimate the effects of roadworks in terms of time, vehicle operating and accident costs on the users of the road
<b>Radar</b>		An object-detection system that uses radio waves to determine the range, angle or velocity of objects, including motor vehicles.
<b>Radio-frequency Identification</b>	<b>RFID</b>	The use of electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects. The tags contain electronically stored information.
<b>Ramsar site</b>		A wetland of international importance, designated under the Ramsar convention.
<b>Range Estimation Tool</b>	<b>RET</b>	National Highways Excel workbook that contains the range of CAPEX costs for a road project.
<b>RDB3</b>		A pre-1994 classification for species which are not currently either Endangered or Vulnerable, are at risk and exist in 15 or fewer 10km squares.
<b>RDBK</b>		A pre-1994 classification for species suspected to merit either Endangered, Vulnerable, Rare or Indeterminate status of Red Data Book (RDB) but lacking enough information ('insufficiently known').
<b>Receptor</b>		A component of the natural or built environment (such as a human being, water, air, a building or a plant) affected by an impact of the construction and/or operation of a development.
<b>Recommended Marine Conservation Zone</b>	<b>rMCZ</b>	A site put forward for designation under the Marine and Coastal Access Act 2009 to conserve the diversity of nationally rare, threatened and representative habitats and species.
<b>Recommended preferred route</b>		The preferred route of the Lower Thames Crossing as recommended by Highways England in the Post-Consultation Scheme Assessment Report (SAR).
<b>Rectory Road</b>		Proposed construction of a new bridge in the same location carrying Rectory Road over the new A122 Lower Thames Crossing link roads and over the improved A13. The bridge would be widened to provide a separate shared footway/cycle track and a horse-riding track.
<b>Red Data Book</b>	<b>RDB</b>	A public document created to record endangered and rare species of plants, animals, fungi as well as some local subspecies which are present in a particular region.
<b>Regional Control Centre</b>	<b>RCC</b>	National Highways offices overseeing the strategic road network.

Term	Abbreviation	Explanation
<b>Regional Technology Maintenance Contract(or)</b>	<b>RTMC</b>	n/a
<b>Regionally Important Geological sites</b>	<b>RIGs</b>	Sites of regional and local importance for their geology that have not been designated a Site of Special Scientific Interest.
<b>Register of Environmental Actions and Commitments</b>	<b>REAC</b>	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, Appendix 2.2).
<b>Registered Park and Garden</b>	<b>RPG</b>	A park or garden included on Historic England's Register of Historic Parks and Gardens. Sites are Graded I, II* or II along the same lines as listed buildings: 9% are internationally significant sites (Grade I), 27% are considered to be historically important (Grade II*) and 62% are of national or regional importance (Grade II).
<b>Representative Concentration Pathway</b>	<b>RCP</b>	A greenhouse gas concentration trajectory adopted by the IPCC.
<b>Representative Viewpoints</b>		Representative selection of viewpoints where large numbers of viewpoints cannot all be included individually. Selected based on a range of factors including their high sensitivity, their location at recognised and important viewpoints or on scenic routes and their proximity to the Project and the likely change in existing view.
<b>Residual effects</b>		Those effects that remain following the implementation of the mitigation measures proposed.
<b>Ring ditch</b>		A cultural heritage term for a ditch or trench of circular plan, cut into the soil or bedrock.
<b>River Basin Management Plan</b>	<b>RBMP</b>	A planning document published by the Department for Environment, Food and Rural Affairs (Defra) and the Environment Agency which sets out how organisations, stakeholders and communities will work together to improve the water environment.
<b>River Terrace Deposits</b>	<b>RTD</b>	Sand and gravel, locally with lenses of silt, clay or peat.
<b>Road Investment Strategy</b>	<b>RIS</b>	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.
<b>Road Operator</b>		Organisation responsible for managing the road network during the operational phase
<b>Road Traffic Collision</b>	<b>RTC</b>	n/a
<b>Road user charging/charges</b>	<b>RUC</b>	A road user fee for the use of the tunnel.

Term	Abbreviation	Explanation
<b>Roadside Nature Reserve</b>	<b>RNR</b>	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.
<b>Rochdale Envelope</b>		An approach established by UK planning case law which involves broadly defining the project (or elements of it) but limiting it by a number of clearly defined fixed parameters. Rochdale Envelopes are typically defined by a series of maximum extents of a project (or 'worst case scenarios') by which effects can be assessed.
<b>Root mean square</b>	<b>RMS</b>	Sound pressure most often used to characterise a sound wave
<b>Root Mean Square Error</b>	<b>RMSE</b>	Used to define the average error or uncertainty of a transport model
<b>Root protection area</b>	<b>RPA</b>	An area on or near to a construction site where special provision is required to prevent damage to the roots of trees.
<b>Royal Air Force</b>	<b>RAF</b>	n/a
<b>Royal Society for the Protection of Birds</b>	<b>RSPB</b>	A charitable organisation that works to promote conservation and protection of birds and the wider environment through public awareness campaigns, petitions and through the operation of nature reserves in the UK.
<b>Royal Vopak N.V.</b>	<b>Vopak</b>	A Dutch company that stores and handles various oil and natural gas related products.
<b>Runoff</b>		The flow of water over the ground surface.
<b>RWE Group</b>	<b>RWE</b>	A UK energy company.
<b>Salinity</b>		Concentration of dissolved salts in water.
<b>Scheduled monument</b>	<b>SM</b>	A 'nationally important' archaeological site or historic building, given protection against unauthorised change and included in the Schedule of Monuments kept by the Secretary of State for Culture, Media and Sport. The protection given to scheduled monuments is given under the Ancient Monuments and Archaeological Areas Act 1979.
<b>Scheme Assessment Report</b>	<b>SAR</b>	n/a

Term	Abbreviation	Explanation
<b>Scheme Objectives</b>		<ul style="list-style-type: none"> <li>• To support sustainable local development and regional economic growth in the medium to long term</li> <li>• To be affordable to government and users</li> <li>• To achieve value for money</li> <li>• To minimise adverse impacts on health and the environment</li> <li>• To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity</li> <li>• To improve the resilience of the Thames crossings and the major road network</li> <li>• To improve safety</li> </ul>
<b>Science, Technology, Engineering and Mathematics</b>	<b>STEM</b>	A term used to group together these academic disciplines.
<b>Scoping</b>		The process of identifying the issues to be addressed by the Environmental Impact Assessment process. It is a method of ensuring that an assessment focuses on the important issues and avoids those that are considered unlikely to be significant.
<b>Scoping Opinion</b>		The relevant authority's formal view on the issues an Environmental Statement should address. For the Project, the Scoping Opinion was given by the Planning Inspectorate on behalf of the Secretary of State.
<b>Scoping Report</b>		A report produced before the Environmental Statement, to outline the key issues associated with a proposed development and assist the relevant authority in providing a Scoping Opinion.
<b>Scour</b>		The removal of material through natural processes. In the context of the water environment, this typically relates to erosion caused by swift-flowing water.
<b>Sediment</b>		Organic and inorganic material that has precipitated from water to accumulate on the floor of a water body, watercourse or trap.
<b>Secretary of State</b>	<b>SoS</b>	The Secretary of State has overall responsibility for the policies of the Department for Transport (DfT).
<b>Semi-Volatile Organic Compounds</b>	<b>SVOCs</b>	Organic compounds that tend to have a higher molecular weight and higher boiling point temperature than VOCs.
<b>Sense of place</b>		The essential character and spirit of an area (genius loci - spirit of the place).
<b>Sensitivity</b>		The extent to which the receiving environment can accept and accommodate change without experiencing adverse effects.
<b>Sensitivity (of a receptor)</b>		Term applied to specific receptors, combining judgements of the susceptibility of the receptor to specific type of change proposed and the value related to that receptor (source of definition: GLVIA3).

Term	Abbreviation	Explanation
<b>Sequential Test</b>		A planning principle that seeks to identify, allocate or develop certain types or locations of land before others.
<b>Sett</b>		Place of shelter for badgers. The prefix describes the type or status of sett (i.e. main, annex, subsidiary, outlier).
<b>Setting (cultural heritage)</b>		The surroundings in which a heritage asset is experienced. Elements of a setting may make a positive or negative contribution to the value of an asset.
<b>Severance</b>		Used to refer to a change in ease of access for walkers, cyclists and horse riders due to, for example, a change in travel distance or travel time or a change in traffic levels on a route that makes it harder for walkers, cyclists and horse riders to cross. A reference to severance does not necessarily imply a route is closed to access.
<b>Severe Weather Impacts Monitoring System</b>	<b>SWIMS</b>	A decision-support and data collection tool for Kent's public-sector services. Records and monitors the impacts from, responses to, and resulting financial cost of severe weather events.
<b>Side road</b>		A road that crosses or enters a trunk road.
<b>Significance of effect</b>		The level or importance of effects, generally determined by considering together the sensitivity of the receptor with the magnitude of impact.
<b>Significant Observed Adverse Effect Level (noise)</b>	<b>SOAEL</b>	The noise level above which significant adverse effects on health and quality of life occur.
<b>Simulation and Assignment of Traffic to Urban Road Networks</b>	<b>SATURN</b>	Software used to build transport models.
<b>Site of Community Importance</b>	<b>SCI</b>	A site supporting natural habitats and species of community interest that are listed in the Annexes of the Habitats Directive. A site becomes an SCI when it has been submitted and adopted by the European Commission as an SAC but not yet designated by the government of the member state.
<b>Site of Importance for Nature Conservation</b>	<b>SINC</b>	Locally designated nature site protected through the planning system. See also LNR and SNCI.
<b>Site of Nature Conservation Interest</b>	<b>SNCI</b>	Locally designated nature site, identified by local planning authorities. See also LNR and SINC.
<b>Site of Special Scientific Interest</b>	<b>SSSI</b>	A conservation designation denoting an area of particular ecological or geological importance.
<b>Site Waste Management Plan</b>	<b>SWMP</b>	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.
<b>Skills Level 4</b>		Equates to a Certificate of Higher Education, Key Skills Level 4, NVQ Level 4, BTEC Professional award, certificate and diploma Level 4, and HNC.

Term	Abbreviation	Explanation
<b>Slip road</b>		A connector road between a mainline carriageway and another road.
<b>Slurry Treatment Plant</b>	<b>STP</b>	Construction plant used to process the slurry generated by tunnelling activities. Excavated material from tunnel is suspended in a water-based slurry. The treatment plant would separate the arisings from the slurry, recondition the slurry with clean water and other additives such as bentonite, and then to pump it back to the advancing tunnel boring machine.
<b>Small and Medium Sized Enterprise</b>	<b>SME</b>	The UK definition of SME is generally a small or medium-sized enterprise with fewer than 250 employees. The EU also defines an SME as a business with fewer than 250 employees, a turnover of less than €50 million, or a balance sheet total of less than €43 million.
<b>Smart motorway</b>		Term for a range of types of actively controlled motorway, using technology to optimise use of the carriageway including the hard shoulder.
<b>Soakaway</b>		A pit or channel, typically filled with hard core, into which water can drain slowly out into the surrounding soil
<b>Social Impact Appraisal</b>	<b>SIA</b>	Social impacts cover the human experience of the transport system and its impact on social factors, not considered as part of economic or environmental impacts.
<b>Société des Autoroutes du Nord et de l'Est de la France</b>	<b>SANEF</b>	A French national motorway operator company.
<b>Soft Estate</b>		The natural or 'green' part of the land that includes woodlands, landscape plots and individual trees.
<b>Soil Organic Matter</b>	<b>SOM</b>	The component of soil that is derived from organic matter, which can include all living, or once-living, materials within, or added to soil.
<b>Solar flares</b>		An intense burst of radiation coming from the release of magnetic energy associated with sunspots.
<b>Solar wind</b>		The continuous flow of charged particles from the sun which permeates the solar system.
<b>Sound exposure level</b>	<b>SEL</b>	Logarithmic measure of the sound exposure of a sound relative to a reference value.
<b>Sound pressure level</b>	<b>SPL</b>	The level of sound pressure measured in decibels (dB).
<b>Source-Pathway-Receptor linkage</b>	<b>SPR linkage</b>	The approach used to describe pollutant linkages where a source is known, or a potential source of contamination and a receptor is an environmental, human or built receptor which may be caused harm. A pathway is the route linking a source and receptor by which exposure or harm occurs.
<b>Source protection zone</b>	<b>SPZ</b>	EA-defined groundwater sources (2000) such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area.

Term	Abbreviation	Explanation
<b>South East Local Enterprise Partnership</b>	<b>SELEP</b>	The business-led, public/private body established to drive economic growth across East Sussex, Essex, Kent, Medway, Southend and Thurrock.
<b>South Portal</b>		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.
<b>South Portal emergency loop road</b>		Proposed emergency and maintenance access for the Project tunnel, located at the South Portal.
<b>South Portal Tunnel Services Building</b>		Proposed building located at the South Portal of the Project to accommodate mechanical, electrical and drainage equipment, and to control normal and maintenance operation of the tunnels.
<b>Southbound</b>	<b>SB</b>	Direction of travel.
<b>Southern Valley Golf Club</b>	<b>SVGC</b>	Golf course located on Thong Lane, Gravesend.
<b>Space weather</b>		The variable conditions on the sun and in space that can influence the performance of technology we use on Earth.
<b>Special Area of Conservation</b>	<b>SAC</b>	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.
<b>Special Category Land</b>		Land including Commons, Open Spaces, Fuel or Field Garden Allotments, National Trust land, Crown land, and land held by Statutory Undertakers afforded special protections under the Planning Act where it is proposed it would be compulsorily acquired.
<b>Special Landscape Area</b>	<b>SLA</b>	Valuable high-quality landscapes designated by a local authority, which are the result of a combination of natural features such as vegetation cover, relief and the presence of water.
<b>Special Protection Area</b>	<b>SPA</b>	A designation under EU Directive 2009/147/EC on the Conservation of Wild Birds.
<b>Species of principal importance</b>	<b>SoPI</b>	Species listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
<b>Speed Enforcement Camera System</b>	<b>SPECS</b>	Average speed enforcement camera system
<b>Spring tide</b>		Refers to a period when high tides are higher and low tides are lower than average. This occurs twice each month.
<b>Stable Non-reactive Hazardous Waste</b>	<b>SNRH</b>	A categorisation of waste material.

Term	Abbreviation	Explanation
<b>Stage Gateway Assessment Review</b>	<b>SGAR</b>	Part of National Highways' Project Control Framework (PCF) process.
<b>Stakeholder</b>		Organisations and individuals who could affect or be affected by the Project, or who otherwise have an interest in the Project.
<b>Stakeholder Advisory Panel</b>	<b>SAP</b>	Comprises key local authority stakeholders to share local knowledge, their needs, priorities and opinions with respect to the Project. SAP meetings have been held at key stages of the Project, and bi-lateral meetings with SAP members have also been held.
<b>Standardised Admission Ratio</b>	<b>SAR</b>	A summary estimate of admission rates relative to the national pattern of admissions and takes into account differences in a population's age, sex and socioeconomic deprivation.
<b>Standardised Mortality Ratio</b>	<b>SMR</b>	This is the ratio of observed number of deaths within a cohort to the number of deaths that would be expected, for example on the basis of age- and sex-specific death rates in the general population.
<b>Statements of Environmental Opportunity</b>	<b>SEOs</b>	Statements in each National Character Area (NCA) profile, which bring together the descriptions for that area and offer suggestions where action can be best targeted to conserve and improve the natural environment.
<b>Statutory Consultation</b>		The statutory pre-application consultation held by the Applicant on the Project proposals between October and December 2018.
<b>Statutory designated site</b>		A site which receives protection by means of legislation in recognition of its biodiversity and/or geological value.
<b>Statutory Environmental Body</b>	<b>SEB</b>	Any principal council as defined in subsection (1) of section 270 of the Local Government Act 1982 for the area where the land is situated. Where the land is situated in England; Natural England, Historic England, the Environment Agency, Natural Resources Wales and the National Assembly for Wales where, in the opinion of the Secretary of State, the land is sufficiently near to Wales to be of interest to them and any other public authority which has environmental responsibilities and which the Secretary of State considers likely to have an interest in the Project.
<b>Statutory Harbour Authority</b>	<b>SHA</b>	n/a
<b>Statutory Undertaker</b>		Bodies carrying out functions of a public character under a statutory power. They may either be in public or private ownership, for example the Post Office, Civil Aviation Authority, the Environment Agency, or any water undertaker, public gas transporter or supplier of electricity.
<b>Statutory utilities</b>		These are generally considered to include electricity, gas, water and sewage and communications services.



Term	Abbreviation	Explanation
<b>Stifford Clays Road</b>		Proposed realignment southwards of Stifford Clays Road as part of the Project, and construction of new bridges to carry the realigned Stifford Clays Road over the new A122 Lower Thames Crossing and link roads.
<b>Strategic Flood Risk Assessment</b>	<b>SFRA</b>	A required part of the local planning process, as set out in Planning Policy Statement 25, produced by the Department for Communities and Local Government. SFRA's are primarily produced by local planning authorities, in consultation with the Environment Agency, and are intended to form the basis for preparing appropriate policies for flood risk management at the local level.
<b>Strategic road network</b>	<b>SRN</b>	The core road network in England managed by National Highways.
<b>Study area</b>		The spatial area within which environmental effects are assessed (i.e. extending a distance from the development footprint). This area varies between different environmental topic areas.
<b>Subsoil</b>		Weathered soil layer extending between the natural topsoil and the unweathered basal layer (geological parent material) below, or similar material on which topsoil can be spread. Subsoil has lower organic matter and plant nutrient content than topsoil. In most cases, topsoils require a subsoil to perform one or a number of natural soil functions.
<b>Subtidal</b>		A zone lying below the low tide mark but still shallow and close to shore (part of seabed).
<b>Sulphur hexafluoride</b>	<b>SF<sub>6</sub></b>	An inorganic greenhouse gas.
<b>Superceptor</b>		A brand model of interceptor. A Superceptor is full retention interceptor, meaning that all flow is treated, and oil or fuel retained. Designed for use in areas where there is the possibility of spillage of pollutants such as petrol filling stations where all of the discharge from the area must be intercepted.
<b>Superficial deposit</b>		A geological deposit that was laid down during the Quaternary period. Such deposits were largely formed by river and glacial processes but can also include wind-blown deposits known as loess.
<b>Supervisory Control and Data Acquisition</b>	<b>SCADA</b>	A control system architecture that uses computers, networked data communications, peripheral devices such as programmable logic controllers and graphical user interfaces for high-level process monitoring, control, supervision and management.
<b>Supplementary Consultation</b>		The non-statutory consultation for the Project, held between January and April 2020 on revisions to the Statutory Consultation proposals.

Term	Abbreviation	Explanation
<b>Surface Water Management Plan</b>	<b>SWMP</b>	Plan to provide sufficient information to support the development of an agreed strategic approach to the management of surface water flood risk within a given geographical area by ensuring the most sustainable measures are identified.
<b>Surface waters</b>		Waters including rivers, lakes, loughs, reservoirs, canals, streams, ditches, coastal waters and estuaries.
<b>Susceptibility (landscape)</b>		Ability of a defined landscape or visual receptor to accommodate the specific proposed change without negative consequences (source of definition: GLVIA3).
<b>Suspended sediment</b>		Sediment suspended in fluid (in an EIA context, usually water).
<b>Suitable 4 Use Levels</b>	<b>S4ULs</b>	Soil assessment criteria, developed by Land Quality Management (LQM) and the Chartered Institute for Environmental Health (CIEH)
<b>Sustainable Drainage System</b>	<b>SuDS</b>	A drainage system designed to reduce the potential impact of new and existing developments with respect to surface water drainage discharges.
<b>Sustrans</b>		A UK charity enabling people to travel by foot, bike or public transport for more of the journeys they make every day; their flagship project is the National Cycle Network.
<b>Tarmac</b>		A building materials company headquartered in Solihull, Birmingham, UK.
<b>Technical Appraisal Report</b>	<b>TAR</b>	n/a
<b>Temporary Threshold Shift</b>	<b>TTS</b>	A temporary loss of hearing after exposure to sound due to a shift in the auditory threshold. A temporary threshold shift results in temporary hearing loss.
<b>Temporary Traffic Management Signs</b>	<b>TTMS</b>	n/a
<b>Tentatively Identified Compound</b>	<b>TIC</b>	Non-target compound tentatively identified during analysis from a library of potential compounds. Reported concentration maybe semi-quantitative and unaccredited.
<b>Terawatt hours</b>	<b>TWh</b>	n/a
<b>TfL's East London Highway Assignment Model</b>	<b>ELHAM</b>	n/a
<b>TfL's Highway Assignment Model</b>	<b>HAM</b>	n/a
<b>Thames Chase Community Forest</b>		Overlooking 40 square miles of countryside surrounding the London/Essex border, the Thames Chase Community Forest encompasses countryside areas situated in Barking and Dagenham, Brentwood, Havering and Thurrock.

Term	Abbreviation	Explanation
<b>Thames Chase Forest Centre</b>		The Forest Centre is at the heart of the Community Forest and includes a visitor centre, café and the surrounding woodlands. The Forest Centre lies south of M25 junction 29, in Upminster.
<b>Thames Chase Trust</b>		The Thames Chase Trust is an environmental charity managing and promoting the Thames Chase Community Forest.
<b>Thames Estuary 2100</b>	<b>TE2100</b>	An Environment Agency project (formed November 2012) to develop a comprehensive action plan to manage flood risk for the Tidal Thames from Teddington in West London, through to Sheerness and Shoeburyness in Kent and Essex.
<b>The tunnel</b>		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.
<b>Thin Surfacing Systems</b>		A process of laying asphalt material not exceeding 15mm in thickness and incorporating a polymer modified binder technology. Known to have beneficial influence on tyre/surface interface noise.
<b>Thong Lane green bridge north</b>		A new green bridge proposed as part of the Project, taking Thong Lane over the new A122, between Thong village and Gravesend.
<b>Thong Lane green bridge south</b>		Existing Thong Lane bridge over the A2 replaced with a green bridge.
<b>Threshold effect level</b>	<b>TEL</b>	In a biodiversity context, the concentration below which adverse biological effects are expected to occur rarely.
<b>Thurrock Council</b>	<b>TC</b>	n/a
<b>Thurrock Flexible Generation Plant</b>	<b>TFGP</b>	A flexible generation and storage power plant proposed by Thurrock Power Ltd on land to the north of Tilbury substation, Thurrock. Comprising a gas fired electricity generating station and a battery storage facility.
<b>Tidal Surge</b>		A coastal flood or tsunami-like phenomenon of rising water commonly associated with low-pressure weather systems, such as cyclones.
<b>Tilbury2</b>		A new port development and associated terminals, built on part of the land of the former Tilbury Power Station, from the Port of Tilbury London Limited.
<b>Tilbury Viaduct</b>		A new viaduct proposed as part of the Project, to carry the new A122 over the existing Tilbury Loop railway line, existing Station Road, and existing bridleway BR58 (Coal Road).

<b>Term</b>	<b>Abbreviation</b>	<b>Explanation</b>
<b>Time-depth</b>		Evidence of the development and history of a landscape which is still discernible within the modern landscape.
<b>Topography</b>		Local detail or specific features of landform.
<b>Topsoil</b>		Upper layer of a soil profile, usually darker in colour (because of its higher organic matter content) and more fertile than subsoil, and which is a product of natural biological and environmental processes.
<b>Total Petroleum Hydrocarbons</b>	<b>TPHs</b>	A term used for any mixture of hydrocarbons that are found in crude oil.
<b>Total Suspended Particulates</b>	<b>TSP</b>	Refers to all of the liquid and solid particles present in the atmosphere.
<b>Traffic Flow Data System</b>	<b>TFDS</b>	System holding information on traffic flows at sites on the network.
<b>Traffic management</b>	<b>TM</b>	Control of traffic by means of lane closures to include temporary signals.
<b>Traffic Management Cell</b>	<b>TMC</b>	The area at the Dartford Crossing used when extracting over height vehicles
<b>Traffic Management Plan for Construction</b>	<b>TMP</b>	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.
<b>Tranquil / tranquillity</b>		A state of calm and quietude associated with peace and considered to be an important asset of landscape. It is a perceptual characteristic experienced by people as a result of interaction with people, the landscape (features including built form and naturalistic elements) and perceptibility of noise sources.
<b>Transboundary effects</b>		Effects that the activities of one European Economic Area state may have on the environment or interests of another.
<b>Transport Analysis Guidance</b>	<b>TAG</b>	National guidance document produced by the Department for Transport. (DfT).
<b>Transport and Road Research Laboratory</b>	<b>TRRL</b>	An independent private company offering a transport consultancy and research service to the public and private sector. Originally established in 1933 by the UK Government as the Road Research Laboratory (RRL), it was privatised in 1996.
<b>Transport Economic Efficiency</b>	<b>TEE</b>	An appraisal table presenting benefits for the economic efficiency of the transport system.
<b>Transport for London</b>	<b>TfL</b>	The integrated body responsible for London's transport system.
<b>Transport Research Laboratory</b>	<b>TRL</b>	Independent private company offering a transport consultancy and research service to the public and private sector. Originally established in 1933 by the UK Government as the Road Research Laboratory. It changed its name to TRL in 1992 and was privatised in 1996.

Term	Abbreviation	Explanation
<b>Transport Users Benefit Appraisal</b>	<b>TUBA</b>	A Department for Transport economic appraisal software tool.
<b>Travel to work area</b>	<b>TTWA</b>	n/a
<b>Tree Preservation Order</b>	<b>TPO</b>	An order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity. An Order prohibits the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees without the local planning authority's written consent.
<b>Trial trenching</b>		A method of archaeological evaluation used to determine the presence or absence of archaeological features, deposits or structures and assess their character and significance.
<b>Tributyltin</b>	<b>TBT</b>	A toxic chemical used for various industrial purposes, including prevention of growth of marine organisms on the hulls of ships, disinfection of circulating industrial cooling waters, and the preservation of wood.
<b>Trip blank</b>		A clean sample of a matrix (eg water) is taken from the laboratory to the sampling site and transported back to the lab without having been exposed to the sampling procedure.
<b>Trunk road</b>		A road owned and operated by the Secretary of State for Transport. Trunk roads form part of the strategic road network. Trunk roads include all-purpose trunk roads (APTRs) and motorways.
<b>Tunnel boring machine</b>	<b>TBM</b>	Machine used to excavate tunnels with a circular cross-section.
<b>Tunnel Design and Safety Consultation Group</b>	<b>TDSCG</b>	A formal group of stakeholders including emergency services, police, the tunnel promoter, the highway authorities, the tunnel and highway operator and maintainer and the tunnel designer. It meets regularly through the planning and detailed engineering design phases to consider and agree matters of safety provision in the proposed tunnels.
<b>Turbidity</b>		Cloudiness or haziness of a fluid.
<b>UK Climate Projections</b>	<b>UKCP</b>	Provides the most up-to-date assessment of how the climate of the UK may change over the 21st century. Provides information to help with climate change risk assessments and adaptation plans.
<b>UK Climate Projections 2009</b>	<b>UKCP09</b>	Probabilistic UK climate projections published in 2009.
<b>UK Climate Projections 2018</b>	<b>UKCP18</b>	Probabilistic UK climate projections published in 2019. UKCP18 provides updated observations and climate change projections to 2100 in the UK and globally. It builds on UKCP09 to provide the most up-to-date assessment of how the climate of the UK may change over the 21st century.
<b>UK Health Security Agency</b>	<b>UKHSA</b>	The UKHSA is responsible for UK-wide public health protection and infectious disease capability, replacing Public Health England.

Term	Abbreviation	Explanation
<b>UK Power Network</b>	<b>UKPN</b>	An energy network operator. Owns and maintains the electricity cables in South East England, the East of England and London.
<b>Unacceptable Adverse Effect Level (noise)</b>	<b>UAEL</b>	A noise level expected to be noticeable and very disruptive.
<b>Unexploded bomb</b>	<b>UXB</b>	See ‘unexploded ordnance’.
<b>Unexploded ordnance</b>	<b>UXO</b>	Explosive remnants of war that did not explode when they were deployed and may still pose a risk of detonation. Sometimes referred to as UXBs.
<b>Uninterruptible power supply</b>	<b>UPS</b>	n/a
<b>United Kingdom</b>	<b>UK</b>	n/a
<b>United Nations Educational, Scientific and Cultural Organisation</b>	<b>UNESCO</b>	The United Nations agency which promotes international collaboration through education, science and culture.
<b>United Nations Framework Convention on Climate Change</b>	<b>UNFCC</b>	An international environmental treaty which seeks to reduce atmospheric concentrations of greenhouse gases.
<b>Unproductive strata</b>		Rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
<b>Urban All Purpose</b>		A road in an urban area designed for all types of traffic in accordance with the relevant DMRB Standards.
<b>Utilities</b>		See ‘statutory utilities’.
<b>Utility Logistics Hub</b>	<b>ULH</b>	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.
<b>Value (landscape)</b>		Relative value or importance of a landscape's quality, special qualities including perceptual aspects such as scenic beauty, tranquillity, or wildness, cultural associations or other conservation issues (source of definition: GLVIA3).
<b>Variable Mandatory Speed Limits</b>	<b>VMSL</b>	One of the key features of smart motorways. Speed limits are displayed on the motorway and come into operation when traffic volumes increase and the sensors activate lower speeds. Reducing speed during peak demand decreases stop-start conditions and allows traffic to move smoothly.
<b>Variable Message Sign</b>	<b>VMS</b>	A road sign able to display different messages, typically mounted on a portal gantry.
<b>Variable torque control</b>	<b>VTC</b>	The optidrive variable torque control (VTC) drive is a system that controls motors allowing energy savings.

Term	Abbreviation	Explanation
<b>Vehicles per Day</b>	<b>VPD</b>	n/a
<b>Vibrating wire piezometer</b>	<b>VWP</b>	A vibrating wire piezometer is an instrument used to measure pore water pressure in the soil or rock. Measurement of pore water pressure is used to assess groundwater levels and flows. Vibrating wire piezometers contain a wire under tension and a diaphragm in contact with pore water. Change in water pressure on the diaphragm causes a change in the tension of the wire which vibrates at a frequency that is converted to a reading used to measure the pore water pressure and groundwater level.
<b>Vibration dose value</b>	<b>VDV</b>	A cumulative measurement of a vibration level received over an 8-hour or 16-hour period.
<b>Vibration sensitive receptors</b>	<b>VSR</b>	Receptors which are potentially sensitive to vibration, such as dwellings, hospitals, schools, and community facilities.
<b>Viewpoint</b>		The location from which photographs that illustrate specific or representative views toward the Project are captured.
<b>Visual amenity</b>		Overall enjoyment of a particular area, surroundings, or views in terms of people's activities - living, recreating, travelling through, visiting, or working (source of definition: GLVIA3).
<b>Visual envelope</b>		The approximate geographical area(s) from within which full or partial views of the Project may be possible.
<b>Visual receptor</b>		Individuals and/or defined groups of people who potentially could be affected by a project (source of definition: GLVIA3).
<b>Visual sensitivity</b>		Visual experience; sensitivity to light or visual clutter.
<b>Volatile Organic Compound</b>	<b>VOC</b>	Organic compound that is volatile under normal environmental/atmospheric conditions, although it can be found in the ground in the solid, liquid and dissolved phase form as well as in gaseous phase.
<b>Volume per volume</b>	<b>v/v</b>	The volume concentration of a solution, expressed as % v/v.
<b>Volume over Capacity (volume/capacity)</b>	<b>V/C</b>	The ratio of a road's current or projected traffic volumes to its saturation flow or capacity.
<b>Vopak</b>		Royal Vopak N.V. is a Dutch company that stores and handles various oil and natural gas related products.
<b>Vortex separator/device</b>		A vortex separator is a device for effective removal of sediment, litter and oil from surface water runoff.
<b>Wales Health Impact Assessment Support Unit</b>	<b>WHIASU</b>	An all-Wales service responsible to Public Health Wales and funded by Welsh Government as a part of a wider strategy to improve health and reduce inequalities.

Term	Abbreviation	Explanation
<b>Walkers, cyclists and horse riders</b>	<b>WCH</b>	Walkers, cyclists and horse riders. Note that this term includes scooter riders (non-motorised); cyclists with electrically assisted pedal cycles (where these conform to Department for Transport or other relevant regional regulations and where they can legally be used); and users of powered wheelchairs (where these conform to Department for Transport or other relevant regional regulations and where they can legally be used).
<b>Waste and Resources Action Programme</b>	<b>WRAP</b>	A registered charity which works with businesses, individuals and communities to achieve a circular economy through helping them reduce waste, develop sustainable products and use resources in an efficient way.
<b>Waste Framework Directive</b>	<b>WaFD</b>	Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain directives. The Directive requires that waste be managed without endangering human health and harming the environment, and in particular without risk to water, air, soil, plants or animals, without causing a nuisance through noise or odours, and without adversely affecting the countryside or places of special interest. The Directive also introduces the 'polluter pays' principle and the 'extended producer responsibility'.
<b>Waste hierarchy</b>		A ranked order of waste management options according to what is best for the environment: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery (for example energy recovery); (e) disposal. Application is a requirement of the Waste (England and Wales) Regulations 2011.
<b>Waste Management Plan for England</b>	<b>WMPE</b>	n/a
<b>Water body</b>		A discrete and significant element of surface water, such as a lake, reservoir, stream, river or canal; part of a stream, river or canal; a transitional water (estuary); or a stretch of coastal water, which is a defined management unit under the Water Framework Directive (2000/60/EC). Groundwater bodies are defined as distinct volumes of groundwater within an aquifer or aquifers.
<b>Water Framework Directive</b>	<b>WFD</b>	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.



Term	Abbreviation	Explanation
<b>Water Framework Directive UK Technical Advisory Group</b>	<b>WFD-UKTAG</b>	A partnership of the UK environment and conservation agencies, created to provide coordinated advice on the science and technical aspects of the Water Framework Directive (2000/60/EC).
<b>Water inlet with self regulating valve</b>		A means of achieving regulated exchange of tidal inflows, typically an engineered structure that has a float to open a valve, which then closes again to prevent design water levels being exceeded on the landward side.
<b>Water quality standards</b>	<b>WQSS</b>	The concentration of a substance in water which has been defined by government (or its appointed agency) as being a concentration above which contact, ingestion or exposure may cause harm to a sensitive receptor. WQSSs include drinking water standards and environmental quality standards amongst others.
<b>WebTAG</b>		Department for Transport's web-based multi-modal guidance on appraising transport projects and proposals.
<b>Weight per weight</b>	<b>w/w</b>	Weight concentration of a solution, expressed as % w/w.
<b>Westbound</b>	<b>WB</b>	Direction of travel.
<b>Western Southern Link</b>	<b>WSL</b>	The Western Southern Link (WSL) was a route alignment considered during route options assessment. The route would connect into the A2 to the east of Gravesend and would go to the west of Thong and Shorne and east of Chalk towards Church Lane and Lower Higham Road.
<b>Wider economic benefits</b>	<b>WEBs</b>	n/a
<b>Wider economic impacts</b>	<b>WI</b>	Land use-related economic consequences of transport interventions, not directly related to impacts on users of the transport network, such as increased productivity.
<b>Wind and Structural Health Monitoring System</b>	<b>WASHMS</b>	The process of implementing a damage detection and characterisation strategy for engineering structures.
<b>Without Scheme / With Scheme</b>		Without Scheme: Appraisal scenario that excludes a proposed intervention such as a project, programme or policy. With Scheme: Appraisal scenario that includes a proposed intervention such as a project, programme or policy.
<b>Woodland Trust</b>	<b>WT</b>	A woodland conservation charity. The trust protects and campaigns on behalf of the UK woodlands for the benefit of wildlife and people.
<b>World Health Organization</b>	<b>WHO</b>	The WHO is a specialised agency of the United Nations that is concerned with international public health.
<b>World Heritage Site</b>	<b>WHS</b>	A site listed by UNESCO because of its special natural or cultural value.
<b>World War II</b>	<b>WWII</b>	n/a
<b>Worst case</b>		Reasonable prediction of the scenario that would result in the highest level of effect(s).

<b>Term</b>	<b>Abbreviation</b>	<b>Explanation</b>
<b>Written Scheme of Investigation</b>	<b>WSI</b>	Sets out the scope, guiding principles and methods for the planning and implementation of archaeological assessment.
<b>Zone of Influence</b>	<b>ZoI</b>	The area within which terrestrial biodiversity features could potentially be affected by the construction and/or operational phases of the Project.
<b>Zone of Theoretical Visibility</b>	<b>ZTV</b>	Map produced (usually digitally) to specific criteria to illustrate the area(s) from which a project can theoretically be visual.
<b>Zone of Visual Influence</b>	<b>ZVI</b>	Area within which a proposed development can have an influence or effect on visual amenity. NOTE: This is different from the visual envelope.
<b>Zoological Society of London</b>	<b>ZSL</b>	An international conservation and scientific charity based in the UK.
<b>Zooplankton</b>		Small animals that occur in the water column in marine and freshwaters.

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