# Lower Thames Crossing

## 7.1 Need for the Project

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# 7.1 Need for the Project

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# 1 Executive summary

1.1.1 This document sets out the need for the A122 Lower Thames Crossing (the Project). It demonstrates that there is a clear and compelling need to address the long-standing transport problems at the Dartford Crossing, which constrain the economy and impose negative issues on nearby communities. The Applicant set a number of objectives for the Project in response to the need and this document explains how the Applicant has addressed them and the benefits that the Project would deliver.

## 1.2 Policy context

1.2.1 Policy support for significant road infrastructure development is set out at national, regional and local government levels. This reflects the fact that reliable transport infrastructure supports a productive and growing economy. Whereas delayed and unreliable journeys act as a constraint on the economy, causing severance of communities and economies and detracting from the quality of life for users and affected communities. Those issues are recognised to be particularly significant in relation to improving connections to ports for example between the Channel Ports and the industrial heartlands in the North of England.

1.2.2 National policy recognises the contribution that the Project would make to the national and regional economy and the contribution it would make to levelling up regional economies. National policy strongly supports the Project both explicitly and directly but also indirectly in its aims for a stronger and more connected economy. The Project is supported in local policies for similar reasons as well as for the local benefits it would bring by uniting communities and enlarging business markets.

## 1.3 Need case: issues and opportunities

1.3.1 The high level of traffic demand for crossing the River Thames east of London significantly outstrips the available road space supply. Growth in demand has been making the situation progressively worse over the years. Due to the age of the existing crossing, its design is outdated and inefficient which further challenges the available road capacity. A series of incremental improvements have been made to maximise the capacity of the available road, but there are limits to what more can be practicably delivered in this location. Despite these challenges, road users have little choice but to continue to use the Dartford Crossing because of the lack of alternative routes. Some users, however, even resort to detouring round the M25 via Heathrow.

1.3.2 These challenges result in frequent traffic congestion and poor journey time reliability, making this part of the network one of the most unreliable sections of the Strategic Road Network (SRN) with the northbound approach to the crossing between the M25 junction 2 and the tunnels being the worst performing 1% of the whole SRN in terms of reliability. Due to the Dartford Crossing frequently operating above capacity, traffic congestion of this magnitude results in significant loss of time for road users. These challenges will become progressively worse as demand grows.

1.3.3 The Dartford Crossing is the only road crossing of the River Thames east of London. Incidents and closures, which are frequent, illustrate the risk of very significant disruption at a single point of failure.

1.3.4 Congestion, delays and poor journey time reliability at the Dartford Crossing and on surrounding roads are major impediments to economic growth in the South East of England and the rest of the country. The Dartford Crossing is a strategic link between the UK and Continental Europe, enabling goods and people to flow between the Channel Ports and the UK's industrial heartlands and beyond. The lack of capacity across the River Thames and the congestion at the Dartford Crossing threaten to weaken the UK's international competitiveness, increasingly disrupt trade flows, stifle employment growth and hamper efforts to raise national productivity levels.

1.3.5 The severance caused by the River Thames and congestion at the Dartford Crossing combined with other factors, such as low educational attainment and skill levels as well as pockets of deprivation, have meant that the Lower Thames area has lacked investment. The economies to the north and south of the river have developed separately, with duplication of many economic activities and an inability to build strong connections to form a single market. This has stifled competition and economic efficiencies, and reduced the growth in job creation. Reliance purely on the Dartford Crossing has limited the area's overall economic competitiveness and productivity.

1.3.6 The slow-moving and queuing traffic on both SRN approaches to the Dartford Crossing and the local highway network also disrupt social interaction (e.g. seeing friends and family) and daily activities (e.g. short journeys to schools and shops) as well as impacting the environment and surrounding communities through high levels of noise and air pollution.

1.3.7 There is a compelling need to address these long-standing issues and opportunity in the public interest to do so through the development of an additional road crossing of the River Thames, east of London.

## 1.4 Setting the Scheme Objectives

1.4.1 The issues which give rise to the need for the Project, as set out above, form the basis for setting the Scheme Objectives.

**Table 1.1 Scheme Objectives**

| Scheme Objectives | |
|---|---|
| Transport | • To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity<br>• To improve the resilience of the Thames crossings and the major road network<br>• To improve safety |
| Community and environment | • To minimise adverse impacts on health and the environment |
| Economic | • To support sustainable local development and regional economic growth in the medium to long term<br>• To be affordable to government and users<br>• To achieve value for money |

## 1.5 Project benefits

1.5.1 The Project would increase the supply of available road space by over 80% to serve the traffic demand wishing to cross the River Thames east of London, and provide an alternative route to the Dartford Crossing, relieving both the existing crossing and approach roads. This would in turn reduce congestion, journey time and incidents, and increase journey time reliability in the Lower Thames area, benefiting the region and the flow of goods and services using the South East ports.

1.5.2 Improved cross-river connectivity and the traffic relief at the Dartford Crossing would help the local communities establish stronger connections whilst also improving the quality of life by reducing local road congestion and local environment through reduced noise and air pollution for those communities at Dartford.

1.5.3 Reduced congestion and delays and improved journey time reliability and cross-river connectivity would significantly aid the growth potential for the local economies on both sides of the River Thames by helping to form a single market with enhanced labour market, competition and efficiencies to drive up productivity. The benefits would extend across the London region by creating a greater synergy and across the country where the economy relies on road connectivity for international trade via the ports.

## 1.6 Value for Money

1.6.1 A Value for Money assessment has been carried out. This has taken account of the Project's benefits and costs across the economic, environmental and social impacts. It shows that the Project will provide positive value for money, as the substantial benefits of the Project outweigh the costs.

## 1.7 Conclusion

1.7.1 There is a demonstrable and compelling need for the Project in the public interest, and the Project supports the Scheme Objectives.

1.7.2 The Project is expected to have substantial, positive impacts on the future growth potential of the national and regional economies.

1.7.3 The Project provides benefits to communities either side of the river both in the form of economic opportunities and in enabling the creation of new community infrastructure.

# 2 Introduction

## 2.1 Purpose of the document

2.1.1 A Development Consent Order (DCO) application has been submitted to the Secretary of State through the Planning Inspectorate in accordance with the Planning Act 2008, The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, and Advice Note Six issued by the Planning Inspectorate (Planning Inspectorate, 2019).

2.1.2 This document is supplementary to those required by the Regulations, or referred to within the guidance. It is incorporated within the application in order to set out the need for the Project and the objectives to be addressed, and the benefits of the Project that address the need and objectives.

2.1.3 The Need for the Project document has been prepared to sit alongside the Planning Statement (Application Document 7.2). In broad terms, this document sets out the need for the Project and the Scheme Objectives, and then summarises the benefits of the Project to show how they fit against both of them. The Planning Statement sets out the relevant planning policy context and compliance with such policy, taking into account the alternatives and options considered over the evolution of the Project. Compliance with those policies supports the case for the Project. The Planning Statement draws from the need case set out in this document to demonstrate policy compliance.

## 2.2 Project overview

2.2.1 The Project would provide a connection between the A2 and M2 in Kent and the M25 south of junction 29, crossing under the River Thames through a tunnel. The Project route is presented in Plate 2.1.

2.2.2 The A122 would be approximately 23km long, 4.25km of which would be in tunnel. On the south side of the River Thames, the Project route would link the tunnel to the A2 and M2. On the north side, it would link to the A13, M25 junction 29 and the M25 south of junction 29. The tunnel portals would be located to the east of the village of Chalk on the south of the River Thames and to the west of East Tilbury on the north side.

2.2.3 Junctions are proposed at the following locations:

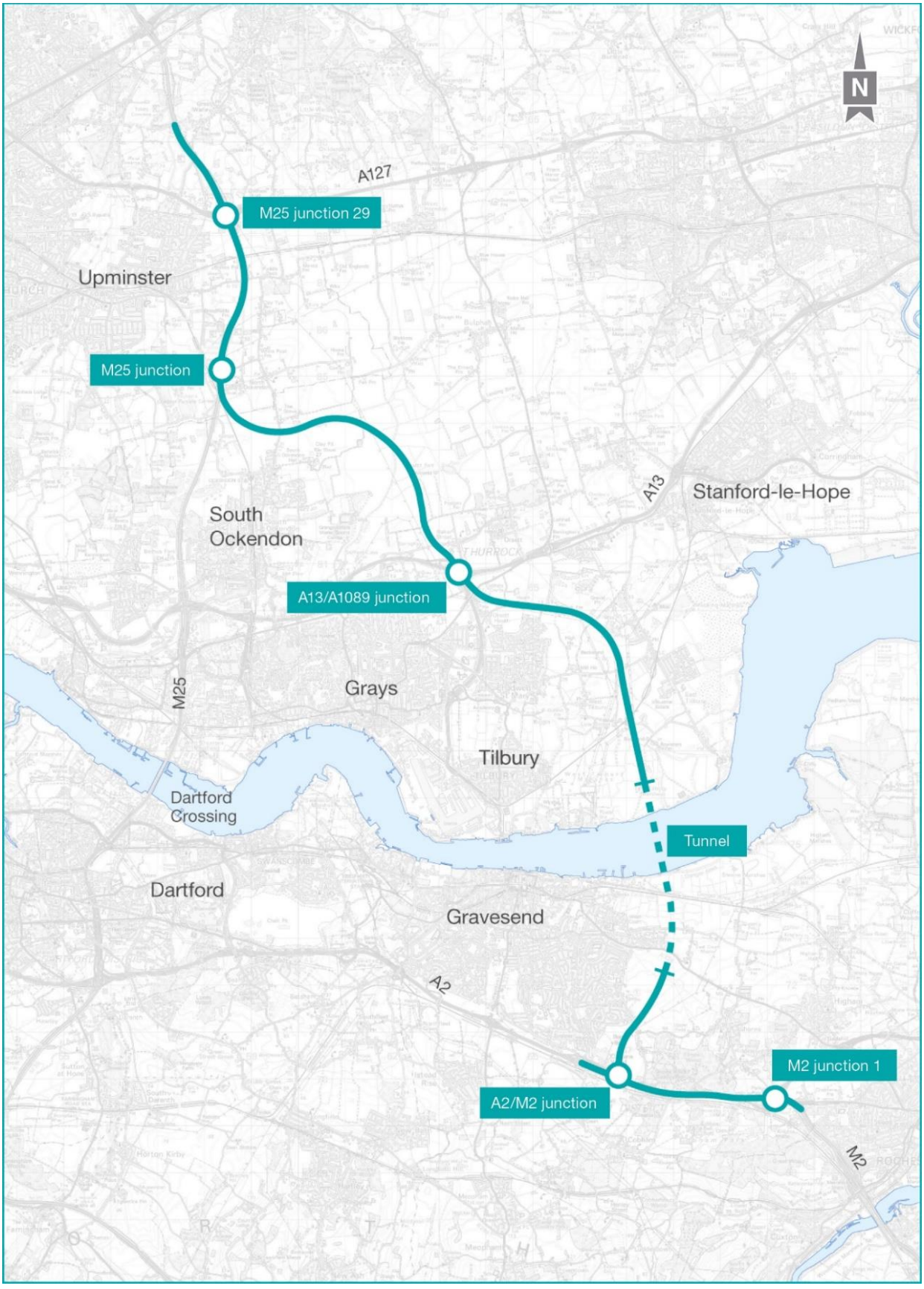
a. New junction with the A2 to the south-east of Gravesend

b. Modified junction with the A13/A1089 in Thurrock

c. New junction with the M25 between junctions 29 and 30

2.2.4 To align with National Policy Statement for National Networks (Department for Transport, 2014) policy and to help the Project meet the Scheme Objectives, it is proposed that road user charges would be levied in line with the Dartford Crossing. Vehicles would be charged for using the new tunnel.

## Plate 2.1 The Project route



2.2.5 The Project route would be three lanes in both directions, except for:

a. Link roads

b. Stretches of the carriageway through junctions

c. The southbound carriageway from the M25 to the junction with the A13/A1089, which would be two lanes

2.2.6 In common with most A-roads, the A122 would operate with no hard shoulder but would feature a 1m hard strip on either side of the carriageway. It would also feature technology including stopped vehicle and incident detection, lane control, variable speed limits and electronic signage and signalling. The A122 design outside the tunnel would include emergency areas. The tunnel would include a range of enhanced systems and response measures instead of emergency areas.

2.2.7 The A122 would be classified as an 'all-purpose trunk road' with green signs. For safety reasons, walkers, cyclists, horse riders and slow-moving vehicles would be prohibited from using it.

2.2.8 The Project would include adjustment to a number of local roads. There would also be changes to a number of Public Rights of Way, used by walkers, cyclists and horse riders. Construction of the Project would also require the installation and diversion of a number of utilities, including gas pipelines, overhead electricity powerlines and underground electricity cables, as well as water supplies and telecommunications assets and associated infrastructure.

2.2.9 The Project has been developed to avoid or minimise significant effects on the environment. The measures adopted include landscaping, noise mitigation, green bridges, floodplain compensation, new areas of ecological habitat and two new parks.

## 2.3 Structure of the document

2.3.1 The remainder of this document is structured as follows:

a. **Chapter 2: Policy context** – reviews the policy context across national, regional and local government levels that are relevant to the need for the Project.

b. **Chapter 3: Need case: issues and opportunities** – demonstrates the need for the Project arising from the existing problems and opportunities across the three dimensions of transport, community and environment, and economic, and sets out the Scheme Objectives based on the need case.

c. **Chapter 4: Project benefits** – summarises the benefits and opportunities that would be delivered by the Project across the three dimensions of transport, community and environment, and economic. It also summarises the Project's Value for Money assessment. It then demonstrates how the Scheme Objectives are supported by the Project.

d. **Chapter 5: Summary** – sets out the overall need case for the Project.

# 3 Policy context

## 3.1 Introduction

3.1.1 The Government recognises that infrastructure plays a key role in supporting the country and its economy. It connects people and jobs, raises productivity of business and creates opportunities, while individual schemes tackle specific issues such as traffic congestion. This is reflected in a range of Government economic, planning and infrastructure policies including the National Policy Statement for National Networks (NPSNN) (Department for Transport, 2014) which is the primary basis for making decisions on DCO applications for major road schemes in England. The strategic need case for development of the road network expressed in this policy is set out here.

3.1.2 The strategic need for the Project has been recognised at national, regional and local level. This has led to the need for development of the road network in general, and specifically the Project being identified in a series of national, regional and local policy documents. This framework of policy support is also set out here.

## 3.2 National Policy Statement for National Networks

3.2.1 Section 2 of the NPSNN sets out the need for development of the national networks, the Government's policy and strategic vison and objectives. Specifically, paragraph 2.2 states that '*there is a critical need to improve the national networks to address road congestion and crowding on the railways to support safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth'.*

3.2.2 Paragraph 2.4 recognises that the need to improve the national network is expected to intensify, stating that, 'pressure on our networks is expected to increase even further as the long term drivers for demand to travel – GDP and population – are forecast to increase substantially over coming years'.

3.2.3 This is supported by paragraph 2.22 of the NPSNN which states that 'without improving the road network, including its performance, it will be difficult to support further economic development, and this will impede economic growth and reduce people's quality of life. The Government has therefore concluded that, at a strategic level, **there is a compelling need for the development of the national road network**'.

3.2.4 It is acknowledged though (paragraph 2.24) that 'the Government's policy on development of the Strategic Road Network is not that of predicting traffic growth and then providing for that growth regardless. Individual schemes will be brought forward to tackle specific issues, including those of safety, rather than to meet unconstrained traffic growth'.

3.2.5 Paragraph 2.27 of the NPSNN goes on to state that 'in some cases to meet the [needs of traffic], it will not be sufficient to simply expand capacity on the existing network. In those circumstances new road alignments and corresponding links, including alignments which cross a river or estuary, may be needed to support increased capacity and connectivity'.

## 3.3 Other national policy context

3.3.1 The Government's Levelling Up the United Kingdom White Paper (Department for Levelling Up, Housing and Communities, 2022) recognises transport infrastructure as an important form of physical capital, reducing 'distances' between people and improving market access for people, firms and workers. Transport infrastructure is identified as one of the Government's core missions in levelling up to drive improvements in productivity, pay, jobs and living standards.

3.3.2 In the Levelling Up White Paper, the Project is identified as a strategic road investment which will boost productivity, pay, jobs and living standards which will ultimately level up different areas of the country. The Project is anticipated to act as a major road improvement for the East and South East of England, and also for London as the Project will nearly double the capacity across the Thames east of London.

3.3.3 The Second National Infrastructure Assessment Baseline Report (National Infrastructure Commission, 2021a) sets out the current state of the UK's economic infrastructure and identifies key challenges for the coming decades. It included surveying the state of the national systems of transport infrastructure. The report identifies supporting levelling up as a key strategic theme for the assessment, linking the use of transport infrastructure with reducing disparities between places and improving opportunities for people.

3.3.4 Section 4.1 of the report states that in terms of levelling up *'improvements in the transport sector can have the greatest impact'*, supporting economic productivity and quality of life by addressing constraints to growth and contributing to economic transformation in particular places. The report specifically states that *'transport connections can increase the density of high productivity clusters of people and businesses in cities, facilitate trade between cities, make places more attractive to live and work in, and encourage investment in places*'. The second national infrastructure assessment will seek to understand these interconnected factors in relation to the long term needs in different regions of the country. The Level 3 Wider Economic Impacts Report (Appendix D of the Combined Modelling and Appraisal) makes clear how the Project creates the potential for substantial economic benefits which is based on facilitation between Kent, Thurrock and Essex.

3.3.5 When the first ever National Infrastructure Assessment (National Infrastructure Commission, 2018) was published, the Government followed up with the publication of the National Infrastructure Strategy (HM Treasury, 2020). The strategy sets out the Government's plan for a renaissance to build the infrastructure that the country needs and to redress long-standing inequalities, particularly in transport, between different parts of the UK. The Project is identified as a key part of the Government's investment in strategic roads to connect the regions and nations of the UK and create a united and Global Britain.

3.3.6 The Build Back Better policy paper (HM Treasury, 2021a) sets out how the Government seeks to guide the UK economy to recover from the effects of the COVID-19 pandemic in a timely and sustainable manner. The Government seeks to do this by building on three core pillars of growth across infrastructure,

skills and innovation. On infrastructure, the policy paper confirms that it is pressing ahead with the implementation of the National Infrastructure Strategy (HM Treasury, 2020). The Project is explicitly cited in that document. In particular, it is noted that the Government seeks to invest in "infrastructure to transform delivery and support private investment" and this includes the Lower Thames Crossing.

3.3.7 The Growth Plan 2022 (HM Treasury, 2022) highlights the Government's commitment to infrastructure development even further by recognising that the speedy delivery of infrastructure plays a key role in growth. It states that '*the Government is committed to accelerating the delivery of priority major infrastructure projects across the country, as a vital means of driving the UK's economic growth, increasing long-term energy security and delivering Net Zero*'.

3.3.8 The Net Zero Strategy (HM Government, 2021b) sets out the Government's plans for the economy-wide (including transport) transition to net zero. More specifically, the Decarbonising Transport plan (Department for Transport, 2021) sets out the Government's commitments and actions needed to decarbonise the transport system in this country. The Net Zero Highways programme (National Highways, 2021) sets out National Highways' commitments to achieve net zero across its own carbon emissions and road users' emissions in the country, and notes that the Project is to be used as a key project to test low carbon innovation and approaches. The Project was also designated in February 2022 as a 'pathfinder' project that will explore carbon neutral construction as part of the efforts to make the development the greenest road ever built in the UK.

3.3.9 The Government announced the creation of eight new Freeports in England, including the Thames Freeport, in 2021 (HM Treasury, 2021b). These are areas where businesses will benefit from more generous tax reliefs, simplified regulatory procedures and wider government support, bringing investment, trade and jobs which will regenerate regions across the country that need it most. The Project would play an important role in supporting the Thames Freeport, as highlighted by the Department for Levelling Up, Housing and Communities in its letter dated 12 October 2021 (Department for Levelling Up, Housing and Communities, 2021) which sought a mutually beneficial redesign of the Project to best support the land-take needed to realise the full ambitions of the Thames Freeport.

3.3.10 The importance of supporting ports is a strategic priority for the Government as it seeks to build a Global Britain. As noted in Global Britain in a Competitive Age (HM Government, 2021a), the Government seeks to nurture a strong UK economy that is more competitive internationally and road infrastructure, such as the Project, in supporting ports is therefore essential in aiding international trade.

3.3.11 England's Port Connectivity (Department for Transport, 2018b) and Transport Infrastructure for our Global Future (Department for Transport, 2018c) both recognise the fundamental importance of the strategic road network (SRN) in supporting the port connectivity and growth in international trade movements, as road freight transport accounts for 76% of all freight movements in the UK. They recognise the congested road network negatively affects the ports in the London and South East region, and note that the Project is a key road project to alleviate this congestion particularly relieving the Dartford Crossing and

providing the Port of Tilbury (among other ports) with improved accessibility to the SRN.

3.3.12 The Project sits within a wider package of works for the SRN in the south-east of England. The Government's Road Investment Strategy 2: 2020–2025, also known as RIS2, (Department for Transport, 2020a) acknowledges that the demands on the nation's roads continue to evolve and change and that investment is needed to update the network accordingly. The Project is identified as a part of this investment, as a project that will be started or completed in the RIS2 period and will '*have a national impact, allowing freight traffic to the continent to bypass Dartford, and have an uncongested route to Dover'.*

## 3.4 Regional and local policy context

3.4.1 The South East Local Enterprise Partnership (SELEP) is one of 38 Local Enterprise Partnerships (LEPs) established by the Government in 2011 to identify and support local strategic growth priorities, encourage business investment and promote economic development. A key role of LEPs is to decide the priorities for investment in roads, buildings and facilities in the area as part of an integrated approach to growth and infrastructure development.

3.4.2 The Smarter Faster Together: Towards a Local Industrial Strategy (SELEP, 2018) refers to the major, long-term infrastructure priorities to be delivered within the SELEP area, including the Project, stating that:

3.4.3 'Looking forward to the next five years, key areas for action include…delivery of the Lower Thames Crossing, all its stated scheme objectives and the consequential improvements that must be delivered on the wider road network.'

3.4.4 The 2050 Vision for the Thames Estuary (Thames Estuary Growth Commission, 2018a) sets out the 2050 vision that the Thames Estuary would be a tapestry of productive places along a global river. Their vision is supported by six objectives including the provision of improved connections between settlements. The Project is acknowledged as a prime example that would strengthen local and national links to support the 2050 vision by the commission.

3.4.5 The Technical Report by the Thames Estuary 2050 Growth Commission (2018b) explicitly supports the Project. It notes that the places and economies of the Thames Estuary are not well integrated particularly between the north and the south of the River Thames, and the lack of crossings is also causing increased delays in journeys. The report recognises that the Project would assist in improving integration and connectivity, and could unlock substantial growth.

3.4.6 The Green Blue – Action Plan (Thames Estuary Growth Board, 2020) notes that it is backing key infrastructure projects such as the Project to make sure they receive the investment they need and are delivered within timeframes that make sense. The action plan specifically supports the Project as a foundation infrastructure initiative and confirms that the board will help work through the remaining challenges and opportunities associated with the Project.

3.4.7 Both the London Plan (Greater London Authority, 2021) and the Mayor of London's Transport Strategy (Greater London Authority, 2018) include the

Project in their list of '*Strategic Infrastructure priorities'* while the Mayor's Transport Strategy also sets out the following:

3.4.8 'On the M25 orbital motorway, there is already enormous pressure on the Dartford Crossing, an important artery for people and businesses in outer London. The new Lower Thames Crossing being proposed by the Government could help reduce pressure on this important link'.

3.4.9 The Kent County Council Local Transport Plan (2016–2031) (Kent County Council, 2016) sets out that 'the Dartford Crossing carries over 50 million vehicles a year and congestion costs the UK economy by constraining growth, impacting on north Kent, south Essex and southeast London'. Within this Transport Plan the Project is identified as a strategic priority.

3.4.10 The Kent County Council Local Transport Plan (2016–2031) (Kent County Council, 2016) states that the Project would result in significant cost savings to UK businesses by improving journey time reliability and network resilience, and states that *'we are clear that a new Lower Thames Crossing, to the east of Gravesend, is required to unlock growth, improve journey time reliability, improve network resilience, and enable opportunities for regeneration'*. It notes that the Dartford Crossing is the shortest freight route between Kent and the major distribution centres in the Midlands and the North, and that capacity is overloaded for large periods of the day and is extremely vulnerable to incidents – over 300 times a year the crossing is fully or partially closed. It highlights that, due to congestion and delays, productivity and economic growth is constrained.

3.4.11 The update to Kent County Council's Kent and Medway Growth and Infrastructure Framework (Kent County Council, 2018) provides a view of emerging development and infrastructure requirements to support growth across Kent and Medway. Delivering the Project is highlighted as a strategic priority in order to *'relieve congestion at Dartford, facilitate growth across the North Kent Thames Gateway area and create a new strategic route from the Port of Dover via the M2/A2 to the Midlands and North'.*

3.4.12 The Growth Infrastructure Framework also welcomes the relief for the Dartford Crossing through provision of the Project in the context of large scale growth in the Dartford Borough, likely to be exacerbated in the future by major development in the Ebbsfleet area. The Project is also identified to *'provide opportunities for investment and regeneration, offer safer and more reliable journeys and provide a brand-new transport corridor at a critical part of the road network'* in the North Kent area.

3.4.13 The Essex Transport Strategy (Essex County Council, 2011) identifies that the current lack of capacity at the Dartford Crossing is an area of key concern. The strategy continues that it is '*essential that this issue is addressed, not only to support economic growth and regeneration within the Thames Gateway area, but also for long-term efficiency of this vitally important national route'*. It notes that a failure to provide additional river crossing capacity would likely inhibit the long-term competitiveness of the Thames Gateway.

3.4.14 The Thurrock Transport Strategy 2013–2026 (Thurrock Council, 2013) acknowledges that the Dartford Crossing adds an additional element of traffic risk on the road network capacity in Thurrock, as the bridge and tunnels are more sensitive to accidents and congestion, which leads to widespread effects

on Thurrock's local road network. It further notes that Thurrock will work to address the issue of congestion at the Dartford Crossing.

3.4.15 The Thurrock Economic Development Strategy (Thurrock Council, 2016) identifies a number of interventions that will be required to support growth in its target 'opportunity' sectors for growth. The strategy states that transport issues need to be addressed for the movement of materials or goods on to national and international markets. It is also stated that *'road congestion has a significant impact upon the perception of the area and can hinder the development of the visitor economy and the development of the Recreation and Leisure sector in particular'.* The strategy shows that improvement in this kind of physical infrastructure is needed for economic growth.

3.4.16 The London Borough of Havering's Local Implementation Plan (LIP3) (London Borough of Havering, 2019) sets out Havering's strategy for locally implementing the Mayor of London's Transport Strategy. In the plan, the Project is indicated as a piece of infrastructure that could help facilitate Havering's plans to provide tram and light rail facilities in the future for *'unlocking borough-wide benefits'*. It is noted in the LIP3 that Havering supports in principle additional river crossings across east London.

3.4.17 Medway's Local Transport Plan (2011–2026) (Medway Council, 2011) identifies increased travel demand arising from being within the Thames Gateway regeneration area as a major challenge. The plan demonstrates how its objective of improving transport capacity can contribute to its priorities, specifically through providing a more reliable and efficient highway network, particularly for freight movements through Medway and beyond into neighbouring authorities. It is acknowledged in the Local Transport Plan that proposals such as Project would be infrastructure proposals of a significant nature to the Medway area.

## 3.5 Summary

3.5.1 The vision and support for significant road infrastructure development is set out at national, regional and local government levels. This reflects the fact that congestion is a constraint on the economy, it causes severance of communities and economies and detracts from the quality of life for users and affected communities. Those issues are recognised to be particularly significant in relation to the Dartford Crossing as it is a nationally vital part of the SRN providing connection for example between the Channel Ports and the industrial heartlands in the North of England.

3.5.2 National policy recognises the contribution that the Project would make to the national and regional economy and the contribution it would make to levelling up regional economies. National policy confirms and reinforces explicitly, directly as well as indirectly, the need and support for the Project. The Project is supported in local policies for similar reasons as well as for the local benefits it would bring by uniting communities and enlarging business markets.

# 4 Need case: issues and opportunities

## 4.1 Introduction

4.1.1 This chapter sets out the need case for the Project. It considers the existing problems and opportunities arising from a single road crossing east of London. The consideration is split across the three dimensions of transport, community and environment, and economic. This chapter then sets out the Scheme Objectives based on the need case arising from the issues associated with the three dimensions.

## 4.2 Transport need

### Demand outstrips road space supply

4.2.1 The fundamental transport need is that the Project is needed because the existing traffic demand wishing to cross the river east of London outstrips the road space supply in that location. The demand has outstripped supply for years as there has essentially been no major increase in the road space since the Queen Elizabeth II (QEII) Bridge opened at the Dartford Crossing in 1991, despite the increasing demand.

4.2.2 The Dartford Crossing is the only significant road crossing of the River Thames east of London (see Plate 4.1 below). The crossing consists of two bored tunnels for northbound traffic and a bridge for southbound traffic. Designed for 135,000 vehicles per day, it carries 150,000 vehicles on a typical average day, although it regularly carries over 180,000 vehicles on the busiest days of the year (Highways England, 2019a).

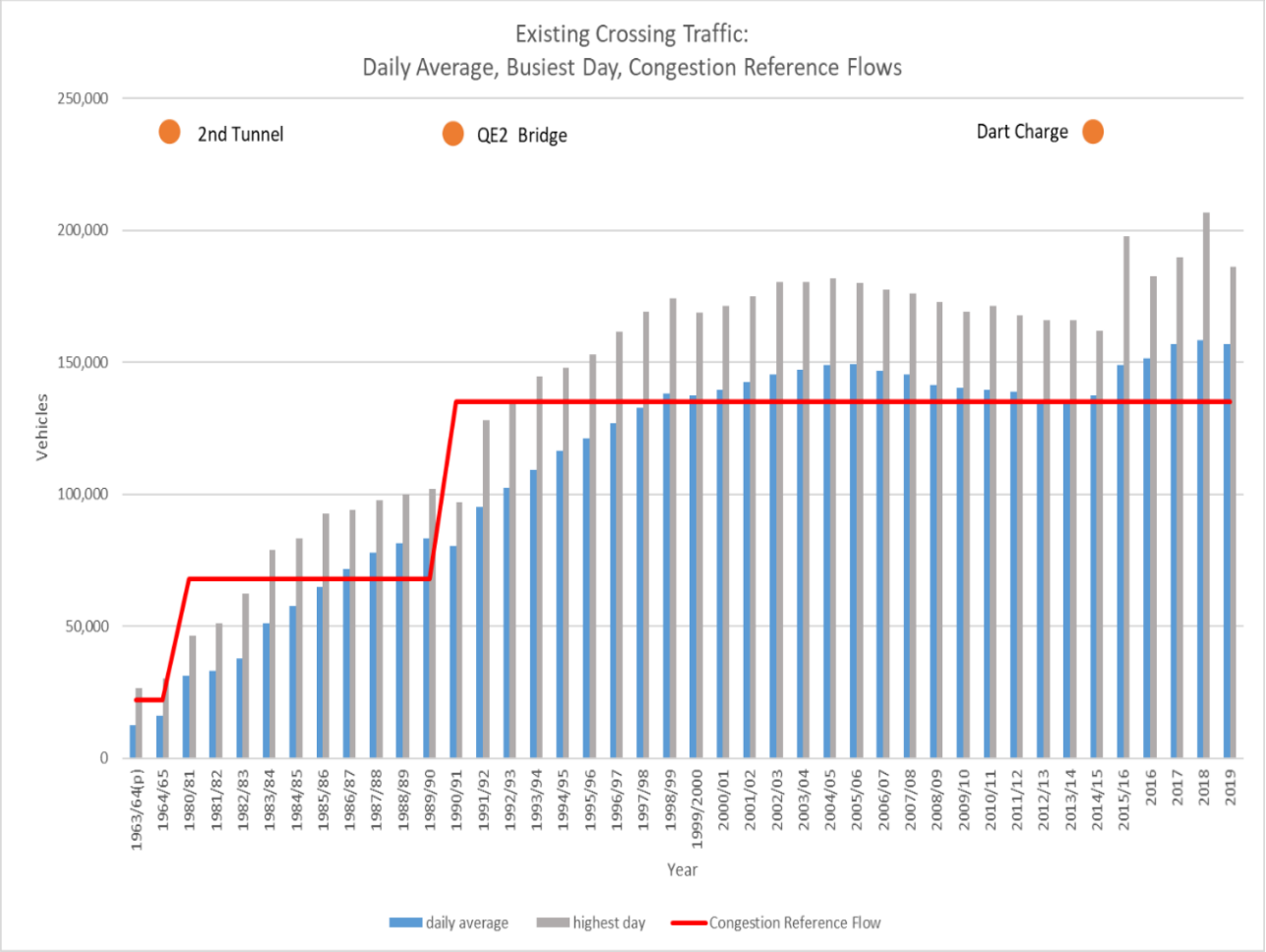
**Plate 4.1 Crossings of the River Thames**


4.2.3 Plate 4.2 shows how traffic has grown over time, with additional physical lane capacity at the Dartford Crossing and the implementation of the Dart Charge. There was a steady increase in traffic until 1999 when traffic began to be capacity constrained. Following the opening of the QEII Bridge, which effectively doubled capacity, it only took seven years until traffic was again capacity constrained.

4.2.4 The implementation of the free-flow Dart Charge in November 2014 improved flows providing some relief on the capacity-constrained approaches, while the concurrent increase in the charge will have suppressed demand to an extent. Nevertheless, traffic volumes increased in the first year by four times more than

the average increase in the SRN (Department for Transport, Road Traffic Forecasts, 2018a).

**Plate 4.2 Traffic using the Dartford Crossing**




4.2.5 It is difficult to significantly increase the road space supply at the Dartford Crossing (e.g. widening of the road) due to its sensitive location and issues with widening the approach roads leading to the crossing. The incremental improvement works over the years have not provided the significant road space supply that is required to meet the demand.

4.2.6 It is also difficult to reduce the strength of the traffic demand given the lack of alternative routes (i.e. there is no other supply of road space to cross the river, east of London). The demand management in the form of the Dart Charge also did not suppress demand as the traffic demand increased even more strongly despite its introduction. The Government acknowledges that demand management has not translated into significantly less pressure on the SRN (see paragraph 2.21 of the NPSNN).

4.2.7 There is an opportunity to significantly increase the road capacity to serve the evident existing traffic demand wishing to cross the river east of London, at a different location to the Dartford Crossing. The Project evolution and consideration of options and alternatives are detailed in Chapter 4 of the Planning Statement (Application Document 7.2).

## Road space is challenged

4.2.8 While the fundamental cause of the transport problem remains that demand outstrips supply, the problem is further exacerbated by the configuration of the road network at the Dartford Crossing and its approaches.

4.2.9 The first crossing in this location was provided by a single, two-lane tunnel, opened in 1963. A second tunnel was completed in 1980, offering two additional lanes. The QEII Bridge opened in 1991, dedicated to southbound traffic while the tunnels became dedicated to northbound traffic. There are now four traffic lanes crossing the River Thames, in each direction. The Dart Charge scheme, a remote free-flow charging payment system at the Dartford Crossing, was introduced in November 2014 as an improvement to the existing system which required drivers to stop and pay at barriers.

4.2.10 The incremental approach to increasing traffic capacity at the existing crossing has resulted in sub-optimal configuration with many compromises compared to modern standards.

4.2.11 With the opening of the QEII Bridge, the use of the crossings as part of the M25, and the opening of the Channel Tunnel, the role of the crossing has shifted significantly from the original local and regional connection to a vital national and international network connection. This is evident with the use of the crossing for Dover and Channel Tunnel Heavy Goods Vehicle (HGV) traffic heading north of London.

4.2.12 The Dartford Crossing is crucial to the overall integrity of the SRN as it provides the only road crossing of River Thames, east of London. The SRN is designed to carry long distance trips by both private and commercial (freight) vehicles. Alternative routings to avoid the Dartford Crossing generate considerably longer journeys and greater traffic levels elsewhere on the road network.

4.2.13 Further information on the current performance of the Dartford Crossing is detailed within Appendix B: Transport Model Package of the Combined Modelling and Appraisal Report (ComMA) (Application Document 7.7).

### Northbound tunnels at the Dartford Crossing

4.2.14 The design and age of the existing tunnels result in the following operational constraints:

a. The western tunnel geometry excludes vehicles over 4.8 metres high, so taller vehicles must use the eastern tunnel and cross traffic lanes to do so. This leads to congestion and increased weaving which is a frequent cause of incidents. When vehicles that are too high mistakenly approach the western bore, traffic must be stopped while they are moved to the eastern bore, which causes disruption and delay to general traffic.

b. Due to the age and design of both tunnels, Dangerous Goods Vehicles (DGVs), such as fuel tankers, are required to be escorted through the tunnels which slows traffic flow. Escorts are scheduled to take place every 15 minutes and 2019 data shows that about 2,000 escorts took place every month (23,732 escorts in the year) equivalent to 65 every day. The process of undertaking these escorts and removing escorted vehicles from general

traffic lanes on the approach to the tunnels can also result in additional disruptions and loss of capacity of between 8–12%, equivalent to 5–7 minutes of closures each hour.

4.2.15 In addition, no vehicles are permitted to queue in the tunnels. When incidents or congestion occur north of the River Thames, traffic is halted outside of the tunnels which causes further congestion on the surrounding network.

> *'Myself and a number of other dangerous goods vehicles were made to wait nearly 50 minutes before escorted through the tunnel.'*
>
> Road User

4.2.16 The challenged road space environment and vehicle restrictions through the Dartford Crossing have been referenced as an issue in the letters of support (see Appendix A of this report) by major retailers such as Morrisons, Asda and John Lewis Partnership.

### Southbound bridge

4.2.17 When the forecast crosswind speed exceeds 60mph or the headwind speed exceeds 70mph, the QEII Bridge is closed to all traffic for safety reasons. Southbound traffic is then routed through the eastern tunnel. While relatively rare, the incidence of the bridge having to close for high winds appears to be increasing, with the bridge recently closed for Storm Eunice and Storm Franklin in 2022; in addition, two lanes were closed in April 2022. This can cause additional delay in both directions due to reduced capacity (which can be reduced by circa 50% in both directions) and extra traffic management measures.

4.2.18 The need to provide a weather resilient crossing has been referenced in the letters of support (see Appendix A of this report) by local businesses such as Ruskins (tree services business).

> *'We cross the Thames at least 120 times a day… it costs us roughly £1 million a year just to get our fleet to the M25 before we even get to the Dartford Crossing. From a risk point of view, a windy day can set us back weeks if the Dartford Crossing's closed.'*
>
> Metal Supplier, Essex

### Junctions near the Dartford Crossing

4.2.19 While the fundamental cause of the problem remains that the traffic demand to use the Dartford Crossing exceeds the available road capacity, the problem is exacerbated by the complex road layout on the approaches to the crossing with junctions less than one mile apart north and south of the Dartford Crossing, causing the following issues.

a. Extensive weaving occurs as users enter/exit the A282 and use the Dartford Crossing. This impacts on traffic flow, reducing effective capacity and increasing the likelihood of incidents, resulting in further capacity loss when these occur.

b. Drivers familiar with the local area leave the M25 and use local roads to avoid congestion, re-joining closer to the Dartford Crossing, for example, at the head of the queue at junction 1a, or using parallel routes between junction 2 and junction 1b rather than the A282. This increases traffic on the local road network and further exacerbates the issues with junctions and weaving. Such traffic also unnecessarily interacts with vehicles using the local junctions (but not to access the Dartford Crossing) exacerbating problems with traffic flow both locally and strategically.

c. Because of some of the above issues, junctions 1a, 1b, 2 and 30 have merge and diverge arrangements that are unable to accommodate the significant flows using them, which in turn cause further problems and constraints to the wider network as traffic is held up both joining and leaving the SRN.

4.2.20 There is an opportunity to significantly increase road capacity to serve the existing traffic demand wishing to cross the river east of London by way of a modern day crossing.

### Lack of alternative routes

4.2.21 Road users wanting to cross the River Thames east of London have no choice but to continue to use the Dartford Crossing because of the lack of alternative routes.

4.2.22 The closest existing alternative route for vehicles crossing the River Thames east of London is the Woolwich Ferry, approximately 10 miles from the Dartford Crossing. This ferry does not operate 24 hours a day, has restrictions on vehicles' size and prohibits vehicles with Hazchem signs.

4.2.23 The Blackwall Tunnel is approximately 15 miles from the Dartford Crossing but is not suitable for HGVs and is already situated on a heavily congested road network.

4.2.24 The Silvertown Tunnel, which was granted development consent in 2018, is planned to open in 2025 and is intended to reduce congestion at the nearby Blackwall Tunnel. While the Silvertown Tunnel is not yet built, it has been included within the Project's transport model, the results from which show that in 2030 (without the Project) the issues remain at the Dartford Crossing and so there would still be a need for the Project. This is because, while the Silvertown Tunnel will offer an additional route to cross the River Thames, it will not be a viable alternative for local or regional traffic across Kent, Thurrock and Essex due to it being approximately 15 miles from the Dartford Crossing.

4.2.25 Due to the limitations of the alternative routes outlined above, the only viable alternative for large vehicles and some Dangerous Goods Vehicles is to go around the M25 to the west of London, significantly increasing their journey time and distance. Vehicles heading for the north of England via the M1 for example would have to travel nearly double the distance (i.e. distance of 45 miles anti-clockwise increasing to 80 miles clockwise).

4.2.26 As a result of the lack of, and limitations with, existing alternative routes, the network in the Lower Thames area lacks the resilience to quickly return to normal operation following incidents, closures and periods of high congestion.

4.2.27 The lack of alternative routes and the need to increase resilience are referenced in the letters of support (see Appendix A of this report) by business groups such as Essex Developers Group and Road Haulage Association, major retailers such as Morrisons and Asda, and national businesses such as Maritime Transport (logistics).

4.2.28 There is an opportunity to provide an alternative route to cross the river east of London in addition to the Dartford Crossing and the Project would fulfil that opportunity.

## Road user issues

4.2.29 The combination of the significant demand outstripping road space supply, the challenged road space and the lack of alternative routes manifest a wide range of road user issues associated with the Dartford Crossing as analysed below.

4.2.30 The analysis set out below focusses on traffic flows in the year 2019. During 2020 and 2021 the travel restrictions associated with the Covid-19 pandemic resulted in short term changes to travel patterns. However, the data collated in the first part of 2022 show that usage of the Dartford Crossing has returned to at least 2019 levels, showing the demand has returned following the Covid-19 pandemic. As there is not yet a full annual data set for 2022, the analysis presented here uses traffic information gathered in 2019.

### Congestion

4.2.31 The Dartford Crossing experiences high levels of traffic, with typical daily traffic flows of 157,000 vehicles in 2019 (Highways England, 2019a) over the intended capacity. Traffic flows fluctuate relatively little during the year and there is little variation in flow between weekdays, although weekends experience slightly lower flows. Such high traffic flows result in congestion and poor reliability, making the Dartford Crossing an unreliable section of the SRN with the northbound approach to the crossing between the M25 junction 2 and the tunnels being the worst performing 1% of the whole SRN in terms of reliability.

**Plate 4.3 Photographs of congestion at the Dartford Crossing**


4.2.32 Paragraph 2.16 of the NPSNN (Department for Transport, 2014) states that traffic congestion constrains the economy and impacts negatively on quality of life in a number of ways, including the following:

a. Constraining economic activity as well as economic growth

b. Leading to a marked deterioration in the experience of road users

c. Constraining job opportunities

d. Causing more environmental problems

4.2.33 Further to the existing congestion, the average daily traffic flow using the Dartford Crossing without the Project is also predicted to continue to increase

by nearly 21% in the period 2016–2030. This will lead to increased congestion at the Dartford Crossing in addition to the existing congestion problems, on key approach roads such as the A2, M20, A13 and the A127, and on the local road network in Dartford and Thurrock.

4.2.34 The removal of the barriers and introduction of free-flow charging technology at the Dartford Crossing in November 2014 (the 'Dart Charge' scheme) improved traffic flow and journey times but did not provide increased capacity.

4.2.35 As well as affecting journeys across the River Thames, this traffic congestion also affects journeys on local roads around the Dartford Crossing through backed up traffic. Local people's daily routines are impacted, leading to wasted time for people and industry, and affecting economic productivity.

4.2.36 The need to address the severe and far-reaching traffic congestion issues have been recognised in the letters of support (see Appendix A of this report) by business groups such as Confederation of British Industry, South East Local Enterprise Partnership, Thames Estuary Growth Board, Opportunity South Essex, Kent Chamber of Commerce, Essex Chambers of Commerce and Road Haulage Association; major retailers such as Morrisons, Asda, John Lewis Partnership and Bluewater; transport operators such as ports (Port of Dover, London Thamesport, London Medway Port) and airports (London Stansted Airport, London Southend Airport) as well as smaller businesses such as Sharp Group (waste management) and Ripe Now (food ripening business).

*'It costs about £1 per minute to operate a HGV, so being sat in congestion is simply bad for business.'*

Logistics Company, Kent

*'We cannot even get to our home most days as Sussex Road is used as a 'rat run' when the tunnel is bad.'*

Road User

### Low speeds

4.2.37 Using a combination of Dart Charge and Bluetooth data, it is possible to show the relationship between flow and speed. The analysis below is based on weekday data extracted between 1 January 2016 and 30 November 2016.

4.2.38 Analysis from the PM peak is shown in Plate 4.4 and Plate 4.5 for both the southbound and northbound carriageways across the Dartford Crossing. The analysis shows data for a three-hour period:

a. 15:00–16:00 in blue

b. 16:00–17:00 in orange

c. 17:00–18:00 in grey

**Plate 4.4 Speed/flow scatterplot, Dartford Crossing southbound, PM peak**

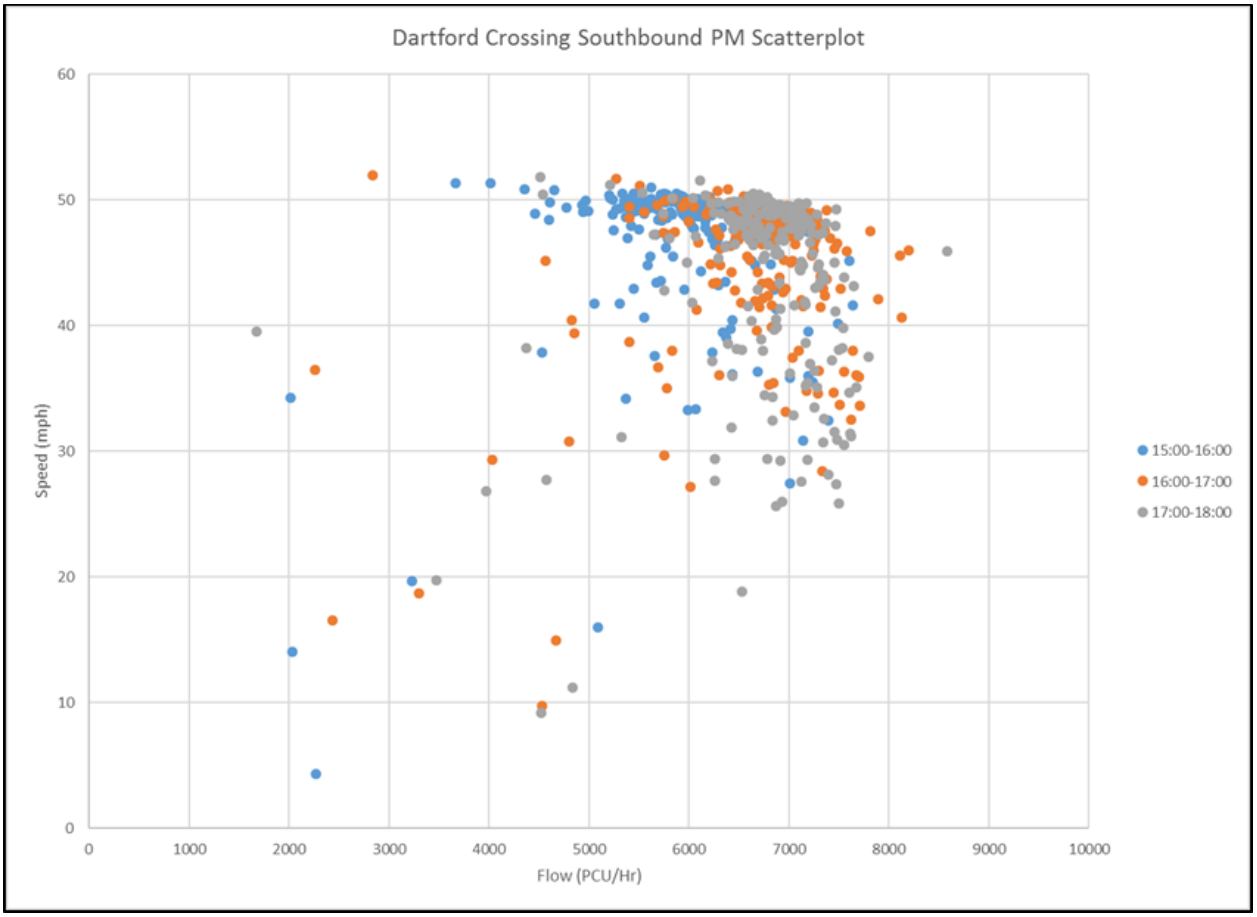
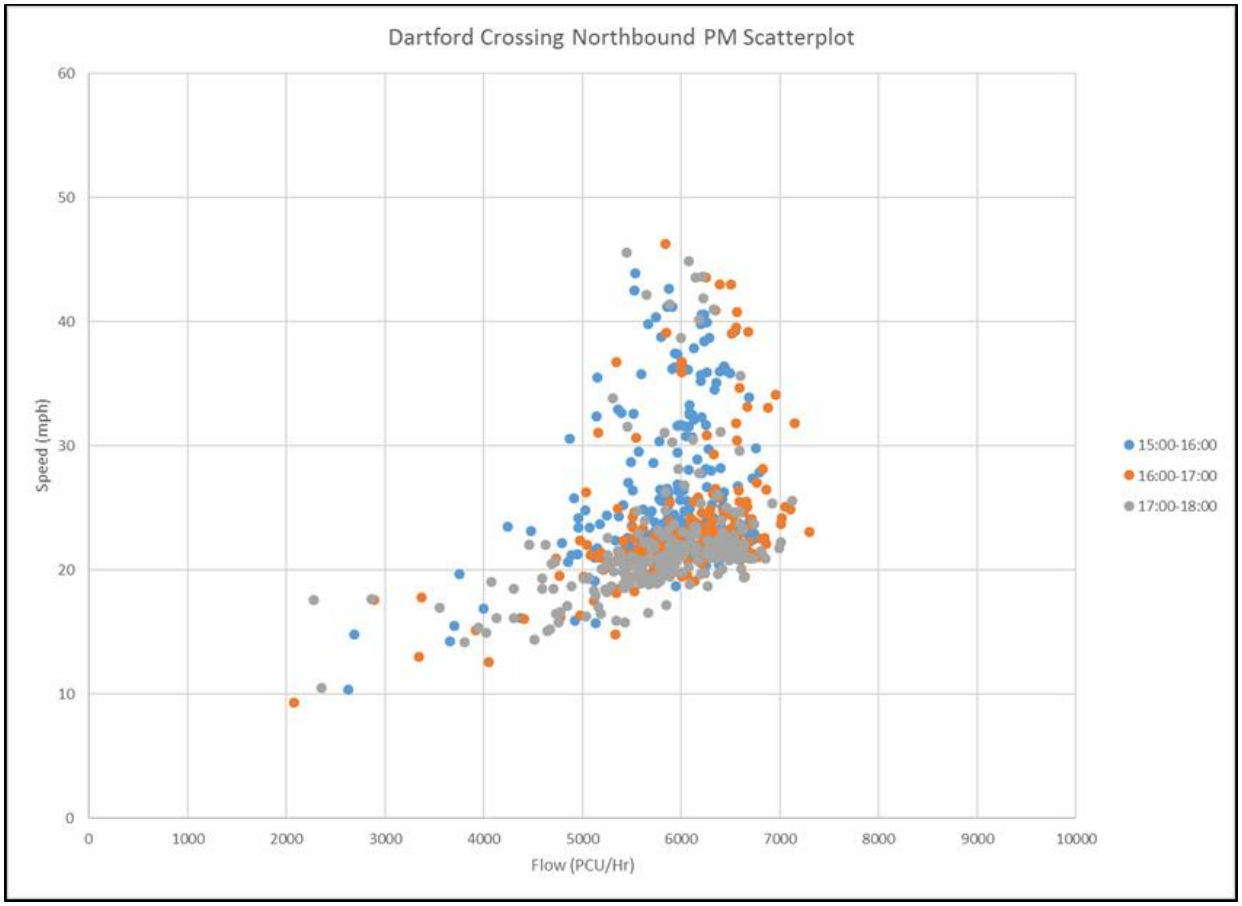


**Plate 4.5 Speed/flow scatterplot, Dartford Crossing northbound, PM peak**




4.2.39 This data shows that the capacity of the crossing is between 7,000 and 7,500 PCU/hr. There is a contrast between the speeds that are achieved; southbound speeds are clustered around 50mph (the speed limit on the crossings in both directions), whereas northbound they are clustered around 20mph.

4.2.40 In addition, both Plate 4.4 and Plate 4.5 show a horizontal distribution where most points are clustered, indicating that there is significant variability in the capacity achieved across the crossing. The southbound (higher capacity) speeds are maintained broadly at 50mph, while northbound (lower capacity) remains accompanied by much lower speeds.

4.2.41 Together, low speed and low flow indicate that the northbound crossing suffers quick transition of uncongested or free flow traffic into a stop-and-go congested state particularly in the PM peak.

4.2.42 Analysis for the AM peak is presented within Section 5.3 of Appendix B: Transport Model Package of the ComMA (Application Document 7.7). This shows the northbound AM peak also suffers from quick transition of uncongested or free flow traffic into a stop-and-go congested state. There is a similar problem southbound in the AM peak, although not as consistently as the PM peak data shows.

4.2.43 Further analysis, conducted using the Teletrac dataset (collected from GPS within over 100,000 vehicles) from between April 2018 and June 2019, clearly shows how speeds differ northbound and southbound between M25 junction 2 (with the A2) and M25 junction 29 (with the A127).

4.2.44 This is shown in Plate 4.6 and Plate 4.7. The time of day is shown horizontally, in 15 minute time periods (the time of each hour is shown) and the different sections of the network are shown vertically. Speeds are shown in bands, as follows:

a. Red – under 30mph

b. Orange – 30 to 40mph

c. Yellow – 40 to 50mph

d. Light green – 50 to 60mph

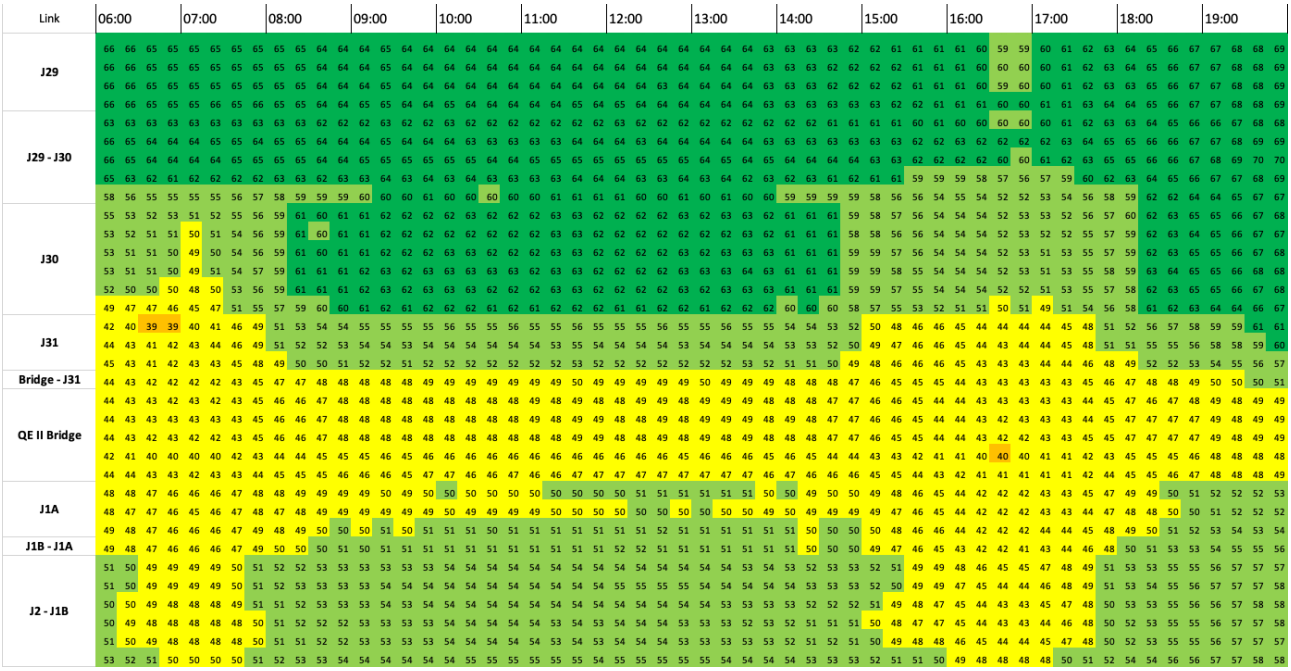
e. Dark green – over 60mph.

4.2.45 The data shows that traffic speeds in both directions at the Dartford Crossing are generally low. Moreover, the speeds are even lower northbound than southbound. The northbound average speed through the western tunnel is lowest, though the average speed through the eastern tunnel is still low.

4.2.46 The biggest impact on speeds northbound is in the evening peak, although speeds are low (i.e. below 30mph) on the approach to the tunnels from 09:00 onwards.

**Plate 4.6 Heatmap of average speeds (mph), weekday, northbound**

**Plate 4.7 Heatmap of average speeds (mph), weekday, southbound**




4.2.47 Further analysis, for Saturdays, Sundays and Bank Holidays is shown in the ComMA (Application Document 7.7).

### Incidents

4.2.48 The congestion, low speeds and delays arising from high volumes of traffic at the Dartford Crossing are made worse when incidents occur. Incidents are defined as all events which impact upon the operation of the network, including breakdowns, shed loads/spillages, weather restrictions, over-height vehicles and accidents. As shown in Plate 4.8, vehicle breakdowns and collisions are the most frequent type of incident.

4.2.49 In 2019 the average duration of incidents at the Dartford Crossing was approximately 10 minutes. There are, on average, 10 lane closures each day (in addition to those required for dangerous goods escorts), so these impact traffic flows at the Dartford Crossing for an average of over 1.5 hours per day (Highways England, 2019b).

4.2.50 Due to the Dartford Crossing frequently operating above capacity, closure in either direction, even for a relatively short time, can lead to significant additional congestion. Traffic congestion of this magnitude results in thousands of lost hours for drivers, the quantitative impact of which has been assessed within Appendix C: Transport Forecasting Package of the ComMA (Application Document 7.7).

4.2.51 Furthermore, when larger incidents occur during daytime hours, the lack of available capacity means that it can take until the late evening for the Dartford Crossing to return to normal journey times (Highways England, 2019b). During these incidents, journeys on all roads surrounding the crossing are severely disrupted and slow-moving traffic can extend back as far as M25 junction 4 (over nine miles) in the case of a northbound incident, and M25 junction 29 (over seven miles) with a southbound incident (Highways England, 2019b). This poor level of resilience at the Dartford Crossing is further undermined by a lack

of alternative[1] routes across the river, leading to substantial delays to users, often causing 'gridlock' on both the surrounding strategic and local highway networks.

4.2.52 Due in part to the high number of incidents at the Dartford Crossing and its approaches, the safety record on most of the sections of the M25/A282 in the vicinity of the Dartford Crossing is worse than the national average for roads of a similar classification. Table 4.1 shows how these sections of the M25/A282 compare to the national average on the basis of Fatalities and Weighted Injuries (FWI)[2] per billion vehicle miles calculated over the five-year period between 2015–2019.

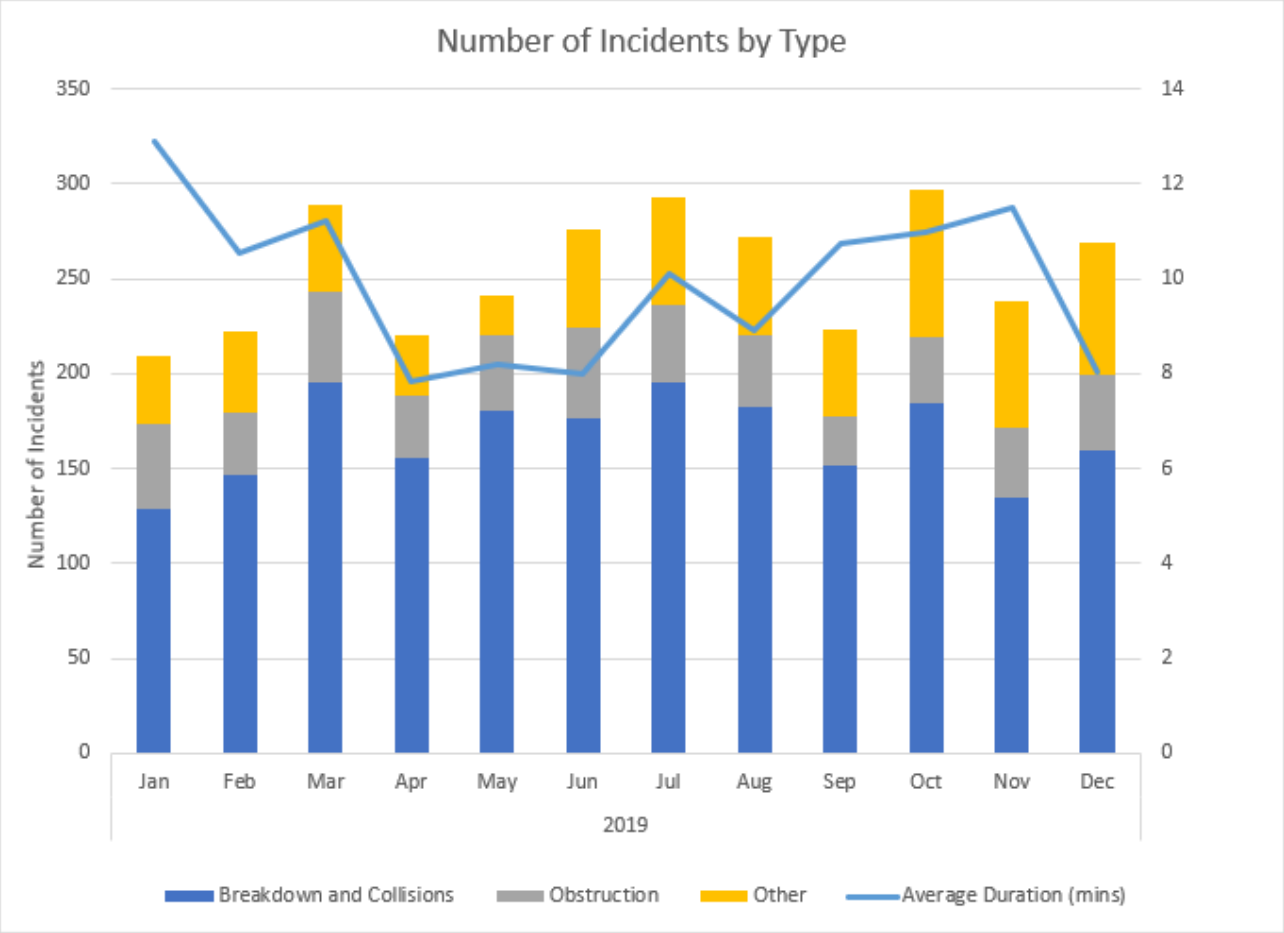
**Table 4.1 Link safety compared to SRN average**

| Section of M25/A282 | FWI rate compared to SRN average |
|---|---|
| Junction 2 – junction 3 | 77% higher |
| Junction 1b – junction 2 | 305% higher |
| Junction 1a – junction 1b | 230% higher |
| Junction 1a – junction 31 (Dartford Crossing) | 62% higher |
| Junction 31 – junction 30 | 47% higher |
| Junction 30 – junction 29 | 40% lower |

4.2.53 The sections between M25 junction 1b and junction 2 and between junction 1a and junction 31 (the Dartford Crossing itself) perform particularly badly. The former is significantly worse than the national average, attributable to a combination of factors including the close proximity of junctions and wide approaches to the tunnels which result in weaving as drivers make late lane changes with associated sudden reductions in speed as they are uncertain of the correct lane to enter the tunnel. The types of incidents and durations are shown in Plate 4.8 2019 Closure incident durations by incident typePlate 4.8.

[1] Resilience is defined as how well the network can cope with full or partial closure of key links, for either a short or long period of time.
[2] Road-user safety is measured in terms of an equivalent number of fatal incidents referred to as the Fatalities and Weighted Injuries (FWI) rate, where 10 serious incidents and 100 slight injury incidents are each equivalent to one fatal incident. This is then linked to the number of vehicles on the route and the distance travelled.

**Plate 4.8 2019 Closure incident durations by incident type**




4.2.54 The frequent incidents at Dartford Crossing have been referenced as an issue in the letters of support (see Appendix A of this report) by major retailers such as Morrisons and smaller businesses such as Ruskins (tree services business).

*'I recently had the misfortune to travel on the M25 when the Dartford Tunnel was shut due to a lorry having shed its load of rubble in the tunnel. My two hour journey took more than six hours.'*

Road User

### Journey time variability

4.2.56 Drivers using the Dartford Crossing can experience significant variations in their journey times. For example, the Applicant's observed PM traffic data (4pm to 5pm, average working week Monday to Friday) in 2018 and 2019 from the M25 junction 3 to the entrance to the northbound tunnels at the Dartford Crossing showed that less than 1 in 5 journeys are completed within 2 minutes of the ideal journey time. Almost 2 in 3 journeys were shown to take at least double the ideal journey time and 1 in 7 journeys would take at least 5 times longer than the ideal journey time.

4.2.57 The journey time variability and the unpredictable journey times make planning very difficult, and they prevent people and businesses making long-term plans about what they do and where they are located. They also cost them more in the short term both in terms of time (that is either wasted or additionally

allowed) and money (that is either additional operating cost or lost business opportunities).

4.2.58 The matter of unpredictable journey times has been referenced as an issue in the letters of support (see Appendix A of this report) by major retailers such as Morrisons, Asda and John Lewis Partnership, and smaller businesses such as Ripe Now (food ripening business), as well as business groups such as Opportunity South Essex, Kent Chamber of Commerce and Road Haulage Association.

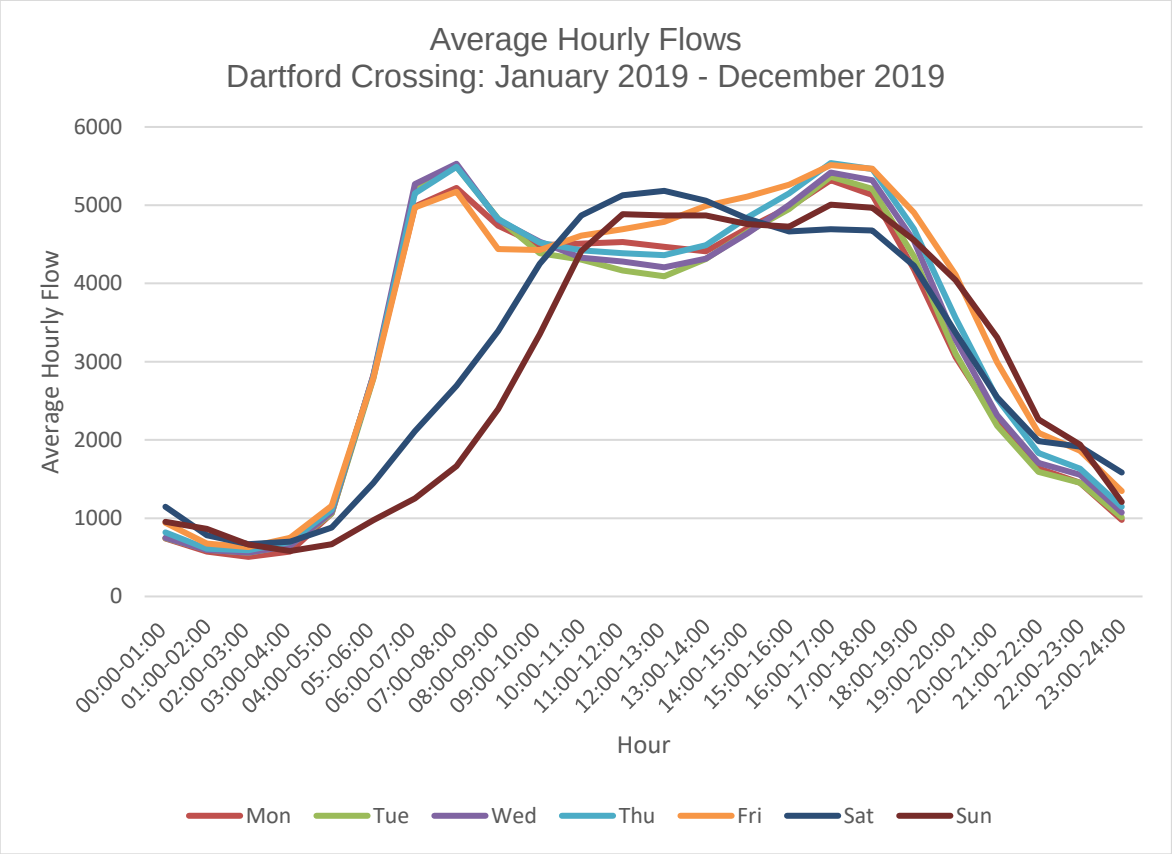
> *'What normally takes me 15 minutes can take me an hour. Just sitting there in my car.'*
>
> Road User

### Constant traffic

4.2.59 Historically, traffic levels at the Dartford Crossing were highest in the morning and evening peak periods, with the inter-peak period providing an opportunity for the Crossing to recover from traffic backlogs or incidents in the morning peak. However, in recent years, due to peak period congestion, inter-peak traffic flows have been increasing and the ability of the inter-peak to offer a recovery period has been reducing with knock-on consequences for the afternoon peak. Without the Project, this trend is expected to continue, and any recovery period would eventually disappear exacerbating the existing high levels of congestion. This is likely to lead to an increase in occurrence of the situation where traffic fails to recover from an incident during the morning or the inter-peak period, resulting in the evening peak starting with a high level of congestion already in place.

4.2.60 Plate 4.9 shows the hourly traffic flow profile at the Dartford Crossing over 24 hours on each day of the week. Traffic volumes between peak periods and at the weekend do not drop as seen elsewhere on the SRN, due to the limited alternative routes across the River Thames east of London. Due to these high volumes of often closely spaced traffic, speeds are reduced and there is an increased risk of and impact from incidents, which leads to further congestion and poor reliability.

**Plate 4.9 Hourly traffic flow profile at the Dartford Crossing**




### Business transport

4.2.61 The ability to cross the river east of London has a particularly strategic importance for the business transport associated with the ports.

4.2.62 The Dart Charge data for 2019 shows that HGVs accounted for 21% of the total traffic (both southbound and northbound) using the Dartford Crossing, during chargeable hours. This was more than double the percentage typically observed on other parts of the SRN at 10% (Department for Transport, 2020b), demonstrating the relatively significant business users' reliance on the Dartford Crossing and the importance of the crossing for facilitating the movement of goods from Continental Europe. The business users' reliance on the Dartford Crossing is also highlighted in the letters of support (see Appendix A of this report) by ports such as the Port of Dover and London Thamesport.

## 4.3 Community and environment need

4.3.1 The transport operational issues at the Dartford Crossing (as described in earlier section) and a lack of viable alternatives to cross the Thames Estuary in the surrounding area have made it difficult to build strong connections between communities in Kent, Thurrock and Essex.

### Limited local accessibility

4.3.2 Trips using the Dartford Crossing during peak periods in the 2016 base year as forecast by the Lower Thames Area Model (LTAM) are shown in

4.3.3 Table 4.2. This shows that up to 19% of trips start or finish in the local area, but only 4% are local to local trips and almost 50% of trips have an origin or destination in the wider Kent or Essex region. The table shows that 96% of trips have an origin or destination outside the local areas immediately either side of the Dartford Crossing. This demonstrates that the Dartford Crossing has a significant role in providing regional and national connectivity, but also highlights the effects of the poor journey time reliability and resilience on motorists from the local areas, which suppress the local demand to use the crossing. The local trips, such as taking children to school or visiting friends and family, are important to quality of life and have significant community and social values.

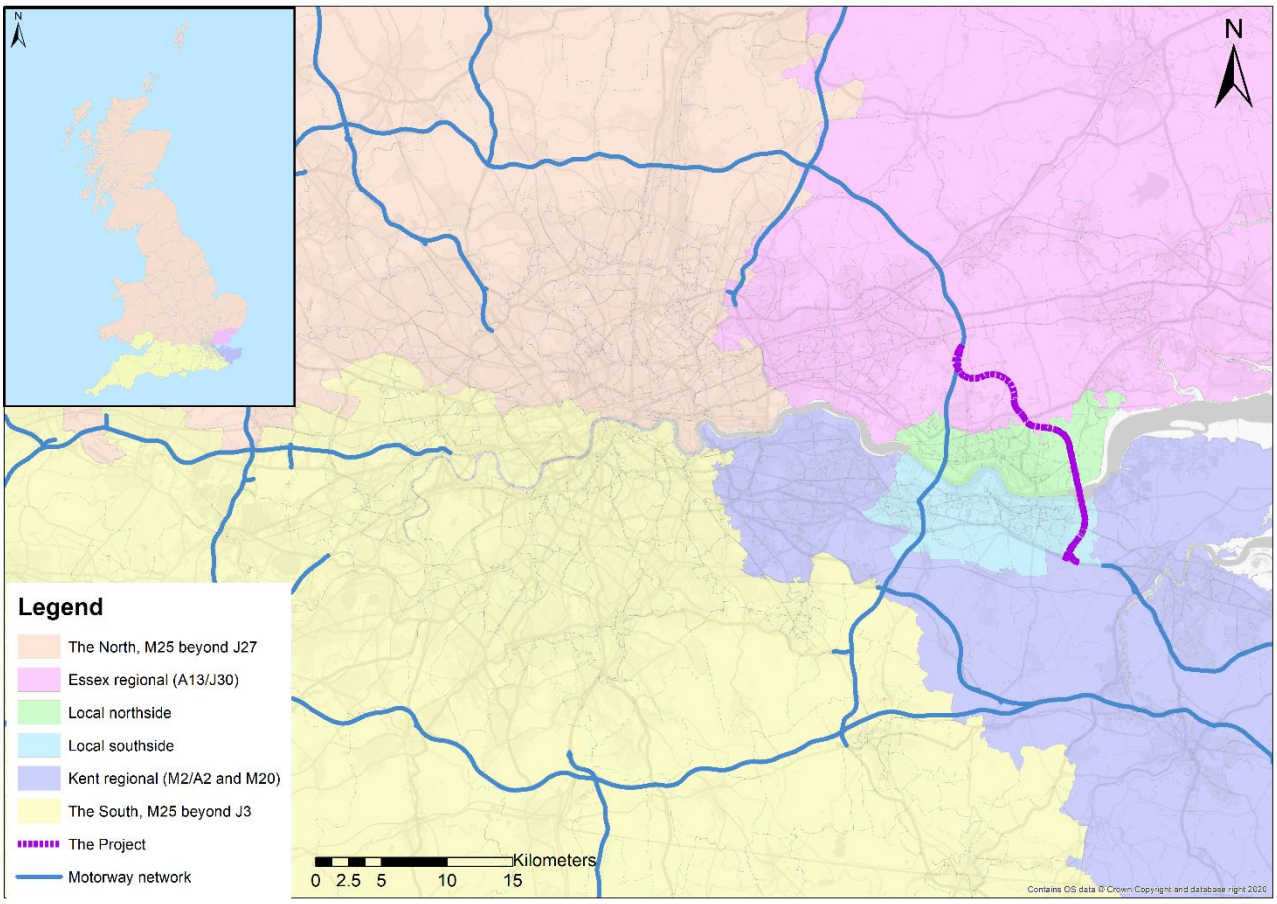
**Table 4.2 Distribution of trips using the Dartford Crossing**

| | Local northside (J31) | Essex regional (A13/J30) | The North; M25 beyond J27 | Total |
|---|---|---|---|---|
| **Local southside (J1A/J1B)** | 4% | 7% | 7% | 18% |
| **Kent regional (M2/A2 and M20)** | 8% | 18% | 20% | 46% |
| **The South, M25 beyond J3** | 7% | 20% | 9% | 36% |
| **Total** | 19% | 45% | 36% | 100% |

*Source: Lower Thames Area Model (LR_108 Run 1)*

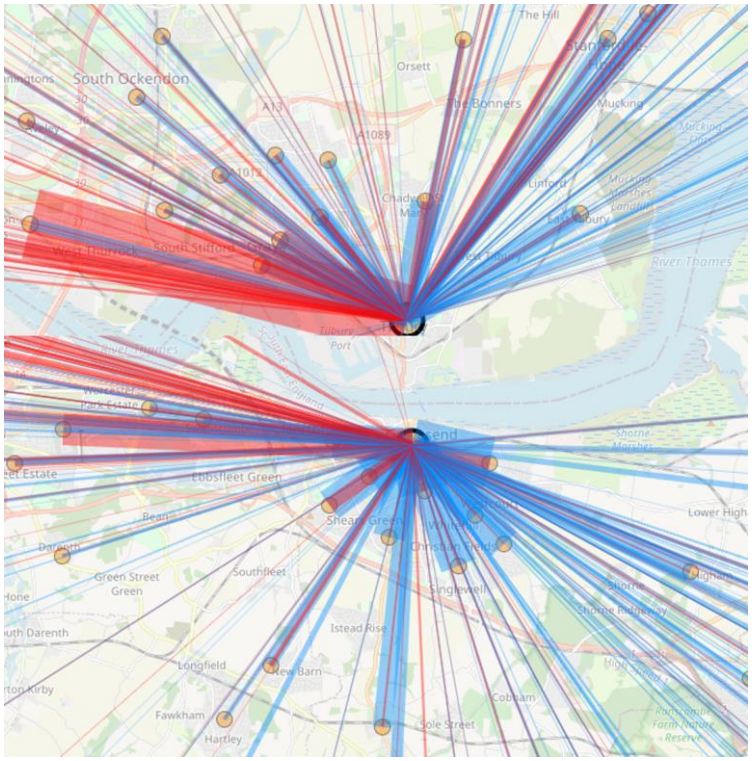
4.3.4 The areas referred to are shown in Plate 4.10.

**Plate 4.10 Areas used in the LTAM local accessibility analysis**




4.3.5 The extremely limited local trips are also supported by the travel to work patterns in the area. While the travel to work patterns may not necessarily equate to local trips in the context of leisure or non-business trips by local residents, they nevertheless help to understand how and where they tend to travel to and from. Analysis of Census 2011 travel to work data shows that the level of travel to work patterns across the river are minimal as shown in Plate 4.11 (for more information, see the ComMA, Appendix D: Level 3 Wider Economic Impacts Report (Application Document 7.7)). People both north and south of the river travel to London in large numbers, but the other major flows are either intra-area, or further into Essex from the north of the river or further into Kent from the south of the river. It is acknowledged that the presence of the Dart Charge may deter the local residents (particularly those that do not have a local residents discount) from making the cross-river local journeys regardless of congestion and poor journey time reliability. Nevertheless, the sheer lack of virtually any cross-river travel to work pattern is still a very different pattern compared to other areas where such patterns tend to take place to all directions. The data shows that local trips between the two sides of the river are significantly limited.

**Plate 4.11 Travel to work patterns* at Tilbury and Gravesend (2011)**




**Graphic sourced from O'Brien & Cheshire, 2006. The blue lines represent travel flows coming to work in Tilbury and Gravesham. The red lines show travel flows leaving Tilbury and Gravesham, to work elsewhere.*

4.3.6 The data set out above demonstrates that the River Thames provides a constraint to travel, and that despite the Dartford Crossing this constraint remains in place. Increasing cross-river accessibility would deliver social and community benefits, by providing new opportunities across the area.

## Poor user experience

4.3.7 The challenges at the Dartford Crossing, including lack of journey time reliability and congestion, can lead to journeys that can be frustrating and stressful, and that can psychologically limit road user opportunities to access employment, education and leisure facilities, even if they are in close spatial proximity.

4.3.8 The NPSNN (Department for Transport, 2014) recognises that traffic congestion can lead to impacts on the quality of life for road users, particularly those with time pressured journeys, leading to inconvenience, frustration and stress.

4.3.9 The previous section provided an example of the significant journey time variability ranging from 'less than 5 minutes' to 'over 40 minutes' to travel from M25 junction 3 to the northbound tunnels at the Dartford Crossing. Road users report frustration arising from the issues at the Dartford Crossing, as reflected in the statements of support. There are records at the Dart Charge call centre of extended journeys leading to frustration, and notable stories of individuals being stuck in traffic for hours at a time, leading to significant personal disruption.

4.3.10 Due to the uncertainty, and to avoid this frustration, individuals will make choices that are affected by the issues at the Dartford Crossing. Some users will choose to limit their opportunities by avoiding journeys to employment,

education and leisure facilities, even if they are in close spatial proximity. Other users will build in additional time to their journeys to ensure they reach their destination at the time originally intended. This in turn leads to a drop in productivity and can lead businesses to limit their operations to one side of the River Thames.

4.3.11 As well as the personal cost of the stress and frustration, the desire to avoid this leads to further reinforce the social and community separation of the local settlements north and south of the river.

## Air quality

4.3.12 Congestion causes high levels of emissions and poor air quality. When congestion and closures occur at the Dartford Crossing, the quality of the environment is currently heavily impacted by the queuing traffic with local communities being exposed to high levels of air pollution. There are current monitored exceedances of the annual mean Air Quality Strategy (AQS) objective for $NO_2$ alongside roads in Dartford and Thurrock including adjacent to the A282 Dartford Crossing and London Road (both in Dartford) and Arterial Road North Stifford and London Road (both in Thurrock), as shown in ES Figure 5.4: Air Quality Monitoring Sites and 2016 Annual Mean Data (Application Document 6.2).

4.3.13 There are currently air quality management areas (AQMAs) located adjacent to the approach roads on both sides of the River Thames, associated with nitrogen dioxide emissions from traffic using the Dartford Crossing. In Dartford there is one AQMA that extends across communities either side of the M25, from Junction 1a along the M25 to south of junction 1b. In Thurrock there are 3 AQMAs extending across communities directly adjacent to the M25 and junction 31.

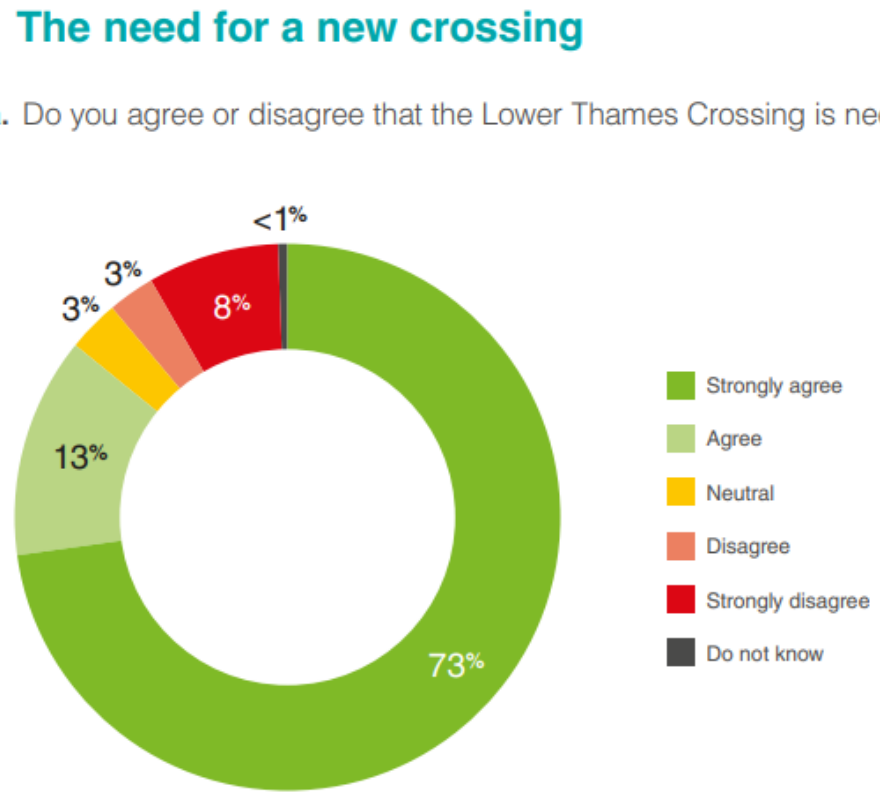
4.3.14 Traffic modelling forecasts that vehicle numbers on the Dartford Crossing without the Project will increase by nearly 21% in the period 2016–2030. This means that queuing on the approaches to the Dartford Crossing, both on the SRN and the local road network, during peak hours would increase. The Dartford area, which is already under severe traffic pressure, would be the most affected with heavy traffic extending beyond current peak hours.

4.3.15 In a without Scheme scenario, it is predicted that four receptors along the A282 Dartford Crossing corridor (at receptors LTC073, LTC477, LTC554 and LTC833 as shown in ES Figure 5.6: Operational Phase Receptors and Results (Application Document 6.2)) would exceed the annual mean nitrogen dioxide ($NO_2$) AQS objectives. These receptors are representative of impacts on communities in the local area. The full air quality assessment is set out in the ES Chapter 5: Air Quality (Application Document 6.1).

## Public consultation feedback

4.3.16 The Statutory Consultation feedback (see Plate 4.12) revealed that there is clearly a significant public and community support for the Project, with the overwhelming majority (86%) of the over 28,000 public responses agreeing that the Project is needed.

**Plate 4.12 Statutory Consultation feedback**




## 4.4 The economic need

4.4.1 The Dartford Crossing, the only road crossing of the River Thames east of London, is a critical part of the country's road network and is a critical component in the UK's economic infrastructure. It connects local and regional businesses and provides a vital link between the Channel Ports, London and the rest of the UK. However, the congested nature of the Dartford Crossing means that there is an economic need for an additional crossing. The economic need for the Project should be read in conjunction with the transport need presented earlier and comprises additional needs beyond those presented in the transport section.

### Economic context

4.4.2 A review of other estuarial road crossings in the UK emphasised the criticality of socio-economic context for the purposes of realising economic benefits. The socio-economic context of the Lower Thames area is detailed in the ComMA, Appendix D: Level 3 Wider Economic Impacts Report (Application Document 7.7) and is summarised below.

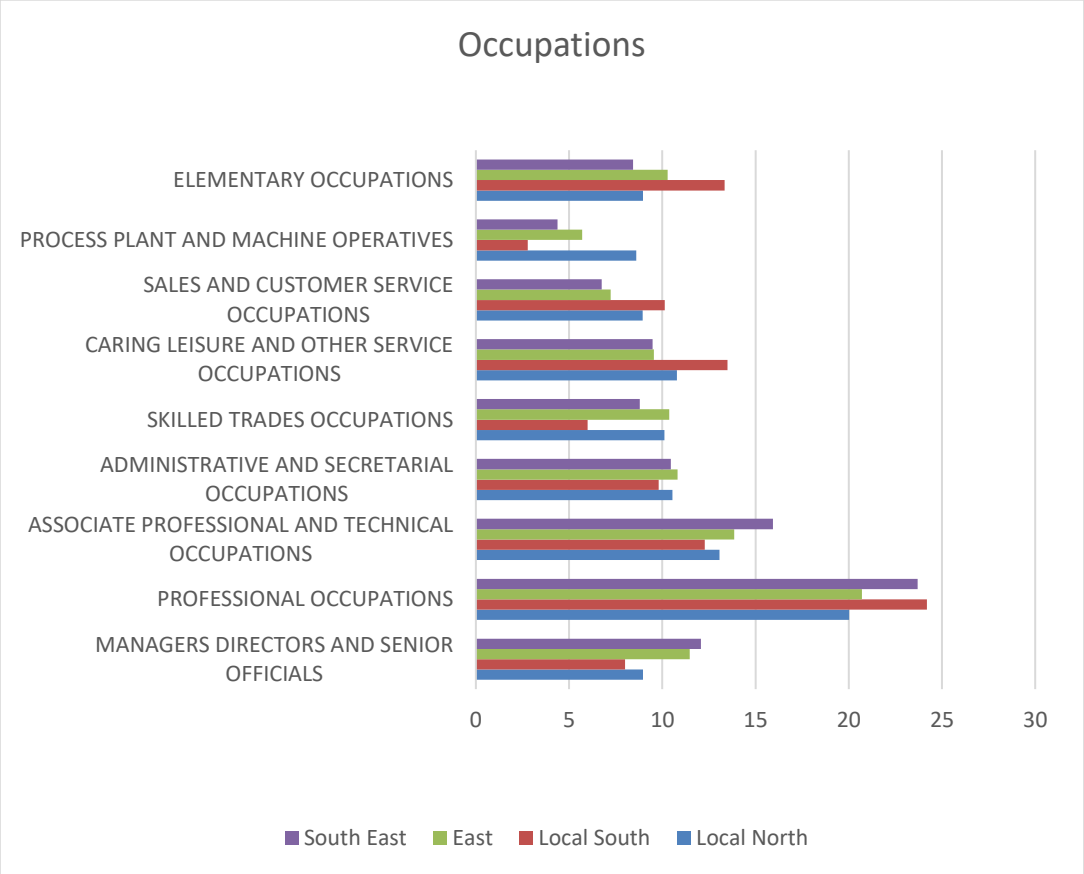
4.4.3 In the case of the Project, the socio-economic context is important because of its location, close to London and on the main trade route between the UK's industrial heartlands and Europe, which, because of the River Thames, is severely congested at Dartford. That congestion, which is partly due to longer distance movements, is the major factor that limits the development of a single Lower Thames market for goods, services and skills, reducing competition and constraining productivity levels.

4.4.4 An analysis of the current socio-economic conditions of the six Lower Thames local authorities – Dartford, Gravesham, Medway, Thurrock, Havering and Brentwood – found that these areas have similar economic structures but have developed separately (see Appendix D: Level 3 Wider Economic Impacts Report of the ComMA (Application Document 7.7) for more information). This seems to be primarily due to the barriers imposed by the estuary and the influence of London as a common market for some businesses and the sameness of the hinterland markets, as Kent and Essex are the most similar areas in the UK.

## Economic history and characteristics

4.4.5 The Lower Thames area has accommodated traditional industries over the relatively recent years such as port logistics, material processing, manufacturing and construction (see Appendix D: Level 3 Wider Economic Impacts Report of the ComMA (Application Document 7.7) for more information). The skill base in the area still reflects this history. As shown in the Plate 4.13 below, six local authorities in the Lower Thames area have fewer professional and managerial level jobs compared with those in the wider East and South East regions when estimated from occupation data in 2019, 2020 and 2021 (NOMIS, 2022).

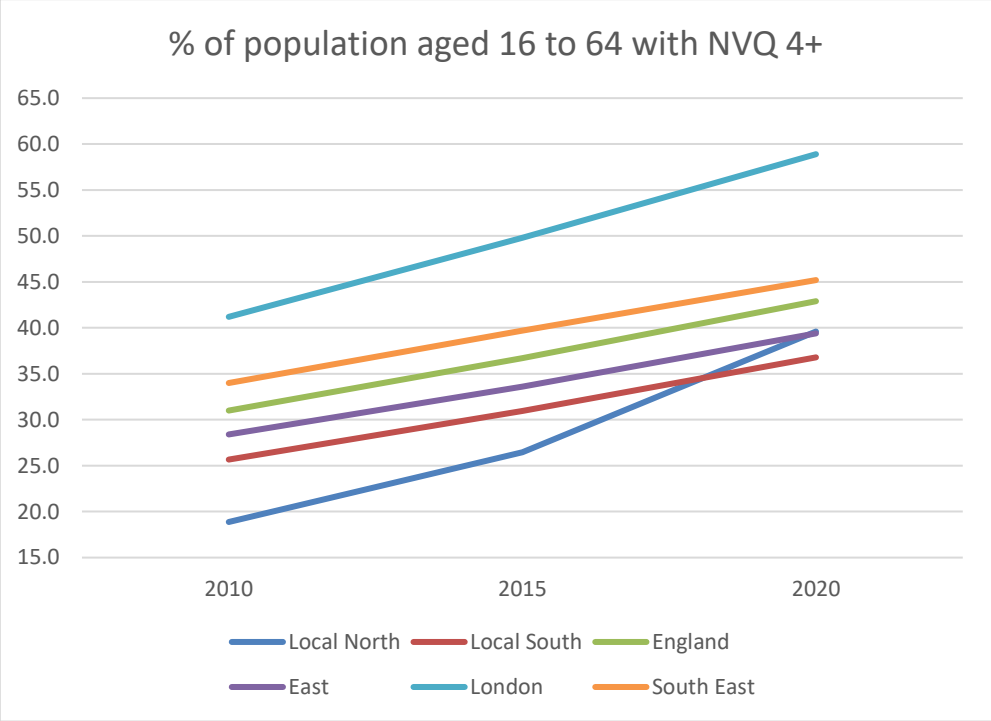
**Plate 4.13 Occupation profiles (percentage)**




4.4.6 The Lower Thames area has relatively low educational attainment and skill levels. All six authorities in the Lower Thames area have lower percentages of people with NVQ Level 4+ qualifications than the England average (see Plate 4.14). These are very low percentages particularly when compared to the

London average given their proximity to London. In recent years, the authorities south of the river have had even lower percentages than those north of the river and also have a lower percentage of people with NVQ Level 4+ qualifications than in the South East regional average.

**Plate 4.14 Skills profiles**




4.4.7 The majority of the authorities in the Lower Thames area have consistently had higher rates of unemployment than the regional averages (see Table 4.3). Even in employment, the opportunities have generally been low pay opportunities. As shown in Table 4.4, all local authorities except Brentwood have lower incomes than their regional averages. Furthermore, those in the local authorities south of the river generally earn less than those north of the river, with Thurrock also suffering from low income as low as those south of the river. Thurrock, Gravesham and Medway have lower incomes than the England average despite commuting opportunities to London, and about half of those in Brentwood. It appears that the skills of people in these areas, which may reflect traditional industries, are less transferable than those in Brentwood and less marketable in London.

**Table 4.3 Unemployment rates**

| Unemployment | 2010 % | 2015 % | 2019 % | 2020 % |
|---|---|---|---|---|
| East | 6.6 | 4.6 | 3.5 | 4.3 |
| London | 9.1 | 6.5 | 4.6 | 6.5 |
| South East | 6.1 | 4.5 | 3.5 | 4.1 |
| Brentwood | 5.0 | 3.6 | 2.8 | 4.7 |
| Thurrock | 7.6 | 6.6 | 4.9 | 5.0 |

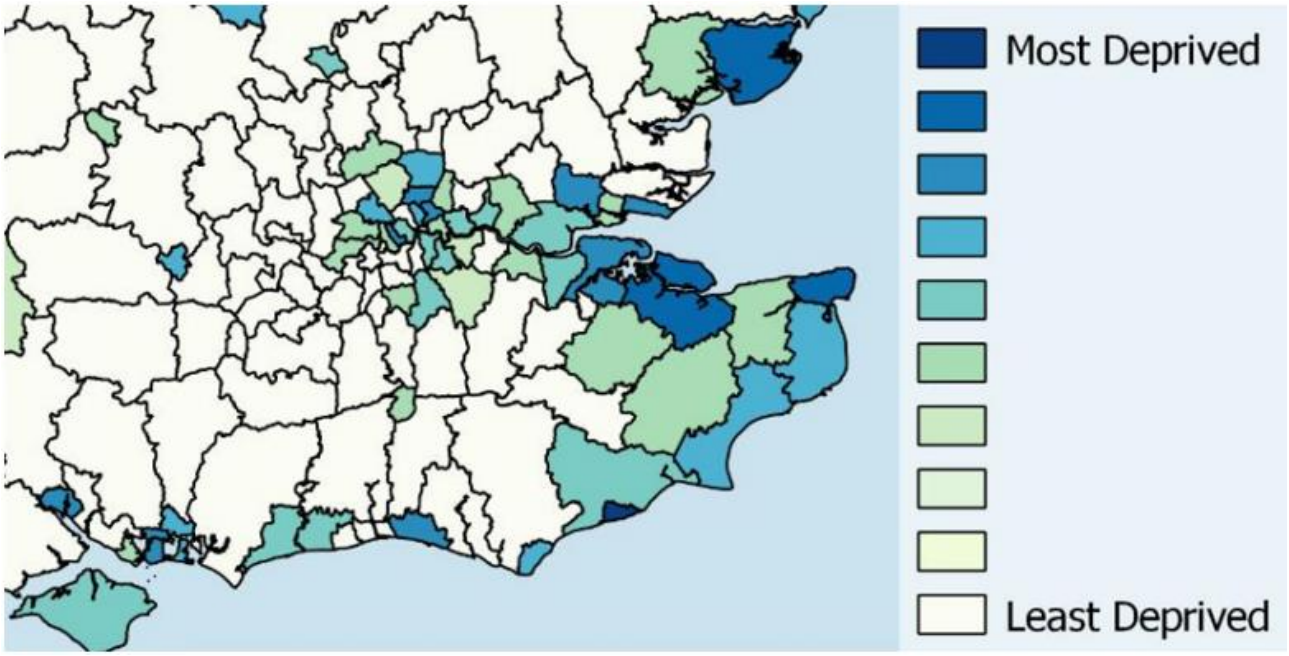
| Unemployment | 2010 % | 2015 % | 2019 % | 2020 % |
|---|---|---|---|---|
| Havering | 8.4 | 6.9 | 4.7 | 5.5 |
| Dartford | 6.7 | 5.8 | 3.0 | 4.5 |
| Gravesham | 8.8 | 7.1 | 4.7 | 4.8 |
| Medway | 9.2 | 7.7 | 4.7 | 4.3 |

**Table 4.4 Income levels**

| Incomes | 2010 Primary resources £ | 2015 Primary resources £ | 2019 Primary resources £ | 2020 Primary resources £ |
|---|---|---|---|---|
| England | 24,197 | 24,813 | 25,663 | 24,887 |
| East | 25,003 | 25,480 | 26,364 | 25,515 |
| London | 34,092 | 36,877 | 38,925 | 37,771 |
| South East | 27,711 | 28,537 | 29,437 | 28,485 |
| Brentwood | 36,465 | 36,879 | 39,094 | 37,439 |
| Thurrock | 22,683 | 21,947 | 24,293 | 23,428 |
| Havering | 26,879 | 27,639 | 29,600 | 28,302 |
| Dartford | 26,477 | 26,555 | 27,653 | 26,786 |
| Gravesham | 21,423 | 21,958 | 24,095 | 23,385 |
| Medway | 22,339 | 22,077 | 23,114 | 22,780 |

4.4.8 As a result, the Lower Thames area suffers from high levels of deprivation relative to the South of England (see Plate 4.15). Kent and Essex rank second and fourth respectively in terms of both income and employment deprivation in the 2019 Indices of Multiple Deprivation (Ministry of Housing, Communities and Local Government, 2019).

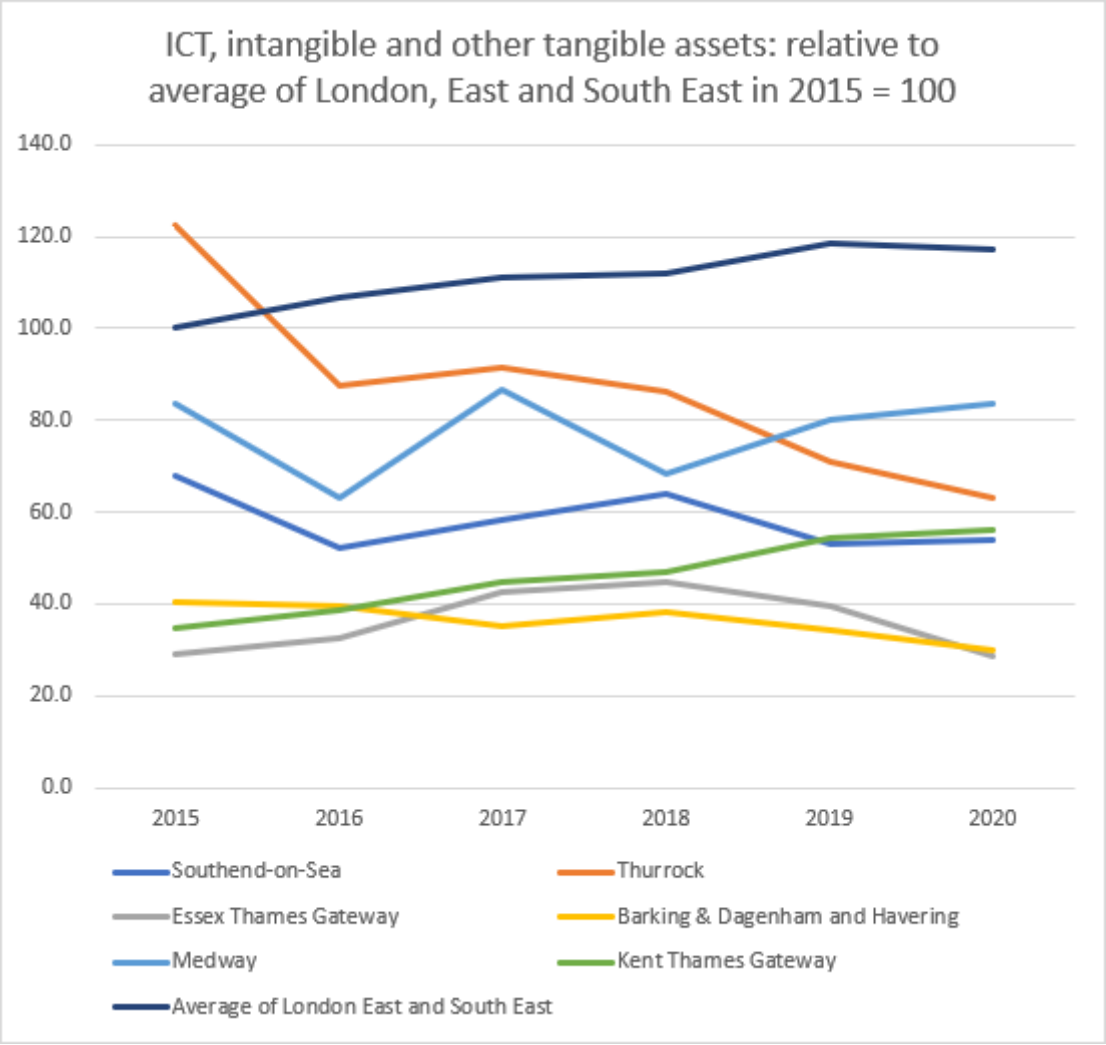
**Plate 4.15 2019 Indices of Multiple Deprivation**




4.4.9 The relatively low value economic activities with pockets of deprivation in the Lower Thames area are exacerbated by the congestion in river crossing and the economic severance that effectively reduces the size of the market to either side of the river. As a result, the Lower Thames area seems to have lacked investment into the area relative to other areas.

4.4.10 For example, as an indicator of investment, the Gross Fixed Capital Formation (GFCF) across ICT, intangible and other tangible assets from 2015 to 2020 in below Plate 4.16 shows underinvestment in the Lower Thames area compared with the combined East, London and South East regions. It indicates that the Lower Thames area has generally attracted less investment (per person employed) over the period.

**Plate 4.16 GFCF per person employed, comparison with the combined East London and South East regions**




## Limited productivity

4.4.11 Without proper investment into the area, the recent economic productivity levels in the six Lower Thames local authorities shows that the productivity levels are limited. The Table 4.5 shows the Gross Value Added (GVA) per hour worked for the six local authorities (Office for National Statistics, 2022). It shows that:

a. The areas (except Brentwood) have relatively limited productivity despite their advantage of proximity to London. Productivity in the southern areas has either struggled to keep up with the South East regional average or managed just above average. Productivity in the northern areas (except Brentwood) has struggled to keep up with the London average. This indicates that there are opportunities for the Lower Thames area to become more productive particularly given the proximity to London.

b. There are significant disparities between the productivity levels of the areas even though they are all in close spatial proximity near London, e.g. Brentwood is nearly twice as productive than Gravesham. The northern areas are generally more productive than the southern areas. This indicates

that there are opportunities for the less productive areas to become at least as productive as their neighbours such as Brentwood.

**Table 4.5 GVA per hour worked, in 2019 prices**

| | 2010 £ | 2015 £ | 2019 £ |
|---|---|---|---|
| London | 46.4 | 46.9 | 46.4 |
| East of England | 33.1 | 33.5 | 33.4 |
| Brentwood | 41.1 | 50.9 | 53.4 |
| Thurrock | 36.1 | 35.0 | 37.3 |
| Havering | 41.3 | 40.1 | 40.2 |
| South East | 37.5 | 38.0 | 38.4 |
| Dartford | 38.8 | 38.0 | 38.6 |
| Gravesham | 29.4 | 31.8 | 33.8 |
| Medway | 34.1 | 34.8 | 37.8 |

4.4.12 The productivity levels are likely to depend on a number of factors; however, one of the factors that may have contributed to the limited productivity levels and disparities in the Lower Thames area is likely to have been the high level of congestion across the River Thames east of London and the economic severance that causes. The general lack of investment in the area includes the failure to invest in delivering the road space supply needed to meet the significant traffic demand wishing to cross the River Thames east of London. Such lack of investment now manifests as congestion and limits the productivity of the Lower Thames economy.

4.4.13 The lack of investment results in significant adverse effects on road users. It limits road user efficiency (e.g. longer journey times) and journey time reliability, that in turn limits the productivity levels in the Lower Thames area. For example, longer and unreliable journeys to and from the Channel Ports in order to trade with Continental Europe make the Lower Thames economy less productive than it could be without those road user issues. These effects on road users have wider implications for further afield too, such as the journeys between the Channel Ports and the manufacturing heartlands in the North of England and beyond.

4.4.14 The need to improve journey times and reliability between the Channel Ports and the rest of the country is apparent from the letters of support (see Appendix A of this report) by ports such as the Port of Dover, London Medway Port, and London Thamesport, as well as the business groups such as the Confederation of British Industry, South East Local Enterprise Partnership and Opportunity South Essex.

4.4.15 The adverse effects on road users make businesses far apart, both spatially and psychologically, from each other to the detriment of the overall productivity of the region. The Lower Thames area currently does not function as a single market due to the congestion and associated severance caused by the lack of

investment on cross-river connectivity. The severed markets operate with less competition, resulting in duplication of business activity on both sides of the river, and this in turn makes the region less efficient and less productive than it would be as a single market. The less productive Lower Thames economy also has wider implications for London as the area plays an important role in supporting London's economy and productivity. It provides options for people to live and for businesses (particularly land intensive and industrial uses such as transport and storage, construction and industrial activities) to locate to areas that are more affordable than London but still close to it.

4.4.16 The fact that there is currently no option of an alternative road crossing to cross the River Thames east of London is likely to further limit the road user confidence in crossing the river for work and business, and this further limits connectivity and productivity. Similar effects to limit connectivity and productivity arise from the lack of resilience in terms of event resilience, weather resilience, asset management and full closure at the Dartford Crossing because there is no option of an alternative crossing.

4.4.17 The above factors all highlight the notion that the Lower Thames economy overall suffers from limited productivity and there are opportunities to help increase the productivity of the area through enhanced connectivity between the two sides of the river to form a truly single market.

4.4.18 Local businesses currently face higher costs due to traffic congestion and the labour market being severed. Census 2011 data shows that just 0.1% of people living and working in the Lower Thames areas cross the river for work. The poor transport connectivity across the River Thames affects labour markets by reducing their ability to develop new clusters in emerging sectors of the economy and the ability of the population to find work and local employers to attract a skilled workforce.

4.4.19 As a result, the economies to the north and south of the river have developed separately, duplicating many economic activities. This has stifled competition, deterred investment, and reduced the growth in job creation. All of this has negatively impacted on the economic performance of the area, with productivity levels particularly low in Thurrock, Gravesham and Medway (see Appendix D: Level 3 Wider Economic Impacts Report of the ComMA (Application Document 7.7)).

4.4.20 Enhanced mobility would make the labour market and investment work better across both sides of the river to assist the less productive local authorities to become significantly more productive to reduce the disparities between the authorities in the Lower Thames area. This indicates that there are opportunities for the less productive areas to become as productive or more than their neighbours such as Brentwood.

4.4.21 The need to address the economic severance in the Lower Thames area to achieve enhanced growth and productivity as a single market has been consistently referenced in the letters of support (see Appendix A of this report) by regional business groups such as South East Local Enterprise Partnership, Thames Estuary Growth Board, Opportunity South Essex, Kent Chamber of Commerce, Essex Chambers of Commerce, Essex Developers Group and Federation of Small Businesses, transport operators such as London Stansted Airport and London Southend Airport, and national businesses such as Maritime Transport (logistics) and local businesses such as Sharp Group (waste management) and Ruskins (tree services business).

*'I've sat 11 hours before now, commuting home to try and just get through the tunnel, and in the end I bought a property in Kent about 8 years ago because I just couldn't cope with it anymore.'*

Engineering Consultant, Kent

*'We avoid going to the other side of the Thames because we can't get there so at the moment we don't actually do any marketing on the other side of the Thames.'*

Human Resource Consultant, Essex

*'I'd say that the amount of business is restricted by the unreliability of the crossings and the extent to which that is both a physical and psychological barrier for our clients and ourselves.'*

Planning Consultant, Kent

## 4.5 Setting the Scheme Objectives

4.5.1 The multiple issues which give rise to the need for the Project, as set out above, form the basis for the identification of the Scheme Objectives.

4.5.2 These objectives, which comprise three principal categories of transport, community and environment, and economic, were developed by the Applicant and endorsed by the Department for Transport, after the Government commissioned the Applicant to identify and assess options for a new road crossing in the Lower Thames area in 2014. The objectives are shown in Table 4.6.

**Table 4.6 Scheme Objectives**

| **Scheme Objectives** | |
|---|---|
| Transport | • To relieve the congested Dartford Crossing and approach roads and improve their performance by providing free-flowing north-south capacity<br>• To improve the resilience of the Thames crossings and the major road network<br>• To improve safety |
| Community and environment | • To minimise adverse impacts on health and the environment |

| Scheme Objectives | |
|---|---|
| Economic | • To support sustainable local development and regional economic growth in the medium to long term<br>• To be affordable to government and users<br>• To achieve value for money |

# 5 Project benefits

## 5.1 Introduction

5.1.1 This chapter sets out the benefits of the Project, which address the need case and Scheme Objectives. The benefits of the Project can be set out in the same three categories as the need case.

a. Transport benefits – reflect the changes in the traffic flows that would result from the new road and can be demonstrated in terms of reduced journey times and improved journey time reliability, for example.

b. Community and environmental benefits – reflect the benefits to the local communities, resulting from the changes in existing traffic flows, the new opportunities created by the new connectivity, and benefits derived from the release of opportunities from the delivery of a large scale project in the region. Where benefits are provided to the environment, these are also considered here.

c. Economic benefits – reflect the standardised estimation and demonstration of economic benefits both in monetary and non-monetary terms. It is standard practice in the field of public sector roadbuilding in the UK to calculate the economic benefits of the project and to compare these against the costs of the project. Where the economic benefits exceed the costs, the project is considered to offer value for money.

## 5.2 Transport benefits

### Increased road capacity

5.2.1 The Project would provide over 80% additional road capacity across the River Thames east of London and reduce traffic flows on the Dartford Crossing by 19% in 2030 (opening year).

5.2.2 This additional road capacity would address the fundamental transport purpose of the Project which is to increase the road space supply to serve the existing traffic demand wishing to cross the river east of London.

5.2.3 To fully realise the benefits of significantly increasing the road space supply, the Project would be designed and built to the latest standards and to the highest quality.

5.2.4 The Project would not suffer from weather or vehicular limitations associated with the Dartford Crossing. For example, the crossing would be in tunnel and be weather resilient. The size of the proposed tunnel bore would have enough headroom to accommodate all vehicles eligible for using the normal road network, and therefore there would be no need for escorting or re-routing certain vehicles, and no need for HGVs to take a significant detour the other way around the M25. There would be no substandard junctions nearby and the tunnels would incorporate emergency service and access requirements.

5.2.5 The new road would not suffer from sub-optimal configurations or piecemeal and incremental works.

## Alternative crossing and increased resilience

5.2.6 The Project would provide an alternative route to the Dartford Crossing for local and strategic traffic wishing to cross the river east of London. This would give people more choice when deciding how they want to cross the river east of London, but would also provide an alternative in the case of major incidents or closures at the other River Thames crossings.

5.2.7 The Cabinet Office (2011) guidance, Keeping the Country Running: Natural Hazards and Infrastructure, states that, 'one of Government's key tasks is to improve the resilience of the infrastructure most critical to keeping the country running against attack, damage or destruction'. This is supported by paragraph 2.7 of the NPSNN (Department for Transport, 2014), which sets out that, 'in some cases there may be a need for development to improve resilience on the networks to adapt to climate change and extreme weather events rather than just tackling a congestion problem'.

5.2.8 While the Dartford Crossing infrastructure remains available for many years of future service, National Highways has in the past had to implement longer-term closures of significant assets elsewhere on the SRN and the Project would assist in the event of such closures at the Dartford Crossing. By providing an additional crossing of the River Thames, the Project would improve the resilience of the road network in the event of a longer-term closure of part of the existing Dartford Crossing or approach roads by ensuring that there remained opportunity for a substantial number of trips to continue to cross the River Thames east of London. In addition, the provision of an alternative crossing of the River Thames would provide increased flexibility for undertaking maintenance works while continuing to maintain connectivity across the SRN. This would result in shorter and less-complex diversion routes for certain closures, particularly for larger vehicles.

5.2.9 Closure of the existing Dartford Crossing infrastructure can occur through a number of different causes. A particular feature of the Dartford Crossing is the restrictions on vehicle dimensions in the northbound tunnels, as well as restrictions on vehicles carrying hazardous loads. On the southbound crossing, high winds lead to operational restrictions or closures of the QEII Bridge. The Project would provide a more resilient crossing than the existing provision at the Dartford Crossing, as it has been designed to not be affected by these issues.

5.2.10 Currently at the Dartford Crossing when incidents do occur, the fact that the Crossing is often operating at, or above, capacity means that it has little resilience and users experience further flow breakdown, resulting in greater delays and even poorer levels of service. The Project would reduce traffic flows at the Dartford Crossing by 19% on average in the opening year (Annual Average Daily Traffic). As a result, journey times across the existing Dartford Crossing would become more reliable. Due to the lower volumes of traffic, the Dartford Crossing and approach roads would recover more rapidly from minor incidents on the crossing.

## Road user improvements

5.2.11 The combination of the increased road space supply and the provision of an alternative route to the Dartford Crossing would deliver a wide range of road user improvements for those wishing to cross the river east of London.

### Reduced congestion

5.2.12 The Project has been designed to provide a free-flow connection between the A2 and M25 with a design speed of 70mph. This includes free-flow junctions at both ends as well as free-flow user charging facilities.

5.2.13 A significant proportion of traffic that currently crosses the River Thames using the Dartford Crossing would use the Project instead, as it offers a shorter route for that traffic. The LTAM predicts that the overall level of traffic using the Dartford Crossing would fall by 19% in the opening year (2030) reducing the current congestion, when compared to the Without Scheme scenario. Traffic would also reduce on key roads in the Lower Thames area, including the A13 and A2 west of their junctions with the Project.

5.2.14 The Project would provide a less congested, quicker, more reliable alternative for those wishing to cross the River Thames east of London and, by taking traffic from the existing Dartford Crossing, would release capacity there for local traffic.

5.2.15 While there would be a reduction in congestion at the Dartford Crossing and other key roads in the Lower Thames area as a result of the Project, it is acknowledged that there would be adverse changes in congestion in the road network away from the Project. This is due to changes in traffic flow at particular junctions and along particular roads across the SRN and Primary Road Network, during both the construction and operational phases. As presented in Appendix D: Economic Appraisal Package of the ComMA (Application Document 7.7), the reduction in congestion across the road network significantly outweighs the identified impacts overall. The Wider Network Impacts Management and Monitoring Plan (Application Document 7.12) sets out a framework which commits to working with relevant authorities and the Department for Transport to monitor impacts and where appropriate seek funding for interventions on the wider network at a future date.

### Reduced journey times

5.2.16 The Project would provide travel time savings for users wanting to cross the River Thames east of London. It would also ease congestion on other key routes.

5.2.17 Journey time comparisons have been produced along key strategic corridors with and without the Project. These show that in 2030, with the Project, and in 2045, with the Project, there would be substantial decreases in journey time on the Dartford Crossing corridor between M25 junction 29 and M25 junction 2 in both directions. There would also be significant journey time savings on the A2 between the M2/A2/A122 Lower Thames Crossing junction and M25 junction 2, and on the A13 between the A13/A1089/A122 Lower Thames Crossing junction and M25 junction 30. There are however some forecast increases in journey times on the A2 and A13 east of their junctions with the Project, and on the

wider M25 both north and south of the river, although the benefits of the journey time decreases elsewhere would outweigh these impacts.

5.2.18 Table 5.1 provides journey time comparisons on a number of routes in the Lower Thames area in 2030, both without and with the Project. The table shows significant reductions in journey times on a number of routes.

**Table 5.1 Journey times from LTAM (2030) in minutes**

| | AM peak | | PM peak | |
|---|---|---|---|---|
| | **Without the Project** | **With the Project** | **Without the Project** | **With the Project** |
| Bexley to Romford | 44.2 | 38.7 | 43.4 | 39.7 |
| Rochester to DP World London Gateway Port | 60.7 | 34.2 | 60.8 | 37.3 |
| Maidstone to Basildon | 60.8 | 40.8 | 62.0 | 45.2 |
| Southfleet to Brentwood | 39.2 | 33.2 | 36.3 | 31.8 |

*Source: LTAM runs LR_CM49, LR_CS72*

5.2.19 If the new crossing is not built, it is expected that the high levels of traffic using the Dartford Crossing would lead to a higher number of incidents, increased journey times and more days where traffic conditions are worse than typically experienced today.

5.2.20 This is covered in more detail within the Transport Assessment (Application Document 7.9).

> *'At the moment it's probably taking about an hour and a half on a good day for one of our artics to get across the crossing, and we probably send three or four artics a day in both directions. We would anticipate that it's going to cut it down by at least 50 percent.'*
>
> E-Commerce Business, Essex

### Safety benefits

5.2.21 The accident rate per million vehicle kilometres travelled would decrease as a result of a managed, less congested network. The overall number of collisions over the Accident Appraisal Area would increase because of the increase in overall vehicle kilometres travelled.

5.2.22 This is further detailed in Appendix D: Economic Appraisal Report of the ComMA (Application Document 7.7).

5.2.23 With consideration to the congestion experienced in the vicinity of the Dartford Crossing, providing an alternative route not only relieves the overall congestion of the area but also allows for lorries carrying dangerous goods to pass through the new tunnel without needing an escort.

### Journey time reliability

5.2.24 It is forecast that average traffic speeds on the road network would rise and journey times would become more reliable. The assessment network for reliability impacts includes the M25 and the Dartford Crossing, M20, A2, the Project, A13, A127 and A12, as presented in Appendix D: Economic Appraisal Report of the ComMA (Application Document 7.7).

### Business transport

5.2.25 The Project is predicted to reduce the HGV usage of the Dartford Crossing by around 34% in 2030 (opening year) due to the Project being an attractive (e.g. shorter and quicker) route for vehicles travelling to and from the ports. The Project would better serve the high demand for HGV crossings in the Lower Thames area. Approximately 13% of the vehicles using the Project in 2030 (opening year) are predicted to be HGVs which is greater than is typically observed on other parts of the SRN at 10% (Department for Transport, 2020b). It would also provide the HGVs with more safe and more free-flowing journeys than the Dartford Crossing. Therefore, the Project would be significantly beneficial to the business transport users wishing to cross the River Thames east of London.

## 5.3 Community and environmental benefits

5.3.1 This section outlines the benefits of the Project from a community and environment perspective. As a Nationally Significant Infrastructure Project, the Project has adverse effects reported in the Environmental Statement (ES). Accordingly, the benefits of the Project will need to be considered in the context of these adverse effects (a summary of which is provided in Appendix D: Economic Appraisal Package of the ComMA (Application Document 7.7)).

### Improved local trips and accessibility

5.3.2 The additional connectivity offered by the Project would improve the ability for local traffic to cross the River Thames for leisure and non-business purposes, e.g. seeing friends and family on the other side of the river. The Project would also enable local traffic to make more use of the less congested Dartford Crossing as a result of the improved journey time reliability which improves the user experience of the crossing.

5.3.3 The Project would provide new and upgraded routes across the Lower Thames area for walkers, cyclists and horse rider, designed to improve accessibility to the existing network, to maximise access for users (including those with limited mobility) while considering and mitigating potential impacts from misuse and anti-social behaviour through good design.

5.3.4 Examples of upgraded active transport connections include the circa 27km of improved walking, cycling and horse riding routes as well as the circa 40km of new walking, cycling and horse riding routes.

5.3.5 In total, these new or upgraded active transport connections add up to circa 67km, almost three times the length of the Project's main carriageway.

5.3.6 An active mode appraisal has been undertaken as part of Appendix D: Economic Appraisal Package of the ComMA (Application Document 7.7) which

considers the impacts of the Project on physical activity levels for new active travel mode users. The new active mode users would gain health benefits from a decrease in their mortality rate.

5.3.7 Further information regarding changes for walkers, cyclists and horse riders is contained within ES Chapter 13: Population and Human Health (Application Document 6.1).

## Air quality

5.3.8 One of the Scheme Objectives is '*to minimise adverse impacts on health and the environment*'. As discussed in Chapter 4 of this report, air quality at the Dartford Crossing is heavily impacted by road traffic emissions, with local communities being exposed to high levels of air pollution exceeding AQS objectives.

5.3.9 The Project is predicted to result in a reduction in traffic flow at the Dartford Crossing of 19% in the opening year (2030), which leads to an improvement in annual mean $NO_2$ at locations adjacent to the crossing. The air quality improvements at the Dartford Crossing resulting from the Project mean that, at the locations described in Chapter 4 of this report, there would be perceptible decreases in $NO_2$ concentrations in the AQMA in Dartford and two of the three AQMAs in Thurrock, and three out of the four receptors would no longer exceed the annual mean $NO_2$ AQS objective.

5.3.10 The Project is forecast to result in reductions in traffic flow, which lead to a reduction in annual mean $NO_2$ at receptors LTC073, LTC554 and LTC833 in Dartford. The exceedance of the annual mean AQS objective is removed from two of these receptors as a result of the improvement. There is a forecast decrease in traffic flow on the section of A282 Dartford Crossing adjacent to receptor LTC477, which leads to a reduction in annual mean $NO_2$ and removes the exceedance. These receptor locations are shown in ES Figure 5.6: Operational Phase Receptors and Results (Application Document 6.2).

5.3.11 While overall there would be more receptors which are predicted to lead to improvements in air quality as a result of the Project, there are a number of receptors located on the A228 and M2 which would experience a deterioration in air quality which exceed the AQS objectives.

## Biodiversity and green infrastructure

5.3.12 National Highways has committed as part of RIS2 to achieving no net loss in biodiversity by the end of RIS2 and will work towards biodiversity net gain by 2040 across its estate. Although the construction of the Project would have unavoidable significant adverse effects on a Site of Special Scientific Interest and irreplaceable habitats, such as veteran trees and ancient woodland, it has sought to increase biodiversity value wherever possible within its landscape design. An assessment of baseline biodiversity value and that achieved by the Project's design post development is presented within ES Appendix 8.21: Biodiversity Metric Calculations (Application Document 6.3).

5.3.13 The Project would leave a positive legacy of green infrastructure with significant new recreational sites such as Chalk Park and Tilbury Fields while also mitigating its impact on existing green infrastructure.

5.3.14 As detailed in the Project Design Report (Application Document 7.4), the Department for Environment, Food and Rural Affairs objectives for the Chalk Park area call for woodland creation, habitat buffering and creation of multi-functional accessible spaces. The Project has identified a catchment gap for recreational sites in this area that it could fill with the creation of a new park. It would enable a larger number of people to access a semi-natural greenspace via active travel without the need to drive there. The excavated material could be used to create a new landform, that would help integrate the portal infrastructure into the landscape, in keeping with the character of the local area where settlements and villages have been historically developed on the slopes of wooded hill tops. The Chalk Park proposal creates a wooded hill providing a new recreational site and creating a desirable separation between the South Portal and the edge of Gravesend, while also softening the edge of the settlement.

5.3.15 Similarly, the Project has identified an opportunity to create a new recreational site at Tilbury Fields using the inert materials that would be placed there with a view to creating placemaking features on the River Thames for Thurrock. The landform proposals within the proposed Tilbury Fields site draw inspiration from the landform and angles of the nearby forts. The grassland landforms, which have been designed in conjunction with providing open mosaic ecological habitat, target views towards the three nearby forts on the south bank of the river, and Coalhouse Fort and the batteries to the east. The extended landforms stretching from the vista points align with the cannon mounts on the nearby forts, to focus the viewer's eye towards the heritage features. Placemaking features and interpretation material would increase the legibility of the landscape and increase the recreational value of the route between Coalhouse Fort and Tilbury Fort, and provide better access to the riverfront for existing (and new) residents.

## Local jobs and upskilling

5.3.16 The Project would benefit the local community through provision of local jobs during the construction phase, while also increasing the skill base of local residents working on the Project to benefit them post-construction, as shown in the Section 106 Agreements – Heads of Terms (Application Document 7.3).

5.3.17 Local employment benefits would be both direct and indirect. Direct local employment would include local residents who would be employed to work on the Project. There is expected to be a high level of benefit from this within the sub-region. Indirect benefits would include employment from expenditure on supplies and services necessary for construction of the Project. This would result from the spending of incomes earned by those directly employed on the construction of the Project and workers employed by suppliers/sub-contractors, e.g. food and accommodation.

5.3.18 During the development of the Project, an assessment has been made of the skills necessary to deliver it, profiled over time, with likely skills gaps identified. This assessment has been supported by stakeholder engagement to identify local skills priorities, high-priority target groups, and opportunities to work in partnership to upskill local communities.

5.3.19 National Highways has established targets for numbers of work placements (over 470 placements), apprenticeships (over 430 apprentices) and traineeships (over 290 trainees), together with engagement in STEM (science, technology, engineering and mathematics) activities for local schools (over 5,000 hours), as detailed in the Section 106 Agreements – Heads of Terms (Application Document 7.3).

5.3.20 The addition of the Project would enhance the ability to reach job markets north and south of the river.

5.3.21 For further information relating to local employment and skills resulting from the Project, refer to ES Chapter 13: Population and Human Health (Application Document 6.1).

> *'What it would do, is open up our opportunities, from the perspective of students wanting to specialise in particular subjects, both those that live in Kent and Medway wishing to go to specialist institutions in Essex, or North London, or even South Suffolk.'*
>
> Education Provider, Kent

## 5.4 Economic benefits

### Increasing productivity

5.4.1 There are economic benefits arising from the Project that ultimately contribute to increasing productivity levels across both the Lower Thames area and the rest of the UK.

5.4.2 The Economic Appraisal Report (EAR) within Appendix D: Economic Appraisal Package of the ComMA (Application Document 7.7) describes the methodologies used to appraise the economic, environmental, social benefits, disbenefits, revenues and costs of the Project and presents the appraisal results. The appraisal, which uses outputs from the Lower Thames Area Model (LTAM) transport model, aligns with the principles in HM Treasury Green Book (HM Treasury, 2022) and is based on the methodologies in DfT's Transport Analysis Guidance (TAG) (Department for Transport, a). The EAR reports results for the central case appraisal, based on central estimates of traffic growth and scheme costs, and a range of sensitivity tests.

5.4.3 Some benefits are expressed in monetary terms (expressed in 2010 prices and discounted values) while others that are qualitatively assessed.

5.4.4 The largest of these monetised benefits is journey time savings for road users which are estimated to be worth £2,088.2m.

5.4.5 Two additional monetised benefits are journey time reliability and further productivity benefits for businesses as they are effectively brought closer together through enhanced road connectivity (referred to as static clustering). These are valued respectively at £487m and £1,516.6m.

5.4.6 The EAR also reports that the majority of monetised user and productivity benefits relate to those local authorities that are closest to the Project such as the six Lower Thames area authorities.

5.4.7 The Project would provide a second option to cross the River Thames which has a value to the road users even if the option is never used. At present road

users in the Lower Thames area wanting to cross the Thames are only able to use the Dartford Crossing. When traffic flows at Dartford are disrupted, the only alternative choices to cross the river involve lengthy detours. When the Project is built, road users in the Lower Thames area would have two road options for crossing the Thames. This would provide the road users with confidence in crossing the river for work and business.

5.4.8 The provision of an alternative road crossing would have similarly positive effects to enhance resilience in terms of event resilience, weather resilience, asset management and full closure at the Dartford Crossing. The enhanced resilience would better enable the goods and services to continue to cross the river, which would further increase the level of productivity across the Lower Thames economy and the country.

5.4.9 In addition, a range of evidence is presented that the Project has potential to generate further productivity benefits as firms relocate and intensify their land use at existing locations. This evidence is presented in the Level 3 Wider Economic Impacts Report within Appendix D: Economic Appraisal Package of the ComMA (Application Document 7.7).

5.4.10 A good transport system is also important to foreign investors. The Project is a key part of National Highways' Road Investment Strategy 2 investment programme and the UK's wider infrastructure programme which are designed to make the UK more attractive to overseas investors. The benefits of foreign direct investment are mixed, although they include technology transfer and know-how, accelerated structural transformation, stimulus to private sector development and employment creation. Overall, it has been assessed in the EAR (Application Document 7.7) that there are likely to be positive foreign direct investment impacts from the Project.

5.4.11 These benefits would significantly aid the growth potential for the local economies on both sides of the River Thames by helping to form a single market with enhanced labour market, competition and efficiencies to drive up productivity, as well as across the London region by creating a greater synergy and across the country that rely on road connectivity for international trade via ports.

*We've been here for 20 years. We've never been able to tap into Kent. Kent to us in an unknown commodity in some ways… Kent has a population of 1.5 million people, if we could tap into 5% of that, that's 50,000 people.'*

Recruitment Company, Essex

*'A fairly innovative new product to the UK, is apricots. And there's a ready and willing market for us in France, centred in Paris. We haven't pursued it to date because with this perishable product I need to guarantee it is with our customers at a certain time, and if we lose time and the lorries go off the road because of delays in Kent, it's not going to happen.'*

Food producer, Essex

## 5.5 Value for Money

5.5.1 A Value for Money assessment has been carried out. This has taken account of the Project's benefits and costs across the economic, environmental and social

impacts. Whilst the assessment of value for money takes account of all monetised and non-monetised impacts, a key factor for consideration is the Project's Benefit Cost Ratio (i.e. monetised impacts). Using a standard 60-year appraisal period, the EAR shows that the Project has an Adjusted BCR of 1.22 indicating that the Project will provide positive value for money, because its substantial net benefits outweigh the costs. However, the life expectancy of the civil engineering works for the tunnels far exceeds 60 years. Therefore, as described in the EAR, 100-year appraisal period sensitivity tests have been undertaken which show that the Adjusted BCR increases to between 1.66 and 1.72 depending on the assumptions relating to the implementation of the Transport Decarbonisation Plan.

5.5.2 Further information on the assessment of Value for Money can be found in the EAR (Application Document 7.7).

## 5.6 Supporting the Scheme Objectives

5.6.1 Table 5.2 provides a summary of how the key benefits of the Project support the Scheme Objectives. The benefits of the Project are such that it is the right solution to the issues identified. Further information on how the Project has evolved based on the assessment of Scheme Objectives is available in the Planning Statement (Application Document 7.2).

**Table 5.2 How the Project supports the Scheme Objectives**

| What the Project would achieve | |
|---|---|
| Transport | The Project would provide additional road capacity and river crossing east of London, significantly improving road space supply to serve the traffic demand. |
| | The additional road space would not be challenged by design limitations (e.g. no sub-optimal junction layout, no need for escorting, no wind related concerns, etc.). |
| | An additional crossing would provide an alternative crossing option across the river east of London and a more resilient road network in the Lower Thames area. |
| | The Project would significantly reduce traffic congestion at the Dartford Crossing. |
| | Many journeys on both sides of the river, as well as those that cross the river, would be quicker. |
| | The Project would follow the latest safety standards and would decrease the accident rate. |
| | Cross-river journey time reliability would be improved, with less frequent delays and uncertainty. |
| | The Project would be significantly beneficial to the business transport users wishing to cross the River Thames east of London. |

| What the Project would achieve | |
|---|---|
| Communities and environment | Improved cross-river and local trips to community by way of an additional crossing and less congested Dartford Crossing. |
| | Enhanced connectivity and facilities for walkers, cyclists and horse riders |
| | Reduced congestion in Dartford area would decrease noise and air pollution. |
| | The Project would leave a positive legacy of green infrastructure and improved biodiversity. |
| | Improved access to local jobs and upskilling opportunities for local communities. |
| Economic | Faster and more reliable journeys and improved accessibility would boost the productivity of businesses in the Lower Thames area and wider region. |
| | Enhanced connectivity and cross-river economic opportunities would further stimulate competition, boosting employment and increasing inward investment locally and regionally. |
| | Benefits would be greatest for high value businesses, but also significant for the local area's lower value transport and construction sectors. |
| | Quicker, more reliable access to key markets, resources and labour for the region's ports. |
| | The Project would provide value for money. |

# 6 Summary

6.1.1 The NPSNN and other relevant policy context (as discussed in Chapter 3) provide strong and clear support for delivering national networks that meet the UK's long-term needs. Chapter 4 establishes the clear and overriding need for the Project to deal with long-standing transport, community and environmental, and economic problems.

6.1.2 Fundamentally, the road traffic demand wishing to cross the River Thames east of London significantly outstrips the road space supply in that location. The road space is also challenged by outdated design and piecemeal improvement works which led to vehicle restrictions and sub-optimal configurations to exacerbate matters. Despite these challenges, the road users have no choice but to continue to use the Dartford Crossing because of the lack of alternative road crossing of the River Thames east of London.

6.1.3 The current challenges at the Dartford Crossing have significant negative impacts on users and non-users in terms of road traffic, economic productivity and trade, social and user experience and environmental impacts.

6.1.4 Congestion and incidents at the Dartford Crossing cause slow and unreliable journeys for a high number of vehicles for long periods every day. This has severe and significant economic, safety and socio-environmental impacts for road users and local communities. Accordingly, there is a demonstrable need for the Project and the provision of the proposed solution is in the public interest.

6.1.5 The Project is expected to have transformational and significant positive impacts on the future growth potential of the national and regional economies and the prosperity of the local population, now and into the future. Without additional road capacity, the transport, economic and environmental problems would continue to worsen over time.

6.1.6 The consequences of not proceeding with a new crossing are as follows:

a. Congestion and delays would likely worsen both at the Dartford Crossing and on the local road network – journey times would increase and journeys would be less reliable.

b. National, regional and local productivity and economic growth would be constrained and the cost of moving freight by road would increase.

c. Growth potential for ports in the Lower Thames area would be limited to frustrate the Government's growth ambitions such as the Thames Freeport.

d. There is expected to be a further deterioration of safety on the roads close to the Dartford Crossing.

e. Increases in road traffic would likely increase congestion, noise and vehicle emissions in an area which already exceeds acceptable levels.

6.1.7 The Project would significantly contribute to resolving these issues and deliver benefits across a wide range of needs and opportunities. This demonstrates a clear and compelling need for the Project.

6.1.8 An additional crossing of the River Thames, east of London, would substantially increase the road space supply and provide more reliable journeys across the River Thames. The enhanced connectivity would provide increased cross-river economic opportunities which would stimulate competition and boost employment in the region. It would also allow for quicker, more reliable access to key markets, resources and labour for the region's ports.

6.1.9 The Project would provide enhanced connectivity and facilities for walkers, cyclists and horse riders, alongside improved access to community and businesses. Additionally, reduced congestion in the Dartford area would decrease air pollution and noise.

6.1.10 As a result of the Project, many journeys on both sides of the river, as well as those that cross the river, would be quicker, and these journeys would be subject to less frequent delays and uncertainty than is currently experienced. Congestion at the Dartford Crossing would be significantly reduced as the Project would provide substantial additional capacity and a new route option across the River Thames.

6.1.11 The benefits of the Project, set out above and in Chapter 4 of this document, are also considered against relevant policies within the Planning Statement (Application Document 7.2). For the reasons set out above, it is considered there is a clear and overriding need for the Project.

# References

Cabinet Office (2011). Keeping the Country Running: Natural Hazards and Infrastructure.

Department for Business, Energy and Industrial Strategy (2017). Industrial Strategy: Building a Britain Fit for the Future.

Department for Communities and Local Government (2017). Fixing our broken housing market

Department for Levelling Up, Housing and Communities (2021). Untitled letter, dated 12 October 2021.

Department for Levelling Up, Housing and Communities (2022). Levelling Up the United Kingdom White Paper.

Department for Transport (2008). Delivering a Sustainable Transport System.

Department for Transport (2009). Dartford River Crossing Study Final Report.

Department for Transport (2013a). Options for a New Lower Thames Crossing.

Department for Transport (2013b). Options for a New Lower Thames Crossing – Consultation Response Summary.

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

Department for Transport (2015). Road Investment Strategy: for the 2015/16 – 2019/20 Road Period. (RIS 1).

Department for Transport (2017). National Trip End Model NTEM. https://data.gov.uk/dataset/11bc7aaf-ddf6-4133-a91d-84e6f20a663e/national-trip-end-model-ntem

Department for Transport (2018a). Road Traffic Forecasts 2018. https://www.gov.uk/government/publications/road-traffic-forecasts-2018

Department for Transport (2018b). England's Port Connectivity: the current picture

Department for Transport (2018c). Transport infrastructure for our global future

Department for Transport (2021). Decarbonising Transport

Department for Transport (2021). Union Connectivity Review

Department for Transport (2020a). Road Investment Strategy 2: 2020–2025.

Department for Transport (2020b). Road Traffic Estimates: Great Britain 2019.

Essex County Council (2011). Essex Transport Strategy: the Local Transport Plan for Essex.

Gravesham Borough Council (2014). Gravesham Local Plan Core Strategy.

Greater London Authority (2018). Mayor's Transport Strategy.

Greater London Authority (2021). London Plan.

Highways England (2015). Highways England Delivery Plan 2015-2020.

Highways England (2016). Pre-Consultation Scheme Assessment Report.

Highways England (2017a). Post-Consultation Scheme Assessment Report.

Highways England (2017b). The Road to Growth: Our first strategic economic growth plan.

Highways England (2017c). Lower Thames Crossing, Environmental Impact Assessment – Scoping Report.

Highways England (2018a). *Chief Highway Engineer Memorandum 422/18.*

Highways England (2018b). Approach to Design, Construction and Operation

Highways England (2019a). Dart Charge Traffic Volumes 2019 – Crossings by Day (updated 21st February 2020).

Highways England (2019b). Incident logs. Spreadsheet. Unpublished.

House of Commons (2022). Tackling the under-supply of housing

HM Government (2021a). Global Britain in a Competitive Age

HM Government (2021b). Net Zero Strategy: Build Back Greener

HM Treasury (2020). National Infrastructure Strategy

HM Treasury (2021a). Build Back Better

HM Treasury (2021b). Budget 2021

HM Treasury (2022). The Growth Plan 2022

House of Commons (2020). Budget Report 2020

Infrastructure and Projects Authority (2021). Analysis of the National Infrastructure and Construction Pipeline.

Kent County Council (2016). Local Transport Plan 4: Delivering Growth without Gridlock (2016-2031).

Kent County Council (2018). Kent and Medway Growth and Infrastructure Framework: 2018 Update

Kent County Council and Essex County Council (2008). Assessment of Lower Thames Crossing Capacity.

London Borough of Havering (2019). Local Implementation Plan.

Medway Council (2011). Local Transport Plan.

Ministry of Housing, Communities and Local Government (2018) Independent Review of Build Out

Ministry of Housing, Communities and Local Government (2019). The English Indices of Deprivation 2019 (IoD 2019).

National Highways (2020). Delivery Plan 2020-2025.

National Highways (2021). Net Zero Highways: Our 2030 / 2040 / 2050 Plan

National Infrastructure Commission (2018). National Infrastructure Assessment.

National Infrastructure Commission (2021a). The Second National Infrastructure Assessment: Baseline Report.

National Infrastructure Commission (2021b). Infrastructure, Towns and Regeneration.

NOMIS (2022). Annual population survey - workplace analysis.

O'Brien, O. & Cheshire, J. (2016). Interactive mapping for large, open demographic data sets using familiar geographical features, Journal of Maps, 12:4, 676-683, DOI: 10.1080/17445647.2015.1060183. Accessed October 2022. https://blog.datashine.org.uk

Office for National Statistics (2022). Subregional productivity: labour productivity indices by local authority district.

Port of Tilbury London (2017). Tilbury2 – Outline Business Case.

Planning Inspectorate (2019). Advice Note Six: Preparation and submission of application documents. Version 8.

South East Local Enterprise Partnership (2018). Smarter Faster Together: Towards a Local Industrial Strategy.

Teletrac data (2014). Unpublished.

Thames Estuary 2050 Growth Commission (2018a). 2050 Vision.

Thames Estuary 2050 Growth Commission (2018b). Technical Report.

Thames Estuary Growth Board (2020). The Green Blue – Action Plan

Infrastructure and Projects Authority (2016). National Infrastructure Delivery Plan 2016–2021.

Thurrock Council (2013) Thurrock Transport Strategy 2013-2026.

Thurrock Council (2015). Core Strategy and Policies for Management of Development (as amended).

Thurrock Council (2016). Economic Development Strategy.

# Glossary

| Term | Abbreviation | Explanation |
|---|---|---|
| **A122** | | The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1) |
| **A122 Lower Thames Crossing** | **Project** | A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing. |
| **A122 Lower Thames Crossing/M25 junction** | | New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon. |
| **A13/A1089/A122 Lower Thames Crossing junction** | | Alteration of the existing junction between the A13 and the A1089, and construction of a new junction between the A122 Lower Thames Crossing and the A13 and A1089, comprising the following link roads:<br>• Improved A13 westbound to A122 Lower Thames Crossing southbound<br>• Improved A13 westbound to A122 Lower Thames Crossing northbound<br>• Improved A13 westbound to A1089 southbound<br>• A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout<br>• A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout<br>• Orsett Cock roundabout to the improved A13 westbound<br>• Improved A13 eastbound to Orsett Cock roundabout<br>• Improved A1089 northbound to A122 Lower Thames Crossing northbound<br>• Improved A1089 northbound to A122 Lower Thames Crossing southbound |
| **A2** | | A major road in south-east England, connecting London with the English Channel port of Dover in Kent. |
| **Application Document** | | In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent. |
| **Construction** | | Activity on and/or offsite required to implement the Project. The construction phase is considered to commence with the first activity on site (e.g. creation of site access), and ends with demobilisation. |
| **Design Manual for Roads and Bridges** | **DMRB** | A comprehensive manual containing requirements, advice and other published documents relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations (National Highways, Transport Scotland, the Welsh Government or the Department for Regional Development (Northern Ireland)) is highway authority. For the A122 Lower Thames Crossing the Overseeing Organisation is National Highways. |
| **Development Consent Order** | **DCO** | Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008. |

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

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

# Appendix A Letters of support

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Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

04 May 2022

Dear Matt,

**Re: Support for Lower Thames Crossing**

I am writing to support your forthcoming application for development consent for the Lower Thames Crossing (LTC).

Asda is one of the largest supermarket chains in the UK, with over 600 stores serving more than 18 million customers every week.

Road transport is incredibly important to us as a business, we operate more than 1,200 heavy good vehicles (HGVs) and 3,200 home delivery vehicles and our drivers travel over 200 million miles each year, making 800,000 deliveries to stores and 20,000,000 deliveries to customers across the country.

Once operational, the LTC will double road capacity across the Thames east of London and help ease the chronic traffic congestion that occurs on the Dartford Crossing, which will drastically improve journeys for our HGV and delivery drivers in the area. As well as this, Asda operates a large number of stores and a Retail Distribution Centre (RDC) in close proximity to the location of the proposed crossing, all of which stand to benefit directly.

Beyond our local stores, the LTC will help improve Asda's overall operational efficiency in Kent and Essex by giving us another route through the two counties. Also, the size of the tunnel and its reliability will mean we can better utilise our double-decker HGV fleet, which will help us reduce our road transport emissions and enable Asda to become an even more sustainable business.

The Lower Thames Crossing is urgently needed, the application should be permitted without delay and then implemented.

Yours sincerely,

Mark Simpson
Senior Vice President - Chief Supply Chain & Transformation Officer
ASDA

Registered in England
No.464777
Registered Office:
Asda House,
Southbank,
Great Wilson Street,
Leeds LS11 5AD

2nd September 2022

**Matt Palmer**
**Executive Director**
**Lower Thames Crossing**
**Beaufort House**
**15 St Botolph Street**
**London**
**EC3A 7QU**

Dear Mr Palmer,

I am writing to offer Bluewater and Landsec's support for the Lower Thames Crossing project, and its upcoming Development Consent Order application.

Bluewater is one of the largest shopping centres in the UK, spanning 240 acres, with 330 stores and over 50 bars, restaurants, and cafes. Each year, between 7,000 and 10,000 individuals work at Bluewater, making us one of the largest employers in the local area and we contribute £422 million to the economy and welcome 27 million visitors each year.

Due to our unique location, in a former chalk quarry just outside of Dartford, many of our customers and employees require road access to get to the Centre. Much like other businesses in the area, we are impacted by the congestion at the Dartford Crossing with customers and staff struggling to get to the Centre. The Dartford Crossing was designed to take 135,000 vehicles a day, but it is now operating well over capacity, as it is regularly used by more than 150,000. The Crossing cannot keep up with the increasing demand and the huge number of vehicles that make use of it each day. The resulting congestion damages both the economy and environment and needs to be addressed.

The Lower Thames Crossing will make it easier and more energy efficient to travel between Kent and Essex and will benefit Bluewater in particular by providing a new route for customers from across the Thames to reach us, increasing our footfall and allowing more individuals to benefit from the social value the Centre adds to the wider community. It will also relieve congestion at the Dartford Crossing, which will free up space on the road network around the shopping centre, creating an even more pleasant customer experience.

We welcome the development of the Lower Thames Crossing and look forward to seeing the Development Consent Order granted.

Kind regards,
James Waugh
Centre Director, Bluewater

**Landsec/Bluewater**
Bluewater Management Suite, Upper Rose Gallery, Bluewater, Greenhithe, Kent, DA9 9ST
[redacted]

Matt Palmer
Executive Director
Lower Thames Crossing
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

2nd September 2022

Dear Mr Palmer,

I am writing to express the support from the Confederation of British Industry (CBI) for the Lower Thames Crossing. The CBI is the UK's leading business organisation, speaking on behalf of 190,000 businesses that together employ around a third of the private sector workforce. With offices across the UK as well as representation in Brussels, Washington, Beijing, and New Delhi, the CBI communicates the British business voice around the world.

The Lower Thames Crossing is a fundamental project that stands to bring significant benefits to businesses in the South East of England, relieve congestion and deliver well-paid, high-skilled jobs. It is the first major UK infrastructure project to use its procurement to target low carbon construction with incentives that drive further continuous carbon reduction, which will provide an example to future transport infrastructure schemes.

**By relieving traffic from the heavily relied upon Dartford Crossing, the project will significantly reduce congestion.**

- The proposed scheme will lead to better utilisation of the M20/A20 and M2/A2 to enable a greater flow of passengers and freight traffic.
- The Lower Thames Crossing will support the Dartford Tunnel with being the main strategic route from the Eurotunnel and the Port of Dover, whilst also supporting routes for the London Gateway Port and Medway[i].
- By reducing the traffic at the Dartford Crossing and allowing more vehicles to move at once, the Lower Thames Crossing will reduce emissions that would otherwise be generated by stationary vehicles.

**The Lower Thames Crossing will contribute to employment and support the local economy.**

- The project will support 10,000 jobs in the peak year of construction and employ more than 22,000 people over the six-year building phase.
- The Lower Thames Crossing will support the emerging workforce by offering local training opportunities, apprentices and graduate jobs.
- In addition to offering direct employment, the Lower Thames Crossing will also allow local businesses to collaborate, compete and access new customers.

**The increased road access in the South East will benefit the wider UK economy, whilst leading the way in sustainable road construction.**

- Ensuring a better connection to South-eastern ports will support supply chains which have been negatively affected due to the COVID-19 pandemic and Brexit, throughout the UK.
- The Lower Thames Crossing will nearly double road capacity across the Thames, East of London, which will result in double the amount of freight and transport usage for businesses.

- National Highways has designated the Lower Thames Crossing as a pathfinder project that will explore carbon neutral construction as part of its efforts to make the new crossing the greenest road ever built in the UK.

To summarise, the CBI supports the Lower Thames Crossing which will benefit UK businesses and the wider economy.

Yours sincerely,

**Susannah Watson**
Regional Director – South East and Thames Valley
[redacted]

[i] https://nationalhighways.co.uk/our-roads/lower-thames-crossing/why-do-we-need-the-lower-thames-crossing/the-need-for-the-lower-thames-crossing/

Essex Chambers of Commerce
34a Star Lane
GREAT WAKERING
SS3 0FF

01702 560100

Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7DT

16th June 2022

Dear Matt,

**Lower Thames Crossing is desperately needed**

I am writing on behalf of the Essex Chambers of Commerce to emphasise the critical issues that our members continue to face at the Dartford Crossing and reiterate our support for the Lower Thames Crossing project.

The need to improve our road network in Essex is essential if we are to keep a successful economy in the county. Currently businesses in Essex and Kent are at a standstill - too much time, money and effort are wasted due to the congested Dartford Crossing.

The cost to Essex businesses is extreme, and congestion is a real problem. Members are continually having to deal with late deliveries and extra fuel costs, and if we do nothing, Essex will lose out on inward investment and development. Doing nothing is not an option, Essex needs to lead the way with key transport links.

The Lower Thames Crossing will be essential to increasing road capacity, easing congestion and shortening travel times. It will make it easier for our members to connect with new staff, customers and markets. It will also support the economy recovery of Essex by providing 22,000 jobs over the construction of the project, and a raft of opportunities for local businesses wanting to work on the project.

The Lower Thames Crossing is the solution we need to ensure the future success of Essex. We have strongly supported the need for the Lower Thames Crossing from the very start, and would like to see this project approved without any further delay.

Yours sincerely,

[redacted]

Denise Rossiter
Chief Executive, Essex Chambers of Commerce

**Essex Developers Group**, c/o Castle Point BC Office, Kiln Road, Benfleet, Essex SS7 1TF

**Date: 02/09/22**

Matt Palmer
Beaufort House - Level 5
15 St Botolph Street
London EC3A 7DT

Dear Matt,

**Lower Thames Crossing**

On behalf of the Essex Developers Group (EDG) I would like to convey our support to the Lower Thames Crossing which would not only relieve pressure on the Dartford Crossing but provide an added boost to job creation and housing in Essex.

EDG focuses on helping to improve housing growth across the County, comprising developers, contractors, consultants, local housing companies, housing associations and the public sector. The group aims to eliminate barriers to house building and maximise commercial opportunities by getting the public and private sectors working together in a sustainable way that meets local needs.

We believe the Lower Thames Crossing would improve resilience of the network by providing an alternative crossing that would almost double capacity across the Thames East of London. It would offer new, more reliable connections, better journeys, and fewer delays linking up communities between Kent and Essex. This would support economic recovery by boosting local, regional, and national economies, which is especially important right now.

LRC will open new markets for local businesses including those in the construction sector, creating a new economy between Kent and Essex. We understand it could support 10,000 jobs in the peak year of construction and 22,000 jobs over the 6-year building phase.

There would also be new opportunities for businesses to collaborate, compete and reach new customers and local training opportunities to ensure our communities have the skills we need with the potential to create hundreds of apprenticeships and graduate places. EDG looks forward to continuing to work closely with Lower Thames Crossing Team to maximise the benefits from these opportunities.

Your sincerely

[redacted]

**Mark Curle** – **Essex Developers Group Chair**

[redacted]

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Experts in Business

Matt Palmer
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

2 September 2022

Dear Matt Palmer,

**Kent and Medway FSB Support for the Lower Thames Crossing.**

I write on behalf of the thousands of members of the Federation of Small Businesses in Kent and Medway. At each consultation, be it yours or our own, our members have overwhelmingly supported the need for a new crossing between Kent and Essex.

Over 80% of our members in Kent and Essex back a new crossing. It is simply wrong for businesses, in these difficult economic times, to second guess appointments and opportunities in the area because of the traffic. Indeed, this point highlights the potential economic benefits that the crossing will bring to the region. By lancing the congestion boil, it would increase business confidence in the area.

We welcome the Lower Thames Crossing's relationship with small businesses and your willingness to include SMEs in the supply chain with the Small Business Directory. This is a positive development and demonstrates your support for sustainable and local business.

We look forward to engaging with the project further.

Yours sincerely,

Tim Aker

Experts in Business

Matt Palmer
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

8th August 2022

Dear Matt Palmer,

I am writing regarding the Lower Thames Crossing (LTC) Development Consent Order application. I am submitting a letter in support of this application on behalf of the Federation of Small Businesses (FSB), the UK's largest business membership organisation.

Currently, there are significant delays in connectivity between Essex, London and Kent due to the congestion around the Dartford Crossing. This acts as a barrier on businesses who wish to conduct trade or provide services within the three areas, and beyond. Small firms and sole traders rely heavily on road networks to be accessible, efficient, and safe.

In November 2020, the FSB conducted a survey which showed over 80% of local businesses support the Lower Thames Crossing. Despite movements being restricted in 2020 due to the national lockdowns, many members still support the Lower Thames Crossing and want to see more work, more quickly. The survey results also show a great desire in local firms who want to pitch for contract and supply chain opportunities in this multi-billion-pound scheme.

LTC have responded to this and shown real commitment to maximising the opportunities for small, local businesses to become involved in this project. The launch of the Lower Thames Crossing SME Directory is just one example of proactive initiatives in this area, and we have worked together to promote the directory.

We are keen to see the LTC progress and look forward to the continued cooperation and joint working between the LTC team and the FSB.

Yours sincerely,

Jade Uko

FSB Essex Development Manager

JOHN LEWIS & PARTNERS | JOHN LEWIS PARTNERSHIP | WAITROSE & PARTNERS

Matt Palmer
Executive Director
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

4th July 2022

Dear Mr Palmer

**Proposed Lower Thames Crossing**

I wanted to write to you on behalf of the John Lewis Partnership to offer our support for the proposed Lower Thames Crossing.

About the John Lewis Partnership

The John Lewis Partnership Plc is the UK's largest employee-owned business and parent company of our retail brands - John Lewis & Partners and Waitrose & Partners. Founded on being a better way of doing business, the Partnership champions equality, wellbeing and sustainable living for the good of customers, Partners, suppliers and communities.

The Partnership is owned in Trust for the benefit of its 80,000 members, otherwise known as our Partners. Profits made are reinvested into the business - for customers and Partners. Power is shared between three governing authorities: the Chairman, Partnership Board and Partnership Council. The shared aim of the three governing authorities is to safeguard the Partnership's future, to enhance its prosperity and to ensure its integrity.

Need for the scheme

The Partnership operates a large number of retail outlets and shops across the UK, as well as three John Lewis Customer Distribution Hubs, three Waitrose.com Customer Fulfilment Centres and one national and two regional distribution centres In order to service these locations as well as ensure stock levels and customer expectations are maintained, we operate extensive retail and home delivery operations across the UK, with particularly high volumes to London, the Midlands and the South East of England:

- Over 150 primary distribution/store deliveries per day by large goods vehicles
- A large number of home/other deliveries per day by van and light commercial vehicles
- Operation of deliveries on a 24/7 basis

These deliveries take place at various times of the day and night, seven days a week, 365 days of the year.

At the present time we have a number of John Lewis Customer Delivery Hubs (CDH) to carry out our home delivery service in London, Surrey, Kent and Sussex, to name but a few areas. This includes a CDH at the Crossways industrial site at Dartford.

From this site we service not only the John Lewis store at Bluewater, but also Chelmsford & Southend stores, along with home delivery operations. Therefore the use of the Dartford tunnel daily is a necessity in being able to access most of these areas.

We also operate a Regional Distribution Centre at Aylesford in Kent, and daily the Dartford Crossing is used to access stores in the East of England as far as Norwich and the Midlands.

Finally, we service a number of locations from our National Distribution centres located in Milton Keynes. Vehicles from this location use the Dartford Crossing, but are somewhat restricted, as trips could include deliveries to the East of England, and then down into Kent and South London if there were a Lower Thames Crossing.

Unfortunately, the current Dartford crossing is not coping with the daily vehicle capacity, and this is reflected in the vehicle delays and congestion we see, This increases journey times and can lead to less deliveries within a delivery schedule, not to mention our very strong concerns about the air pollution being generated as a direct result of idling vehicles.

Additionally, the Partnership operates a fleet of articulated double deck trailers, allowing maximum carrying/load capacity to make deliveries as efficient as possible. However, access to the Dartford tunnel is restricted to one lane only for large goods vehicles, and this lane is often closed, with diversions potentially sending vehicles on longer, slower, less efficient routes - this costs the Partnership more in time and fuel, whilst increasing vehicle emissions.

We see the construction of a new Lower Thames Crossing as a huge benefit to the Partnership's fleet operations, especially at a time when carbon reduction is a key priority for us as a business. I would therefore like to offer our support to this project.

If you would like to discuss this further, please do not hesitate to get in touch.

Yours Sincerely

[redacted]

Partner & Legal Operations Manager
John Lewis Central Transport
[redacted]

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KENT INVICTA CHAMBER OF COMMERCE

27th July 2022

Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7DT

Dear Matt,

**RE: Support for the Lower Thames Crossing Project**

**I** are writing to you on behalf of Kent Chamber of Commerce to formalise our longstanding support for the Lower Thames Crossing Project.

The heavily congested Dartford Crossing is becoming a barrier for our members. They need to be able to travel across the county, across regions, right across the UK without the delays they are currently experiencing on the Dartford Crossing. Connectivity is essential if they are to get their goods to market on time.

If our members are going to look at business growth, they need to ensure they can maximise the opportunities that are out there and the Dartford Crossing is restricting their ability to do so. We need to ensure the right infrastructure is in place, such as the Lower Thames Crossing, to enable them to reach these opportunities.

Once the new crossing is open, our members are going to be able to plan with much more certainty. It will open up new opportunities, enabling businesses across Kent and the wider South East to achieve their growth potential and significantly improve our future prosperity.

It is unimaginable not to do something about the congested Dartford Crossing, and the Lower Thames Crossing is the right solution. The application for Development Consent should be permitted without further delay.

Yours sincerely,

[redacted]

Jo James OBE
Chief Executive

Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7DT

31 May 2022

Dear Matt,

I am writing to reiterate London Southend Airport's support for the Lower Thames Crossing.

London Southend Airport is an award-winning airport serving London and the South East. We have ambitious plans to grow, and the Lower Thames Crossing is one of the key ingredients for enabling that growth.

About two thirds of our passengers travel to the airport by road, and road travel is also key for staff and suppliers getting here. However, the Dartford Crossing is a blight on the area. It is so congested and unreliable, that many passengers will choose not to use London Southend Airport if they need to get here via the Dartford Crossing.

When the Lower Thames Crossing is in place, it will open up a much bigger market for us, south of the river. It will provide a more reliable crossing which is vital for passengers – they need the confidence to know they can get to the airport on time. It would also be a quicker journey for many passengers, for example those travelling from Medway in Kent to London Southend Airport could save more than 20 minutes on their journey time, which is significant.

Access to a bigger market would also open up more competition for us, which could drive prices down and benefit customers. It also gives us access to a bigger talent pool, and more suppliers.

I've been calling for the Lower Thames Crossing since 2018 as I have absolutely no doubt that the project is going to make a massive difference to this business. As mentioned above, it is one of the key ingredients that will enable us to grow.

We need the Lower Thames Crossing urgently, and so planning permission for the project should be granted asap.

Yours sincerely,

[redacted]

Glyn Jones
Chief Executive Officer
London Southend Airport

London Southend Airport
Southend on Sea, Essex, SS2 6YF

p +44 (0) 1702 538 500
w southendairport.com

Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7DT

18 October 2022

Dear Matt

I am writing to offer the support of London Stansted Airport to the Lower Thames Crossing project, and to your upcoming Development Consent Order application.

London Stansted is the third busiest airport in London and the fourth busiest in the UK. Prior to the pandemic it served 28 million passengers a year and has now recovered over 90 per cent of those volumes, making it the fastest recovering major airport in the UK.

The airport serves a wide catchment across the East of England and the wider Southeast. The airport is also a major employer in Essex and strong driver of regional growth. Before the pandemic, it supported 23,300 jobs and GVA of £1.9bn.

We rely on safe and efficient road infrastructure to provide our passengers and employees with predictable journeys to and from the airport. In addition, London Stansted is one of the country's most important airports for cargo, relying on the road network to move goods and support UK trade.

The Lower Thames Crossing (LTC) is a welcome measure to reduce congestion on the Dartford Crossing which contributes to delays in passenger and freight trips to and from the airport.

More broadly, we support new infrastructure investment that spurs regional economic growth to create a more affluent catchment. For example, the LTC would open up new markets for local businesses based in Essex and help them grow.

Finally, we are pleased to see the LTC has been designated as a pathfinder project to explore carbon neutral construction and help the UK reach net zero by 2050. We understand that operational emissions from the scheme will be largely mitigated by the increased penetration of low emissions vehicles.

We support the LTC and look forward to seeing the Development Consent Order made.

Yours sincerely

[redacted]

Tim Hawkins
[redacted]
Chief of Staff
MAG

HUTCHISONPORTS
LONDON THAMESPORT

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londonthamesport.co.uk

Matt Palmer Esq
Lower Thames Crossing
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

11 July 2022

Dear Matt

I am writing to confirm our support for the Lower Thames Crossing.

Hutchison Ports operates 52 ports in 26 countries. In the UK we own and operate the Port of Felixstowe, Harwich International and London Thamesport. London Thamesport is an important short sea container and project cargo port located on the Isle of Grain in Kent, close to the Crossing's southern arm.

The majority of traffic using London Thamesport is destined for locations to the north of the River Thames and currently has to use the Dartford crossing. Frequent congestion at the crossing, and on the M25 either side of it, adds time and cost to supply chains that use the international gateways that lie to the south of the river, including London Thamesport.

The Lower Thames Crossing will double road capacity across the River Thames east of London, and will help ease this congestion. It will improve journey times to and from London Thamesport, right across the region, extending the hinterland around the port and opening up new growth markets.

Beyond the immediate region, the new connection will provide a quicker, more reliable connection between the major manufacturing centres and distribution hubs in the Midlands and the North and international gateways in the South. By reducing distribution costs for exporters it will create new opportunities for businesses from across the UK to collaborate, compete and reach new customers.

We wish you the best with this key element of national infrastructure and hope it progresses without undue delay.

Yours sincerely

[redacted]

Mark Taylor
Director, Hutchison Logistics (UK) & Director, London Thamesport

Maritime Transport Limited
Maritime House
Clickett Hill Road
Felixstowe
Suffolk IP11 4AX

Tel: +44 (0)1394 617300
Fax: +44 (0)1394 617299

Mr Matt Palmer
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

RE: Lower Thames Crossing

Dear Matt,

I am writing to you to express Maritime Transports support of the Lower Thames Crossing project which will provide much needed relief to the Dartford Crossing, offering new connections between Kent and Essex.

Maritime Transport Ltd, a national logistics business operating 1,500 HGVs throughout the UK, across 2019 and 2020, completed almost 30,000 journeys using the Dartford Crossing. The development of the Lower Thames Crossing is likely to provide significant savings, both time and mileage, to the vehicles using the new route, a benefit to Maritime, its drivers, and many other businesses within the region.

Completion of the Lower Thames Crossing project will improve resilience of the network while allowing Maritime to put additional focus on driver's shifts ensuring they are palatable. Time and mileage savings offered by the project would certify this area as one of the businesses leading priorities.

In addition to the clear benefits to the road infrastructure, the Lower Thames Crossing would also support economy recovery by boosting local, regional, and national economies, opening new markets for local businesses, creating a new economy between Kent and Essex whilst the 6-year building phase of the project will support 22,000 jobs and create hundreds of apprenticeships and graduate places.

Recent years have highlighted the importance of our logistics sector to keep Britain moving and a development like the Lower Thames Crossing will create a new, reliable, crossing alleviating congestion and other issues experienced as a result of lack of alternative infrastructure between Kent and Essex.

Yours sincerely,

[redacted]

John Williams
Executive Chairman, Maritime Transport Ltd

Darren Coker
Head of Logistics - South
Morrisons RDC
Sittingbourne
ME10 2FD
United Kingdom

Matt Palmer
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

Dear Matt,

Upon our recent conversation at our regional distribution centre in Sittingbourne, this letter serves as a letter of support for the proposed Lower Thames Crossing project (LTC) from our business, Morrisons WM Supermarkets Limited.

Morrisons is a national supermarket company, delivering goods to its customers through over 500 stores nationally with over 150,000 employees. Currently, Morrisons operate their logistics function through 8 distribution centres nationally. These consist of 7 regional distribution centres and 1 national centre. Nationally Morrisons delivers its volume with an average of 8500 transport store trips per week.

Moreover, the most applicable distribution centre to this project is Sittingbourne RDC. The site is located in Sittingbourne, in close proximity to the M25 Dartford Crossing. This distribution site delivers over a significant number of cases a week within over 1600 trips. Due to its significant location of serving all London and nearing stores, the road network plays an important role ensuring we deliver the goods on schedule, more importantly the Dartford Crossing.

Furthermore, a number of reasons provide the backbone to our support for the proposed LTC. Firstly, the main factor is the heavy congestion at Dartford Crossing. With a great number of trips needed to service our stores and emphasis on KPIs, our transport plan is built by our planning teams with the greatest focus on cost and great service. As a

consequence, our transport plan is built to its full capability with those points in mind. Currently, the heavy congestion present at Dartford Crossing places a great strain on cost and overall schedule compliance within our delivery windows to stores. Most of the stores serviced by Sittingbourne RDC have delivery curfews, therefore congestion and delays present a great strain to our strict transport plan. We believe these are caused due to Dartford Crossing being the only route available from Kent to Essex without going around the M25.  Due to being the only route and quickest into Essex from Kent, maintenance closures are very frequent, which consequently presents the same issue to our journeys with affecting great service to our customer and delivery on time compliance. This is due to lorries needing to take diversions which increase our KMs.

Lastly, the main factor for our support to the LTC is the inability to utilise our double deckers at night. Frequent overnight closures occur to Dartford Crossing, which results in our double decker HGVs having to take diversion routes. Our double decker fleet helps deliver on our cost targets, but most importantly helps contribute to our company mission statement of achieving net zero carbon emissions by reducing the number of trips through standard lorries.

Thank you again for presenting your proposition. We are fully committed to supporting the LTC project due to its great number of benefits it presents to our operation at Sittingbourne RDC.

Kind Regards

Darren Coker
Head of Logistics - South

C/O Castle Point Borough Council
Kiln Road
Thundersley
Essex
SS7 1TF

Matt Palmer
Lower Thames Crossing
Beaufort House
Level 5
15 St Botolph Street
London
EC3A 7DT

8th September 2022

Dear Matt,

**Lower Thames Crossing – Letter of Support**

Opportunity South Essex (OSE) is a private-public partnership whose vision is for South Essex to have one of the fastest growing and most sustainable economies in the UK, providing opportunities for businesses, attractive for inward investors and benefit local communities. We are also one of the sub-regional boards that form the South East Local Enterprise Partnership.

Opportunity South Essex are hugely supportive of the Lower Thames Crossing project. The project will have a truly transformative effect on our businesses and communities through the creation of access to new markets and opportunity. We believe that the new link will boost investment, job creation, skills and make a significant contribution to levelling up across the Estuary. It will also address the unreliability and congestion suffered on a daily basis at the Dartford Crossing.

We must not forget the importance of the crossing to the UK Road network, and we understand that around 60-70% of cross-channel freight crosses the Thames on its journey. Lower Thames Crossing will be a critical piece of the UK's infrastructure.

We understand the Lower Thames Crossing will provide a doubling of the capacity of routes across the Thames in our region. More importantly, journey time reliability will be significantly improved. We have heard anecdotally from our businesses that in some cases they do not do business across the river because they cannot rely on the current crossing. The new crossing will open up whole new market areas and will be a key enabler of South Essex's ambitions to significantly grow its economy between now and 2050.

The crossing also has a range of other benefits. This is a significant project that will need a large employer in its own right, employing 22,000 over the lifetime of the project. This also presents a once in a lifetime opportunity for training and upskilling of people in communities across the region and provide a legacy of people with the right skills at all levels across a range of disciplines. The project is already providing wider benefits

across the region though creating access to open space through the South Essex Estuary Park and supporting digital connectivity.

We are also encouraged by the projects stated ambitions to significantly reduce carbon emissions during construction. The project is an opportunity to lead the UK's construction industry in its journey to net zero by adopting alternative fuels such as electric and hydrogen. We believe that this will also leave a positive legacy in the region though the development of the infrastructure to support this aim.

Throughout the development of the project, the Lower Thames Crossing team have positively engaged with businesses across the region. This has been of great value and will become increasingly important as we head towards delivery and we can understand the opportunities and benefits the project will bring.

In Summary, Opportunity South Essex are very supportive of the project and consider it vital for the levelling up and regeneration of South Essex and the wider Thames Estuary as well as providing a key piece of the UK's economic infrastructure.

Yours Sincerely,

**Perry Glading**
**Chair**
**Opportunity South Essex**

Matt Palmer
Beaufort House
Level 5, 15 St. Botolph Street
London, EC3A 7DT.

16th May 2022

Dear Matt Palmer,

**Lower Thames Crossing Project**

I write to fully endorse the Lower Thames Crossing project in partnership with National Highways.

Peel Ports Group is one of the largest port operators in the UK, handling approximately 70 million tonnes of cargo each year and accounting for 15% of the UK's cargo volumes through its waters. We operate the harbour authorities and ports on the River Medway, Great Yarmouth, the Clyde and, in the North West of England, the Port of Liverpool, the Manchester Ship Canal and the Port of Heysham.

Over the last decade we have invested over £1billion in enhancing and extending cargo handling facilities across the Group, creating hundreds of new jobs and securing long term opportunities and growth across the regional economies where we operate.

Our London Medway Port sits directly at the mouth to the Southern side of the Lower Thames crossing and is a specialist in handling large infrastructure projects especially within bulk aggregates and other construction related materials.

In addition, and in line with the Lower Thames Crossing Pathfinder's own ambitions, we have committed to become carbon neutral by 2040. This is a significant, industry-leading move which reaffirms our position in growing the business sustainably by minimising our impact on the environment.

We know the Port of London Medway and our activities along the River Medway would represent a key partner for the development of this important project as well as opening up global markets for UK businesses to operate, helping to reduce costs, congestion and carbon emissions within the supply chain.

We very much look forward to our future collaboration and stand ready to support you and our South-East Region partners in helping to secure such a critically important National investment.

Yours sincerely

[redacted]

Chief Executive Officer

**Port of Sheerness Limited**
Sheerness Docks
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Christian Pryce
Port of Dover
Harbour House
Marine Parade
Dover
Kent
CT17 9BU

17th August, 2022

Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

Ref: Lower Thames Crossing (LTC), DCO application
FAO Matt Palmer

Dear Matt

A short note of support for the DCO application process for Lower Thames Crossing (LTC) project.

The Port of Dover is the critical freight and transport corridor, key to the UK supply chain. As a business, we recognise our significant role in the local, regional and national economy, and subsequently our responsibility to collaborate on projects that will progress shared agendas on trade, digitisation and decarbonisation to name just a few.

From a UK PLC trade perspective, the Port is responsible for:

- *£144 billion of trade in goods*
- *33% of the UK's trade in goods with the European Union (EU)*
- *59% of ferry journeys between the UK and EU*
- *31% of all HGVs transiting UK seaports*
    - *2.4 million freight vehicles per annum*
    - *Up to 10,000 lorries each day, with half of them heading beyond London to support economic activity in the Midlands and North*
- *Almost 11 million passengers per annum – (pre-pandemic)*

The route is set to grow; the market wants and chooses this route over others. With over 70% of all freight traffic from the Port and Eurotunnel currently utilising the Dartford Crossing, the statistic that

c.95% of peak journeys are delayed is clearly not good for our customers, UK PLC or the region. To that end, it logically follows that a series of interventions is required.

We see LTC as a vital piece of this jigsaw: by doubling capacity, you will ease congestion of not only the £144bn through Dover or the over £250bn of trade that chooses the Short Straits overall, but importantly local commutes.

However, it should be noted that the Port does not believe that LTC is the sole silver bullet to creating a resilient UK supply chain. In a similar vein that LTC will create resilience during the 27 days annually when a tunnel is closed or other factors impact the bridge, the Short Straits requires significant investment in surface infrastructure, such as A2 Dualling, Brenley Corner upgrades and other elements outlined in the Dover Access Improvements scheme.

As a Port we will continue to collaborate with the LTC team on ensuring maximum value for money, integration of thinking around traffic flows, HGV driver facilities and decarbonisation to name just a few; there are clear synergies and benefits for all stakeholders and UK PLC of us continuing to do so.

Best regards

Christian Pryce
Chief Commercial Officer
Port of Dover

For the Attention of Executive Director Matt Palmer

**Lower Thames Crossing**
**Beaufort House**
**15 St Botolph Street**
**London EC3A 7QU**

**Reference Lower Thames Crossing**

Dear Sir,

The Lower Thames Crossing is really important to us as a business, it means we can get more reliable traffic in to us here in South Lincolnshire, more quickly getting our fruit to the end consumer when they need it, in the right condition.

Ripe Now is based on 2 sites in Boston Lincolnshire, we ripen Bananas, Avocados, stone fruit and Mango and what you see daily on the major retailers shelves and chill units very likely emanated from a Ripening centre such as ours.

Road transport is very important to our business, all fruit from all around the world, arrives at our ripening centre by road from all UK major ports in the South East of The UK and is then shipped to the major retailers and food service businesses from our site Nationwide, including back in to the South East.

We are heavily reliant on Road haulage , and it is key to getting our fruit from the ports and from The Continent, from Italy and Spain, in good condition and on time. This fruit passes through Kent and Essex in to our hub and back out again to our key customers via our Haulage partners. We have up to 20 movements a day from this region inbound, with probably half of this then going back in the SE direction.

The impact of The Lower Thames Crossing to our business would be very positive indeed, if we could then rely on vehicles getting fruit to us in minimum lead times. The current scenario using The Dartford Crossing means that many of our inbound vehicles can get delayed for just a couple of hours, which in reality , due to driver hour regulations, can mean an additional day before they arrive, creating quality issues and affecting the cost of storage in terms of available capacity.

The impact of having The Lower Thames Crossing would definitely be a positive affect on our business, meaning we can have more reliable lead times, plan better for intake and storage, and use our ripening rooms more efficiently. In turn this means we can give an even more reliable service to the consumer, getting ripened product to them more cost effectively and more quickly.

Yours Sincerely,

*Martin Beecham*

**Ripe Now Limited, Bittern Way, Boston. PE217NX**

**Martin Beecham**
Transport Logistics

**T:** [redacted]

**Follow Us**

Member of ukFPN Lincolnshire

Matt Palmer,
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

8TH September 2022

Dear Matt,

I am writing to confirm our support for your plans to develop the Lower Thames Crossing as an alternative route to the current Dartford Crossing.

RHA is a trade association that represents over 8,000 members including HGV, coach and van operators and we engage with Government and stakeholders on issues that are affecting the logistics industry. The UK road network is the workplace of commercial vehicle drivers and it is therefore imperative that we see roads that are free flowing and congestion free.

The Lower Thames Crossing will help to alleviate congestion at the current Dartford Crossing and will save operators a considerable amount of time and cost. We also believe that the Lower Thames Crossing will create resilience in this part of the road network.

RHA wishes to see UK roads that allow commercial vehicle operators to experience journey times which are predictable, reliable and consistent. The Lower Thames Crossing should contribute to achieving this objective.

Furthermore, our assessment is that there is a national shortage of around 11,000 overnight lorry parking places. Allowing insufficient, sub-standard and often unsafe lorry parking to continue unaddressed is not acceptable. Having a lack of adequate parking places results in inappropriate parking and noise that impacts residents. It can also result in increased levels of littering and increased attraction to organised criminals and opportunistic thieves that could be looking to steal fuel and/or cargo. Therefore, RHA would like to see driver facilities and welfare provisions included within the final plans for the Lower Thames Crossing project.

Yours sincerely,

Tom Cornwell
Policy Lead
RHA
t.cornwell@rha.uk.net

Matt Palmer
Executive Director
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

28/7/22

**RE: SUPPORT FOR LOWER THAMES CROSSING**

Dear Mr Palmer,

We are writing to confirm our support for DCO application for the Lower Thames Crossing (LTC).

We are a SME business based adjacent to J29 of M25 and have to traverse the Thames at Dartford around 20 times a week, minimum. A large proportion of our work is in the southern Home Counties and there is no other route that is sensible, other than the bottleneck that is the Dartford Crossing.

Ruskins runs a fleet of 15 vehicles, which are needed to undertake our works. We undertake physical works for our clients, such as Tree and Hedge Transplanting, Applying Soil Biology, undertaking Air Spade services and delivery of Play Trees & Play Logs to natural play sites.

Our use of Public Transport for works or even quoting is not viable:

a) due to our rural location (and often that of our clients)
b) due to the radial routes into London, that would necessitate journeys into London, across London and then out of London.
c) The need to visit multiple clients in one day (impossible with radial routes).
d) We need to carry materials and equipment to our clients.

The directors are old enough to remember when a single Dartford Crossing was adequate. Now due to the volume of traffic, for decades it has been a bottleneck, often with very long delays, especially travelling north at the end of the working day.

The delays and hassle associated with the Dartford Crossing make any journey via it produce a (usually, but not always) inaudible, groan. There are days when we have to either sit on the motorway before reaching the crossing and tell our teams not to bother going to their jobs, due to high winds or an incident at the Dartford Crossings. On other days, when working in Kent, it can be quicker to drive clockwise around the M25 to J29 rather than sit for hours in the traffic jams.

Please do not think that the Dartford Crossing only causes congestion on M25. On the north side (our side), the (new and old) A13 jams as do all of Purfleet, Rainham, Thurrock, Lakeside and Grays. When the Dartford Crossing is blocked the whole area has grid lock until hours after the crossing has re-opened.

The LTC will take pressure from the Dartford Crossing and relieve congestion making the crossing much quicker and with much less risk of delays.

This will become especially welcome, due to the inability to use the Dartford Crossing bridge in high winds. As a tunnel the LTC will be immune to this.

Its interception of the A2 prior to the M25 and joining the M25 just before J29 allows the traffic using it to have much less congestion, compared to building another crossing at Dartford.

In addition (but perhaps most importantly) the whole of Essex, East London and Kent, South East London are economically penalised by the lack of crossings east of London. When you consider the barrier the Thames is and the restriction on economic activity it causes, it has a massive impact. The LTC will help to redress this imbalance.

For example we used a specialist supplier in Basildon for decades, since they have been purchased and moved to just the other side of the Dartford Crossing, five years ago, we have never visited or purchased anything directly from them and now use the www to source their products, usually from their competitors. If crossing was less hassle, we would have maintained our relationship with them. We look forward to the LTC and using them again.

If you wish to discuss any aspect of the above, please do not hesitate to contact us.

Yours sincerely

[redacted]

Keith Morley
Managing Director

[redacted]

SOUTH EAST
LOCAL ENTERPRISE
PARTNERSHIP

County Hall
Chelmsford
Essex
CM1 1QH

Matt Palmer
Lower Thames Crossing Team
Beaufort House, Level 5
15 St Botolph Street
London
EC3A 7DT

17 August 2022

**Lower Thames Crossing**

Dear Matt,

The South East Local Enterprise Partnership (SELEP) is delighted to see the Lower Thames Crossing take this important step forward and submitting its Development Consent Order application. Recognising the position of our colleagues at Thurrock Council and Gravesham Council, other members of the SELEP Ltd board are keen to see the scheme progress as swiftly as possible and, as such, we are writing to confirm our support.

As the largest LEP in the country, SELEP represents many organisations that are directly impacted by current congestion at the Dartford Crossing and the surrounding areas. We also represent businesses and estuarine communities that have seen opportunities for growth hampered by limitations in connectivity across the Thames to the east of London. We have no doubt that this scheme provides a solution and will be a vital foundation for future growth in the South East.

The new crossing will provide resilience. When the existing Dartford Crossing is closed or heavily congested, the costs are borne by businesses across the SELEP area and across the country as a whole. By ensuring that goods and labour keep moving, the Lower Thames Crossing will have a transformational impact on the Thames Estuary economy and on businesses across the rest of the country.

The crossing will also open up new opportunities, changing market catchments and travel to work areas, connecting employees and employers, buyers and sellers, business and customers. In this way, the Crossing will enable success at key locations such as Thames Freeport, DP World and Tilbury Ports, and in new Garden Communities in North Kent and South Essex.

The Lower Thames Crossing will also play a role in supporting the delivery of broader regional economic priorities that are outlined in the SELEP Recovery and Renewal Strategy. It will, for example, be vital in 'levelling up' deprived communities in the South East. It will support growth in high value and globally competitive industries, providing a catalyst for wider investment, job creation and regeneration. Crucially, it will also help cement the South East's position as the UK's Global Gateway and as a centre for trade and investment. It will make the flow of imported and exported goods easier, smoother, and more reliable, magnifying the impact of regional investment in sectors such as logistics, manufacturing and distribution.

Finally, we applaud and endorse the Lower Thames Crossing's position as a 'pathfinder project', leading the way for carbon neutral construction as part of its efforts to be the greenest road ever built in the UK. The

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CM1 1QH

South East is well placed to support this agenda with excellent credentials and some fantastic businesses ready to support. We welcome the new investments and innovation that will flow into this sector as a direct result of the realisation of this bold ambition.

We are delighted to see this scheme advancing and wish National Highways every success in delivering this long overdue investment in our national transport and economic infrastructure.

Yours Sincerely

[redacted]

**Christian Brodie**
**Chair**
**South East Local Enterprise Partnership**

[redacted]

**Adam Bryan**
**Chief Executive Officer**
**South East Local Enterprise Partnership**

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SKIP HIRE – ROLL-ON-OFF HIRE – GRAB LOADER HIRE – RECYCLING CENTRE

Thursday 4 August 2022

Matt Palmer, Executive Director
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London
EC3A 7QU

Dear Mr Palmer

We're writing in support of your DCO application in which should be submitted and implemented without delay.

Sharp Skips has almost four decades' worth of experience in the waste management industry. Our team operates throughout London, Essex and Kent, providing a range of waste services to help achieve our customers hit zero-to-landfill goals. We take recycling very seriously and ensure waste is properly processed so items that don't have to go to landfill are re-used in alternative ways. We are medium sized waste management business employing around 70 staff from the surrounding areas.

Here are a few examples of how we believe the crossing will help benefit our business directly:

- Reduce congestion on the bridge and subsequent connecting roads, allowing us to serve our customers much quicker with less traffic delays.
- Provides our workforce with a second, faster and more reliable route between Kent and Essex.
- Expands our service offering to customers as the time to commute over to Kent will be reduced, meaning we can reach more customers.
- Ease the commute for our staff getting to and from work with the reduced congestion on connecting roads.
- More recycling options for our waste in Kent as there will be no restrictions with road freight in the tunnel.

We hope we have given adequate support in regards to your application. We strongly believe this project will help not only our business but everyone in the local area. If you require any more information, please don't hesitate to contact us direct. Please use Ryan as your base of contact – ryan@sharpskips.co.uk.

Kind Regards

[redacted]

Terry Sharp
Managing Director – Sharp Skips


Mr Matt Palmer
Executive Director
Lower Thames Crossing
Beaufort House
15 St Botolph Street
London EC3A 7QU

1st September 2022

Dear Mr Palmer

Letter of Support

I am writing in support of your DCO application which should be submitted and implemented without delay.

I write as the Managing Director of TCP Group, a UK-wide company with our headquarters based in Essex. As a SME, we offer a range of zero-emission products and equipment that uses hydrogen fuel-cell technology. Our product range will go a long way to ensure the construction of the Lower Thames Crossing will be the greenest road ever to be built in the UK.

The Lower Thames Crossing has the potential to provide a real opportunity to deploy hydrogen benefits for a nationally important infrastructure project based locally. The use of hydrogen technology will play a critical role in meeting net-zero targets.

I believe that using local suppliers will help keep travel to a minimum and take pressure off the already congested road network. Our company values encourage local employees - and working on a project such as the Lower Thames Crossing will make the team feel like they are contributing to something they will use in the future, with a second, faster and more reliable route between Kent and Essex.

This infrastructure project should provide a fantastic opportunity for Essex based employees to engage in highly skilled jobs in an area of technological growth. It also has the potential for good training and apprenticeship opportunities.

I would be happy for this letter of support to be included in your DCO application which, as already stated, should be submitted, and implemented as soon as possible.

Yours sincerely [redacted]

Andrew Barker
Managing Direc
TCP Group

**Matt Palmer**
**Level 5, Beaufort House, 15 St Botolph Street**
**Aldgate**
**EC3A 7DT**

**15th September 2022**

Dear Matt,

**Message of Support from the Thames Estuary Growth Board**

I am delighted to reiterate the Thames Estuary Growth Board's full support for the Lower Thames Crossing.

As the UK's number one Government-backed growth opportunity, the Thames Estuary has the potential to create over 1.3m jobs and £1.9bn GVA by 2050 and make a significant contribution to the UK's economy. Central to releasing this growth is investment in critical infrastructure.

Through our emerging work with Homes England and local councils, the strategic need for the Lower Thames Crossing is clearly overwhelming – essential if the Estuary is to deliver even "business as usual" levels of growth. Strategic investment in the Lower Thames Crossing connecting new employment and planned homes will be critical if the levels of growth envisaged in the Thames Estuary 2050 Growth Commission are to be supported.

At the same time, we are acutely aware of the pressure on the existing Dartford Crossing and the negative impact of congestion on local communities and businesses in affecting air quality and slowing down the economy. The Lower Thames Crossing is essential for the encouragement of local business investment, to provide better access to better jobs and homes and to support the health and prosperity of local communities.

Critically, the Lower Thames Crossing will also be the country's leading carbon neutral infrastructure project. As a national pathway project exploring carbon-neutral construction, its intended focus on hydrogen will accelerate the delivery of the Thames Estuary hydrogen ecosystem, supporting the development of local business supply chains and leaving a legacy for the area. Our work in interesting business and investors in this ecosystem has already begun. As such, we wholly support the scheme's aspiration in leading the way for the delivery of green transport infrastructure in the UK.

In addition, as a major construction scheme, the Lower Thames Crossing has the potential to help improve the lives of millions of people, by creating more than 20,000 jobs, as well as skills opportunities, training, apprenticeships and opening access to good jobs within the Estuary and beyond. Its impact in linking North and South will directly support Levelling Up.

The Thames Estuary Growth Board remains wholly committed to the Lower Thames Crossing and the delivery of good, green growth which this critical spatial scheme will deliver. Visit www.thamesestuary.org.uk to find out more.

With very best wishes,

[redacted]

Kate Willard OBE
**Chair of Thames Estuary Growth Board and Thames Estuary Envoy**[redacted]

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