

Lower Thames Crossing
Sustainability Report

Delivering the UK's greenest road

September 2026



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About this report

The Lower Thames Crossing Sustainability Report 2026 reflects our sustainability performance across the last year. As we move from planning to delivery our ambition remains the same. We aim to build the project in a transformational way, setting the standards for efficient, world-leading low-carbon construction that will leave a lasting legacy for the local area, the construction industry and the UK economy.

This is our fourth annual report, continuing our commitment to transparency, accountability and balanced sustainability reporting. Our reporting processes will continue to evolve as plans move forward, in line with the Government's preferred financing option (see About the Lower Thames Crossing).

For 2026, our key performance indicators (KPIs), presented in the Our progress section, demonstrate our in-year sustainability performance. Independent reviewers have assured our carbon forecasts providing another layer of assurance (see Appendix B).

All information in this report covers our progress and performance for the financial year ending 2026. For any enquiries related to this report, please contact: info@lowerthamescrossing.co.uk



Aerial view of Thong Lane green bridge north with planting and the southern tunnel entrance

The Lower Thames Crossing is one of the UK’s most important economic infrastructure projects. It will drive growth by doubling road capacity across the Thames east of London. Connecting people to jobs and businesses to opportunities, it will leave a skills legacy for the local community and the construction industry.

Setting a new standard for sustainable infrastructure

As a carbon pathfinder project, the Lower Thames Crossing will set a new blueprint for carbon-neutral construction, including using hydrogen (H₂) to power equipment. It will also become one of the UK’s largest nature enhancement projects, with around six times more green space than road.

The Lower Thames Crossing Development Consent Order (DCO) was approved by the Secretary of State for Transport in March 2025. This is a legally binding document, that establishes clear environmental and social requirements, along with additional sustainability commitments made by the project.

These commitments include low-carbon construction, the creation of a lasting skills legacy with a focus on supporting priority groups into employment, and the delivery of one of the UK’s largest nature programmes. We are planting one million additional trees, restoring historic landmarks and improving public access to green spaces.

Supporting national growth and resilience

The Lower Thames Crossing is vital for improving links between the Midlands, the North and key ports in the South East, and for improving the resilience of the overall road network.

The project supports the Government’s priorities to stimulate economic growth, establish Britain as a clean energy superpower and remove barriers to opportunity. It is central to the Government’s 10-year infrastructure strategy, supporting enhanced productivity, resilience and regional connectivity.

The new road will relieve capacity pressures at the Dartford Crossing, which remains the sole crossing over the Thames, east of London, designed for 135,000 vehicles but carrying at least 150,000 a day. The route forms a critical link for freight travelling through key ports and the South East, serving the UK’s most heavily populated region.

The case for additional Thames crossing capacity at Dartford is stronger than ever:

- Congestion at the Dartford Crossing costs the UK economy millions each year in drivers’ time and with no reliable alternative, the Thames remains a barrier to local and regional growth
- On its busiest days it is used by more than 180,000 vehicles a day – this will be the norm by 2042
- In the evening peak, 19 out of 20 northbound journeys are delayed, and two out of three take twice as long as they should



New nature habitat near the village of Thong

Delivering the project

The Lower Thames Crossing is being delivered through three main contracts:

- Roads north of the Thames contracted to Balfour Beatty Civil Engineering Ltd
- Tunnel and approaches contracted to Bouygues Travaux Publics – Murphy Joint Venture (BMJV)
- Kent roads contracted to Skanska Construction UK Limited

These world-class Delivery Partners have a global track record of working on comparable projects and have been formally appointed under robust incentive-based delivery models. Mobilisation of our wider supply chain is also well under way.

Financing the project

In November 2025, the Chancellor of the Exchequer set out how the Government is looking to bring private sector finance to deliver the Lower Thames Crossing project.

Construction has now started and the project will seek private investors to complete construction and own and operate the Lower Thames Crossing in the future.

Our commitment to sustainability will not change. We will continue on our ambition to build the greenest road and doing so is the only way of delivering the project successfully.



Lower Thames Crossing key facts



Building a **14.3-mile (23km)** road linking the A2 and M2 in Kent with the A13 in Essex and M25 in the London Borough of Havering.



Spending £1 in every £3 of the construction budget **with Small and Medium Enterprises (SMEs).**

Anticipating **employing around 3,000 people** at peak and more than 5,000 individuals directly employed over the full delivery period.



Constructing **2.6 miles (4.2km)** of the route underground, with northbound and southbound tunnels running in parallel under the River Thames.



Recruiting **45%** of our workforce from within 20 miles (32km) of the project.



Committing to be the first major infrastructure project in Britain to be **carbon neutral in construction.**



Creating around **2,965 acres (1,200 hectares)** of habitats and connecting communities with nature.



Driving construction **efficiency** and decarbonisation with a 70% carbon reduction target.



x2

Doubling capacity across the Thames east of London.

Reducing journey times on routes via Dartford by

30%



Bringing an additional **400,000 jobs** within an hour's commute of local communities.



Almost 40 miles (64km) of new or improved pathways for walkers, cyclists and horse riders.



The past year has been the most significant yet in the development of the Lower Thames Crossing as we started construction work. This is a major step forward for a project that will transform journeys, unlock economic growth and set a new benchmark for low carbon infrastructure in the UK.

This momentum builds on significant progress made over the past 18 months, including receiving development consent, and securing the final stage of public funding that puts us on track to secure the private finance needed build and the operate the new road.

Delivering with purpose

We have started this new chapter with a clear purpose, that will create the foundations for the whole project. Our ambition is not just to build a new road, but to set a new standard for low-carbon construction and leave a legacy of jobs, skills and green spaces for local communities.

This year's construction includes setting up numerous compounds and dedicated construction roads to keep lorries off local roads as well as completing design, carrying out ground investigations and archaeological works, diverting utilities and completing new habitat creation.

A transformational project

The Lower Thames Crossing will be the first major infrastructure project in the UK to be carbon neutral in construction. Our target to reduce construction emissions by 70% is already reshaping how we work and driving change across the wider industry.

This summer's extreme weather highlights the dramatically changing climate around us. This gives us more impetus to continue working with our supply chain to develop practical solutions that reduce carbon, protect the environment and manage climate risk. This year we secured the largest ever supply of green hydrogen for a UK construction project from British company GeoPura. Its hydrogen generators are already in operation on our sites, and eventually we expect this green fuel to replace over 12 million litres of diesel and save approximately 30,000 tonnes of carbon emissions. Beyond the project itself, our partnership is helping GeoPura grow its business in the Midlands and is supporting investment in a new hydrogen production facility at the Port of Tilbury, accelerating the arrival of a sustainable hydrogen economy across the Thames Estuary.

The supply of hydrogen will sit alongside a fleet of electric and low-carbon equipment that puts us on track for the largest deployment of zero-emission construction equipment on a major UK infrastructure scheme.

As the Construction Leadership Council's Industry Sponsor for Net Zero and Biodiversity, I am also delighted to see the targets pioneered by the Lower Thames Crossing being picked up by organisations and applied to over £30 billion of future projects.

The greenest road

We've made a strong start on our ambition to make the Lower Thames Crossing Britain's greenest road.

Our plans include creating around six times more green space than road, and we will soon complete the first of these areas at a new ecological site near Gravesend. We have planted over 200 trees

and introduced four ponds and hedgerows at the 13-hectare site that will act as a gateway from the village of Thong to the Kent Downs.

We're also close to finishing the main work at Hole Farm, a new community woodland in Brentwood. Over 150,000 newly planted trees are establishing themselves around newly created accessible pathways, a play area, a new café, ranger facilities and a car park with electric charging points. Our long-term partners Forestry England will manage the woodland and visitor facilities once it opens later this year.

These projects are part of our commitment to create landscape-scale habitats, and importantly, they are being delivered early – long before work on the road itself gets underway– to give nature the best chance to thrive.

Being a good neighbour

We're investing in people, creating jobs, building skills and supporting local businesses as construction activity increases. We have opened a Skills Hub in Gravesham that has already provided training to more than 150 people and, supported by a skills taskforce chaired by Lord Blunkett, is helping us meet our ambition to recruit around half our workforce locally.

To support smaller businesses, we have hosted a series of roadshows across Kent, Essex and Havering, and now have over 1,000 companies registered on our small business directory, which remains open to new applicants.

The design of the project was shaped by extensive community feedback, and as construction activity increases and we become more visible along the route our commitment to working with local people

is stronger than ever. We continue to engage through public events, launched an interactive map to provide better localised information and established three new community liaison groups, led by independent chairs, to hold us to the highest standards.

Looking ahead

Over the next 12 months, our construction activities will ramp up, bringing the benefits of this essential project closer and giving us more opportunities to bring our commitments and purpose to life. We're excited to place the order for what will be Europe's largest tunnel boring machine, welcome innovative new zero-emission equipment, open new green spaces, progress new and permanent skills hubs, and support local projects through the first round of our Community Fund.

Our approach of listening, responding and working in partnership will help us not only minimise disruption, but also maximise the long-term positive legacy this project will deliver for local communities and the UK.

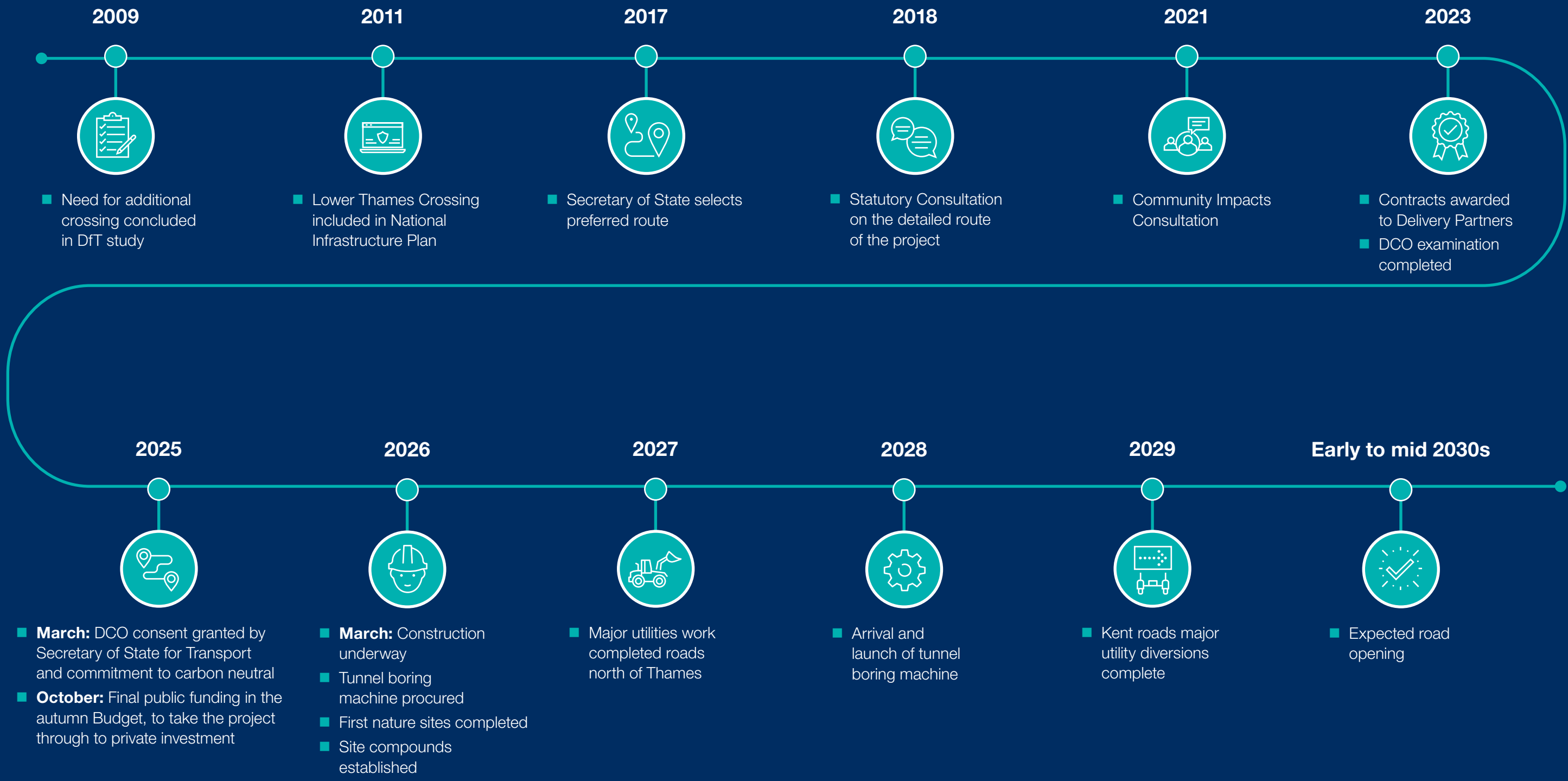


Matt Palmer

Chief Executive Officer, Lower Thames Crossing



Our construction journey





Our purpose

We will deliver better journeys through sustainable infrastructure that connects people, places and business – **driving growth and creating opportunity.**

The Lower Thames Crossing will be transformational not just for Kent, Essex and the wider South East region, but also nationally. It will unlock growth by creating a new, reliable connection for communities and businesses. We will build the project in a transformative way, setting the standards for efficient, world-leading carbon neutral construction that will leave a lasting legacy for the local region, the construction industry and the UK economy.

To deliver on our ambitions to be transformational for the region, the UK and the industry, we have created a common purpose that guides choices, aligns decisions, and enables everyone to act with intent in complexity. Our purpose creates clarity and sets expectations for how we make decisions for the success of the whole project.

We will achieve our purpose by investing in communities and setting new standards for the construction industry. We will deliver Britain’s greenest road by bringing together inspired people who drive continuous improvement and embed sustainable practices and innovative technologies across every part of our work. Together, we will create a roadmap to a greener future and make a positive impact on society.



Our purpose is delivered through:

Carbon

We will be a pathfinder for carbon-neutral construction. We will be a carbon-neutral construction project and we will accelerate the transition of the construction sector to net zero.

Community

We will create thriving, connected ecosystems – bring people closer to nature and offer new opportunities for skills development and employment. Rooted in the local community, we will ensure we enhance the quality of life for the people who live and work near the new road.

Construction

We will embrace circularity principles in how we build, focusing on eliminating waste, reusing materials and increasing efficiency. By adopting sustainable sourcing and construction practices, we aim to minimise the environmental impact of the building process locally and in our supply chain.

Culture

We will let our purpose guide our work. We believe in doing the right thing and will build trust through transparent and respectful relationships. We create safe spaces for collaboration and innovation and will embed sustainability in our organisational purpose and principles and the way we operate.

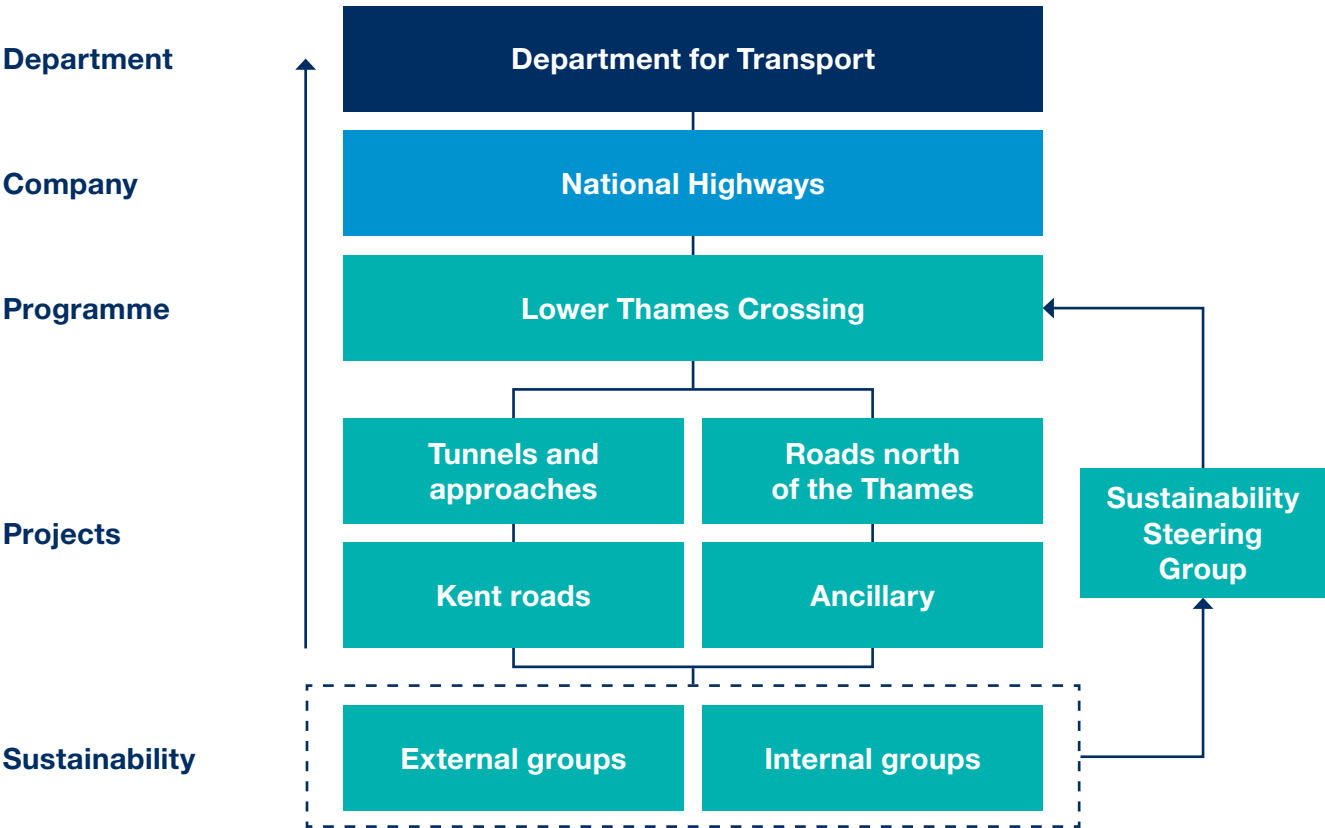
The Lower Thames Crossing is being delivered by National Highways, a government-owned, arm's length company reporting to the Department for Transport (DfT). It was established under the Infrastructure Act 2015 and appointed and licensed as a strategic highways company by the Secretary of State for Transport on 1 April 2015. The Lower Thames Crossing is the single largest project within the National Highways portfolio, and due to its scale and complexity, has its own Chief Executive Officer reporting directly to the National Highways Chief Executive Officer. Sustainability is embedded within the programme governance framework through the Sustainability Steering Group and established reporting structures, enabling informed decision-making.

Aerial view of the Thames Estuary

“Successfully delivering a project of this scale depends on strong relationships. Across DfT and National Highways we have fostered a genuine one-team culture, bringing together complementary skills and perspectives whilst maintaining clear accountabilities. This collaborative approach has been central to the progress we have made over the past year.”

Laura Keogh, Deputy Director, DfT Lower Thames Crossing Sponsorship Team

Lower Thames Crossing sustainability governance



Since its initial scoping in 2009, the Lower Thames Crossing has benefited from strong cross-party political support. Throughout the development of the project, the Lower Thames Crossing team has engaged extensively with local communities, local authorities, elected representatives, regulatory bodies and businesses.

As we progress construction, the close partnerships we have developed during the Lower Thames Crossing’s planning phase will continue to be vital to the project’s success. These relationships will help us build the crossing in the least disruptive way and leave as positive a legacy as possible for the local community.

In August 2025, the Government announced it would modernise the UK’s planning and development regulations and that the Lower Thames Crossing would be the first major infrastructure project to have a single Lead Environmental Regulator. We are working closely with Natural England in this capacity and will provide an important case study for the Department for Environment, Food and Rural Affairs (Defra) on how this new approach will deliver environmental and efficiency benefits.

We have established Community Liaison Groups (CLGs) in areas most affected by construction. These groups comprise relevant stakeholder representatives and serve as a forum for engaging with local communities and businesses, ensuring they remain informed and involved as our plans evolve. We will continue to work with these representatives to share updates on upcoming construction activities, highlight opportunities such as employment and training, and identify further potential for delivering community social value.

We have also created collaborative governance forums with our stakeholders such as the Skills Taskforce and Landscape and Ecological Management Plan (LEMP) advisory group. These forums serve a dual purpose of supportive external advisory and providing scrutiny of our plans.



Katharina Ferguson, Supply Chain Director at the Construction Leadership Council Event



Speaking with members of the community at a public information event



Model of the Lower Thames Crossing showcased at a community engagement event



Lower Thames Crossing site team member leading a staff site visit

This section outlines our performance against key performance indicators across our focus areas. By measuring and reporting progress across local employment, biodiversity, community satisfaction, carbon reduction, inclusion and wellbeing, we strengthen transparency and accountability. These indicators provide valuable insight into our performance and support our commitment to delivering positive, lasting benefits for the environment, our people and local communities. Data presented in this report relates to the reporting period from April 2025 to April 2026.

Focus area: Carbon			
KPI	October 2025	April 2026	Commentary
Overall carbon reduction vs 2020 baseline ¹	59%	57% Target: 70%	Beyond our legally binding 50% carbon reduction target we are working closely with our partners to reach our longer-term target of 70% and have made progress across design, low carbon materials and fossil fuel phase out. Since the last Sustainability Report, our forecast position has fallen from 59% carbon reduction to 57% carbon reduction. This is primarily due to carbon increases driven by the development of our design.
BMJV carbon reduction	69%	71% Target: 70%	BMJV's forecast position has increased from 69% carbon reduction to 71% carbon reduction. These carbon savings are from development in the design, using lower carbon concrete, new construction methods and fossil fuel phase out.
Balfour Beatty carbon reduction	54%	46% Target: 70%	Balfour Beatty's forecast position has fallen from 54% carbon reduction to 46% carbon reduction. This is due to development in design and construction methods resulting in an increase in forecast emissions. There are still significant opportunities to reduce carbon through diesel free deliveries to site and low carbon material choices.
Skanska carbon reduction	62%	48% Target: 70%	Skanska's forecast position has fallen from 62% carbon reduction to 48% carbon reduction. This is due to development in design increasing the quantity of materials required for construction increasing forecast emissions. There are still significant opportunities to reduce carbon through diesel free deliveries to site and low carbon material choices.

¹ The Lower Thames Crossing has a target of 50% carbon reduction in construction with a carbon limit and stretch target of 70% reduction in the DCO.

Data collection and quality

We are enhancing data collection processes, refining forecast data flows and implementing KPI-specific improvement plans to strengthen the accuracy and reliability of future disclosures.

Focus area: Construction

KPI	October 2025	April 2026	Commentary
Fatalities in construction	0	0 Target: 0	We have had zero fatalities to date. Our focus remains on leadership, strong safety culture, and consistent risk management processes across all our activities.
Accident frequency rate	N/A	0.068 Target: 0.13-0.17	This reflects the single Reporting of Injuries, Diseases, Dangerous Occurrences Regulations (RIDDOR) incident (February 2026) over the past 12 months. While this is below the target, we want to ensure everyone goes home safe every day. We continue to focus on learning from this event to prevent recurrence, embedding lessons learned across our project.



A JCB 540-180H Loadall, powered by a hydrogen combustion engine, used in a hydrogen trial in partnership with Gallagher Group, JCB and Ryze Power

Focus area: Community			
KPI	October 2025	April 2026	Commentary
Local people working on the project	40%	42% Target: 45%	We have made improvements against our target over the last year. This reflects our transition from initial mobilisation into the enabling works phase, where more structured workforce planning and recruitment processes are now in place.
Biodiversity net gain ²	7%	15% Target: 10%	Area-based habitats biodiversity net gain has increased to 15%. The increase is due to incorporating nature projects created ahead of construction, as part of our work to invest in local communities. Hedgerows and rivers and streams are being monitored and will be reported in next year's report as we improve our forecasting dataflows.
Community satisfaction	N/A	N/A Target: 5.4	We have undertaken our first community satisfaction survey to understand community expectations on the impact of construction on their lives. The survey assesses this using a range of different categories. We surveyed 1,500 local residents in communities closest to the route and aggregated the results generating a baseline community satisfaction score of 5.4 to measure ourselves against on a yearly basis. Next year we will be able to understand our performance against community expectations and will seek to improve on it year-on-year. The survey covers 10 questions around safety, visual appearance, cleanliness, traffic management, dust and air quality, noise, lighting, impact on walking routes and quality of information.

² The DCO includes a biodiversity net gain forecast of 7%. The Lower Thames Crossing has adopted its own 10% target, which is aligned with a new UK biodiversity net gain standard for future national infrastructure projects.

Focus area: Culture			
KPI	October 2025	April 2026	Commentary
Gender parity ³	31%	31% Target: 50%	Our overall performance in gender parity has remained the same exceeding the industry average of 15%. As we move to site-based work this is and will continue to be an area of challenge to maintain, so we are looking at specific interventions with DPs where we can have an impact.
Ethnic minority ³	N/A	32% Target: 31%	Overall, we are performing well in relation to ethnic minority representation against a 6% industry benchmark. As with gender parity this will be an area of challenge as we move on site. We will continue to work with DPs on how maintain level of representation as we move into construction.
Disability ³	N/A	4% Target: 14.5%	Our current disability representation is below both our target and the industry benchmark of 6%. This position reflects a period of significant team expansion, where workforce growth has temporarily influenced overall representation levels. We recognise that improving disability representation requires sustained and targeted action.
Employee Net Promoter Score (ENPS)	17+	23+ Target: 50+	Survey results show continued improvement alongside positive feedback on culture, engagement and development opportunities. We are now focused on further strengthening psychological safety and confidence to speak up. We will continue to engage with our Equity, Diversity, and Inclusion team to carry on this trajectory as we move to multiple sites in delivery.
Wellbeing score	72%	72% Target: 75%	Our current score of 72% sits within the 'moderate' wellbeing range of the scale. We are using the results to identify lower-scoring areas and develop targeted activities to further support employee wellbeing.

³ Equality, Diversity and Inclusion (EDI) industry benchmark targets <https://www.ciob.org/industry/policy-research/policy-positions/equality-diversity-inclusion>.

Carbon

Our ambition

The Lower Thames Crossing is a pathfinder project for carbon-neutral construction, accelerating change across the infrastructure sector. We will be the first carbon neutral road and continue to test low-carbon innovation and approaches. We'll ensure that we leave a legacy that enables future projects to decarbonise and will actively share our experience with others to improve the construction industry's approach to carbon.

“

“We have moved from vision to implementation, seeing zero-emissions equipment deployed and operating on our site. This is incredibly exciting and a real milestone – not only because it demonstrates that lower-carbon construction is becoming a reality, but because projects of this scale are helping to break new ground in the UK after a huge amount of collaboration, innovation and hard work.”

Neesha Pandya, Head of Low Carbon Delivery

A designer's composite of Thong Lane green bridge north – Europe's widest green bridge helping wildlife and people stay connected across natural habitats

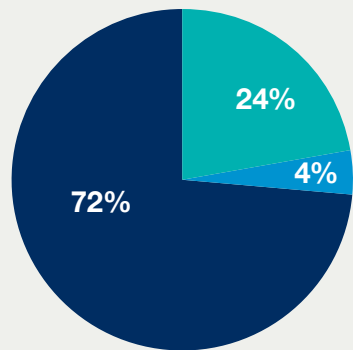
Last year

In the last year we made significant progress towards carbon neutrality. The supply chain is changing rapidly, and technologies are evolving, creating more opportunities to reduce carbon. We started the year working closely with our Delivery Partners and supply chain on how we scale up the use of electric and hydrogen as alternatives to fossil fuels. We have made a step change in progress towards this, with an agreed pathway for how we create the green fuel transition at scale and deploy new plant and fuels on site. We have continued to target carbon removal through the design process, and we have also worked with our extended supply chain to identify alternative lower carbon materials for concrete and steel. We are learning every day and continue to share our progress and challenges with other clients through forums such as the Five Client Carbon Commitments, to drive the industry's transition to low carbon construction.

Industry context

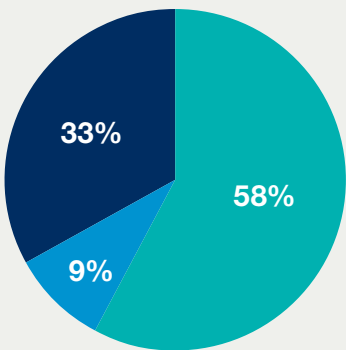
The forecast emissions are over a 120 year lifecycle

Lower Thames Crossing Initial Scenario (Whole Life Forecast)



- Road users** (Decarbonisation pathway set out by the Governments' Transport Decarbonisation Plan 2021)
- Construction** (Decarbonisation pathway for Lower Thames Crossing, with carbon limit set as part of the DCO and delivered through our Delivery Partners)
- Maintenance** (Decarbonisation pathway as part of National Highways target of NetZero Maintenance and Operations by 2040)

Highways Future Scenario (Whole Life Forecast Decarbonising Transport)



- Road users**
- Construction**
- Maintenance**

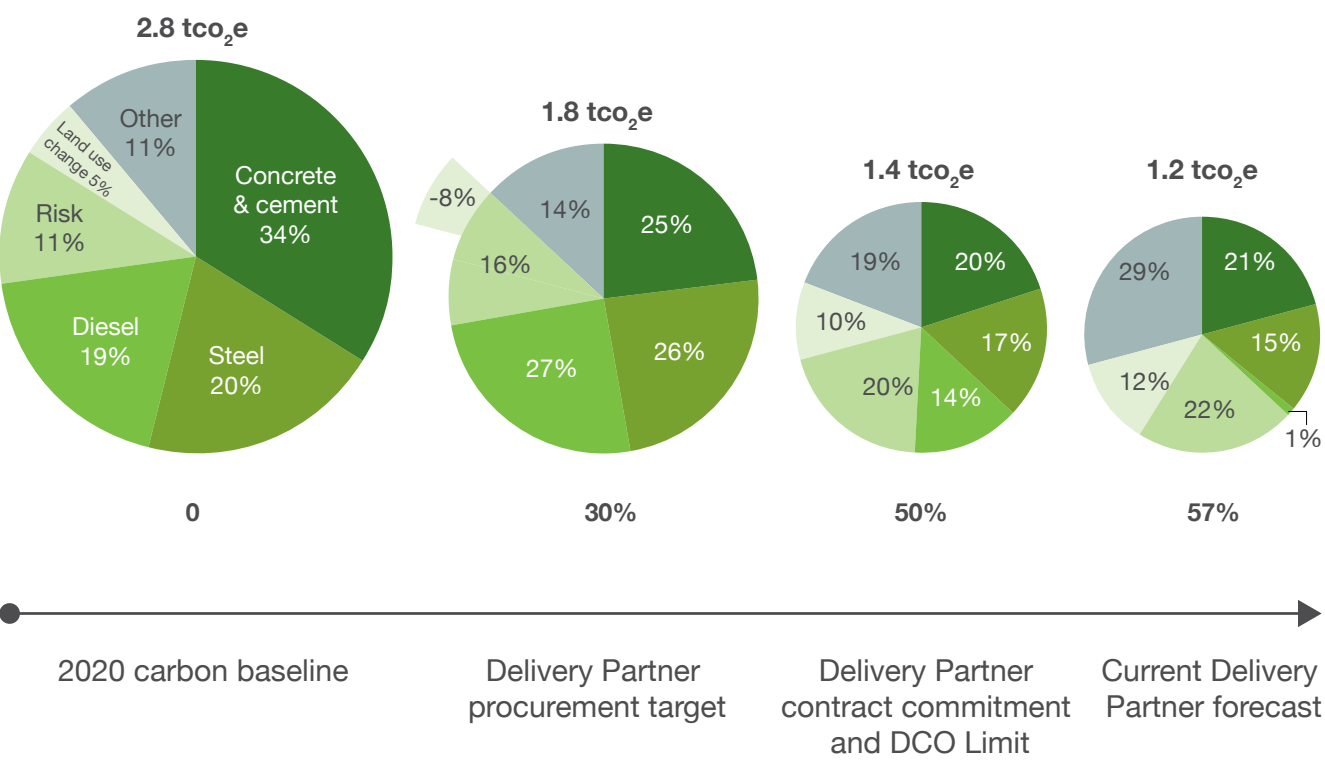
Our carbon emissions

Our whole life carbon emissions include construction, maintenance, and road user emissions. Our focus and commitment in the DCO is on construction emissions and as a carbon pathfinder we want to demonstrate how low carbon construction can be delivered, enabling the industry and the supply chain to change.

Construction continues to be a hard industry to decarbonise, with significant emissions arising from the use of concrete, steel and diesel. Our route map tackles these large emitters and will demonstrate how as an industry it is possible to deliver significant reductions.

Our assessment shows that road users currently account for about two-thirds of the whole life cycle carbon emissions. This becomes one-third when applying the decarbonisation roadmap set out by the UK Government's Transport Decarbonisation Plan. Decarbonisation of maintenance emissions is set out in National Highways Net Zero Highways Plan targeting net zero by 2040.

Our routemap to decarbonising our construction emissions



Our progress to becoming carbon neutral

We continue to make progress with our supply chain particularly when it comes to use of low carbon materials and removal of diesel. Since the last Sustainability Report our forecast position has increased slightly by 50,000 tonnes, primarily due to changes in the design increasing the overall quantities both in Kent roads and roads north of the Thames. We are confident that these can be mitigated through the use of low-carbon concrete, low-carbon steel reinforcement and fossil fuel phase out, and are working with the teams to implement these. Tunnels and approaches have made great progress and are already forecasting a reduction of over 70%. We have a route map that takes us to 70% for the whole programme and will continue to focus on realising these in the coming year.

During this period, we have developed a carbon offsetting strategy to address the remaining 30% of our emissions in construction. To support this effort, we have been working closely with Carbonaires, a carbon removal specialist, to deepen our understanding of the carbon market and identify projects that could meet our criteria for high-integrity carbon credits. Following a comprehensive assessment, we have shortlisted a selection of both nature-based and engineered carbon removal projects for further evaluation and will be working on an implementation plan over the coming months.



Carbonaires is a carbon finance and carbon removal specialist. The company combines expertise in science, policy, finance and technology to help organisations achieve their net-zero ambitions through carbon credits and high-integrity carbon removal projects.

Reducing the cost of carbon

We are demonstrating that carbon reduction can be made in many cases for the same or limited cost. Our first success was the outcome of the Delivery Partner procurement, where putting carbon at the centre, delivered a solution with 50% less carbon at no additional cost, driven in large parts by efficiencies in the design and simple changes in material use and sourcing. The UK Government sets a central carbon value of £273/tonne CO2 (2022 prices)* representing the monetary impact of carbon emissions and used for policy appraisal. As part of our options appraisals on the Lower Thames Crossing, we are actively pursuing low cost solutions that are below £100 per tonne, however we can make exceptions depending on the technology, impact on the market and the industry and potential for upscaling. There continues to be a perception in the industry that low carbon is expensive, and part of our carbon pathfinder role is to demonstrate through real examples how we are delivering affordable low carbon construction and developing a UK supply chain that can continue to deliver this for the industry.

*HM Treasury Green Book Guidance

Tree planting at nature area near the Village of Thong

Carbon reduction through design development

The focus of our design development has been on finding and putting into practice ways to reduce carbon emissions and minimise our environmental impact. Over the last year we have achieved this by removing unnecessary works, reducing the amount of construction that is required, and adopting innovative construction methods and materials.

Our Delivery Partners have worked together across contracts to develop design approaches, and we now include whole-life carbon emissions in our design standards. Our teams have continued to identify considerable savings and will develop these further over the coming years. In this section we will break down some of the key developments in our design.

Our approach to design is to

Remove,
Reduce,
Innovate

“The most sustainable structure is often the one you don’t need to build. We challenged ourselves to look at the project differently, putting carbon alongside safety and performance in every decision we make. By considering whether we can build less, and using new construction methods where building is necessary, we can lower carbon emissions, reduce costs, and minimise disruption to communities and nature while still delivering the project safely.”

Barry Summers, Head of Design

Design carbon savings since tender	
Delivery Partner	Carbon saving (tCO2e)
Tunnels and approaches	25,519
Roads north of the Thames	58,808
Kent roads	12,347
Total	96,674



A designer’s illustration of the southern tunnel entrance with solar panels wrapped around

1. Thong Lane South Green Bridge

We have worked closely with local stakeholders through a series of multi-disciplinary design workshops, collaboratively refining the bridge design to increase the amount of space for nature. By reviewing the layout of the road, as well as the walking, cycling and horse-riding routes across the bridge, we've been able to provide space for everyone while increasing the amount of green planting. We've done this without increasing the size of the bridge, further enhancing nature with no additional carbon.

2. Viaducts

The viaducts north of the River Thames (Tilbury, Mardyke and Orsett Fen) are among the largest structures in the project and are some of the biggest sources of carbon. Over the past year, we have developed the designs, incorporating innovative precast concrete sections that substantially reduce the volume of concrete we need to use. This approach not only lowers embodied carbon but also reduces the number of deliveries, reducing construction traffic.

We have also made significant changes to the design of Tilbury Viaduct. The original viaduct design has been replaced with two shorter bridge structures, with the remaining viaduct being replaced with earthworks. These will be made using excavated earth from other parts of our site, avoiding the need to use large amounts of concrete.



3. Retaining walls and earthworks

A retaining wall is a structure that serves to prevent earth or rocks on a slope from falling and they are usually built from concrete. Through refinements and review, the design team has removed approximately 30% of these structures south of the River Thames.

Of the remaining retaining walls, approximately one-quarter will be delivered as reinforced soil structures rather than traditional concrete or steel sheet pile solutions. Reinforced soil walls and slopes can use material excavated on site, which is then strengthened to create a low-carbon alternative to conventional retaining wall construction.

A further benefit is that they blend into the surrounding environment. Their front faces can be covered with soil and planted with seeds, encouraging the establishment of vegetation and creating a greener, more visually appealing outcome than traditional retaining walls. The same approach is now being applied to the retaining walls proposed north of the River Thames.

Earthworks bunds are sloped embankments and they have been used extensively across the project to provide both visual and noise screening, particularly around the A13 junction. The size and profile of the bunds have been carefully reviewed to ensure they provide a screen while minimising the amount of material required.

4. Low carbon gantries

National Highways ran a competition to develop a simpler, more environmentally friendly gantry design. The design had to meet several requirements relating to sustainability, lower carbon emissions, elegance, improved safety, flexibility, ease of assembly and lower maintenance costs.

We selected the winning design and are now developing it further. Through this work, we will understand exactly how much material the low-carbon gantry needs, helping us reduce carbon emissions even further while ensuring it remains safe and reliable. We aim to create a gantry that can be used on up to 95% of the National Highways road network, following its first use on the Lower Thames Crossing.

5. Protecting nature

Significant effort is going into planning and designing site clearance work to minimise tree loss and reduce disruption to the existing landscape. The DCO design identifies areas of land that need clearing to enable construction; however, this work can have long-term effects on local wildlife and habitats. We are therefore carefully reviewing all areas identified for clearance to find opportunities to avoid or reduce these impacts wherever possible.

An example of this approach is Gravelhill Wood, located to the north-west of the proposed Thong Lane South Green Bridge. The DCO design shows that most of the woodland would need to be removed. By carefully planning construction activities and refining the final design, we have been able to retain 39% of woodland, including several high-value trees and a notable tree.

Exploring low carbon materials

Over a third of our emissions come from concrete and cement. To reduce those emissions, we are working with designers and the supply chain on alternative concrete mixes. We have undertaken several trials with different low carbon concrete mixes to understand characteristics and check they perform as expected under real construction conditions.

A few examples of our trials below:

CSM:
8,228 tCO₂e

potential saving

Diaphragm walls:
8,400 tCO₂e

potential saving

Cutter soil mixing (CSM) trial



CSM is a construction method that mixes the existing ground with a binding material using large rotating cutter wheels to create a strong structure. These works are necessary because the ground in the tunnel entrance areas needs to be strengthened before major excavation and tunnelling can begin. This helps reduce the risk of ground movement, controls groundwater and provides safe conditions for tunnelling.

Cement is commonly used as the binding material in this process. However, traditional

cement production generates significant carbon emissions. Our Delivery Partner, Bouygues Travaux Publics – Murphy Joint Venture (BMJV), is trialling a lower carbon alternative cement and it is estimated that the material could significantly reduce carbon emissions from the tunnelling works. The trials are being undertaken using an electric rig equipped with cutter wheels, which is fully powered by electricity using green hydrogen generators. This will then be followed by further technical tests on the mixes before full implementation.

Diaphragm wall trial



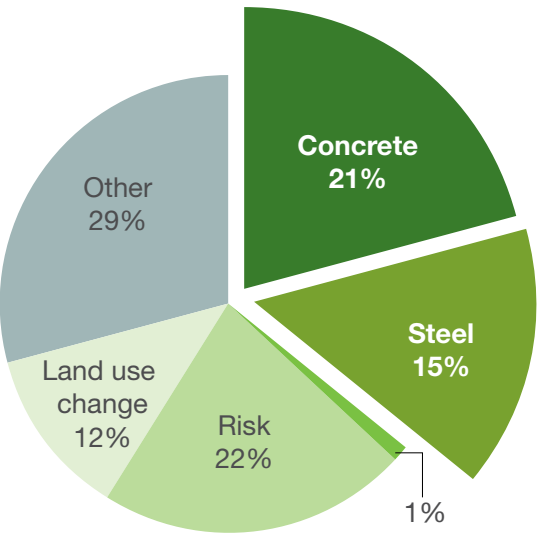
Diaphragm walls are deep concrete walls built underground before tunnel excavation begins. They act as strong barriers that hold back the surrounding ground and groundwater, creating safe and stable conditions for constructing the tunnel and tunnel entrances. Traditionally, diaphragm walls comprise a significant volume of concrete in the tunnel (around 40,000 cubic metres).

We are testing whether a low or ultra-low-carbon concrete can replace the traditional concrete mixture for the diaphragm walls. Diaphragm

walls are a key part of the tunnels structure and require complex engineering and construction methods and techniques. Therefore, the trial, carried out by BMJV, brings together specialists in diaphragm wall civil engineering, cement, carbon and construction to drive this forward.

This trial will continue into 2027 and, subject to the findings of the trial, could deliver carbon reduction savings of up to 40%.

Emissions sources in the forecast based on developed plan



Zero-emissions construction

We have started replacing around 60 million litres of diesel with alternative fuels of electricity, green hydrogen, hydrotreated vegetable oil (HVO) and biofuel.

Today, our sites are diesel-free, and we have developed a zero-emissions strategy for the phased transition from HVO and biofuel towards an even more sustainable zero emission solution.

Our zero-emission approach was informed by a detailed market assessment involving extensive engagement with original equipment manufacturers (OEMs) to evaluate current and emerging technologies. We also engaged with plant hire companies and energy and infrastructure providers to understand UK machine availability, charging solutions and the likely pace of market scale-up.

Our current forecast will replace 30% (±10%) of HVO/biofuel with electricity and hydrogen and we are targeting more as the market rapidly evolves.

Fuel to be replaced

Baseline

Diesel 63.5 Million litres		
Roads north of the Thames 50%	Tunnels and approaches 29%	Kent roads 21%

Delivery Partner contracts

Diesel 57%	HVO 43%
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Current working plan 2026

HVO/biofuel 70% (+5%)	Electric 20% (+5%)	H ₂ 10% (+5%)
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Future ambition (2028 onwards)

HVO/biofuel	←-----	Electric	H ₂
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The transition to zero-emission construction equipment is not without its challenges. Present barriers to widespread adoption include upfront costs driven by charging infrastructure, the limited availability of suitable machinery, risk, and the need to drive behavioural change across the industry.

Our zero-emission approach has been developed with these challenges in mind, to ensure an industry-wide legacy can be left in the UK. We are therefore prioritising zero-emission plant that is:

- Widely used by the UK infrastructure industry, so it can be used by other projects once the Lower Thames Crossing is complete
- Displaces the highest volume of fuel for the highest emission savings
- Easy to deploy, enabling sites and workers to adopt new ways of working efficiently.

As the UK’s first large-scale roll-out for zero-emission plant, Lower Thames Crossing is accelerating adoption, and our focus continues on how we drive down costs. By working closely with manufacturers, supply chain partners and clients, we are helping to build demand, improve availability, develop supporting infrastructure and demonstrate that zero-emission solutions can operate effectively at scale in real-world construction environments.

Enabling industry adoption

This year we will continue to scale up the use of zero-emission machinery on our sites. We plan to move from 10 zero-emissions machines to around 130 by 2028, while continuing to set higher targets for the future.

Our Delivery Partners will test and adapt their approaches, particularly for remote sites where the energy and infrastructure are the biggest challenges. We will collect and analyse valuable performance and cost data and gather feedback on machines and charging under real working conditions. This information will be shared between our Delivery Partners and the wider industry, providing a blueprint for others to follow.

Our ambition is to help make zero-emission machinery a practical and affordable choice for the construction industry. We want to help create a clear route to wider use across the UK by improving confidence, reducing costs and sharing learning. To support this, we will launch a Zero Emission Accelerator programme and continue working with OEMs, Delivery Partners, supply chain companies and other clients to encourage collaboration and support industry-wide change.

Hydrogen equipment trial

In June 2025, our delivery partner Skanska used a British-made, hydrogen-powered JCB digger to carry out ground investigation surveys near Gravesend in Kent. A global milestone, it is the first time a hydrogen-powered digger had been used on a live worksite. This proved that the hydrogen machine is a capable of replacing diesel powered machinery and saved more than a tonne of carbon dioxide equivalent (CO₂e) during its first four weeks of use. The live use of the machine follows a successful trial at the Gallagher Group’s Hermitage Quarry in Kent earlier this year.





Electric excavators at a Lower Thames Crossing site

Case study

Driving the transition to zero-emission construction

Since January 2026, our Delivery Partner Bouygues Travaux Publics – Murphy Joint Venture (BMJV) has used zero-emission machinery on its site. Site set up and early works preparation have used 10 units of zero-emission equipment including 20-tonne electric excavators, dumpers, rollers, tractors and telehandlers. These are powered by green hydrogen generators supported by mobile battery energy storage systems.

This has allowed site teams to get used to the new equipment and charging systems. They have integrated them into daily operations, built confidence in their use and gathered real-world operational and performance data. They will use lessons from these works to improve the approach before rolling it out on major earthworks.

“

Our site has seen one of the largest number of zero-emissions machines in use in the country. After bringing in 10 units, ranging from excavators to tractors and telehandlers, we’ve seen the benefits first-hand. The equipment has performed well, and we’re looking forward to using more zero-emission machinery in other parts of the project.”

Gautier Tortajada, Plant Manager and Electrical Lead, BMJV



A GeoPura hydrogen generator used to convert green hydrogen into electricity

Case study

Harnessing green power with GeoPura

British company GeoPura will supply 2,500 tonnes of green hydrogen: the largest volume ever used in a British construction project.

When used in a fuel cell, hydrogen only emits water which significantly reduces carbon emissions and preserves air quality. Using hydrogen across our sites will replace over 12 million litres of diesel and save approximately 30,000 tonnes of CO₂ emissions. Our contract will also support GeoPura’s continued expansion and the creation of more jobs in the green hydrogen industry in the UK.

GeoPura will set up fixed supply points on delivery partner sites, enabling efficient deliveries and refuelling of hydrogen directly into equipment. As more hydrogen-powered equipment becomes available, we aim to trial new equipment to accelerate the role of hydrogen to replace diesel in the construction industry.



“

We’re extremely proud to be supplying the largest volume of green hydrogen ever contracted for a British construction project and I congratulate the Lower Thames Crossing for setting a powerful example of how major infrastructure can be delivered sustainably.”

Andrew Cunningham, CEO, GeoPura

The Five Client Carbon Commitments

Pioneered by the Lower Thames Crossing as a member of the Construction Leadership Council, the Five Client Carbon Commitments are simple, practical steps that organisations can take to reduce their carbon emissions.

So far, 10 major British organisations have made a pledge to support the commitments. As well as the Lower Thames Crossing, these include Anglian Water, The Environment Agency, Heathrow, National Highways, Northumbrian Water, Scottish Water, Sellafield Ltd, East West Rail and Transport for London.

Between them, these organisations represent £30 billion of future infrastructure projects across the UK. Reflecting the Lower Thames Crossing’s role as a carbon pathfinder, the commitments set a new blueprint for low-carbon construction and encourage suppliers to invest in the skills and technologies needed to deliver net zero.

In October 2025, the Lower Thames Crossing organised and participated in the Construction Leadership Council’s, the Five Client Carbon Commitments Best Practice Showcase, presenting to an audience of client organisations in the community and members of the supply chain. The event was an opportunity for the supply chain to showcase to a wide range of client organisations their expertise in how they are delivering low carbon construction and what is achievable with today’s technology.

“Our world simply cannot sustain us continuing to build as we have always done. We need to be bold and need our partners and supply chain to come with us. The Five Client Carbon Commitments provide clear direction to decarbonise the largest emitting areas of construction.”

Matt Palmer, Industry Sponsor for Net Zero and Biodiversity at the Construction Leadership Council and CEO, Lower Thames Crossing



Matt Palmer at the Construction Leadership Council event

The Five Client Carbon Commitments are:

- 1** Procure for low-carbon construction and provide incentives in our contracts.
- 2** Set phase-out dates for fossil fuel use.
- 3** Eliminate the most carbon intensive concrete products.
- 4** Eliminate the most carbon intensive steel products.
- 5** Adopt PAS 2080, Carbon Management in Infrastructure, as a common standard.



Looking ahead

We will continue working with our suppliers and partners to reduce carbon emissions through smarter design and by using lower-carbon materials, helping us move closer to our goal of reducing carbon emissions by 70%. We will also further develop our approach to offsetting the emissions we cannot avoid. As construction progresses we will increase the use of zero-emissions machinery and equipment, collecting data and using it to learn and improve how we use this technology as efficiently as possible.

As a carbon pathfinder project, we recognise the importance of sharing what we learn about reducing carbon emissions in construction. We will continue to work with industry organisations and other clients to share our experience and lessons learned, helping others adopt similar approaches and supporting the transition to net zero.



Zero-emissions hydrogen combustion engine JCB backhoe loader

Construction

Our ambition

We are working with our supply chain to drive real change in how we design and build the Lower Thames Crossing. We will do this by delivering safely, on time and within budget, using data to improve productivity across the construction sector. We will also minimise our impact on communities and nature, setting new standards for efficient and sustainable infrastructure delivery.

“

Successful infrastructure projects start with long-term planning and detailed design. We are learning from experience across the industry, acting early to reduce risk. We wanted to set up well by securing land and consents and completing essential archaeological and utility works. By taking these steps now, we can reduce carbon emissions, improve productivity and deliver the project safely, creating lasting benefits for local communities and the wider economy.”

Shaun Pidcock,
Programme Delivery Director

20-tonne electric excavator at a Lower Thames Crossing site

Last year

This has been an important year for the project, as we have started construction. We have drawn on experience and learnings from across the industry to set ourselves up to achieve our ambitions. We continued to develop the design of the Lower Thames Crossing, making significant progress so we can manage costs, lower carbon emissions and provide a clear, coherent plan for building the road. We also brought more of our supply chain partners on board, secured access to land and prepared sites for future construction. We established construction compounds and carried out essential ecological mitigation, archaeological investigations and utility preparation works to reduce risk and support efficient delivery.

Throughout our works, we have focused on meeting our commitments to minimise the impact of construction on local communities and nature.

Preparing for a changing climate

The climate is changing, bringing a greater risk of extreme weather, flooding, prolonged periods of hot weather and other events that could affect transport infrastructure. We have considered these changing conditions in the design of the Lower Thames Crossing and included measures to improve resilience so it can operate safely and reliably throughout its life.

We recently completed a Climate Change Risk Assessment assessing how future weather conditions could affect the construction and operation the road, tunnel and supporting infrastructure. The assessment considered the physical effects of climate change, such as higher temperatures, heavier rainfall and extreme weather. It also considered risks linked to the move towards a low-carbon economy, including changes in policy, technology and public expectations.

The assessment found that the design is robust and has reduced most physical climate risk. This supports the earlier assessment completed as part of the DCO, which found that climate change would not have a significant effect on the crossing’s resilience. A number of recommendations were made in the report and we will review and act on these in the coming year and continue to act on these as the climate changes.



A member of staff at a newly created habitat at Hole Farm community woodland

Working with landowners

We have now secured access to around 50% of the land covered by our DCO. This includes land that National Highways already owned, land that we have accessed by agreement and land that we are using temporarily. The DCO gives us legal powers to acquire the land needed for the project. However, we treat compulsory purchase as a last resort and seek to reach voluntary agreements wherever possible. We have reached voluntary agreements with many property owners, and no land-related cases have required litigation so far.

As we develop the design, we continue to review how much land we need. We seek to avoid homes, businesses and community facilities wherever possible. We recognise that accessing or acquiring land can have a significant effect on landowners, tenants and local communities. We therefore give each affected property owner a named contact and meet regularly with landowners or their representatives.

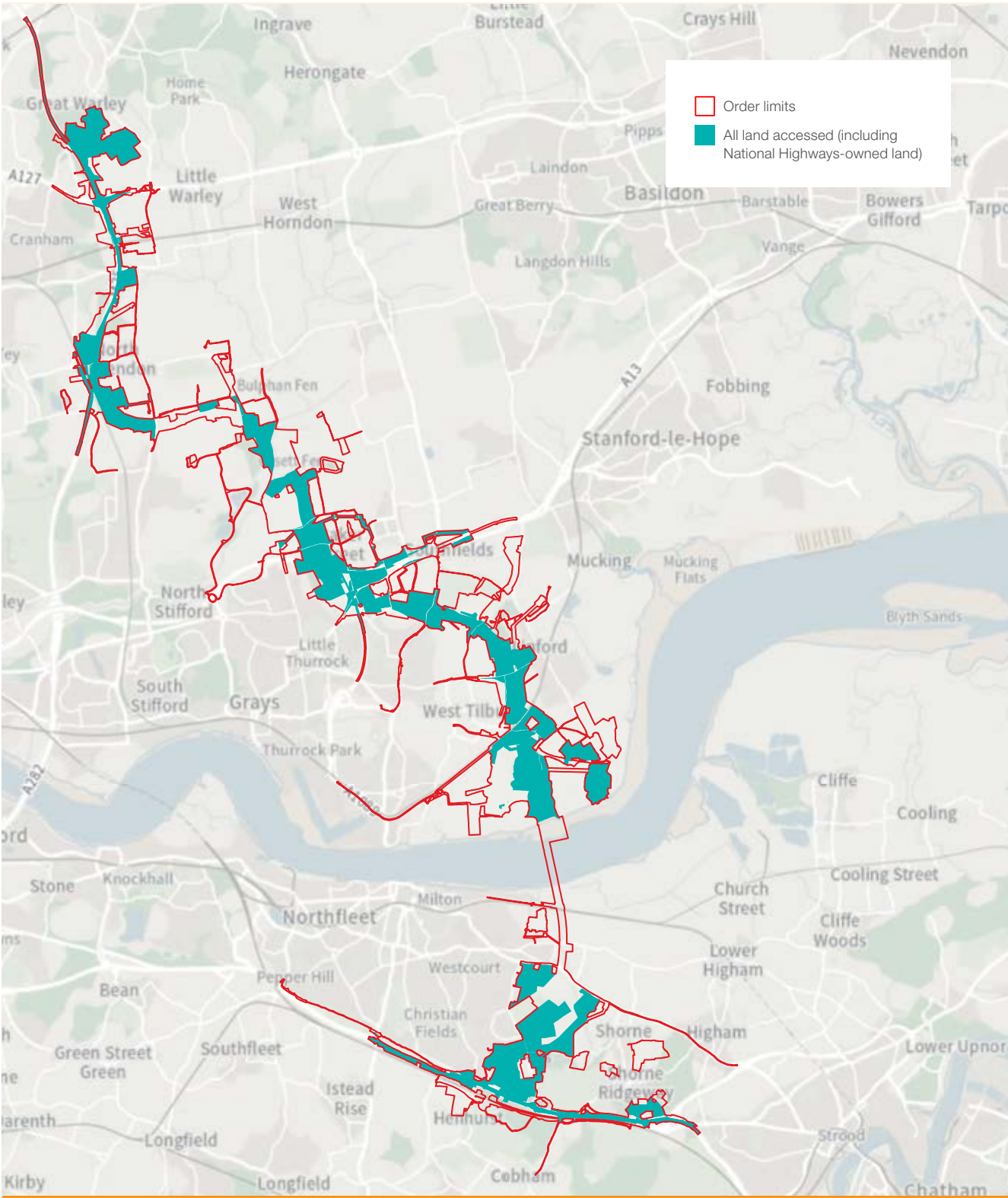
These meetings allow us to explain changes to the design and construction programme, understand how our work may affect them and agree practical ways to reduce disruption. We provide property owners with clear information about the process, their rights and the support available to them. We also keep nearby communities informed about work in their area through letters, leaflets and direct engagement.

Local landowners have shared their knowledge of the land and helped us understand the likely effects of our work. We have used this information to adjust our plans and find solutions wherever possible. As we secure access to the remaining land, we will continue working with landowners and communities to minimise disruption.

We have now secured access to around

50%

of the 5,764 acres (2,335 hectares) of land covered by our DCO



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Creating nature and monitoring our environment

We have developed the Lower Thames Crossing to avoid or minimise significant effects on the environment and enhance the area as far as possible. During construction, we will follow the environmental protections and controls set out in the DCO. For details of the measures we are implementing, please see Appendix C.

A key area of focus is managing noise and air quality. Before construction began, we installed noise and air-quality monitors around our sites to record existing conditions and identify any changes during construction. We will keep this equipment in place throughout construction and use mobile monitors to check activities in specific locations.

Our teams will regularly review the results against the agreed limits. If monitoring identifies a potential problem, we will investigate it and take action. This could include changing how or when we work, using more equipment to control noise or dust, or increasing our monitoring. We will also keep local communities informed about work that could affect them.

Case study

Enhancing ancient woodland

We have started work with Kent County Council to improve areas of ancient woodland in Shorne Woods Country Park. The council’s countryside rangers, who care for and manage the country park, helped us plan the work. Natural England approved our plans, and we are carrying out the work with the rangers. Once completed, the enhanced woodland will offer a high-quality habitat for the dormice population that the Kent woodlands are known for.



Case study

Nature habitats near the village of Thong

One of the first nature sites we completed is an area of land to the east of Thong village in Gravesham. We are creating 13 hectares of biodiversity-rich habitats on what was once horse paddocks made up of short grass.

The site will include a mix of woodland, scrub, rough grassland and ponds of different depths. We will also use this area to rehome reptiles that will be displaced by our works. These habitats will give insects, amphibians, birds, bats and other small mammals places to find food and shelter and breed safely. The new habitats will connect with the surrounding countryside, helping wildlife move safely through the wider landscape.



Aerial view of nature habitat creation near the village of Thong

Ecological partnerships

The Lower Thames Crossing will create around 2,965 acres (1,200 hectares) of new habitats. We have pledged to look after these areas for a minimum of 125 years after the new road opens. To do this, we are working with expert conservation groups to help protect and improve these habitats for wildlife. These organisations are helping to design the sites and will then manage them to make sure they are suitable.

In July 2025, Natural England was appointed as the Lead Environmental Regulator (LER) for the Lower Thames Crossing. The project is the first to take part in this government scheme, which is designed to make it easier for major infrastructure

projects to work with environmental regulators while still meeting their environmental commitments. As the LER, Natural England acts as the main point of contact on environmental matters, helping different organisations work together and ensuring that the project can deliver its commitments to protect and enhance the environment.

We will create around 1,200 hectares of new habitats representing

1,681

football pitches and

8.5x the size of Hyde Park in London



Preserving our cultural heritage

During construction, the Lower Thames Crossing is carrying out a programme of archaeological excavations to record and preserve archaeological remains and to protect and study historic buildings and landscapes.

This year we uncovered a Roman salt working site at Coalhouse Point, near East Tilbury. The finds suggest that people collected salt water from the Thames and heated it in ovens until the water evaporated, leaving the salt behind. Salt was a valuable product during the Romans period in Britain, and people used it to flavour and preserve food. The discovery helps local people understand how communities lived and worked beside the Thames around 2,000 years ago. It also provides new evidence of how people used the tidal marsh and its natural resources.

Our archaeologists also uncovered a large collection of well-made Roman pottery. They are studying these finds to understand how people used the pottery and what it can tell us about life at the site. We carefully clean, record and study the finds before placing them in an appropriate local archive and will work to find the best way to display these for the public.

To provide the local community with a greater understanding of the archaeological process, we have worked with East Tilbury Primary School to allow some of their pupils to experience and learn about the work being carried out. Through a hands-on classroom activity, pupils used archaeological tools to carefully uncover objects from trays, giving them practical experience of how archaeologists excavate and examine finds.



Roman pot



East Tilbury Primary School pupils learn how archaeologists uncover and examine finds

Case study

Coalhouse Point

Located in East Tilbury, Essex, Coalhouse Point is one of our key nature mitigation sites. Before we started construction works, around 50 archaeologists carried out excavations to preserve the site's history.

The land along the north bank of the Thames provides important feeding and resting places for migratory and wading birds that use the protected

habitats of the Thames Estuary. Construction will affect some of the places these birds currently use. We are therefore creating a new wetland at Coalhouse Point before this disruption takes place, giving the birds a suitable alternative habitat.

We will transform an area of scrubland the size of around 30 football pitches into wetland habitat for these birds, including black-tailed godwit, avocet, ringed plover and lapwing.



Archaeologists working at Coalhouse Point site

Looking ahead

Next year, we will significantly increase construction works across the project. We will bring more suppliers on board and expand our workforce. At the northern tunnelling site, our delivery partner BMJV will prepare the ground and build the structures needed to receive the tunnel boring machine in 2028, so tunnelling can begin. We will continue working with utility companies to move pipes, cables and other services where needed. We will establish haul roads to take as much traffic off the existing roads as possible and minimise disruption to the local communities.

Alongside this work, we will continue to develop the design, carry out archaeological investigations and create new habitats for wildlife. We will continue to protect the health and safety of everyone working on the project and keep local communities informed about our work and how it may affect them.



Earthmoving work at Coalhouse Point site

Community

Our ambition

We want to leave a sustainable legacy that goes beyond the construction of the Lower Thames Crossing to support thriving communities. Overall, we want to create a better place to live and work. We will do this by putting communities at the heart of how we build, by being a good neighbour, by bringing communities closer to nature and by creating new opportunities for skills and jobs.

“

Our skills and training programme continues to play a central role in delivering a sustainable, future-ready workforce that supports the long-term ambitions of the Lower Thames Crossing and growth across the region. Through strong partnerships, targeted investment, and a commitment to local people and local jobs, we are accelerating priority training while building a resilient, county-wide skills ecosystem.”

Samantha King, Skills and Employment Lead

A community engagement event showcasing the route for the Lower Thames Crossing

Last year

Last year, we continued working closely with local communities through our Community Liaison Groups and community events. We launched our community fund and carried out our first large community satisfaction survey, which gave us a starting point for measuring future progress. As we move into construction, we have launched local supply chain roadshows and started running construction courses at our local skills hubs. We continue to work with local organisations, supplier chain and government bodies to help more people gain skills and find work. We are also making good progress on our commitment to create nature areas early and provide high-quality outdoor spaces for local communities to enjoy.

Early construction engagement

We recognise that a project as large as the Lower Thames Crossing can raise concerns for local communities, particularly as construction work begins in their areas. We are committed to being a good neighbour and reducing disruption wherever possible. That is why we consulted communities as we developed our plans, listened to their feedback and used it to shape the project. We also made legally binding commitments through the DCO to manage the effects of construction.

In March and April, we ran our latest round of community drop-in sessions to keep communities informed about our works and provide a space where questions could be answered directly. We held 10 events, including in communities close to where work is starting.



Members of the public reviewing the model of the Lower Thames Crossing at a community engagement event

More than 2,000 people attended, including residents, councillors and MPs. Our team explained what people could expect during construction and shared information about employment and education opportunities.

Our interactive map was also highly valued, so we will continue adding clear up-to-date information as well as providing more localised communication channels for our communities.

We built a visitor centre in partnership with BMJV at one of the sites near the northern tunnel entrance. The centre will host local residents, schools and community groups, helping them understand how we will build the tunnel, why it is needed and the long-term benefits it will bring to the environment, economy and local communities.

The following image depicts an informational display about the Thames Crossing, highlighting its community benefits such as improved connectivity, new infrastructure, and local volunteering opportunities.



The Lower Thames Crossing Visitor Centre

Shaping our community engagement

As construction progresses, we need to understand how our work affects people who live near our sites. That’s why we’ve launched an annual community satisfaction survey to gather feedback on key issues including traffic management, safety, dust, noise and the overall impact of construction activity.

To determine our baseline, this survey focused on what people expected the impacts of our construction work to be. Awareness of the project was high, with 93% of respondents aware of plans for the Lower Thames Crossing and 60% supporting its construction. Local people expected us to manage safety well but raised concerns about traffic management near construction sites.

Over time, the survey will help us understand local concerns, check whether our measures to reduce disruption are working and identify where we need to improve. The findings will be used to hold ourselves and our Delivery Partners accountable for delivering construction works in a considerate and responsible way.

93%

of respondents were aware of our plans in our annual community satisfaction survey

4,000

people across Kent and Essex responded to our community engagement survey

We also carried out a community engagement survey in March to understand how local communities want to hear from us. Around 4,000 people across Kent and Essex responded. Their feedback will help us provide information in the ways that work best for local communities.

The survey showed that people prefer to receive email updates about the project and construction work in their area. We will use this finding to provide clear and timely updates about the work that matters most to local people.



Staff at a community engagement event

Upskilling across the region

We launched our first dedicated skills hub in Gravesham and have set up multiple satellite training hubs in collaboration with local colleges and independent training providers. These hubs allow high-quality training to begin ahead of the opening of further dedicated Lower Thames Crossing Skills Hubs. By using existing facilities and local trainers, we allow for continuous training, avoid repeating work and make the best use of local knowledge. To date, we have trained 165 learners, providing essential skills to support local employment and prepare people for work on the Lower Thames Crossing and other construction projects. This approach strengthens county-wide collaboration, ensures consistent high-standard training and gives more people the skills for a clearer route into long-term work.

Our partnerships continue to help more local people gain the skills needed for work. We are working closely with local supplier Gallagher Group to provide practical training at its training centre, based on the skills that construction employers need.

Gallagher Group

Gallagher Group is a Kent-based business specialising in aggregates, concrete, groundworks, civil engineering and property development. It is working with the Lower Thames Crossing to provide practical training at its facilities, helping local people gain the skills needed for construction work.



Our work with The Skills Centre is also giving local people access to recognised qualifications and helping them prepare for jobs in construction. By running courses from our temporary Skills Hub in Gravesham, we are making training available before the permanent hubs open.

The Skills Centre

The Skills Centre provides construction training, apprenticeships and career support, from entry-level courses to advanced qualifications. It works with employers to teach the skills the industry needs and help local people start or progress their careers in construction. It has training facilities in Kent and Essex, including Gravesend.



A cohort completing their training at the Lower Thames Crossings Skills Hub



The Lower Thames Crossing Skills Hub in Gravesham

We are also working with national organisations to improve construction training in the South East. We work with Skills England, the Department for Work and Pensions, the Department for Education and the Construction Skills Mission Board to identify the skills employers need, improve the quality and access to training and help more people move into construction jobs. The Lower Thames Crossing is leading a Skills Alliance for the South East, which brings employers, colleges, training providers and government organisations together to address skills shortages across the country.



These partnerships support the main aims of our skills hubs: providing training and creating jobs for local people.

We plan to work more closely with partners in Essex and Kent to provide more training places, develop courses that meet employers' needs and teach safety and sustainability skills in construction. This includes plans to develop two purpose-built Lower Thames Crossing Skills Hubs in Thurrock and Kent, while continuing to provide training at temporary centres. We will also open more temporary training centres where needed and make sure courses help fill skill shortages. This work will help local people prepare for construction jobs and give the Lower Thames Crossing and the wider industry access to more trained workers.

Supporting local firms to win work on the project

We ran six Supply Chain Roadshows to help businesses across Kent and Essex win work contracts on the project.

Sixty local firms attended the first event at South Essex College in Grays in January, which was hosted by Jen Craft MP for Thurrock. The roadshows help local businesses understand the project’s requirements for reducing carbon, find suitable contracts and submit bids.

Meeting local firms has helped us understand the wide range of skills, services, materials and equipment they can provide. We also learned that registering, qualifying, bidding for work and reporting progress can take too much time for smaller businesses. Some firms also need more guidance on construction contracts and the project’s requirements for reducing carbon.

In response, we are connecting local firms directly with our Delivery Partners and working with them to make bidding documents simpler and more consistent. We are also setting up briefings for local and small businesses and launching a new Lower Thames Crossing website where suppliers can find and apply for upcoming work. These steps will make it easier for local firms to compete for contracts and help the project build a strong and reliable supply chain.

We also encourage local firms to sign up to our Supply Chain Directory, where they can find the latest project and contract information. So far, around 1,500 small and medium-sized businesses have registered.

In the last year 139 different organisations have attended our supply chain roadshows.



Supply Chain Roadshow event in Grays

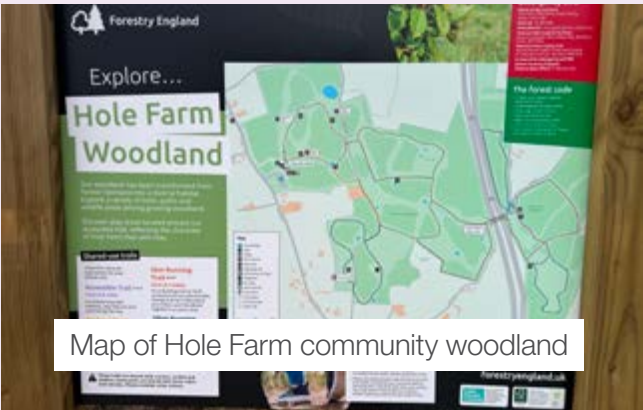
Case study

Hole Farm community woodland

Hole Farm community woodland is an environmental and community legacy project that forms part of the Lower Thames Crossing’s Development Consent Order (DCO) commitments. We designed the community woodland to benefit local people, wildlife and the natural environment for years to come. It will also help reduce the effects of nitrogen pollution by intercepting and absorbing airborne nitrogen creating a buffer that helps protect sensitive nearby ancient woodland. Working with Forestry England, we planted around 150,000 trees across the site. We planted extra trees to allow for expected losses and help the woodland grow successfully. We also worked with Brentwood Borough Council, conservation groups, local residents, cyclists, horse riders, and people who use the surrounding footpaths and bridleways. Their feedback helped shape a space that works for both the community and the environment.

Significant progress has been made across the site and works are now nearing completion. Once completed, Forestry England will take responsibility for the wider site and open the public facilities. The new facilities include a café, electric vehicle charging points, a car park, viewing ponds that have already attracted wildlife such as geese, and paths suitable for a wide range of visitors. We turned a former construction road into a firm-surfaced circular route that people of different

ages and abilities can use. The site also includes a new running track, an orchard and a landscaped noise barrier providing screening from the M25. We are completing the planting with drought-resistant tree species approved by Natural England and using resin tree guards to help the young trees grow. The site also links existing woodland at Folks Lane, Thorndon Country Park and Warley Place Nature Reserve, giving wildlife more space to move between these areas. Local people helped create the woodland through community tree-planting events, and nearby schools and nurseries will be able to use the site for learning in the future. We also worked with JCB to test hydrogen-powered equipment at Hole Farm, helping to explore more sustainable construction methods for future projects. As we complete the final work and the woodland grows, Hole Farm will provide a lasting place for nature, recreation and learning for the local community.



Map of Hole Farm community woodland

Funding projects to create lasting change

We have launched a new £1.9 million Community Fund, offering grants to support local projects that make a lasting difference to communities near the route. The Community Fund will help communities affected by construction to benefit from the project.

The fund is open to charities, voluntary and community organisations, parish councils and social enterprises. Projects do not need to be based in the immediate area, but they must clearly benefit residents living in parts of Thurrock, Havering, Brentwood, Gravesham and Medway – the areas most affected by our construction work.

The funding will run over seven years, with seven annual contributions of £90,000 south of the Thames and £180,000 north of the Thames. We will divide the funding between the areas as follows:

- South of the Thames: Gravesham 75%, Medway 25%
- North of the Thames: Thurrock 75%, Havering 15%, Brentwood 10%

Projects funded through the programme support wellbeing, community connections, skills, opportunities and local green spaces. Awards are made by a panel consisting of local authorities, communities, the Lower Thames Crossing and a community foundation.

“Through the Community Fund, we’re supporting the ideas and initiatives that matter most to local communities and helping to make a positive, lasting difference.”

Shaun Pidcock, Programme Delivery Director, Lower Thames Crossing



Shaun Pidcock, Programme Delivery Director



Staff tree-planting at Hole Farm community woodland

Our Delivery Partners’ community focus

Our Delivery Partners are committed to working closely with local communities to understand concerns around construction disruption and how we can best communicate and minimise the impact. Areas of focus have been keeping residents informed of upcoming work, monitoring noise and air quality and using clear road signs where there are diversions in place.

We want to ensure that regardless of where work is taking place our Delivery Partners’ approach is consistent and aligned with our commitment in how we engage and support local communities. The Delivery Partners have each started their engagement and have set out below some examples of what that looks like.

Bouygues-Murphy Joint Venture community engagement

BMJV is building a long-term partnership with local charity New Life Wood, which supports people leaving prison and secure medical facilities to develop new skills and return to work. Seven BMJV team members have volunteered with the charity, while New Life Wood has transformed reclaimed timber into furniture for the Lower Thames Crossing Visitor Centre in East Tilbury. The charity has produced two benches, a reception desk and five picnic tables, giving waste wood a new purpose while helping local people rebuild their lives.

BMJV has partnered with Thurrock Foodbank to support people and families facing food poverty across South Thurrock. Team members volunteered for 356 hours at local supermarkets,

where they helped collect food donations. BMJV also produced and donated a promotional video to help the foodbank raise awareness and reach more supporters. Over the past year, Thurrock Foodbank provided 7,528 three-day emergency food supplies to local people in crisis.

Skanska community engagement

Skanska introduced 90 Reception pupils at The Discovery School in Kings Hill to the Lower Thames Crossing and the range of careers available in construction. The team worked with each of the school’s three classes separately, giving every pupil an opportunity to take part and ask questions. Pupils explored the project through practical activities, including trying on hard hats and other safety clothing. The session gave local children an engaging introduction to construction and helped spark their curiosity about how major projects are built.

Skanska helped more than 330 Year 10 students from Northfleet School for Girls and Dartford Science & Technology College prepare for future job opportunities. Supported by 42 volunteers

from Skanska, the Lower Thames Crossing and partner organisations, students took part in realistic one-to-one interviews and answered questions similar to those they may face when applying for work experience, apprenticeships or jobs. Volunteers provided individual feedback, helping students recognise their strengths, improve their communication skills and approach future interviews with greater confidence.

Skanska and Chaffin Works supported 16 Year 9 pupils from Bower Grove School for young people with special educational needs and disabilities (SEND) to build an outdoor classroom for their school community. During 12 practical sessions, pupils developed construction, teamwork and problem-solving skills while creating a space that students of different ages can use. The project provided 288 hours of practical skills development and reused five tonnes of woodchip that might otherwise have gone to waste. Volunteers also repaired a fence and installed bird and bat boxes, leaving pupils with an improved outdoor space and greater confidence in their abilities.



Visitor Centre welcome desk made from reclaimed wood



Reception pupils at The Discovery School in Kings Hill learning about the project



A Re-engage charity event hosted at The Lower Thames Crossing's office

**Balfour Beatty
community engagement**

Balfour Beatty continued its longstanding partnership with Re-engage, a local charity that helps older people in Thurrock build social connections and reduce loneliness. Since the partnership began in June 2024, its activities have supported more than 83 older residents. During this reporting year, the team hosted two community tea parties, including a spring event that welcomed 18 older residents with support from eight volunteers. The team also developed a Call Companion opportunity, enabling volunteers to speak with an older person each week or fortnight. Together, these activities provided regular conversation, brought people together and helped reduce social isolation.

Balfour Beatty has built a strong partnership with Treetops SEND School in Thurrock. Working with Sunbelt, SOCOTEC and the Lower Thames Crossing team, they delivered three activities that reached 185 students and involved 85.5 volunteer hours:

- Science, Technology, Engineering and Mathematics (STEM) workshop: 65 students took part in practical activities that developed teamwork, problem-solving and engineering skills, while introducing them to careers in construction.
- Road safety workshop: 60 students learned how to stay safe around construction sites, vehicles and equipment. This knowledge will become increasingly important as local construction activity grows.
- Apprenticeships and careers workshop: 60 students explored apprenticeship routes, engineering careers and work taking place near their school. Real materials from ground surveys helped connect classroom learning with a major local project.

Looking ahead

As construction work progresses, the project will need more trained workers. We want to help local people gain the skills to compete for these jobs while giving the project access to the workforce it needs to build the road safely and on time. Our focus for next year will be to increase training at our temporary Skills Hubs and begin developing the permanent Lower Thames Crossing Skills Hubs. To do this, we will continue to work closely with our Delivery Partners, local organisations, business groups and government departments. As we complete our nature areas, we will prepare them for long-term use. We will work with suitable organisations to agree how each area will be managed and cared for, so that local communities and wildlife can benefit from them for many years.



Members of staff at the Lower Thames Crossing Skills Hub

Culture

Our ambition

The construction industry faces long-standing cultural challenges that affect every part of project delivery, contributing to delays, cost overruns, skills shortages, and resistance to change and innovation. To address these challenges, we want to build an inclusive culture across the project based on a shared purpose and values. Together with our partners, we aim to attract and retain talented people, create a great place to work where people can grow and develop, and make a positive long-term contribution to society.

“

“This year has seen our project increase in team size as we begin construction. Through our initiatives, we have worked hard to share our values with our workforce. We want our project not only to deliver what we have committed to, but importantly to attract and retain local people who can build and develop their careers for the future in a great working environment.”

Victoria King
Programme Delivery
People Director

Staff on a Lower Thames Crossing site

Last year

Our workforce has more than doubled to over 2,000 people on the project and as we welcome an ever-growing number of people, we continue our focus on creating a culture of collaboration and trust. We believe the right culture is critical to delivering our ambitions. To ensure a shared understanding of our goals and how we work, we have rolled out a common induction for the whole of our workforce. We are on our second group of leadership development for our senior leaders across the whole project and we are focusing on targeted training courses to improve how managers recruit fairly, lead well, deal with issues early and build teams that work well together. We have also continued to listen to feedback through our staff surveys, enabling us to better understand how we can continue to improve to make the Lower Thames Crossing a great place to work.

Listening and responding to our people

The annual Your Voice Survey helps us measure how we are progressing towards our cultural ambitions of being a great place to work, working collaboratively and creating a respectful workplace where people feel able to speak up. Shorter Pulse Surveys help us track progress and deal with issues quickly throughout the year. Listening to and acting on this feedback helps identify safety, staffing and delivery risks early, improve teamwork and retain skilled people. This can prevent project delays and unnecessary costs, reduce disruption to local communities and helps us create more jobs, skills and opportunities for local people.

The results show positive progress across the project. Our Employee Net Promoter Score (eNPS) increased from 17 in 2025 to 23 in 2026, while our Inclusion Net Promoter Score (iNPS) increased from 24 to 36 over the same period. The metrics ask employees to rate how likely they would recommend the company both generally and for inclusion on a scale of 0 to 10. A net promoter score over 10 is considered a good score from a benchmarking perspective.

Feedback shows that colleagues value the opportunities provided at the Lower Thames Crossing and recognise the positive culture and strong levels of engagement across the team. The results also show encouraging improvements in how colleagues view learning and development opportunities. At the same time, the feedback identified opportunities to strengthen employees' confidence to speak openly, which we are already working to address. These insights help us focus our efforts on the areas that matter most and ensure we continue to build a culture that supports both our people and ambitions.



Staff receiving an award for their contribution to the project



Staff at an external event

Aligning people with our ambition

Our programme-wide induction plays a key role in helping people join the project successfully. We designed it to ensure everyone understands not only what we are delivering, but also how we want to work together to achieve it. The induction introduces our four key focus areas (Carbon, Construction, Community and Culture), our principles and our purpose.

Since its launch in 2025, 475 people have completed the induction. Feedback shows that the induction provides clarity, connection and a shared understanding. Attendees learn what the project is seeking to achieve beyond technical delivery.

Our induction supports our ambition to be a great place to work, encourage collaboration and build a skilled workforce that includes local people

and reflects the communities the project serves. It ensures our staff feel informed, motivated and prepared to do their best work to successfully deliver the project.



“It’s really inspiring to see what the project is focused on in terms of its ambitions.”

Member of staff after induction

Embedding our culture across the project

We continue to focus on developing our people and our supply chain and have over the course of the year delivered a number of initiatives that have had a positive impact on our culture. These initiatives are designed to address feedback received by staff through our engagement survey and also recognise that building leadership capability is key to the success of the project.

Building leadership capability

Delivering the Lower Thames Crossing successfully requires leaders who can work well with others, think differently and bring teams together. To support this, we introduced a leadership development programme. So far, 24 delegates have completed Group 1 and 25 are taking part in Group 2. The programme includes practical training, 360° feedback and opportunities to address challenges facing the project. It is helping leaders build confidence, improve how they work with others and support future leaders across the programme. Investing in leadership will benefit the project by improving decision-making, reducing delays and helping teams work together to deliver the Lower Thames Crossing safely and effectively.

Leadership Alignment Days

Leadership Alignment Days give senior leadership time to agree priorities, improve communication and focus on how they lead the project. Their purpose is to help leaders make clear decisions, work well together and support delivery of the Lower Thames Crossing.



Staff on a site visit to witness zero-emissions equipment

Licence to Hire programme

The Licence to Hire programme ensures everyone involved in recruitment hires to a high standard. It covers practical skills such as writing clear job descriptions, shortlisting fairly and running good interviews. It also explains what Lower Thames Crossing is looking for, so recruitment is consistent and based on skills, experience and potential.

Insights Discovery training

Insights Discovery is a training tool that uses a simple colour-based model to show different people's ways of thinking and working. Its purpose is to help people understand different communication styles, improve relationships, reduce misunderstandings and work better together.

Building understanding through Mutual Mentoring

Creating a respectful working culture requires people to understand perspectives and experiences beyond their own. Mutual Mentoring brings senior leaders and more junior colleagues together to learn from one another and build stronger connections. The initiative supports our aim to give people fair opportunities, treat colleagues with respect and make sure good ideas are heard, wherever they come from. It has also been designed to encourage professional growth, strengthens engagement and creates a culture where everyone feels valued and heard.

Following a review of our previous Reverse Mentoring Programme, we adapted the approach to create greater value for both junior and senior participants. The Mutual Mentoring programme brings together 22 pairs from across the Lower Thames Crossing, who meet monthly and follow a structured framework. Conversation topics

encourage a deeper understanding of different roles, ways of working and experiences, while a 'day in the life' activity gives participants the opportunity to observe each other in their day-to-day environment. By pairing people from different backgrounds and levels of seniority, the programme helps people build empathy, recognise things they may not have considered before and better understand and support colleagues, while strengthening relationships and collaboration across the project.



“Mutual Mentoring has been a really valuable development opportunity. Learning directly from a colleague with different experiences helped me see issues I might otherwise have missed. It has made me a more thoughtful and approachable leader, and I will carry those lessons into how I support people across the project.”

Stephen Taylor, Stakeholder and Communications Director



Member of staff speaking at our recognition event

One-team approach to culture

Creating a consistent one-team approach across a project of this scale helps us and our Delivery Partners work towards the same goals, share information and resolve problems quickly.

Together, these initiatives show how Delivery Partners are helping to create a shared culture across the Lower Thames Crossing and ensure that inclusion, collaboration and purpose remain at the heart of how the project is delivered.

Balfour Beatty



SKANSKA

Balfour Beatty

Balfour Beatty has played a leading role in several programme-wide initiatives, including Mutual Mentoring, the coordination of staff networks, EDI awareness activities and the Lower Thames Crossing EDI Newsletter. Balfour Beatty is also leading the development of the Lower Thames Crossing-specific Licence to Hire module and is rolling out its Right to Respect training across its workforce to promote inclusive behaviours and a respectful working environment.

BMJV

Bouygues Travaux Publics – Murphy Joint Venture (BMJV) has strengthened its induction to include a programme-level perspective on the Lower Thames Crossing’s purpose and priorities. The team has also supported the Lower Thames Crossing in creating an induction room and visitor centre on its site, helping new starters understand both the importance of the local community and the role they play in delivering the programme in the right way.

Skanska

Skanska has been driving inclusion and leadership development. All staff have completed Allyship training, while senior leaders are participating in Catalyst, a year-long leadership programme focused on creating welcoming and inclusive working environments for under-represented groups. Skanska has also provided opportunities for members of the Lower Thames Crossing team to attend Active Bystander training. We are exploring options to roll this out across the programme, supported by a wider framework that helps turn learning into lasting behavioural change.

Looking ahead

With an increasing workforce made up of people, with different skills, experience and career paths, our challenge over the next year will be to continue bringing in, and bringing together, the teams and building our culture into how we work. We will continue developing our leadership from across our client team and supply chain and focusing on targeted training and development of our workforce. We recognise our challenges with increasing the range of skills, experience and local opportunities in our workforce and will look at targeted practical actions with our Delivery Partners and wider supply chain to reduce barriers to entry. This will include supporting local recruitment, apprenticeships, training routes and opportunities for people who want to build a career on the Lower Thames Crossing.



Staff at a Lower Thames Crossing site

Contribution Towards UN Sustainable Development Goals

The Lower Thames Crossing will help contribute to the UN Sustainable Development Goals (UNSDG). The table below highlights where we believe we can have the most impact.

UNSDG description	Lower Thames Crossing contribution to development goal
4 QUALITY EDUCATION 	Quality education; ensure inclusive and equitable quality education and promote lifelong learning opportunities. We will be delivering opportunities for local communities by creating greater access to new skills and jobs. Our Skills Strategy sets out how we will deliver these in partnership with local stakeholders and our supply chain. Inclusivity is at the heart of our culture and we want to lead the way in creating a more diverse team by setting ambitious targets for ourselves and our supply chain.
5 GENDER EQUALITY 	Gender equality; achieve gender equality and empower all women and girls for all. The construction industry still has some way to go in delivering greater gender equality. We recognise this and are focusing on changing this both within our own organisation and across our supply chain. We will be publishing our diversity goals, which will specifically look at targets for women on the programme and women in leadership positions. This will be supported by a plan for how we will meet these.
8 DECENT WORK AND ECONOMIC GROWTH 	Decent work and economic growth; promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. The construction of the Lower Thames Crossing will create jobs and we are committed to ensuring that a minimum of 45% of these are filled by local people. In building the UK's greenest road, we will also create skills that can deliver future sustainable infrastructure for a net zero economy, including using new technology, and hydrogen and electric equipment. The new crossing will also support economic growth by providing greater access to jobs for people living in the local communities.

UNSDG description	Lower Thames Crossing contribution to development goal
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	Industry, innovation and infrastructure; build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. The new crossing is providing much-needed resilience to the existing Dartford Crossing. The lack of a reliable connection means the River Thames is a barrier, limiting the growth of local and regional economies. The Lower Thames Crossing will improve journeys and boost the economy by providing a reliable new connection between people and jobs, businesses and customers, and the region's key ports, manufacturing centres and distribution hubs.
11 SUSTAINABLE CITIES AND COMMUNITIES 	Sustainable cities and communities; make cities and human settlements inclusive, safe, resilient and sustainable. In building the Lower Thames Crossing, we will connect communities with bigger and better managed green spaces to improve access to nature. This includes connecting footpaths and cycleways, improved routes for walking, cycling and horse riding, as well as the conservation and interpretation of local heritage assets.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Responsible consumption and production; ensure sustainable consumption and production patterns. Our ambition to build the UK's greenest road means challenging how we have delivered major construction programmes in the past. This includes building more sustainably both through eliminating and reducing high-carbon materials or using more sustainable alternatives. We will be working with our direct and wider supply chain to better understand the value chain and how it can be made more sustainable.
13 CLIMATE ACTION 	Climate action; take urgent action to combat climate change and its impacts. Our relentless focus on carbon reduction through procurement and in our contracts is supporting tackling climate change and its impacts. Our continuous drive to reduce carbon on our project sits at the core of how we work with our supply chain, with incentives specifically designed to enable this. In addition, we are sharing our learning with the wider industry and other infrastructure clients, so that they can benefit and together change the construction industry to build more sustainably.
15 LIFE ON LAND 	Life on land; protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. We will deliver landscape-scale environmental enhancement and accelerate the decarbonisation of the construction industry through bigger, better-connected habitats.

Lower Thames Crossing's carbon emissions

Status	Construction carbon emissions (mtCO ₂ e)	Reduction from 2020 baseline
2020 baseline	2.76	
DCO carbon limit	1.44	48%
Contracted forecast	1.34	51%
Forecast based on developed plan	1.19	57%
70% reduction target	0.84	70%

Figure 1: Reduction in Lower Thames Crossing's construction carbon emissions

- 1. 2020 baseline:** Represents what emissions would have been if the project had been built using National Highways' standard databook assumptions for carbon intensity in 2020.

2. DCO carbon limit: Project-wide carbon limit of 1.44 million tonnes of carbon dioxide equivalent (MtCO₂e) as presented in the first iteration of the Carbon and Energy Management Plan. Achieved through carbon savings made both prior to and during procurement.
- 3. Contracted forecast:** This includes commercially approved carbon reductions that bring emissions down below the DCO carbon limit.

4. Forecast based on developed plan: Forecast emissions based on carbon reduction opportunities and carbon risks identified and quantified by Delivery Partners.

5. 70% reduction target: Forecast emissions based on a 70% reduction target including reduction opportunities in development.

Figure 2: Contracted forecast by materials

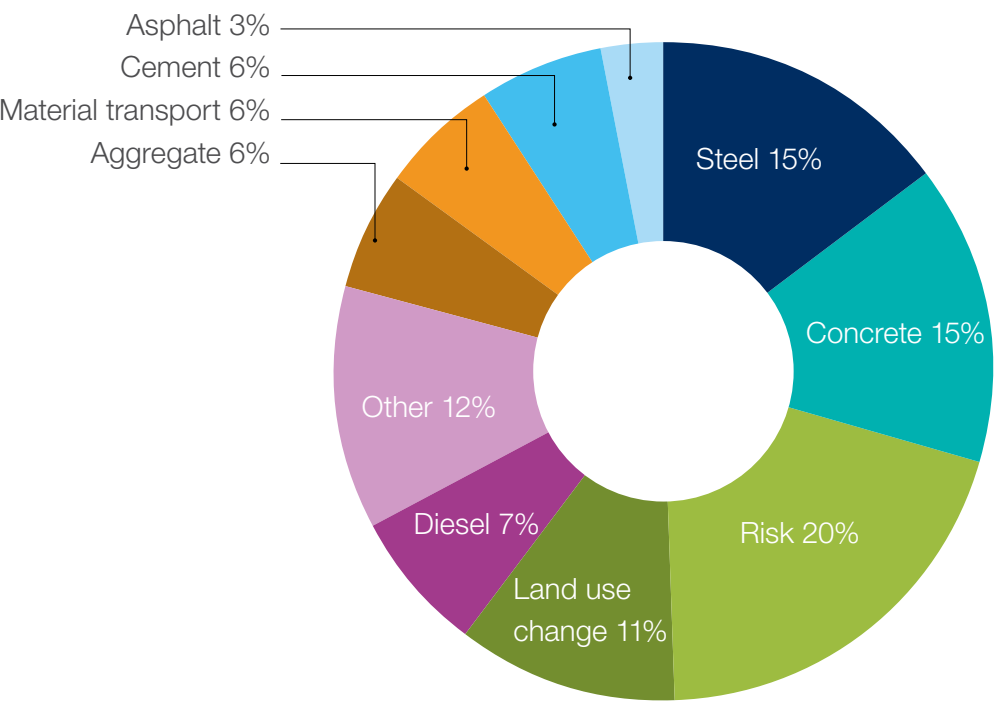
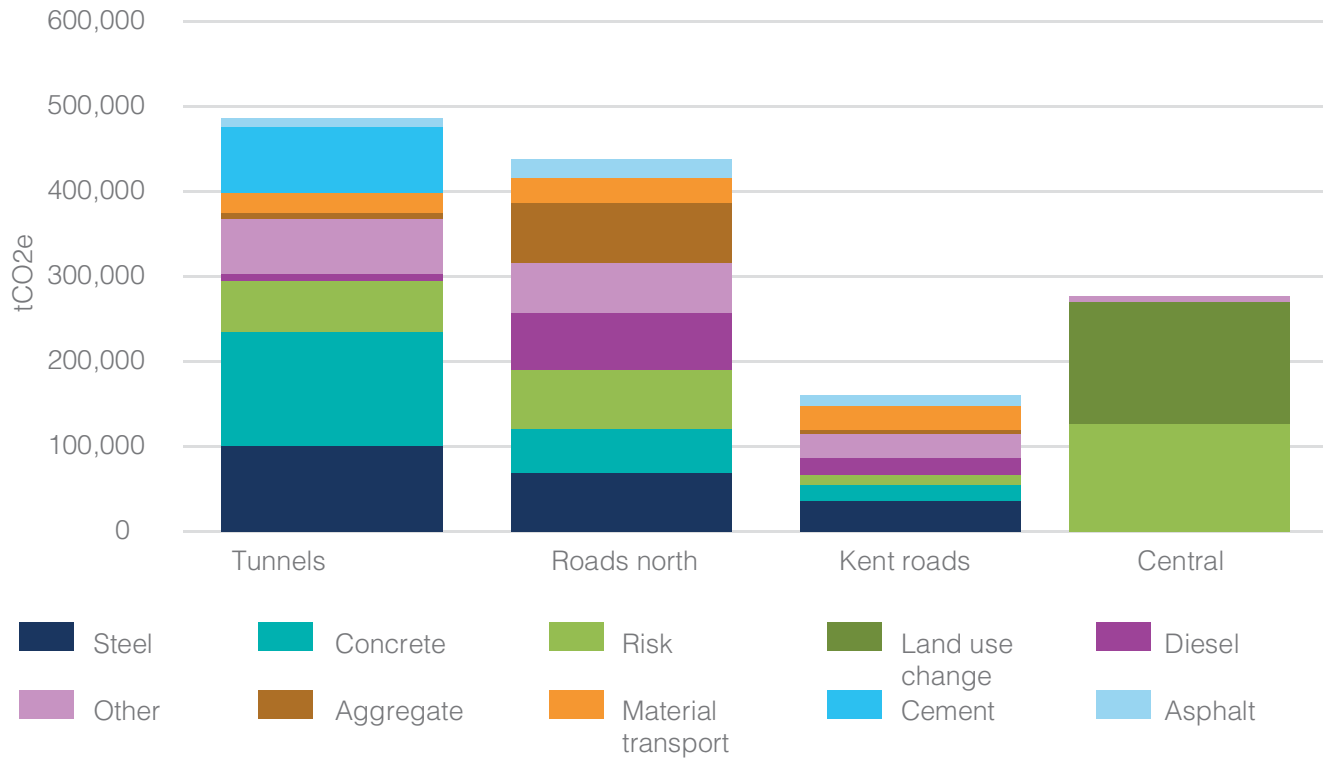


Figure 3: Contracted forecast by location and material



Performance against expected forecast

The contracted forecast has reduced by approximately 100,000 tCO₂e since the previous Sustainability Report. This has been achieved through commitments to:

- Replace an additional 7.3 million litres of diesel with hydrotreated vegetable oil
- Purchase 102,000 tonnes of low-carbon rebar
- Use 19,000 tonnes of low-carbon or reused steel sheet piles
- Using additional low-carbon concrete

These measures demonstrate how the Lower Thames Crossing is enacting its commitments under the Five Client Carbon Commitments.

Forecast based on developed plan

The forecast from the developed plan is 1.19 MtCO₂e. It is based on the carbon reduction opportunities and carbon risks that our Delivery Partners have identified and quantified. Since the last Sustainability Report, the forecast based on developed plan has increased overall. Although, it has decreased for tunnel and approaches as additional carbon saving opportunities have been identified, this has been counteracted by increases for roads north of the Thames and Kent roads due to additional carbon risks being identified.

Actual carbon emissions

Our actual carbon emissions for FY25/26 total 491 tCO₂e and are made up of:

Area	Carbon emissions (tCO ₂ e)	Key components
Tunnel and approaches	116	• Aggregate: 24 tCO₂e • C40/50 concrete: 22 tCO₂e • C28/35 concrete: 13 tCO₂e
Roads north of the Thames	356	• Materials: 183 tCO₂e • Construction activities: 103 tCO₂e • Transport: 70 tCO₂e
Kent roads	19	• Timber fencing: 5 tCO₂e • Steel/wire/chain fencing: 5 tCO₂e • HVO: 4 tCO₂e

We are also collecting data on emissions which sit outside our construction carbon limit¹. For FY25/26, these total 995 tCO₂e.

Area	Carbon emissions (tCO ₂ e)
Employee home working	538
Visitor travel to Pilgrims Lane	304
Business travel including commuting for the client team	150
Water	3

¹ RICS guidance: Whole life carbon assessment for the built environment https://www.rics.org/content/dam/ricsglobal/documents/standards/Whole_life_carbon_assessment_PS_Sept23.pdf

Independent review of our carbon data

The UK Collaboratorium for Research on Infrastructures and Cities (UKCRIC) research consultancy services company, UKCRIC Services, was asked to review the latest Lower Thames Crossing carbon calculator to check that the calculations are correct and the rules have been applied properly, focusing on a. contracted forecast b. forecast based on developed plans and c. residual emissions. UKCRIC Services was also asked to review the estimate of actual carbon emitted to date using a. data provided by each Delivery Partner, b. office electricity consumption, commuting and business travel data (including visitors), and c. Hole Farm construction emissions.

Review

This review is limited as was last year’s review to construction stages A1–A5 of RIBA. The method for this year’s review was as follows:

1. Inspect the contracted forecast, checking that variations since the DCO carbon limit position of 1.44 mtCO₂e are reasonable (according to current carbon factors) and are recorded accurately.
2. Consider whether the contracted forecast based on development plans is realistic.
3. Investigate whether scenarios that affect residual carbon emissions are reasonable and provide recommendations on innovations which can push toward the ambitious 70% reduction target position.
4. Collate, analyse and present data on emissions to date, exposing good carbon management

practice as per PAS 2080:2023’ and ‘ISO 14064, comparing actual to planned emissions and projecting carbon performance based in actual emissions.

Summary of review findings

- The contracted forecast position 1.34 mtCO₂e, agreed by contractual adjustments to the DCO carbon limit position of 1.44 mtCO₂e and implemented using Z108 and Z135 processes, has been checked for accuracy. The net -0.10 mtCO₂e decrease largely reflects carbon savings for concrete and steel and incorporates approved increases. Forecasts provided by Delivery Partners (Quarter 1, 2026) agree 1.34 mtCO₂e and are realistic.
- Implementing further programme-wide reductions (forecast based on developed plan) would reduce emissions to 1.19 mtCO₂e and is consistent in Delivery Partner actuals for Q1 and on eTool scenarios. The forecast based on developed plan carbon forecast is higher than reported last year (1.14), due to the ‘unmanageable’ risks (carbon increases) that the Delivery Partners identified and were accepted by the project.
- Although the forecast based on developed plan is not contractual, it is the best indicator of the expected remaining emissions at the time of this review. The -0.15 mtCO₂e decrease on the contracted forecast, reflects ongoing ambitions to reduce carbon emissions and relate primarily to emerging design innovations, granular choices of materials and fuels for different purposes, Lower Thames Crossing maximum carbon intensities, and waste management plans.



- Assumptions in some scenarios have greater uncertainties so some will not be feasible, for example, they not be commercially viable or have sufficient time for technical assurance.
- Circular economy and low-carbon scenarios should continue to be developed as future mitigation options and include: exploring take-back schemes for excess and well-segregated material waste (for example steel) with manufacturers, and reusing steel from buildings undergoing demolition following pre-demolition audits.
- Incorporating such additional carbon reduction measures could result in residual emissions of 0.86 mtCO₂e and further carbon reduction measures may be identified in future to bring residual emissions down to the 70% reduction target of 0.84 mtCO₂e.
- Actual emissions FY25/26 of 0.0 mtCO₂e (2.2 ktCO₂e) are accurately reported.
- Full access to both e-Tool, quarterly carbon reports, and other programme data permitted verification of carbon factors against standards, by material types and life cycle stages.
- The Lower Thames Crossing dashboard and user guide developed for this review can support Delivery Partners and programme managers in tracking data from eTool and actual carbon reports, comparing material and life-cycle stage movements, and improving future reporting consistency.



Staff at internal event

DCO sustainability commitments

National Highways’ sustainability commitments are enshrined in legally binding requirements through the Development Consent Order (DCO).

Carbon commitments

The table below sets out the progress we have made against each of the 24 carbon commitments in our Carbon and Energy Management Plan.

ID	Commitment	Progress
CBN01	We will include carbon as a key criterion in the evaluation of tenders for the three design and build contracts.	Complete.
CBN02	We will require Contractors to have corporate net zero plans setting out how they will reach a net zero position that aligns with the 1.5°C reduction of the Paris Agreement (United Nations, 2015) and the UK’s commitment to be net zero by 2050. The plans must include science-based targets for emissions reduction.	Complete.
CBN03	We will ensure that formal regular collaborative carbon reduction workshops are held with representatives of all Contractors present.	In progress: We continue to hold formal collaborative carbon reduction workshops monthly with our Delivery Partners.
CBN04	We will develop and, where appropriate, implement measures to avoid/prevent, reduce and remediate emissions arising from the construction of the project to ensure that net construction emissions do not exceed 1.44 million tCO ₂ e.	In progress: We are working with our Delivery Partners to ensure our net construction emissions do not exceed 1.44 million tCO ₂ e and have reduced our contracted forecast down to 1.36 million tCO ₂ e.
CBN05	Delivery Partners will be required not to exceed a carbon limit which is aligned to the level set out in CBN04.	In progress: Our Delivery Partners are working to ensure their construction emissions do not exceed their carbon limit and each of them have reduced their contracted forecasts through the use of low-carbon steel reinforcement bar, sheet piles and concrete, as well as switching from diesel to hydrotreated vegetable oil.

ID	Commitment	Progress
CBN06	We will require Contractors to provide Environmental Product Declarations for the 10 construction products contributing the most to carbon emissions in their contract. The Environmental Product Declarations must show that the emission factor for the product being used is better than European average.	In progress: Our Delivery Partners are identifying the 10 construction products contributing the most to carbon emissions in their contract and working on sourcing Environmental Product Declarations for them, with the emission factors better than European average. They have already obtained Environmental Product Declarations for some of them, including for low-carbon steel reinforcement bar.
CBN07	We will require Contractors to procure renewable electricity throughout construction, to meet any demand that is not met through onsite renewables and will provide Renewable Energy Guarantee of Origin (REGO) certificates covering the total amount of electricity consumed.	In progress: Our Delivery Partners are assessing the electricity demand that will not be met through onsite renewables and will then procure REGO-backed renewable electricity to cover it.
CBN08	We will require Contractors to provide and maintain electric vehicle charging facilities, using zero carbon electricity, for 30% of parking capacity in each compound, increasing this as necessary to satisfy demand.	In progress: Forty-two electric charging points are provided at our Pilgrims Lane office and our Delivery Partners have already installed charging points at other compounds and will continue to do so as more compounds are built.
CBN09	We will require Contractors to use zero tailpipe emission vehicles for all staff movements within working areas and to and from public transport hubs.	In progress: An electric minibuss is already in use at our Pilgrims Lane office and for the movement of workers to Enabling Works locations. Delivery Partners will use zero-emissions vehicles at other compounds as they are built.
CBN10	We will require Contractors to promote the use of active transport for personnel to and from the compounds and to provide managed electric charging facilities for e-bikes at each compound, in covered cycle parking areas, to satisfy demand.	In progress: Our Delivery Partners will promote the use of active transport and provide managed electric charging facilities for e-bikes at compounds as they are built.

ID	Commitment	Progress
CBN11	We will provide commercial incentives for Contractors to reduce emissions below their carbon limit.	In progress: We have established an incentivisation scheme to pay Delivery Partners for every tCO ₂ e they reduce below their carbon limit.
CBN12	We will include a contractual mechanism that allows Contractors to be paid the additional costs of implementing agreed carbon reduction technologies, together with an incentive payment to further encourage their identification and adoption.	In progress: We have established a process to pay Delivery Partners the additional cost of implementing agreed technologies alongside an incentive payment.
CBN13	We will obtain PAS 2080 certification for the project from an independent, third-party certification body by the end of 2023 and will maintain the certification annually.	Complete: We have obtained PAS 2080 certification from an independent, third-party certification body and are maintaining it annually.
CBN14	We will require Contractors to obtain PAS 2080 certification from an independent, third-party certification body within 52 weeks of the contract starting date and will maintain the certification annually.	Complete: Our Delivery Partners have obtained PAS 2080 certification from an independent, third-party certification body and are maintaining it annually.
CBN15	We will require Subcontractors to obtain PAS 2080 certification within 52 weeks of appointment, unless otherwise agreed.	In progress: Subcontractors are either certified themselves or included under the Delivery Partners certification.
CBN16	We will publish an annual carbon report that will include information on forecast life cycle carbon emissions, carbon reductions and progress against carbon commitments as well as key actions and targets for the following year.	Complete: This Sustainability Report acts as our annual carbon report.
CBN17	Carbon data published by the project in the annual carbon performance report will be independently reviewed prior to publication.	Complete: Our carbon data has been reviewed by UKCRIC (see Appendix C for more details).
CBN18	We will deliver carbon literacy training and achieve silver certification from the Carbon Literacy Project by the end of 2023.	Complete: We achieved gold level Carbon Literate organisation status.

ID	Commitment	Progress
CBN19	We will require Contractors to develop the carbon literacy of their workforce working on the project to Carbon Literacy Project level silver within 52 weeks of the contract starting date.	Complete: All three Delivery Partners have achieved silver level Carbon Literate status.
CBN20	We will require Subcontractors to develop the carbon literacy of their workforce working on the project to Carbon Literacy project level silver within 52 weeks of their engagement.	In progress: Subcontractors are being trained as part of the collaborative Lower Thames Crossing Carbon Literacy training.
CBN21	We will require Contractors to appoint a director responsible for carbon.	Complete: Our Delivery Partners have appointed a director responsible for carbon.
CBN22	We will publish a third iteration of this Carbon and Energy Management Plan explaining how carbon emissions will be managed and minimised during the operation and maintenance of the project, to support the applicant's carbon policies, plans and strategies. This would include measures such as the use of low energy lights.	Not started: We will publish the third iteration of the Carbon and Energy Management Plan by the end of the construction, commissioning and handover stage of this project.
CBN23	We will seek to meet a target of 0.84 million tCO ₂ e for construction carbon emissions using reasonable endeavours.	In progress: We are working with our Delivery Partners to reduce construction carbon emissions to 0.84 million tCO ₂ e and have so far reduced our contracted forecast to 1.36 million tCO ₂ e. The initiatives described elsewhere in this report (low carbon concrete, low carbon steel and zero-emissions plant) will help to achieve this.
CBN24	We will implement an approach to carbon neutral construction, aligned to ISO 14068 by offsetting residual construction carbon emissions. The applicant will prioritise investment in carbon reduction solutions ahead of offsetting. This commitment can be amended by the Secretary of State on application in writing by the applicant, where it is demonstrated to the Secretary of State's satisfaction that residual construction carbon emissions cannot be responsibly offset for less than a mean average cost of £45/tCO ₂ e (index linked to 2020 prices).	In progress: We continue to focus primarily on carbon reduction solutions (to meet CBN23). However, we are currently working with industry experts to develop an offsetting strategy for our residual emissions.

Biodiversity and wider environmental sustainability

We have developed the project to avoid or minimise significant effects on the environment.

The measures adopted include:

- Landscaping and naturalised embankments blending into the landscape.
- Seven green bridges (including Europe’s widest) facilitating safe wildlife and public connectivity.
- Reduction of ancient woodland impact by over 70%, with ongoing refinement of route and planning.
- Floodplain compensation and new watercourses/ponds supporting wetland species.
- Creation of over 40 miles (64km) of shared-use paths for walkers, cyclists, and horse riders – three miles for every mile of road.
- Planting more than 1 million new trees, targeting species-rich hedgerows and wildlife corridors.
- Hole Farm Community Woodland (100 hectares) and two new Thames view public parks at Chalk Park and Tilbury Fields.

Commitments about biodiversity and other environmental sustainability considerations have been embedded throughout the project. Our Code of Construction Practice (CoCP) and Register of Environmental Actions and Commitments (REAC) sit within a suite of documents known as the control plan, which

is the framework for mitigating, monitoring and controlling effects of the project. It is made up of a series of ‘control documents’ which present the mitigation measures identified in the application that must be implemented during design, construction and operation to reduce the adverse effects of the project.

The CoCP and REAC are an Appendix of the Environmental Statement (ES), which is a control document. The REAC presents the good practice and essential mitigation commitments identified for each environmental topic in the in the ES. The ES itself reports the findings of our Environmental Impact Assessment (EIA), which determines the likely significant environmental effects of the construction and operation of the project. The environmental topics reported are:

- Air quality
- Cultural heritage
- Landscape
- Terrestrial biodiversity
- Marine biodiversity
- Geology and soils
- Material assets and waste
- Noise and vibration
- Population and human health
- Road drainage and the water environment
- Climate

Additional topic management plans for environmental subjects that require further measures and controls to be implemented are now being developed by our Delivery Partners in line with the Development Consent Order. These include air quality, ecology, noise and vibration, soils, contaminated land, substances hazardous to health and pollution prevention controls.

The project’s environmental commitments follow three main themes:

- 1. Embedded mitigation:** measures that form part of the engineering design, developed through the iterative design process.
- 2. Good practice:** standard approaches and actions commonly used on infrastructure development projects to avoid or reduce environmental impacts, typically applicable across the whole project.
- 3. Essential mitigation:** any additional project-specific measures needed to avoid or reduce potential impacts that could otherwise result in effects considered significant in the context of the EIA Regulations. Essential mitigation has been identified by environmental topic specialists and through consultation with stakeholders, taking into account the embedded and good practice mitigation.



Staff at Hole Farm community woodland

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