

Lower Thames Crossing

**Thurrock Council Comments on Applicant's Submissions at Deadline 1 and 2
(D1 and D2)**

**National Highways Sustainability Report and the Council's Review –
Appendix F**

Thurrock Council

 **thurrock.gov.uk**

Thurrock Council Comments on Applicant's Submissions at Deadline 1 and 2 (D1 & D2) – National Highways Sustainability Report and the Council's Review Appendix F
Lower Thames Crossing

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Lower Thames Crossing

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**National Highways Lower Thames Crossing Sustainability Report
Delivering the UK's Greenest Road (July 2023)**

Thurrock Council Lower Thames Crossing Sustainability Report Review (August 2023)

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A photograph of two people walking away from the camera on a grassy path. The person in the foreground is wearing a blue jacket and carrying a briefcase. The person behind is wearing a dark jacket. They are walking through a green field with a wooden fence on the left and trees in the background under a bright sky.

Lower Thames Crossing Sustainability report

Delivering the UK's greenest road

July 2023

The need for the Lower Thames Crossing is greater than ever

The Dartford Crossing is one of the UK's most vital roads, but also one of our most unreliable.

Initially designed for

135,000

vehicle crossings a day, but can see

180,000+

vehicle crossings a day, carrying over

50m

vehicles a year



3,000
incidents a year



19 out of 20
northbound journeys in the evening peak are delayed, while 2 out of 3 take twice as long as they should

About the Lower Thames Crossing

The proposed Lower Thames Crossing would connect Kent, Thurrock, Essex and Havering through a tunnel beneath the River Thames.

It will almost double road capacity over the river east of London, bringing communities together and giving millions of people more flexibility around where they live, work and learn.

The new, reliable connection will ease congestion on the Dartford Crossing, improving journeys across the South East. It will unlock economic growth locally and nationally by creating a reliable new connection between the South East, Midlands and the North that brings people closer to jobs, and businesses closer to their customers and suppliers.

In development since 2013, the Lower Thames Crossing is already delivering benefits for local communities and the environment.

Benefits

The Lower Thames Crossing would:

level-up areas within the region by improving access to skills and jobs



provide work for more than **22,000** people during the six years of construction

explore methods to achieve carbon neutrality in its construction and accelerate the industry's shift away from fossil fuels



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“We’re delivering much more than a new road. The Lower Thames Crossing is an opportunity to set the future standard for low-carbon infrastructure and deliver a lasting positive legacy for local communities and the environment.” Matt Palmer, Executive Director

Our determination to make the Lower Thames Crossing the UK’s greenest road ever can be seen throughout our first Sustainability report. By aligning our ambitions with the UN Sustainability Goals, we are on the path to leave a lasting legacy for the environment, local communities, and the country’s economy.

Over the last 12 months we’ve been busy taking the first steps to reach our sustainability ambitions. Our proposals are now being examined in detail by the government’s independent planning authority. We planted our first 15,000 trees as we work towards one million additional trees, invested over a quarter of a million pounds in the community, are setting out to make one of the UK’s largest ever purchases of hydrogen and became the first major roads organisation to receive PAS 2080 carbon management accreditation.

Working in partnership

Our determination to push boundaries and reduce our impact is central to everything we do, but we cannot create a new future for our industry alone. By working in partnership with our stakeholders across the region, we’re able to align our ambitions with other major projects, create opportunities and define what green growth looks like for this region.

We were the first UK infrastructure project to use a major procurement process to lower construction carbon and earlier this year, we awarded our first contract for Roads North of the Thames to Balfour Beatty. Their commitment to drive down carbon and maximise the benefits for local communities was one of the reasons they were successful.

Investing in the region and country

As an essential investment for the region and the country, government plans such as Build Back Better, the Union Connectivity Review, Levelling Up and The Net Zero Strategy: Build Back Greener, all recognise our role in enhancing national connectivity and capacity, boosting productivity and levelling up communities.

Committed to openness and transparency

Through 375 days of consultation, local communities and stakeholders have played a vital role in shaping the proposed design, construction and operation of the Lower Thames Crossing – leading to significant improvements to our plans and ultimately a much better project.

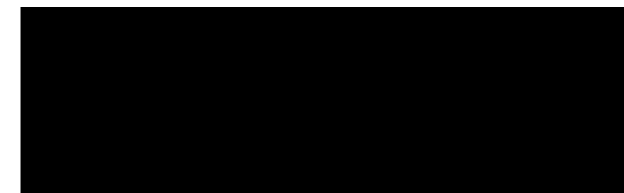
This commitment to openness and transparency runs through our first Sustainability report. It sets how we are working with all those stakeholders – customers, partners, our supply chain and everyone involved in designing, building and delivering the new road.

We’re already delivering benefits

As a designated Pathfinder project, we’re already creating the solutions for a future of low-carbon infrastructure and accelerating the construction industry’s shift away from fossil fuels.

I believe this report shows how much we’ve achieved, even before consent is granted, and how we’re already delivering benefits for communities, the environment and the economy.

And the really exciting part? We’re just getting started.



Matt Palmer
Executive Director, Lower Thames Crossing



“Through 375 days of consultation, we’ve shared our proposals, listened to people’s feedback and made meaningful improvements to our plans.”



The Lower Thames Crossing is being designed, and delivered, in a way that balances the needs of everyone who will use or benefit from the road with the need to protect and enhance our natural environment and our communities.

These priorities are at the heart of the project and ensure we make the best decisions we can at every opportunity.

Aligning with the UN Sustainability Goals

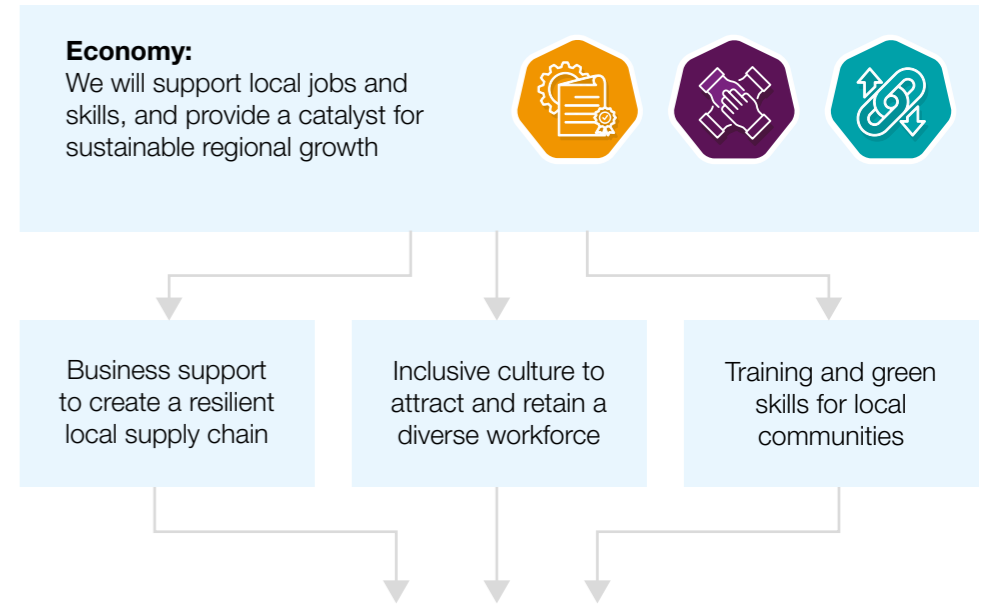
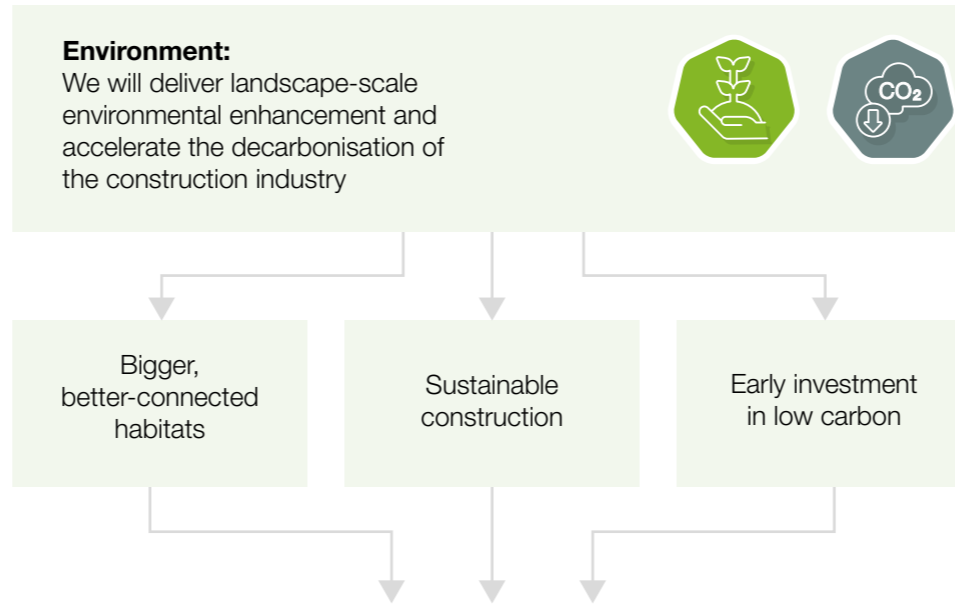
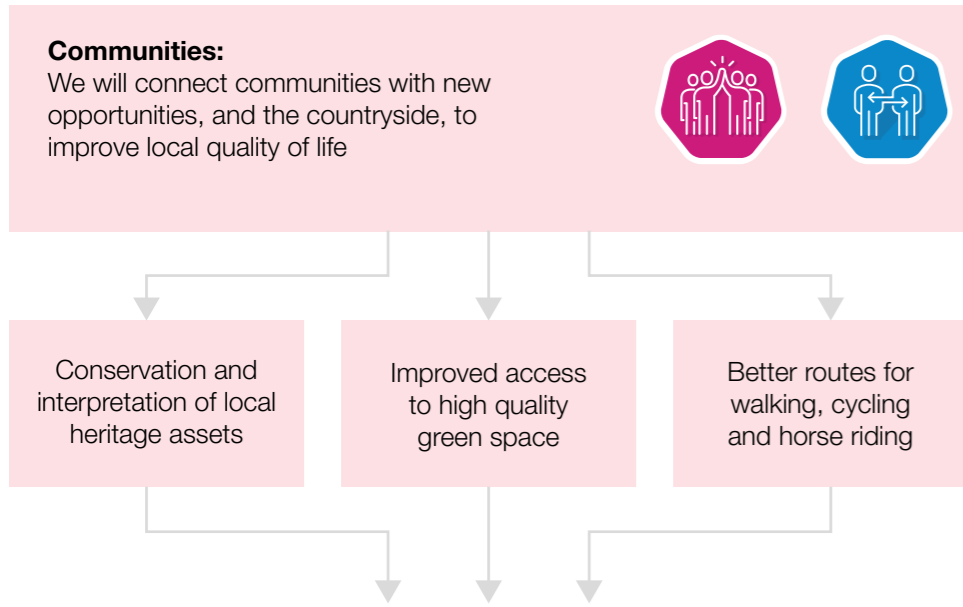
This approach ensures that the new road is designed and delivered in a way that aligns with the United Nations Sustainable Development Goals.

These provide a 'blueprint for peace and prosperity for people and the planet, now and into the future'. They recognise the importance of balancing strategies that spur economic growth, improve health and education and reduce inequality, with the need to tackle climate change and preserve the natural environment.

On the next page, we have aligned our outcomes with the UN Sustainability Goals. These identify the changes we expect to see as the Lower Thames Crossing is delivered, or once it is open to traffic.



How we are aligning with the UN Sustainable Development Goals



11 SUSTAINABLE CITIES AND COMMUNITIES

Outcomes realised through building the Lower Thames Crossing:

- Improved access to green space
- Increased access and appeal to active travel

15 LIFE ON LAND

Outcomes realised through building the Lower Thames Crossing:

- Improved wildlife habitats and connectivity

4 QUALITY EDUCATION

Outcomes realised through building the Lower Thames Crossing:

- Increase in regional skills

3 GOOD HEALTH AND WELL-BEING

Outcomes realised through building the Lower Thames Crossing:

- Healthier workforce as a result of working on the Lower Thames Crossing

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Outcomes realised through building the Lower Thames Crossing:

- Promotion of a circular economy
- Reduced waste

8 DECENT WORK AND ECONOMIC GROWTH

Outcomes realised through building the Lower Thames Crossing:

- Unemployed people brought back into work during construction

13 CLIMATE ACTION

Outcomes realised through building the Lower Thames Crossing:

- The lowest construction carbon

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Outcomes realised through building the Lower Thames Crossing:

- Faster, more reliable journey times
- The creation of a resilient local supply chain
- Investment delivered on time and to budget

10 REDUCED INEQUALITIES

Outcomes realised through building the Lower Thames Crossing:

- An increasingly diverse workforce

Outcomes realised

These are the changes that we can expect to see after the Lower Thames Crossing has been built. Progress against each will be monitored throughout construction and will underpin the longer-term scheme evaluation after the Lower Thames Crossing opens for traffic.



Enhancing the environment

“Even now, well ahead of us starting construction, we’re working with local charities, stakeholders, partners and others to protect and improve the environment along the route.” Emily Dawson, Head of Benefits

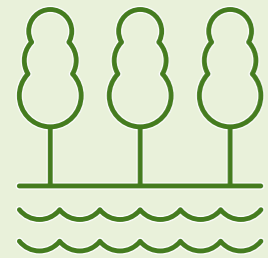


First trees being planted at our new community woodland, Hole Farm

We are passionate about the environment and the responsibility we have towards it. That’s why we are committed to minimising any environmental impacts while taking the opportunity to deliver landscape-scale enhancements that support surrounding wildlife and connect local communities with the countryside.

Our proposals will improve wildlife habitats and provide better connectivity between existing ancient woodlands and Sites of Special Scientific Interest (SSSI). This will lead to an increase in biodiversity and contribute to the South Essex Estuary Park vision for the region that has been developed by the Association of South Essex Local Authorities (ASELA).

We’re also building green bridges and hedgerows to connect wildlife habitats, new ponds to minimise flood risk, and measures to reduce noise levels. We’re creating two new public parks in Thurrock and Gravesham, and a new community woodland in Brentwood (see Hole Farm case study), which is already being planted to deliver benefits for local communities and the environment as early as possible.



70%

reduction in area of ancient woodland affected

Minimising the impact on ancient woodland

Due to the location of the crossing, our proposals could impact up to 7ha of ancient woodland. This is unavoidable as a result of the construction of the road and the need to divert utilities associated with the project.

We recognise that ancient woodland is irreplaceable and so far we've been able to reduce the area affected by approximately 70%. We will keep working to reduce this further through detailed design and by exploring alternative construction methods.

To help offset our impact on ancient woodlands, we are creating more than 80ha of compensation planting – 32ha north of the river and 48.75ha to the south.

Addressing nitrogen deposition

We've added more grassland and woodland to our mitigation proposals to compensate for additional nitrogen in the air that may impact nearby designated sites and ancient woodlands when the new road opens.



What is a green bridge?

Built over a railway or road, green bridges allow wildlife, pedestrians and cyclists to cross safely. Usually planted with a variety of trees or vegetation, the bridges also help integrate the road into the landscape.



1m
additional trees



20km
more hedgerows

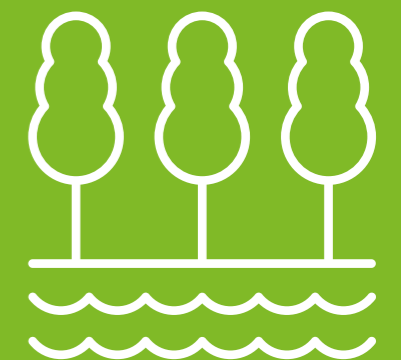
2x
the number of affected ditches and watercourses have been created

22
new ponds



768ha
of improved semi-natural habitats

3x
as much woodland created as being lost





In the past year...



We've been working closely with others who share our ambitions and provided funding to support delivery of environmental enhancements across the region. This includes:

- £94,000 to support Essex Wildlife Trust to undertake scrub clearance and wetland habitat management at Chafford Gorges Discovery Park in Thurrock.
- £143,000 to support the Royal Society for the Protection of Birds to improve wildlife habitats on both sides of the River Thames.
- £350,000 to support local landowners to introduce conservation grazing and install new wildlife towers to house owls and bats in Luddesdown.
- £28,000 to support the North West Kent Countryside Partnership to restore woodland at Telegraph Hill, Higham.
- £113,000 to support Forestry England to create new wildflower meadows at Jeskyns Community Woodland in Gravesham, Kent.



In the next year...



- We will provide £350,000 for Essex County Council to introduce and extend conservation grazing within its country parks.
- We are providing £110,000 to the National Trust to relocate young, self-set oak trees and increase woodland cover at Cobham Woods.
- We will provide £600,000 for the re-wilding of a 20ha site that will connect to nearby Vange and Fobbing marshes SSSI in Essex.
- We will provide Essex Wildlife Trust with a £220,000 initiative to improve habitats for water voles across Essex.
- We will be supporting local farmers to increase biodiversity on their land. We will do this by introducing grazing meadows, safeguarding food production and increasing the overall biodiversity of the farm.



Case study: Hole Farm Community Woodland, Brentwood

Since we bought this 95ha arable farm on the open market in 2021, we've been working with Forestry England and the local community to develop plans for a new community woodland on the site.

By establishing this partnership early, we've been able to maximise opportunities to extend the Thames Chase Community Forest and provide a new community tree nursery and education space at the site for local people.

In November 2022, the first trees, which include native broadleaf species such as oak, poplar, hazel and hornbeam, were planted by local schoolchildren and at two community tree planting days. It is hoped that the remaining trees will be planted by spring 2025.

Shaped by feedback received over the past year, we submitted our planning application to Brentwood Borough Council for car parking, a café and a network of footpaths for visitors to explore the site.



15,000
trees planted at Hole Farm so far (out of 150,000)



Case study: Shorne Woods Country Park, Gravesend, Kent

This year we've provided £180,000 to enable Kent County Council to establish conservation grazing in a section of the wood, which is also a SSSI. This funding will also provide new visitor information panels with a bigger focus on carbon, biodiversity and sustainability.

We've also started work to improve habitats at the site for protected species including dormice and bats. Brown long-eared and Daubenton's bats flock to an old WWII air raid bunker to hibernate during the winter months. We're building a bigger, better bunker for the bats to roost in so that they are not disturbed during construction of the new road.

Case study: Cobham Woods

We gave West Kent Downs Countryside Trust £85,000 to improve Cobham Woods for visitors. Work undertaken across part of the 242ha site includes thinning trees to let more light in, removing invasive species and supporting biodiversity.



Active travel: Investing in walking, cycling and horse riding

For every mile of new road we build, we're providing almost three miles of new or improved pathways for walkers, cyclists and horse riders. This will connect communities to parks and woodlands, local heritage sites, equestrian centres and employment hubs. This will encourage active travel and support healthy, active lifestyles.

By working in partnership with local authorities we've also been able to identify potential for wider enhancements. This has included providing £65,000 for a new path in the Thames Estuary that reconnects a previously severed section of the Two Forts Way close to Coalhouse Fort.

We've been able to do this by drawing on National Highways' Designated Funds programme, which supports initiatives beyond traditional roads investment. Between now and March 2025, up to £30m has been made available to invest in initiatives along the route that benefit local communities and enhance the environment.

Our plans for the Lower Thames Crossing include:

- seven new green bridges – safe and easy crossings for people and wildlife, including an 84-metre-wide bridge in Kent, one of the widest green bridges in Europe
- a new cycle route – south of the A2 running through Jeskyns Community Woodland from Park Pale in the east to Hares Bridge in the west
- new footbridges – two over the A127 and one over the M25 to create safe, easy crossing points and restore links severed by historic road building
- a new 1.8-mile foot and cycle path – separated from road traffic, providing a safer and easier way to commute between East Tilbury, Linford and Chadwell St Mary
- a network of bridleways – giving horse riders uninterrupted routes between woodlands such as Thames Chase Forest, Hole Farm Community Woodland and the Mardyke in Essex, and Ranscombe Farm Reserve, Ashenbank Wood and Shorne Woods Country Park in Kent
- an improved foot and cycle path between local community and heritage sites such as Coalhouse Fort and East Tilbury Battery

In the next year...



Early enhancements to the coastal path

We're providing £900,000 to improve 7km of the England coastal path from Coalhouse Fort to Stanford-le-Hope. The project is a key priority for ASELA. It will make the path more accessible during flooding, provide new information boards and introduce new bird hides and viewing areas.



Preserving and improving access to heritage

We want to improve access to sites and preserve local heritage assets, including archaeological locations and historic buildings that may be impacted by the Lower Thames Crossing.

As a result of a three-year assessment of buried archaeological remains, including more than 4,500 archaeological trial trenches, we now understand our potential impact on heritage assets. We also know how to best mitigate any impacts the Lower Thames Crossing may have on these sites including:

- full archaeological excavation of important sites, including the scheduled monument at Orsett
- archaeological recording of any historic buildings before they are dismantled
- a programme of investigation, including test-pitting and geophysical survey of Palaeolithic and Palaeoenvironmental remains

We will create opportunities to involve local communities in our work and share our finds throughout construction. We've already started working with Historic England and other partners to invest in heritage sites and support local communities to connect with their heritage, including:

- building a digital platform that will showcase heritage sites throughout the region, using 3D effects to allow the user to explore the landscape, and providing an immersive educational tool for schools across Kent and Essex
- investing £145,000 to increase the support available from the local authority community archaeologist for the next two years. This will enable them to train local heritage and community groups in how to record and conserve local archaeological finds, and engage with hard-to-reach groups
- funding a new conservation and management plan for Belhus Park in Thurrock, identifying opportunities to attract future investment in the site



Case study: Warley Place, Brentwood

A £250,000 investment in Warley Place, Brentwood, has enabled Essex Wildlife Trust to restore the historic brickwork in the site's Grade II listed walled garden.

“It’s fantastic to have the walls of the garden restored and preserved, both for visitors now and in the future. Warley Place is popular with our local community and restoring the brickwork is restoring a piece of our cultural heritage.”

Zoe Ringwood, Landscape Conversation Manager, Essex Wildlife Trust

In the next year...



Drawing on National Highways' Designated Funds programme:

- Thurrock Council will receive £300,000 to develop a restoration and conservation plan for Coalhouse Fort, including how the site could be enhanced as a community asset in the future
- Gravesham Borough Council will receive £98,000 to host a pop-up heritage exhibition and update the permanent display within the Chantry Museum
- the London Borough of Havering will receive funding to finalise the restoration work needed for Tithe Barn in Upminster, putting a plan in place that will unlock future investment

Case study: Dagnam Park, London Borough of Havering

This year the London Borough of Havering completed heritage restoration works at Dagnam Park in Havering using £90,000 of funding provided by the Lower Thames Crossing.

In collaboration with Friends of Dagnam Park, these improvements have opened up heritage features to the public while new footpaths increase access for visitors to the site.

Supporting a circular economy

To minimise our impact on the world's natural resources, almost a third of all aggregates (such as sand and gravel) that are used in the construction of the new crossing will come from recycled or secondary sources.

Secondary sources are where the materials are a by-product of another process, such as quarrying or mining.

We will also reuse the soil, chalk and other rubble that is removed from the ground to hide the new road from view, by creating false cuttings and new public open spaces that provide views of the Thames Estuary.

Where we have to remove existing vegetation, it will be turned into mulch and deposited across our ecological mitigation sites. This will ensure the nutrients are not lost and help us to increase biodiversity along the route, supporting local wildlife.





Reducing our carbon footprint

“We want to push the boundaries of low-carbon innovation and approaches, so that we can set a new standard for how infrastructure will be built in the future, disrupt the industry and forge the way to net zero by 2050.” Andrew Kidd, Outcomes Director

The government's commitments to decarbonise the transport system in the UK means that by the time the Lower Thames Crossing opens, you won't be able to buy a new petrol or diesel car or van.

Our latest forecasts show the government's plans to decarbonise would cut the 60-year forecast of carbon emissions from Lower Thames Crossing traffic by at least 80%. This means we can focus on driving down our construction emissions even further.

A catalyst for change

As a designated Pathfinder project, we used a major procurement process to significantly reduce embedded carbon emissions and achieved the global carbon management standard, PAS 2080.

We have also gone to market to buy one of the UK's largest ever purchases of hydrogen, accelerating the construction industry's shift away from fossil fuels.

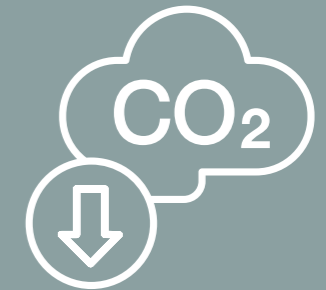


Our delivery partners will use modular construction techniques and build structures offsite to minimise the number of lorry movements and significantly reduce carbon emissions during construction.

Leading the way to carbon neutral construction

We were the first infrastructure project to put a legally binding limit on carbon emissions due to construction – setting it at 1.8Mtonnes CO2e in our Development Consent Order (DCO) submission. This industry-leading limit adopts best practice in low-carbon construction, but our ambition is to go much further and lead the way as a pathfinder for carbon neutral construction. We are confident in our approach and our Carbon and Energy Management Plan will be secured in our DCO, a first for a highways project.

We put carbon at the heart of our procurement and the construction industry has responded. Our first contract, Roads North of the Thames, was awarded earlier this year to Balfour Beatty, who set their own contractual limit lower than we asked, while targeting a level of emissions between 40% and 60% lower.



Between

40% and **60%**
lower emissions



Case study: Our commitment to low-carbon hydrogen

We've started the process to buy one of the UK's largest ever hydrogen supply contracts. This low-carbon fuel will displace diesel used in our construction equipment on-site and will reduce the project's carbon footprint.

Making hydrogen available to our delivery partners and taking away uncertainty about availability and price will catalyse supply chain investment and support regional ambitions to develop a hydrogen economy across the Thames Estuary.

It will also accelerate the construction industry's shift away from fossil fuels, and kick-start the highly anticipated development of a hydrogen ecosystem in the Thames Estuary.



22

We submitted our DCO application with 22 robust commitments to reduce carbon at the end of 2022

Carbon literacy training

We want to use this project to re-orient the construction sector and as part of this we're helping our workforce become 'carbon literate' with training accredited by the Carbon Literacy Project.

This year, over 250 people working on the Lower Thames Crossing have started their carbon literacy training. By ensuring that everyone who works on this project understands carbon and its challenges, together we can build a more sustainable industry. Over the next year we'll also be rolling this training out to local communities.



During construction we will:

- test and scale-up innovative and low carbon materials and technology
- aim to remove diesel from sites by using only hydrogen and electric plant
- use only renewable energy sources and reduce and beneficially use our waste
- look at alternatives to carbon intensive materials such as concrete and steel



Investing in communities

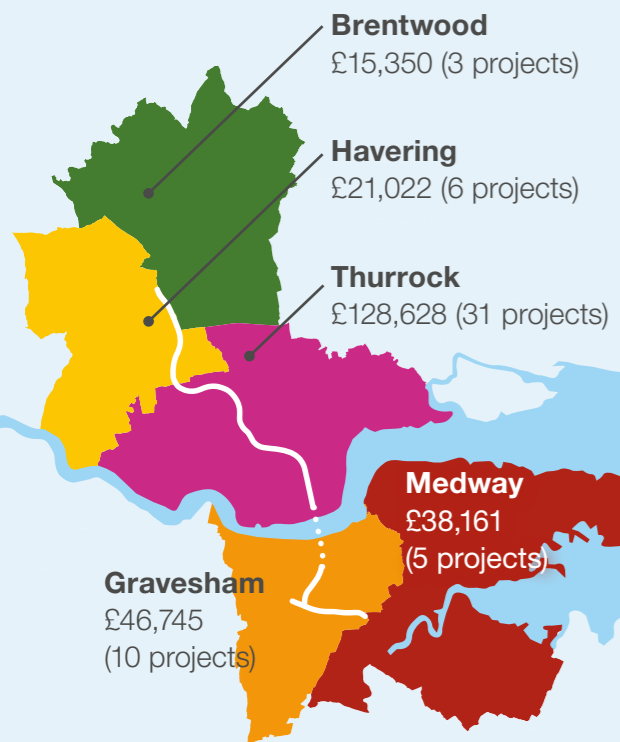
“We want to be a good neighbour. We’re going to be part of the local community for years to come so we want to support initiatives that have a positive impact.” Shaun Pidcock, Programme Delivery Director

The new crossing will have a positive impact on people’s lives and wellbeing along the route. The increased certainty of how long a journey across the river is likely to take will open up new opportunities for jobs, schools, healthcare and leisure for communities both sides of the River Thames.

During construction we will work closely with local communities to minimise disruption and provide forums for local residents to share concerns and understand our detailed plans for their local area as these evolve.

Ahead of this we’re already using the relationships we’ve built with the local community to make a positive difference. Over the past year we have:

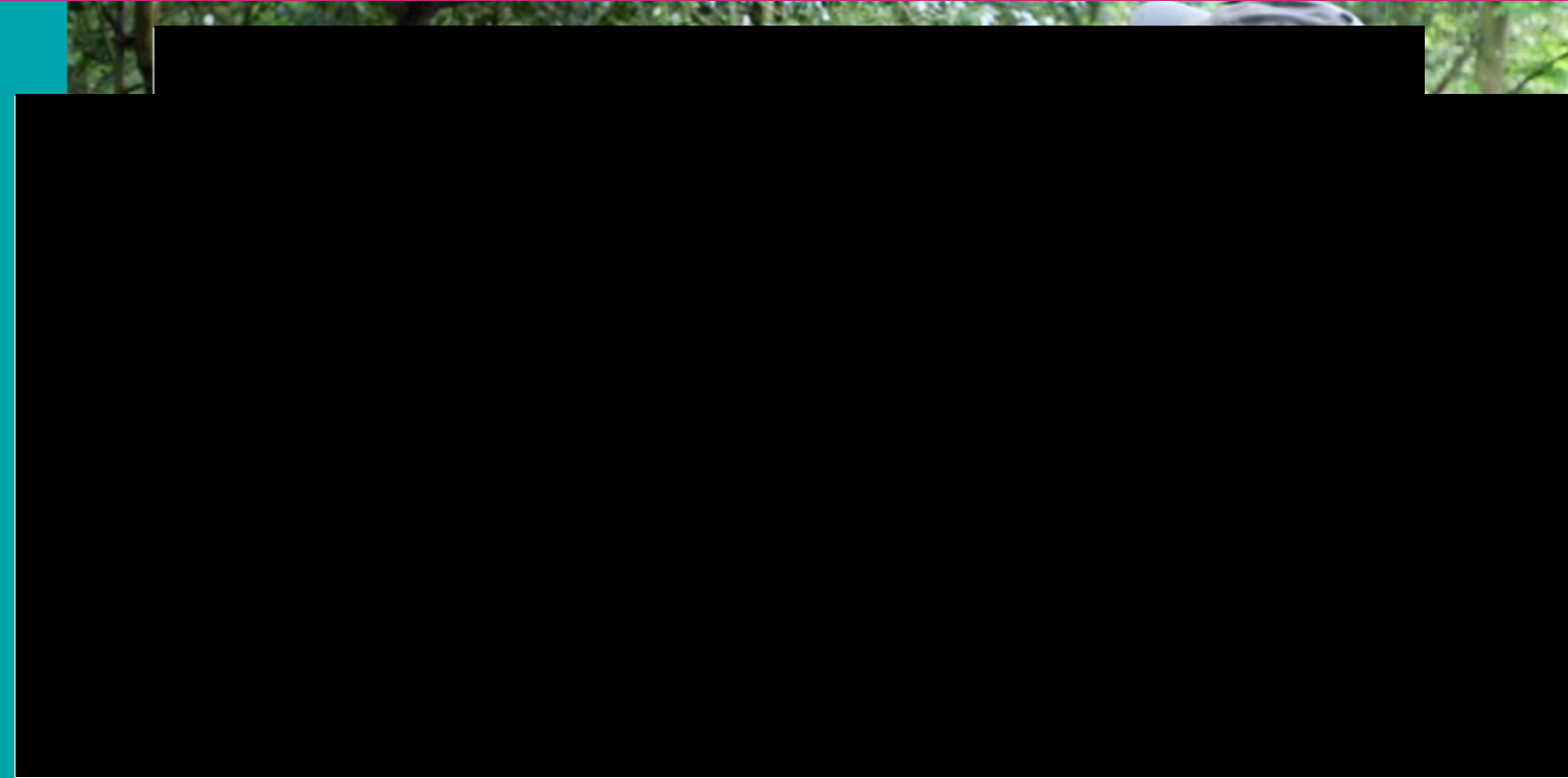
- sponsored a local football team, Grays Athletic Girls Under 15, who train close to our office and share our ambition to create opportunities for all
- donated old traffic cones to be repurposed for growing walnut trees from seed for sites in the Thames Chase Community Forest network
- donated a defibrillator through Balfour Beatty to East Tilbury Forum



Case study: Community Fund

This year we awarded £250,000 to local charities and not-for profit community groups in partnership with the Essex and Kent Community Foundations. A total of 55 community-led projects were awarded grants of up to £10,000 each, including Cyclopark and Cobham pre-school in Kent, Orsett Primary School in Thurrock, Odyssey Explorer Scouts in South Essex, and Friends of Dagnam Park in Havering.

When the Lower Thames Crossing is being built, a further £2m of grants will be awarded by independent panels to good causes along the route.



In the next year...



Enabling superfast broadband

Over the coming months we'll be funding the installation of a new gigabit-capable broadband connection between Great Warley in Brentwood and South Ockendon in Thurrock. The new fibre network can then be used by businesses to extend superfast internet connectivity to local rural communities and businesses. This funding will support ASELA's vision for full-fibre coverage across South Essex by 2025.



Case study: Volunteering

In October 2021, we pledged at least 22,000 hours of volunteering in the local community during the construction of the new road.

By the end of March 2023 we'd already clocked up hundreds of hours. Here are just some of the ways we've helped:

- Putting back trees and clearing scrub for the Essex Wildlife Trust at Chafford Gorges Discovery Park.
- Making the car park more accessible at Shorne Common children's playground in Gravesend.
- Collecting donations for Thurrock Foodbank, handing out leaflets to shoppers at the local supermarket and stocking shelves in the warehouse.
- Painting fences and buildings at the Condovers Scout Activity Centre in West Tilbury.



Supporting local skills, education and employment

“We’ve got really ambitious targets to employ a 45% local workforce and are developing the green skills needed to build world-leading, low-carbon infrastructure.” Shaun Pidcock, Programme Delivery Director

Local people are at the heart of our Skills, Education and Employment strategy. This means unlocking skills and better paid jobs, supporting educators and delivering activities that excite and inspire the next generation.

And we’re already delivering on our ambitions. Whether that’s creating a green skills legacy through our carbon literacy training, recruiting apprentices and graduates from the local area, giving our subject matter experts the opportunity to lead workshops and employability sessions for young people, or providing local businesses with the tools to win work. We’re proud of what we’ve achieved so far, and we’re only just getting started.

Delivering a skills legacy

We want to provide local communities with the skills they need to build low-carbon infrastructure and gain work on this and other future investments being planned for the region.

We're already training local people and upskilling our workforce to operate and thrive in a net zero world. And we're working with other infrastructure projects to coordinate jobs and training, so local communities can take advantage of what will be on their doorstep.

Supporting local jobs

So that the government's investment in the Lower Thames Crossing supports the local economy, our goal is for more than 45% of our workforce to be made up of local people. We know that's ambitious so we're working in partnership with other projects to identify potential challenges in securing the right skills and supply for the whole of the region. That way, we know we'll have a wider impact.

Already, we've supported over 30 apprenticeships and have targets for hundreds of early career opportunities via apprenticeships, traineeships and graduate programmes.



More than **45%** of our workforce to be made up of local people

The Lower Thames Crossing as a Carbon Academy

By exploring low-carbon innovation and promoting green skills, the Lower Thames Crossing will act as a Carbon Academy.

Everyone in our workforce, the supply chain, and members of the local community will gain increased awareness on how to minimise and measure carbon impacts to support sustainability.

We will work with industry professionals and local education and training providers to help create a workforce with the skills and capability to build and maintain infrastructure in a way that protects our environment. We will facilitate apprenticeships in environmental

sustainability, carbon-related STEM workshops in local schools and colleges, carbon literacy training courses for local communities, supply chain sustainability school workshops and seminars for local business leaders.

Our ambition is that as a Carbon Academy, we will:

- set new building standards for a green economy
- upskill the construction industry
- futureproof businesses
- create a behavioural change in the construction industry





Case study: Local graduates

Our first group of local graduates started work in November 2022. They come from Thurrock, Kent and Redbridge and are taking part in National Highways' three-year project management graduate programme.

“I was drawn to the scale of the project and the challenge of building it in a sustainable way, and the fact it’s on my doorstep made it an opportunity I couldn’t miss.” Simrandeep Sunnar, LTC Graduate and Thurrock resident

Over the lifetime of the project, we will support:

350+
local people
to learn
new skills

500+
employees
with new
industry skills

430+
new apprentices

290+
graduates
and trainees

young adults through
7,000+
hours of engagement

Case study: Apprentices

Over the course of the project around 450 apprentices are expected to work on the programme, and even at this early stage, our first six have been able to successfully complete their studies this year and move into full-time roles.

Nina Weatherly from Medway joined us after a 20-year teaching career, when she was looking for a new challenge. “I never imagined my apprenticeship would lead to so many opportunities to get stuck in and I would encourage anyone at all stages of their career to consider a similar change in direction. I’m also looking forward to becoming a STEM Ambassador, along with all of my fellow former apprentices, so that I can get back in the classroom and inspire future cohorts.”

Inspiring young people

We’re passionate about helping local communities unlock the opportunities a future career in the construction industry could provide. This year, we’ve been working with schools and colleges along the route of the Lower Thames Crossing to inspire young people and help teachers and career advisers to understand the entry routes available.

Highlights from the past year include the National Green Skills Week. During this week we held our London Climate Kickstart careers event, and helped bring students from Essex and India together to debate the impact of infrastructure projects like the Lower Thames Crossing on climate change. We’ve also worked with USP College to promote careers in archaeology, leaving replica archaeological finds so the students could practise 3D scanning techniques.

In the next year...



Our Delivery Partners will continue this work, providing over 7,000 hours of support and advice to local communities throughout construction.

During construction, we’ll be providing pre-employment programmes for disadvantaged and under-represented people within our community. These will give them the support and skills needed to be work-ready. We’ve also committed to offer job interviews to local applicants from under-represented groups that meet the minimum application criteria. These include women returners, homeless people, ex-military, ex-offenders and adult learners.





In the past year...



- We've spent over 1,500 hours meeting with almost 43,000 students through career fairs, virtual webinars, STEM events, Minecraft gaming sessions, career guidance, a 'Building Future Skills' event with the Construction Youth Trust and climate change workshops.
- We've supported 740 teachers through virtual webinars, career fairs, teacher encounter programmes and one-to-one sessions.
- 10 weeks of education placements have been undertaken by local students.
- 30 STEM ambassadors now regularly work with local priority schools and colleges.

We're supporting...

740

teachers



over

30

apprentices



10

weeks of placements

30

STEM ambassadors



19

people who were previously unemployed to return to work



Listening to our customers and stakeholders

“To get all aspects of the design, construction and operation of the Lower Thames Crossing right we have run the most extensive public consultation programme ever undertaken, alongside continuous engagement with a range of stakeholders.” Mark Bottomley, Development Director

Local residents, businesses and stakeholders have played a vital role in shaping the proposed design, construction and operation of the Lower Thames Crossing.

Since 2016 we've held seven public consultations, engaged with thousands of stakeholders, local residents and customers, listened to their feedback, and adapted our plans to ensure our proposals balance the needs of local communities and the environment.

Open communication

Over the past 12 months, we've held community roadshows and other events specifically designed for the diverse communities along the Lower Thames Crossing route. We have made sure people can talk to us in whichever way they prefer and that communication is open at all times, either through our community events, social media platforms or website.

You said, we did

Consultation and engagement have been an important part of the project. The Secretary of State selected the route in 2017, but based on feedback, traffic modelling and ongoing design work, we have progressively refined our proposals.

Here are some examples of how feedback has influenced our plans:

Two to three lanes

We have moved from two to three lanes along most of the route, including the tunnel, to improve traffic flow and futureproof the project.

Southern tunnel entrance

This has been extended southwards twice, moving it 950 metres further away from the river than originally planned. This will lessen the impact on the adjacent wetland (Ramsar site) while ensuring communities stay connected.

Lessening the visual impact

The height of the road has been reduced, in some places by as much as five metres. Now, approximately 80% of the route is in a cutting, false cutting or tunnel to provide visual screening.



Case study: Redesigning Tilbury Fields to accommodate the Freeport

The Thames Estuary is the UK's number one growth opportunity. To unlock this, the two vital projects in this area, the Thames Freeport and the Lower Thames Crossing, must be delivered in partnership. That's why our new public park, Tilbury Fields, was redesigned to accommodate the government plans for the Freeport, which has the potential to deliver 25,000 new jobs.



We'll be available 24/7, while construction takes place, to answer queries from local communities and road-users who may be affected by our works.

Shaping our plans:

Almost **95,000** responses considered 

 **375** days in public consultation

442,000+ consultation website visits 

 **34,000+** event visitors

 **136** consultation events

17,444 
likes, shares and comments

22,013
followers across the
three channels



 **2,535**
comments on our
social media posts



867
shares of our social
media posts

13,310 
reactions on our
social media posts

71,505
unique visits to our website between
April 2022 and March 2023



Case study: Customer queries

We try to respond to all queries or complaints within five working days. Sometimes more complex requests for information can take a little longer. In the 12 months ending 31 March 2023, 77% of customer queries received a response within this time.

Around 95% received a response within 10 working days. Common queries this year included requests for copies of brochures and maps, signing up to our supply chain newsletter, and interest in our Community Fund and apprenticeship opportunities.





Creating a resilient, local supply chain

“Putting local businesses first is at the centre of our strategy to build a diverse and resilient supply chain. The more we work with suppliers in the region, the more of a long-lasting legacy we can leave.” Kat Ferguson, Procurement Programme Director

This year we've launched a major procurement exercise to select the Delivery Partners that will be helping us to build the new road. The first of these contracts, for the Roads North of the Thames, was awarded to Balfour Beatty in January 2023, and the other two are expected to be announced within the next year.

Our ambitions to leave a positive legacy are at the heart of this procurement process. Bidders were asked to set out how they would minimise environmental impacts and deliver social value for local communities through jobs, training and support for local businesses. This ensures that the Lower Thames Crossing will support local businesses, particularly social enterprises, and contribute to the government's target for £1 in every £3 to be spent with small and medium-sized enterprises.

Over the coming years we will continue to work closely with local authorities, the South Essex Local Enterprise Partnership and groups like the British Chambers of Commerce and the Federation of Small Businesses to understand local companies' needs and priorities.

Almost half our workforce will be from within

20 miles

of the project



1000+

businesses are registered to our Supply Chain Directory

Case study: Sharing knowledge with local businesses

To establish a supply chain that prioritises local businesses, we need to give them the tools, knowledge and opportunities to win contracts with us.

This year we reached an important milestone – 1,000 companies signed up to our Supply Chain Directory. This is a list of companies interested in winning work on the Lower Thames Crossing that our

Delivery Partners can use to help build their supply chains.

Our suppliers need to be able to measure and reduce their carbon footprint and we require them to have a plan to reach net zero. This can be challenging for some, especially smaller businesses, so to ensure they are equipped with the right tools, we will be rolling out carbon literacy training to our supply chain.



Case study: Meet the bidder events

It can be daunting for SMEs to try to gain work within a large supply chain, so this year we brought our bidders and local businesses together to build connections and better understand the process.

We held our first two events in Kent and Essex in September 2022, which were attended by 166 businesses. Over 450 one-to-one sessions were held between bidders and local firms. The aim was to encourage suppliers to find out more about the programme and how they can get involved in the future.



Case study: Supply Chain Sustainability School

National Highways has a strong partnership with the Supply Chain Sustainability School (SCSS), a non-profit organisation that helps SMEs and local suppliers bid for work on major infrastructure projects. So far, over 7,850 hours of training have been delivered via the SCSS on behalf of the Lower Thames Crossing.

Earlier this year we signed up to the Brentwood Environmental Business Alliance (BEBA) to help tackle the challenges faced by climate change. BEBA has developed a series of carbon awareness webinars to support businesses on their net zero journey and we've been contributing to these as part of our pledge.

During construction, we will continue to upskill businesses within our supply chain with advice and mentoring through a bespoke supplier support programme.

While not all bidders will be selected to build the Lower Thames Crossing, they will still be involved in delivering other major infrastructure projects across the UK. We've already heard of local suppliers gaining contracts with our potential Delivery Partners outside of the Lower Thames Crossing thanks to these events.

“It's hard for SMEs to get in front of top tier suppliers, so an event like this is really worthwhile to get to meet people that are involved in the decision-making process.”

Warren Muschialli, Managing Director, Newton Waterproofing Systems



Building an inclusive culture

“We will embed principles of equality, diversity and inclusion into all areas of the programme through leadership, collaboration and innovation.” Chris McMahon, Programme Services Director

Over the six years of its construction, the Lower Thames Crossing will provide work for more than 22,000 people. We want to create an inclusive culture to attract and retain a diverse workforce, supporting local employment and reducing inequality for local communities.

Our aim is to be the most inclusive infrastructure programme in the UK and our Equality, Diversity and Inclusion strategy outlines not only our ambitions, but the expectations we have of ourselves and our partners.

Case study: Pilgrims Lane

In the summer of 2022, we opened a new site office in Thurrock. We needed somewhere to meet local stakeholders and affected landowners, as well as a place to hold meaningful conversations with representatives of nearby communities.

This presented an opportunity to create an accessible office that would raise inclusivity standards for future construction sites across the UK.



International Women's Day

Earlier this year, members of the Lower Thames Crossing's Women's Network met with young women from North Kent College and South Essex College of Further Education. They shared their experiences and provided valuable insight on how to overcome potential barriers to a future career in the industry.



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TECHNICAL NOTE

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Job No:
Note No: 1
Date: 4th August 2023
Prepared By: Jonathan Riggall
Subject: Lower Thames Crossing Sustainability Report Review

1. Introduction

The following document provides a review of the Lower Thames Crossing's (LTC) first sustainability report: Lower Thames Crossing Sustainability Report, delivering the UK's greenest road, July 2023.

The review considers both the approach to reporting the sustainability of LTC (i.e. the methodology adopted) as well as the content of the sustainability report alongside the commitments being secured through the Development Consent Order (DCO).

As a stakeholder for National Highways in the planning of LTC, Thurrock Council wish to ensure that the approach to reporting sustainable development is transparent, aligns with the commitments made within the DCO and meets the needs of the communities in Thurrock.

The following review is structured into three parts. The first is a review of the approach taken to reporting sustainability of LTC, the second a review of the evidence within the report and the third a summary of measures that should be considered for future sustainability reporting.

2. LTC Sustainability Report Approach

Reporting on the broad topic of sustainability needs to ensure both integrity and transparency of style and information being presented.

The approach taken to reporting information therefore needs to ensure accuracy, consistency and comparability year on year. For LTC, sustainability reporting also needs to ensure alignment with the commitments made within the DCO, i.e. what is being delivered.

There are a broad range of sustainability reporting guidance documents that have been created to ensure organisations deliver transparency, such as ISO 26000, Global Reporting Initiative, Sustainability Accounting Standards Board (SASB), European Accounting Standards Board (EASB) and BREEAM Infrastructure.

The purpose of such guidance is to ensure that organisations account for all material aspects that drive sustainable outcomes for their investments. Following such guidance avoids organisations selectively choosing environmental and social evidence, which leads to under representation of wider aspects of sustainability reporting and stakeholder needs.

The reporting structure of the LTC Sustainability Report has utilised the titles within United Nations Sustainable Development Goals (UNSDGs) only. There is no explanation to the materiality of these titles in the context of reporting.

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The United Nations alongside the Global Reporting Initiative have developed guidance on how corporations should use the UNSDG's for reporting purposes (Integrating the SDGs into corporate reporting, a practical guide, August 2018). Similar to the materiality assessment requirements of other guidance, the UN's corporate reporting guidance sets the principle for ensuring principled prioritisation of the UNSDGs and the use of the 169 targets that define alignment to the 17 UNSDG Goals.

The LTC Sustainability Report has not presented how it has followed the UN guidance for adopting the UNSDG framework. It is unclear how the principled prioritisation process set within the guidance has refined the 169 targets set by the UNSDGs.

Due to no transparency on the reporting methodology, it is not possible to state that LTC is aligned to the UNSDG's.

2. Evidence within Sustainability Report Evidence

The following section provides a review of the technical aspects presented within the Sustainability Report. This review compares the commitments made to the DCO to appraise consistency and completeness of the messaging provided.

Chapter, page number, reference	Item	Commentary
How we are aligning with the UN Sustainable Development Goals, pages 12-13	Evidence within each SDG	Throughout this section outcomes statements are made which do not define 'how' LTC is aligned to each UN SDG. This is predominantly due to the issue of not evidencing how the prioritisation of sustainability aspects have been derived. In accordance with the UN guidance, prioritisation of SDG targets should incorporate consideration of both potentially negative impacts and positive impacts of a project. The LTC report does not present nor describe the process for this assessment. Without evidence behind how the outcomes represented in this section have materialised it leaves many of the statements open to question as to whether they constitute as sustainable.
How we are aligning with the UN Sustainable Development Goals, pages 12-13	UNSDG 3 a statement is made: "Healthier workforce as a result of working on the Lower Thames Crossing".	No evidence is provided within the report or linked back to the DCO on how the workforce are specifically going to be healthier working on LTC compared to their counterfactual future work. What commitments have been provided within the DCO that meet any target set within UNSDG 3?
How we are aligning with the UN Sustainable Development Goals, pages 12-13	UNSDG 12 Outcomes realised through building LTC Reduced waste	LTC will be a net generator of waste which is inherently not sustainable. The fact that endeavours to reduce the volume of waste are being considered does not make generation of any waste sustainable. Does generating any waste define alignment to UNSDG 12?
How we are aligning with the UN Sustainable	UNSDG 12 Outcomes realised through building LTC	The report (page 32) defines only 1/3 of aggregates will come from recycled content, but states that LTC is aligned with promoting circular economy. That

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Chapter, page number, reference	Item	Commentary
Development Goals, pages 12-13	Promoting circular economy'	would suggest 2/3 of all aggregates for the project will come from virgin resources. Do such ratios justify meeting UNSDG 12? Similarly the report states measures to reuse some waste products, however, this does not account for all waste produced during the project.
How we are aligning with the UN Sustainable Development Goals, pages 12-13	Climate action SDG13 'lowest construction carbon'.	The sustainability reports notes the project is predicted to create 1.8 million tonnes of carbon emissions through construction. It would appear the Sustainability Report is defining the activity of measuring and reducing carbon emissions is sustainable, rather than the potential 1.8 million tonnes of carbon emitted, which could be argued is not a sustainable outcome. How does 1.8 million tonnes of carbon compared with the targets described with UNSDG 13 in order to claim such a figure 'aligns' to it?
How we are aligning with the UN Sustainable Development Goals, pages 12-13	Outcomes realised – Progress against each will be monitored throughout construction and will underpin the longer-term scheme evaluation.	There is no framework or methodology proposed for monitoring and tracking progress towards each SDG target. For example, there is no indication of the frequency of monitoring, the indicators to be used, or how success is defined for each SDG.
How we are aligning with the UN Sustainable Development Goals, pages 12-13	Sustainable Cities and Communities (UNSDG 11) the project will increase access and appeal to active travel.	As a road project designed to accommodate vehicle travel, the outcome will be increasing road transport rather than achieving modal shift. The transport impact assessment of the DCO has not assessed a level of impact from modal shift that could genuinely allow this outcome to be claimed when compared to the increased level of traffic the scheme will attract.
How we are aligning with the UN Sustainable Development Goals, pages 12-19	Identical diagrams across pages 12-19	We are uncertain as to why the same information is presented four slightly different ways?
Delivering the UK's greenest road, page 24-25	Investment	A broad range of investments are provided to support local greening initiatives. How do these investments relate back to the 1 million trees being planted identified in page 6 second paragraph?
Reducing our carbon footprint, page 35, last paragraph	We have also gone to market to buy one of the UK's largest ever purchases of hydrogen, accelerating the construction industry's shift away from fossil fuels	The DCO has not made provision in its design for infrastructure to allow the transportation or storage of hydrogen. It physically has not been planned within the DCO. Within the Statement of Common Ground between National Highways and Thurrock Council, National Highways have stated (SoCG 2.1.268):

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Chapter, page number, reference	Item	Commentary
		<p><i>'There is currently no clear precedent for the implementation of specific carbon neutral construction technologies, e.g. use of hydrogen for fuelling a large plant at a construction site. As such, any delivery of this would have to be delivered collaboratively with the contractor/supplier/regulator, and in this evolving environment, there is insufficient detail to make this part of the DCO application. To achieve this, National Highways would need to know what plant will be available in two to three years' time, the physical requirements necessary and then do a spatial analysis of its construction sites to determine what might be necessary to deliver.'</i></p> <p>There is inconsistency between the statement that National Highways have gone to market to buy one the UK's largest ever purchases of hydrogen and no commitment made within the DCO for hydrogen infrastructure, because National Highways note insufficient detail due to a lack of certainty on plant availability and the physical requirements necessary.</p> <p>It would appear by the very nature of making the largest UK purchase of hydrogen there must be sufficient detail on what, how, where and when it will be used to consider within the Environmental Impact Assessment of the DCO.</p>
Case Study: Our commitment to low-carbon hydrogen Page 37	Making hydrogen available to our delivery partners and taking away uncertainty about availability and price will catalyse supply chain investment and support regional ambitions to develop a hydrogen economy across the Thames Estuary.	The DCO application has not designed in the infrastructure to enable supply of hydrogen to its delivery partners. The DCO has not fulfilled National Highways commitments to physically supplying hydrogen across the project.
Carbon literacy training, page 36	We want to use this project to re-orient the construction sector and as part of this we're helping our workforce become 'carbon literate' with training accredited by the Carbon Literacy Project.	<p>The Carbon and Energy Management Plan (1.1.4, e page 2) of the DCO has only committed to 'silver level' accreditation by the Carbon Literacy Project. This is two levels below the highest standard. Such a level of commitment to carbon literacy is not considered at a level that would determine the highest sustainable outcomes for carbon literacy.</p> <p>The Sustainability Report does not provide any transparency why this lower level of accreditation is</p>

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Chapter, page number, reference	Item	Commentary
		being sought, or offer long term plans to review and enhance going forward.
Reducing our carbon footprint, page 39, bottom left bullet	use only renewable energy sources and reduce and beneficially use our waste	<p>The Carbon and Energy Management Plan Page 11 paragraph 3.5.5 of the DCO only makes the commitment to ensure contractor buy grid electricity with supplementary purchase of renewable energy guarantee of origin certifications. This is not the same as stating 'use on renewable energy sources', which would infer directly connected additional renewable energy generation developed by LTC to meet the additionality requirements to claim reduction in carbon footprint. This is critical when considering the legally binding limit on carbon emissions that has been declared.</p> <p>The statement offers no transparency as the LTC position on how decarbonisation of energy by the project meets the tests of additionality and decarbonisation needs.</p>
Listening to our customers and stakeholders page 55 and 56	Data presentation	<p>There is ambiguity around the presentation of data within the infographics across pages 55 to 56. For example, '17,444 likes, shares and comments' annotated with the traditional 'like' emoji leads the reader to consider this as 17,444 positive attributes.</p> <p>What is the breakdown of the 17,444 counts between likes, shares or comments and how does this figure relate to the 95,000 responses considered?</p> <p>Similarly, '13,310 reactions on our social media posts' annotated with heart emojis would insinuate 13,310 positive reactions. Of these counts how many were positive reactions and if all are positive, how many additional reactions were negative not presented within the infographic.</p> <p>The use of infographics are an important tool in simplifying data for readers. In the process of simplification is important not to lose the integrity behind the evidence base so that all issues are represented. This allows for continual progression to be identified in areas that need improvement rather than hiding or ignoring sustainable aspects that do not contribute to positive narratives.</p>

3. Future Considerations for Sustainability Reporting

Currently, there is no explanation as to the methodology used that has allowed National Highways to concluded alignment to the UNSDG's. This makes the existing report open to subjectivity.

To avoid this LTC need to align the reporting to a recognised international or national reporting methodology. As an example if UNSDGs are being used it would be reasonable to use the UN guidance and methodology. Alternatively industry specific sustainability reporting methodologies, such as SASB or

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BREEAM Infrastructure could be used to ensure that reporting is centred on materiality of relevant sustainability aspects.

This is to ensure reporting is complete, consistent, and accurate on all relevant aspects of sustainability that are relevant to LTC.

The sustainability report should seek to define areas of improvement and present improvement plans that will be part of future reporting requirement. This links to the need of reporting the existing LTC position on all material sustainability aspects, not just a small selective set. This is to ensure completeness and accuracy in reporting on sustainability.

The sustainability report needs to set out the measuring and verification process through which sustainability will be reported in the future to ensure consistency for stakeholders to review.

Any information presented needs to be done so with integrity. Integrity is fulfilled by ensuring transparency across all issues and removing ambiguity in how factual data is presented, especially through the use of infographics. This is to ensure accuracy of information for stakeholders.

4. Summary

The Sustainability Report has not followed any national or independent guidance for framing and reporting sustainability.

Due to the lack of relevant and recognised framework and structure the LTC Sustainability Report does not appear to cover full transparency requirements expected of such a report.

The report also presents evidence and data that may not be consistent with infrastructure planned within DCO.