Cite this article
Sage J (2025)
Thames Tideway Tunnel: delivering an environmental, economic and social legacy.
Proceedings of the Institution of Civil Engineers – Civil Engineering **178(6)**: 136–142,
https://doi.org/10.1680/jcien.25.00020

Research Article
Paper 2500020
Received 30/01/2025
Accepted 16/07/2025

Published with permission by Emerald Publishing Limited under the CC-BY 4.0 license.
(http://creativecommons.org/licenses/by/4.0/)

Civil Engineering

Thames Tideway Tunnel: delivering an environmental, economic and social legacy

John Sage
Tideway, London, UK (john.sage@tideway.london)

The ambition of the Thames Tideway Tunnel project for a sustainable legacy was captured by the company's vision statement to reconnect London with the River Thames. In addition, the project aimed to set new industry standards to raise the bar for projects that would follow. Tideway set out a legacy programme organised under five themes, with 54 measurable commitments and with delivery embedded into its construction contracts. The programme was tracked for its contribution to the UN Sustainable Development Goals and its social value was assessed. This paper describes how wider legacy value, in addition to the core benefit of a cleaner river, was designed into the project. It also outlines how long-term benefits were delivered under key themes to ensure additional benefits for the local environment and for local communities, as well as the project's own people and external partners. It should be read alongside previous specific papers from the Thames Tideway Tunnel project on health, safety and wellbeing legacy and on measuring wider social impact, and the specific paper in this issue on delivering world-class public realm.

Keywords: corporate responsibility; design; environmental engineering; social impact; sustainability; United Nations Sustainable Development Goals

1. Introduction

1.1 Background

When Tideway was set up as a company in 2015 to finance, build and maintain the Thames Tideway Tunnel, it was against a backdrop of success. The Olympic Delivery Authority was still at the peak of its reputation following the London 2012 Olympic and Paralympic Games, and construction of the Crossrail project was showcasing delivery of modern-day rail infrastructure in a world capital. With both these projects came the talent and experience of setting up large-scale infrastructure projects in central London, with ambitious and industry-leading examples of delivering a lasting legacy as well as improved health and safety standards.

It was against these benchmarks that Tideway set out its ambition for the project. Tideway wanted to raise the bar, creating infrastructure that went beyond engineering, and the company set out a vision to deliver a project that not only cleaned up the River Thames, but also shaped a new relationship between London, Londoners and the river. The project's legacy statement (Tideway, 2017) set out objectives under five themes

- environment
- health, safety and wellbeing
- economy
- people
- place.

Within the objectives were 54 individual commitments, each with a measurable target.

This paper looks at how a sustainable legacy has been delivered against the environment, economy and people themes. In this issue, Donnelly *et al*. (2025) reported on how a sustainable legacy was delivered against the place theme. Alder *et al*. (2022) and Tideway's final standalone sustainability report (Tideway, 2024a: pp. 18–25) cover the project's delivery of a health, safety and wellbeing legacy.

1.2 Aligning with the United Nations Sustainability Development Goals (UN SDGs)

The 17 UN SDGs represent an urgent call for action by all countries in a global partnership to provide a shared blueprint for peace and prosperity for people and the planet (UN, 2015). In 2018, Tideway aligned the 54 commitments in its legacy

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

programme to the UN SDGs as part of an academic research project in collaboration with University College London, the Environment Agency and the Institution of Civil Engineers. The project mapped Tideway's legacy activities at an overall goal and individual target level, and this mapping helped describe the project's wider benefits and frame its progress (Figure 1).

The project will make a long-term direct contribution to SDG 6 (Clean water and sanitation) and SDG 11 (Sustainable cities and communities) and, during construction, it made a significant contribution to eight other SDGs: Good health and well-being (SDG 3), Quality education (SDG 4), Gender equality (SDG 5), Decent work and economic growth (SDG 8), Industry, innovation and infrastructure (SDG 9), Responsible consumption and production (SDG 12), Climate action (SDG 13) and Partnerships for the goals (SDG 17). Tideway reported the progress of its legacy programme in its annual reporting, both in absolute terms and in terms of contributions to the UN SDGs, through the relevant goals.

1.3 Measuring the value of Tideway's legacy

The Department for Environment, Food and Rural Affairs benefits case for the tunnel (Defra, 2015) was based on assessing the public's 'willingness to pay' for the environmental benefits of a cleaner river. It showed a benefit range of £7 billion to £13 billion against a £4.1 billion estimated cost in 2014 prices. It concluded: 'The tunnel remains the cheapest solution which addresses these problems and meets the objectives . . . for water quality improvements in the Thames'.

However, wider social legacy benefits were not included in these figures and, in February 2023, Tideway published a social value cost/benefit analysis of its legacy programme (Tideway, 2023a) that showed net benefits of £40.3 million, thus delivering £1.72 of social value for every £1 invested in legacy. The study focused on the benefits delivered above and beyond the legal baseline targets required under Tideway's Development Consent Order (DCO) (HMG, 2014) and other local authority consents, so value associated with these legal minimums was not included. The study took a qualitative as well as quantitative approach, using independently researched case studies where data would not adequately demonstrate the value delivered. A separate paper on the approach to delivering wider social value and the methodology used to measure was published elsewhere (Freelove and Gramatki, 2022).

1.4 Managing the legacy programme

Tideway embedded the legacy programme into its overall approach to delivering the project by including all the key

Figure 1. Example of Tideway's reporting of progress of legacy programme in supporting the project's contribution to the UN SDGs (Tideway, 2024b)

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

commitments into the main works contracts, for example all employment targets, maximising the use of river transport and investing in community partnerships. The contracts also insisted on qualified, competent legacy, skills and employment managers to lead these activities, as well as quarterly (initially monthly) reporting against the targets, with penalties if the reports were not completed properly. The client team also had expert corporate responsibility and sustainability teams that oversaw the legacy programme, working with subject matter experts for each legacy area, with six-monthly reporting to a sub-committee of the main board and an annual sustainability report detailing progress.

2. Environment

This theme captures both the core environmental legacy of the project and the additional benefits for the environment delivered through design and construction – through the 'more by river' strategy, through the design of mechanical and electrical kiosks and raised shafts, and through route optioneering and construction to reduce the project's carbon dioxide footprint.

The requirements for reporting on biodiversity net gain for nationally significant infrastructure projects came in some time after the project was consented and construction began, so Tideway did not set metrics or targets to demonstrate its 'nature positivity'. However, the activities described below, as well as some by Donnelly *et al*. (2025) in this issue, have supported greater biodiversity along the river. Key statistics about, and progress of, these activities have been reported in Tideway's annual sustainability reports.

2.1 Core environmental legacy

Protecting the River Thames from sewage pollution is the core benefit of the project – the tunnel is preventing combined sewage discharges across the tidal river. In addition to improving water quality by intercepting these combined sewage discharges, the tunnel will reduce sewage-derived litter within the river, reduce elevated health risks to river users and help the UK comply with the requirements of the urban waste-water treatment directive (EC, 1991). These four long-term environmental legacy benefits are being tracked as part of Thames Water's benefits realisation report on the project. The first report is expected to be published in Spring 2026.

2.2 The 'more by river' strategy

The project's strategy to maximise use of the river to transport material to and from site, reducing lorry journeys and therefore congestion and safety risks, had a significant environmental benefit. In this issue, Spikesley and Donnelly (2025) detail the benefits in terms of reductions in emissions and particulates, and this paper focuses on the legacy value of this strategy in terms of biodiversity.

Transporting significant quantities of excavated material by barge gave the opportunity for spoil to be moved downstream to support other large environmental projects in the Thames estuary.

A total of 0.45 Mt of material from the west section of the project was used to cap landfill at Rainham and 2.2 Mt from the central section was used to cap ash fields at Tilbury, reducing the risk of environmental pollution from those sites. In addition, a total of 1.4 Mt from the west and east sections of the project were used at a riverside site next to the existing Royal Society for the Protection of Birds nature reserve at Rainham Marshes (Figure 2) to help create new wetlands as part of the largest habitat creation scheme of its kind within the M25, with a total area of 1 million m^2. The new wetlands are already home to a range of species, including lapwing, little ringed plover and red shank.

2.3 Environmental benefits from the design of kiosks and raised shafts

The project's above-ground mechanical and electrical kiosks and raised shafts were designed, where possible, with biodiverse roofs. Almost 900 m^2 of such roofs were installed, about 20% above the amount outlined in the DCO (746 m^2), including extensive biodiverse roofs, extensive sedum green roofs and extensive native wildflower biodiverse green roofs.

The initial aim of these features was to help attenuate rainwater flows – important on a project driven by the need to manage stormwater runoff into the sewage network. As with many nature-based solutions, however, there are also wider environmental benefits – the type of roof and the species planted have been tailored to their location with plants that are attractive to pollinators.

The combined kiosk and vent structure at the Barn Elms site is located in a wooded corner of the playing fields in a Site of Importance for Nature Conservation (Figure 3). The structure was wrapped in gabions, developed with an ecologist, which are configured to promote biodiversity and support plant growth as well as provide habitats for insects, small invertebrates and small mammals. The structure was Highly Commended in the Construction Industry Research and Information Association Big Biodiversity Awards in 2023. In this issue, Donnelly *et al*. (2025) provide more information on how the project's public realm design has supported nature.

2.4 Two-for-one tree planting commitment

Tideway committed that the project would plant two trees for every one displaced during construction, ensuring a long-term benefit to London and recognising the role of green infrastructure and potential benefits for ecology, microclimate and air quality.

Figure 2. New wetlands at Rainham Marshes have been created using excavated material from the east and west sections of the project

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

Figure 3. The combined kiosk and ventilation structure at Barn Elms

This commitment was embedded into main works contracts and the project took further opportunities to deliver tree planting, with two of the main works contractors (MWCs) aiming to plant more than the two-for-one ratio across their areas and Tideway entering a partnership with Trees for Cities – the largest urban tree planting charity in the UK – to plant 102 new and semi-mature trees in the 2017–2018 planting season across five London boroughs.

2.5 Reducing carbon dioxide footprint through route optioneering and during construction

At the planning stage of the project, Thames Water, the company which runs London's sewerage network and which will operate the completed Thames Tideway Tunnel system as part of its network, was the client. At that point, opportunities in line with best practice were taken on a whole-life emissions approach, looking at design opportunities, materials specification, plant, machinery and energy in use of the asset.

An important reduction was achieved by selecting a shorter route from the options that required fewer materials and less embedded carbon dioxide. This design selection saved 199 000 t of carbon dioxide equivalent (CO_2e) through a 19% reduction in materials.

A report on energy and carbon footprint produced by Thames Water for the project's DCO application in 2013 (Thames Water, 2013) estimated a total 'carbon footprint' of approximately 838 000 t CO_2e, with the principal impact being the greenhouse gas emissions arising from the construction of the infrastructure, in particular 'embodied carbon' in the manufacture of materials.

Through the procurement process, the MWCs came forward with design solutions that reduced the forecast carbon footprint to ~770 000 t CO_2e. Tideway set a key legacy commitment of minimising the footprint and reducing this further during construction.

The Science Based Targets Initiative (SBTi, 2025) and PAS 2080 (Carbon management in infrastructure and built environment (BSI, 2023)) came too late for Tideway to use formally. But through a focus on further design opportunities, changing concrete mixes and strong collaboration on best practice, the project's scope 3 (embedded) carbon footprint was reduced by the end of the main construction phase to 553 625 t CO_2e, 28% less than forecast.

A carbon footprint case study published by Tideway outlines how these reductions were achieved (Tideway, 2024b). A few example initiatives are summarised below.

- *Further design opportunities*. The MWC for the central section Flo (a joint venture of Ferrovial Construction and Laing O'Rourke) identified an opportunity to reduce the concrete thickness of the secondary lining of the 12.5 km long central section of the main tunnel, without reducing its effectiveness. Reducing the thickness by 15% produced a 2.5% carbon reduction, saving 7100 t CO_2e.
- *Changing concrete mixes*. Within the environmental statement, it was predicted that concrete mixes would contain a maximum of 25% cement replacement (e.g. pulverised-fuel ash (PFA) or ground granulated blast-furnace slag (GGBS). However, through further investigation, it was possible to achieve up to 75% PFA in the base plugs of the shafts and 25–45% GGBS in the tunnel segments while still meeting the performance specification.
- *Collaboration*. Tideway's annual RightWay Awards recognised the achievements of the MWCs in adopting best practice health, safety and wellbeing and environmental initiatives on site. In 2021 a Carbon Initiative of the Year category was introduced, which called for case studies and evidenced solutions related to carbon reduction efforts. Over 3 years, there were a total of 34 submissions showcasing and sharing best practice.

3. Economy

Improving the water quality of the River Thames will ultimately deliver an economic as well as environmental legacy for London. During construction, Tideway's strong focus on using the river to transport materials and spoil had already begun to deliver a significant economic legacy, based around river skills, training and operator standards. The project also embraced the opportunity to create and share innovations, with the clear economic benefits they will bring.

3.1 River skills, training and operator standards

The project's marine activities more than doubled major freight movements on the Thames from around 12 per day in 2012 to up to 30 per day at the peak of construction in 2019. In order to deliver this increase in a safe and sustainable manner, Tideway needed a major focus on clarifying, raising and policing standards, and investing in training.

Spikesley and Donnelly (2025) in this issue outline how Tideway pulled together all the existing Thames freight standards into a Code of Marine Practice, required its MWCs and their marine sub-contractors to comply with these standards, and employed a team of experienced mariners to inspect their operations and assure that the standards were being met. To ensure that those working on the project had the level of competence and skill required, Tideway also made a major investment in river skills and training.

A digital version of the River Thames was created at the UK Ship Simulation Centre at HR Wallingford in Oxfordshire as part of a new, rigorous crisis management and assessment course that every boatmaster had to undertake prior to starting their role on

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

the Thames Tideway Tunnel project. More than 100 individuals passed the boatmaster course, creating a higher standard of safety competence.

In addition, to support river operators, Tideway collaborated with the Company of Watermen and Lightermen, the Port of London Authority and Transport for London to create the Thames Skills Academy (TSA), a new training body to which Tideway also contributed significant funding.

The TSA has supported Tideway and the wider sector with training and apprenticeship programmes since 2016 (Figure 4). The TSA set up the National Boatmaster Apprenticeship to bring young people to work on the river. Before Tideway, there was an 85% failure rate for those taking boatmaster exams with the Maritime and Coastguard Agency. The £25 000 apprenticeship became the biggest trainer of boatmasters in the UK – and by its fifth year the pass rate of apprentices taking the boatmaster exams was 94%. This has been essential in attracting a young and diverse cohort into the sector. Tideway has helped to fund 70 river apprentices through the TSA.

The TSA also developed the only port-wide continuous professional development (CPD) programme in the UK. For the first time, all masters responsible for a vessel on the tidal Thames have to undertake a minimum level of training every year. The CPD programme, regulated by the Port of London Authority, allows masters and mates to focus on ever higher standards, paving the way for better, safer delivery of infrastructure on or near water. About 70% of Thames operators are now members of the TSA, which represents a significant river skills legacy for the Thames Tideway Tunnel project.

3.2 Innovation

Tideway built on the excellent work of other major infrastructure projects in encouraging and sharing innovations, helping to create an economic springboard for the UK's workforce and companies. The innovation programme encouraged the MWCs to submit proposals for funding from a pot, put forward by the client, to produce innovations that would save time, cost or carbon dioxide, or support project staff (Figure 5). Innovations were shared with industry through the Infrastructure Industry Innovation Partnership (i3P), which Tideway co-founded.

Not all innovations developed and funded through i3P were technical – some were about effective planning, process and project management. One example was 'Dig to Share' – a project that stores and shares data about exploratory boreholes. Previously, information about exploratory boreholes was usually stored in private archives and Dig to Share resulted in Tideway, Crossrail, Heathrow, the Environment Agency and Network Rail sharing their data with the British Geological Survey's database.

Tideway's summary social impact report (Tideway, 2023b: p. 27) includes a case study on how Tideway embedded innovation in the programme.

Figure 4. The TSA supported Tideway's river skills and training legacy

4. People

Tideway endeavoured to create significant opportunities to boost local employment and prosperity within London. The project also focused on increasing workforce diversity, fostering an inclusive culture and supporting those who would benefit from it most, including younger and vulnerable people.

4.1 Local employment

The scale of the project and its route through 14 of London's riparian boroughs offered an opportunity to give a major boost to people in those communities through employment. A target was set (and achieved) to employ a quarter of the project's workforce from one of the 14 boroughs along the tunnel route. The project did not achieve a related target that 20% of workers in the three drive sites (where the tunnel boring machines began their journeys) would live in that site's borough; 13% was achieved. The challenge of this target was that there were multiple instances where a project worker could not be counted against this target

Figure 5. Tideway's innovation programme included a 'Dragons' Den' opportunity for MWCs to pitch for funding from a client-funded innovation fund

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

because, although they were local to the site, they lived on the other side of the borough boundary or the river – a pattern discovered after the target was signed into the DCO.

The social value of these commitments was assessed in the 2023 social impact reports (Tideway, 2023a, 2023b). This was not based on pure economic value (if local targets had not been set, someone would have had the job anyway), but on the wellbeing value of a short commute. Even on this narrower assessment, it showed £2.3 m of social value through local employment.

4.2 Supporting unemployed and vulnerable people, and setting fair pay and conditions

Further targets were set to support local communities through the project's employment policies. There is greater job security by being paid through direct (PAYE) employment and 84% of contractor staff were employed directly, exceeding the target of 75%. The project was accredited as a living wage employer and the target of 100% of staff being paid the London living wage was achieved.

Giving an unemployed person a job can boost their wellbeing and life satisfaction greatly. The target that 10% of staff were previously unemployed was also exceeded, with more than 1000 people previously out of work getting a job on the project. The social impact reports estimated the value of this at £4.8 million.

Tideway also identified people with previous convictions as a group that the project could support through employment. Tideway set a target of employing one person with a conviction for every 100 employees in sustained employment (i.e. for at least 6 months), embedding this within all three of the main works contracts. The project partnered with charities such as Bounce Back and Key4Life to help recruit and then support those who joined through this route, including project staff helping to run workshops in prisons designed to grow the confidence of inmates. The employment target proved challenging – the ratio achieved was 1 in 149 – but the legacy commitment was supported in other meaningful ways, including a legacy fund through the Corbett Network, which supported three community projects helping people with convictions to identify training, find jobs and keep them when they leave prison. The project employed a total of 37 people with convictions, delivering a social value to society of £2.3 million.

4.3 Increasing diversity and tackling inequality

Another key focus was workforce diversity and tackling inequality, creating a more inclusive environment and bringing more women into the industry. Tideway was the first company outside the banking sector to establish a returners' programme; while not exclusively for women, the programme was designed to support people who had taken time out of the workforce to get back into work; 12 women were placed in permanent roles. The innovation programme was intended to produce people as well as project benefits – and it resulted in, for the first time in construction, culturally inclusive personal protective equipment (PPE) being designed, incorporating the hijab and burka. A project health, safety and wellbeing coordinator came up with the designs after encountering difficulties in finding suitable protective clothing to wear on site (Figure 6).

Figure 6. PPE was designed for women who respect the hijab and burka (photo credit: Matthew Joseph)

Tideway partnered with Women into Construction (WiC) to promote women into work placements and jobs on site. WiC engaged with more than 300 women about roles, including traffic marshals, crane operators and site engineers – 41 women completed placements and 37 secured jobs. Tideway set a target of 40% female staff in the client and programme management team, which proved challenging – a 36% ratio was achieved in five separate years – but setting the target reflected leadership in trying to address inequality.

4.4 Building an inclusive culture

To support an inclusive culture Tideway also had an active, employee-led staff network called Encompass, which included a carers network, race equality group, gender group, LGBT+ group and Ability Action. Encompass had a clear mandate to encourage learning, reflection and open dialogue, encouraging and supporting colleagues to 'bring your whole self to work'. A detailed study on Encompass for the project's social impact reports, which included workshops and a company-wide survey, concluded 'Encompass is making a difference'. The vast majority of Tideway staff (91%) said they had seen managers setting a good example and 85% felt respected by their colleagues – both of these scores are higher than industry benchmarks. Tideway achieved external recognition for these efforts. In 2018, Tideway was named one of The Times Top 50 Employers for Women, it was shortlisted at the British LGBT Awards for three successive years and in 2021 was ranked as one of the Top 10 Inclusive Companies in the UK. Tideway's efforts on this agenda were also referenced by the judges of the British Construction Industry Awards 2024, where Tideway was named Project of the Year.

4.5 Apprenticeships

Apprenticeships can have a hugely positive impact and a total of 151 individuals had a sustained apprenticeship with Tideway – a ratio of 1 for every 29 workers, substantially exceeding the 1 in 50 target. Apprenticeships were offered in areas ranging from civil engineering to boatmasters, business administration and digital

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026

engineering. The programme also included the first cohort of tunnelling operative apprentices in the industry, with all MWCs coming together to coordinate a programme, crucially working together on recruitment and to secure buy-in from their specialist labour-only supply chain. There were almost 300 applications for 12 project roles and the training offered supplemented the support available through the specialist employers.

5. Conclusions

The extent of the long-term environmental legacy of the Thames Tideway Tunnel on the river will be clear after the tunnel is fully operational. However, a wider legacy has already been delivered. By focusing on its vision to reconnect London and Londoners with the Thames, it has delivered a long-term river legacy, with: improved skills, training and operator standards; increased biodiversity through project design and beneficial reuse of material; and legacies for public realm and developing infrastructure around or under rivers that are outlined in other papers in this issue. Tideway has also set an example for future major projects to achieve greater equality and inclusivity and to cultivate a strong culture, and has supported local communities through its skills and employment practices. It has measured the social value of these benefits and tracked the project's contribution to the UN SDGs and has been externally recognised for its approach.

Acknowledgements

The author would like to thank all the legacy and environment staff in the client and MWC teams who have contributed to the legacy programme since 2015. In the west section, BMB and its legacy team; in the central section, Flo and its legacy team, and in the east section, CVB and its legacy team. Special thanks for their Client team leadership go to Samantha Freelove, Kelly Bradley, Scott Young, Monica Lobo and Darren White. Also, many thanks to Natalie Wheble for her contribution to this paper.

References

Alder A, Hails S and Vaughan A (2022) Ensuring health, safety and wellbeing on the Thames Tideway Tunnel project. *Proceedings of the Institution of Civil Engineers – Civil Engineering* **175(2)**: 71–78, 10.1680/jcien.21.00186.

BSI (2023) PAS 2080:2023: Carbon management in infrastructure and built environment. BSI, London, UK.

Defra (Department for Environment, Food and Rural Affairs) (2015) Creating a River Thames Fit For Our Future. See https://assets.publishing.service.gov.uk/media/5a7ffc4aed915d74e622bcc4/thames-tideway-tunnel-strategic-economic-case.pdf (accessed 10/09/20025).

Donnelly C, Sawyers B and Sage J (2025) Thames Tideway Tunnel: delivering a place legacy. *Proceedings of the Institution of Civil Engineers – Civil Engineering*, 10.1680/jcien.25.00022.

EC (European Community) (1991) Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment. *Official Journal of the European Communities* **L135/34**. See https://eur-lex.europa.eu/eli/dir/1991/271/oj (accessed 23/07/2025).

Freelove S and Gramatki I (2022) Creating long-term social value on major infrastructure projects. *Proceedings of the Institution of Civil Engineers – Engineering Sustainability* **175(4)**: 186–193, 10.1680/jensu.21.00082.

HMG (Her Majesty's Government) (2014) The Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014. The Stationery Office, London, UK, Statutory Instrument 2014 No. 2384. See https://www.legislation.gov.uk/uksi/2014/2384/contents/made (accessed 26/8/2025).

SBTi (Science Based Targets Initiative) (2025) See https://sciencebasedtargets.org/ (accessed 12/09/2025).

Spikesley J and Donnelly C (2025) Thames Tideway Tunnel: protecting, using and changing the shape of the River Thames. *Proceedings of the Institution of Civil Engineers – Civil Engineering*, 10.1680/jcien.25.00019.

Thames Water (2013) Energy and Carbon Footprint Report. See https://content.tideway.london/media/7326/energy-and-carbon-footprint-report-dco-document.pdf (accessed 10/09/20025).

Tideway (2017) Legacy Statement 2014. See https://www.tideway.london/media/1624/tideway-legacy-brochure_2017.pdf (accessed 10/09/20025).

Tideway (2023a) Social Impact Summary Report. See https://www.tideway.london/media/6093/tideway_impact-report-summary_final_links.pdf (accessed 10/09/20025).

Tideway (2023b) Social Impact Technical Report. See https://www.tideway.london/media/6069/tideway_social-impact-technical-report-1.pdf (accessed 10/09/20025).

Tideway (2024a) Our Approach to Managing and Reducing our Scope 3 (Embedded) Carbon Footprint During Construction. See https://www.tideway.london/media/6855/carbon-case-study.pdf (accessed 10/09/20025).

Tideway (2024b) Sustainability Report. See https://www.tideway.london/media/6900/tideway-sustainability-report_fy23_24_final.pdf (accessed 10/09/20025).

UN (United Nations) (2015) UN Sustainable Development Goals. See https://sdgs.un.org/goals (accessed 10/09/20025).

How can you contribute?

If you would like to comment on this paper, please email up to 200 words to the editor at support@emerald.com.

If you would like to write a paper of 5000 words about your own experience in this or any related area of civil engineering, the editor will be happy to provide any help or advice you need.

Downloaded from http://www.emerald.com/jcien/article-pdf/178/6/136/10331858/jcien.25.00020en.pdf by guest on 08 January 2026