



GREEN BOND REPORT 2018

Bazalgette Tunnel Limited (BTL, trading as Tideway) and its financing subsidiary Bazalgette Finance plc (BFP), published in November 2017 a framework for the issuance of Green Bonds. BFP issued its inaugural Green Bond, which was also its debut public bond, on 30 November 2017 and a further five Green Bonds between December 2017 and May 2018 for a total amount of £775 million. This is Tideway's first annual Green Bond update to investors.

The bond proceeds are used to finance the construction of the Thames Tideway Tunnel (TTT), often referred to as London's super sewer, a major infrastructure project which will tackle sewage pollution in the River Thames. Tunnelling of the 25 km tunnel started in November 2018 and when complete will prevent tens of millions of tonnes of untreated sewage polluting the river each year. Tideway is a 'pure-play' issuer, deriving all its revenues from green assets, i.e. the tunnel currently under construction. Tideway's Green Bond programme contributes to the lasting legacy of reconnecting London with the river Thames.

Tideway's Green Bond Framework is aligned with the four core components of the International Capital Markets Association (ICMA) Green Bond Principles. Accordingly, Tideway undertook to update investors on an annual basis on the allocation of proceeds and impact of the project.

All six bonds were issued by Bazalgette Finance plc, are listed in the London Stock Exchange Green Segment and received a second opinion from S&P Global Ratings, with the top score of E1/95 for the Green Evaluation. Please refer to the table below with details of each bond series.

GREEN BONDS	Series 11	Series 12	Series 13	Series 14	Series 15	Series 16
Issuer	Bazalgette Finance Plc	Bazalgette Finance Plc	Bazalgette Finance Plc	Bazalgette Finance Plc	Bazalgette Finance Plc	Bazalgette Finance Plc
Size £ million	250	200	150	75	50	50
Issue Date	30-Nov-17	01-Dec-18	16-Apr-18	17-May-18	17-May-18	17-May-18
Interest Rate	Fixed	CPI with collar	RPI	CPI	RPI	RPI
Final Maturity Date	29-Nov-27	30-Nov-42	13-Apr-32	16-May-52	16-May-49	16-May-49
ISIN	XS1726309286	XS1726310961	XS1802472891	XS1819532760	XS1821454912	XS1821455216
Listing	LSE	LSE	LSE	LSE	LSE	LSE
Deferred Purchase	No	No	Yes – funding 2022	Yes – funding 2022	Yes – funding 2022	Yes – funding 2023
Second Opinion	S&P Global Ratings Green Evaluation					
APS Allocation £ million	250	200	N/A	N/A	N/A	N/A

Allocation of Proceeds

The proceeds from the two Green Bonds that have funded (series 11 and 12) were on-loaned by BFP to BTL and deposited in BTL's sole operating bank account. The funds were subsequently drawn to fund the design and construction of the tunnel. Whilst in the operating account, the funds were managed by Tideway's Treasury team in accordance with the company's investment management policy that aims to preserve capital and liquidity. Funds were invested in deposits with the Tideway's relationship banks and in liquid money market funds.

Further to the Green Bond Framework, funds were disbursed to pay for Allowable Project Spend, as defined in the licence, which is the cumulative expenditure incurred with the Thames Tideway Tunnel and that constitute the regulatory capital value. The Allowable Project Spend is calculated by Tideway and verified on a monthly basis by Mott McDonald, the Independent Technical Assessor (ITA), appointed in connection with the Liaison Agreement, establishing a Liaison Committee with Tideway, Defra and Thames Water as members and Ofwat and the Environment Agency as observers.

The ITA certified £530.7 million of Allowable Project Spend during the twelve-month period from November 2017 to October 2018, as follows:

Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
£45.5	£70.3	£3.9	£42.1	£91.3	£7.8	£42.2	£42.8	£44.6	£37.7	£63.6	£38.9

Of this amount, £450 million were allocated to the Green Bonds series 11 and 12, issued and funded on 30 November 2017 and 1 December 2017 respectively. The other four Green Bonds issued in the period were issued on a deferred basis and will fund in 2022 and 2023. Please refer to the table above.

Impact Reporting – construction phase

Environmental

The expected environmental and economic benefits of the project remain as per the original development consent order until the tunnel is built and starts operations:

- In a typical year, for 2006 conditions, the tunnel will reduce polluting discharges by circa 16 million cubic metres (avoided and captured for treatment).
- The three components of the London Tideway Improvements work conjunctively to reduce discharges in a typical year by about 37 million cubic metres.

Construction is under way with handover planned for 2024. Tideway has made good progress towards its ambition to safely deliver the TTT at the right quality and to best value. We continue to develop our approach to health, safety and wellbeing and are pleased to report that no life changing injuries have occurred to date. We have mobilised on 20 of our 21 sites (with the final one due to start in 2019), taken delivery of three out of the total six Tunnel Boring Machines and tunnelling operations have now commenced.

Legacy

While the main benefit of the tunnel when built is to prevent pollution and improve biodiversity in the tidal river Thames, during the eight year construction period, the project is addressing several sustainability areas, such as bringing more women into engineering and construction, using the river for transportation of 90 per cent of materials and spoil thereby reducing the number of road vehicle journeys needed, and employing people living in the area affected by the works, also setting targets on employing apprentices and ex-offenders.

Our commitments have evolved into 54 metrics within our Legacy Plan under five themes that capture the range of opportunities created by the project — Environment; Health, Safety and Wellbeing; Economy; People; and Place. We are maintaining a high standard of overall performance against the Legacy commitments, with 37 commitments live across the programme (out of the overall 54 which to be active by the end of the construction phase). Of these, 33 are on track equating to 89 per cent of legacy commitments on or above target against our overall target of 80 per cent. In addition, an independent assessment of the social value of our legacy commitments has shown that the anticipated return on investment for every Tideway pound spent was approximately £3.39.

We have mapped our Legacy commitments against the UN Sustainable Development Goals (SDGs). The Green Bond Framework highlights the SDGs where we expect to make a significant contribution during the construction period, and below is an update on these:



SDG 6 Clean Water & Sanitation

Ensure availability and sustainable management of water and sanitation for all

The London Tideway Improvements projects of which the Thames Tideway Tunnel is the last component will work to reduce the number of discharges from over 50 to 4 or less in a typical year. The Thames Tideway Tunnel will collect sewage before it enters the river, cleaning up the river for future generations of Londoners. This will also help to prevent fish kills and allow the river to sustain a rich, diverse array of wildlife.

Construction of the Thames Tideway Tunnel is under way with handover planned for 2024 and the reduction in number of discharges remains as planned from over 50 to 4 or less in a typical year.

The Zoological Society of London completed a baseline breeding seal survey in July 2018 which was part funded by Tideway. The results showed an increase in the number of harbour seal pups at all sites surveyed when compared with the survey results from 2011. These studies help to improve knowledge and understanding of the river ecosystem, and form part of a wider baseline against which improvements in water quality following construction of the tunnel can be measured.



SDG 11 Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

A modernised sewerage network underpins the capital's general economic prosperity. The economic benefits will be felt across many areas.

A key economic legacy objective is to contribute to the rejuvenation of London's river economy, both recreationally and commercially, supporting the Mayor of

Tideway is creating new areas of public realm to connect the capital's residents and visitors with the river more closely than is currently possible.

By the time the tunnel is built and in operation, we will have created three acres of new public realm along the route of the River Thames at seven different locations. Parts of the new spaces at Victoria and Chelsea Embankments and at King Edward Memorial Park will be 'floodable' at high tides, giving Londoners the first opportunity of its kind to dip their toe in what will be a cleaner River Thames. We will also be opening up sections of the Thames Path currently closed to the public, and making improvements to the existing route where we can.

Tideway's partnership with Thames21, the charity working with communities to improve rivers and canals for people and wildlife, continues to strengthen through the Thames River Watch programme, with 624 people attending 40 clean-up and litter survey events in the period. A new element of the programme was launched in the spring of 2018 with the introduction of Thames

London's environmental and transport strategies.

Quality of life for all in the capital will be enhanced by the increased opportunity for recreational use of the river.

Tideway will create new public spaces realm and connect the capital's residents and visitors with the river more closely than is currently possible.

River Watch 'ambassadors', who carried out surveys at clean-up events to check local people's understanding about, and views on, the Thames and its wildlife. As well as holding regular clean-ups and surveys to support Thames River Watch, Tideway volunteers also supported a related project called In The Drink, funded by Defra, which is collating a report on the policies and practices of riverside pubs and restaurants in relation to single use plastic cups, to try to reduce their usage and therefore the risk of them ending up in the river.

Tideway's second Foreshore Festival took place in September 2018 and was a highly successful event for engaging people in celebrating the River Thames through a series of family-friendly activities including kayaking, fish surveys with the Zoological Society of London and raising awareness of plastic pollution.

We continued our work with Trees for Cities in 2018, which involved the planting of over 100 trees around London with various community groups. The tree planting is part of our legacy commitment to plant at least two trees for every one that has to be removed during our works.

5 GENDER EQUALITY



SDG 5 Gender equality

Achieve gender equality and empower all women and girls

Tideway is working to making the industry attractive to all members of the community, with science, technology, engineering and mathematics (STEM) programmes in schools and colleges, returnship programmes, flexible working and gender specific personal protective equipment.

At the end of quarter 3 – 2018/19, the percentage of female staff at Tideway was 56 per cent. Across the project the workforce is 34 per cent female (Tideway and Jacobs, the Project Manager).

	Project	Tideway
Headcount Female	152	90
per cent Female	34.5%	55.9%

Tideway's education programme is now in its sixth year of operation. We have engaged with schools to encourage the next generation into STEM subjects with over 2463 hours volunteered by Tideway workforce.

In 2018, Tideway received the 'Women Into Construction (WIC) Most Engaged Client Award' for its support of WIC, and willingness to engage in positive action programmes to work towards achieving gender equality.

Tideway was named in The Times Top 50 Employers for Women 2018 with its Chief Executive Officer Andy Mitchell a finalist in the Gender Champion Award category. Tideway were recognised for a number of initiatives including

establishing the first Returner Programme outside the banking industry, specially designed culturally modest Personal Protection Equipment (PPE) and maternity PPE and an employee resource group for gender parity.



SDG 9 Industry, Innovation & Infrastructure

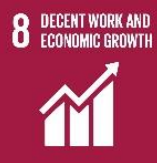
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Tideway is building on the excellent work of other major infrastructure projects and helping to create a springboard for the UK workforce and companies to become world-class. Not only will our innovations be shared with the industry so future projects may benefit, but we have helped create a new web-based forum, the Infrastructure Industry Innovation Platform (i3P), to achieve this goal.

Tideway has invested £576,000 to date in Tideway Innovation Forum invested projects, with the main work contractors match funding £211,000. These investments produced estimated cost savings to date of £1.6m, a return on investment of 2.1:1. Forecast cost savings are £9.1m over the lifetime of the construction stage of the project.

Trials are underway at Herrenknecht in Germany of Tideway's most significant innovation in terms of funding – our Precast Secondary Lining with Lining Erector Machine. If successful, this will deliver £20 million in cost savings and reduce by 50 per cent the need for personnel in the tunnel environment, with positive impact on health and safety.

Tideway continues to share innovation across the industry, through the i3P platform, contributing more than half of new innovations posted in 2017/18 and by working in partnership with the Institute of Civil Engineers, namely with a forthcoming conference to showcase the very best in technical excellence from across the project and looking to see how to build on this for the end of the project, and for the industry beyond the project.



SDG 8 Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

To ensure that the project benefits those living within the vicinity of our sites, we have set a target of 20 per cent of employees to live in the local borough at each drive site; 20 per cent of employees across each main

Tideway employs 22 per cent of the workforce from within the 14 boroughs we are working in, slightly below the 25 per cent target, and 55 per cent of river workers come from London, Kent or Essex – the Tidal Thames area, well above the 30 per cent target. The target of having 20 per cent of employees living in the local area at each drive site is proving challenging, with current performance at 10 per cent versus the 20 per cent target. All three main drive sites are in central London, with two in zone 1 and the third just outside zone 1 and near Canary Wharf, with limited affordable accommodation.

The target of paying the London Living Wage to at least 98 per cent of the workforce on the project is being met and it currently stands at 99 per cent, with the aspiration of reaching 100 per cent.

works contract area (West, Central, East) to live in the local boroughs; 25 per cent of employees to live in the 14 boroughs directly affected by the works; and 30 per cent of river workers to live in Greater London, Kent or Essex. We also require that employees are paid at least the London Living Wage and have set targets for contractors to hire apprentices.

Tideway are exceeding the target on apprentices at 1 in 41 workers, with 53 apprentices currently in positions on the project. Since the project started there has been over 100 apprenticeship opportunities offered on the project. Callum Davis (below) is the 100th apprentice to have started on Tideway.



Quote from Callum: “The workload is tough but at the end of day I’m learning so much and have felt part of the team from day one. You learn from experience workers in all areas and pick up on the knowledge and bring it into the work you do”

To encourage people into employment who have been previously out of work, we have set a number of targets such as 1 in 100 employees should be an ex-offender. We are currently at 1 in 138 and are working closely with various charities and the HM Prison and Probation Service to improve this figure.

Within the workforce, of those that are classified as ‘new starters’ which means that they are newly employed by the companies and not transferred from another project, 31 per cent were previously workless.



SDG 12 Responsible consumption and production

Ensure sustainable consumption and production patterns

Tideway strives to ensure that resources and materials come from responsible sources that do not use modern slavery during their extraction and production. That

At the end of Q3 2018-19 our contractors reported 95 per cent of applicable materials were sourced from certified sustainable sources, such as BES 6001, FSC, PEFC or UK CARES.

In support of the work that we have been doing to ensure that our materials come from certified responsible sources, we became the fourth organisation to be certified to the new Building Research Establishment (BRE) standard - BES 6002 Ethical Labour Sourcing Standard (ELS). The benefit for Tideway is that it provides third party verification for the ethical supply chain practices. There

is why we require all our key building materials to come from independently certified sources that have been assessed under credible schemes such as the BES 6001 or FSC.

To verify our own performance, we have been working with the BRE over the past five years to develop a new BREEAM for Infrastructure scheme which applies a scientific approach to assessing the sustainability performance of our infrastructure.

are currently only seven organisations which have gone through the assessment process of which Tideway was the fourth.



SDG 13 Climate action

Take urgent action to combat climate change and its impacts

As signatories of the Government's Infrastructure Carbon Review, we assess our progress against their maturity matrix and report our performance to the Department of Business, Energy and Industrial Strategy on an annual basis.

Significant savings with regard to capital expenditure related carbon footprint were made during the tunnel route selection process, leading to a reduction of 19 per cent of the 120-year carbon footprint. This resulted in a predicted carbon footprint for the construction phase of 780,000 tonnes co₂e. Our contractors are required to report performance against the predicted baseline on a quarterly basis.

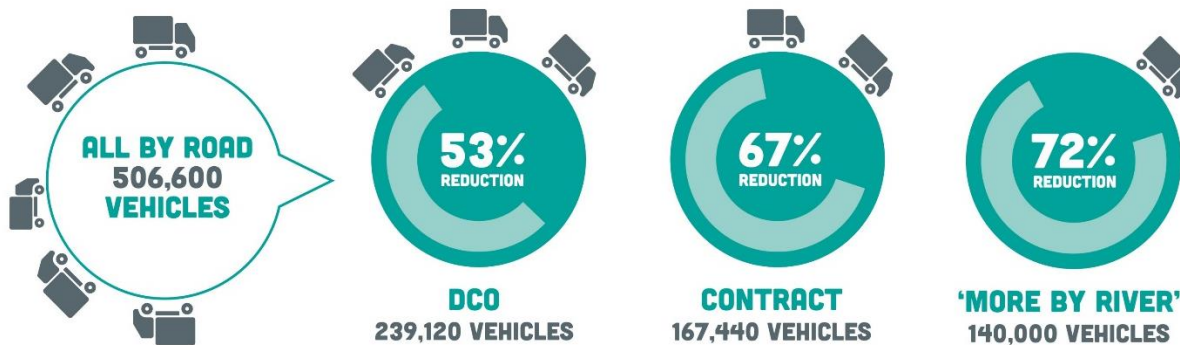
As the majority of the 120-year carbon footprint occurs during the construction phase, we have been working with our supply chain to identify further opportunities for reduction. Some innovative and likely industry leading approaches have been implemented aimed at reducing carbon emissions from non-road mobile machinery (NRMM). These include introducing the worlds' first electric hydrofraise for the construction of the diaphragm wall at Chambers Wharf and the intelligent use of plant telematics on our NRMM plant. Fuel consumed by NRMM plant significantly contributes to the project's carbon footprint and has a detrimental effect on the local air quality around our sites. Telematics is a wireless monitoring system that captures idling times, power bands and fuel burn rates and is widely available within practically all large sized plant. The initiative was introduced in July 2018 and it is expected to result in a fuel saving of around 20per cent and deliver savings across the project of circa £725,000.

Case Study – More by River

Through our ‘Sustainable transport – more by river’ strategy, we are ensuring that we transport as many materials as we can by river, taking lorry movements off London’s roads to limit pollution, congestion and to protect road-users.

The project’s use of river transport is on a scale unprecedented in modern times. We have committed to transport 90 per cent of tunnel spoil—about 4.2 million tonnes—by river. This requires a major modernisation of the fleet of commercial boats operating on the river, and Tideway has been a key partner in a new training centre for river boat operators called the Thames Skills Academy (TSA). The partnership with the Port of London Authority, Transport for London and the Company of Watermen and Lightermen is setting new standards for health and safety training for those working on the river.

The TSA is launching new apprenticeships and training programmes which will help the project's apprentice targets and support our aims for a river skills legacy. Recent developments include: the first maritime engineering apprenticeship available on the Thames; a 'Trailblazer' Master Boat Licence apprenticeship which will launch in 2019; the introduction of a CPD programme for key river workers; the extension of the TSA riverside safety course beyond TSA members; and an annual #CareersOnTheThames event to raise awareness of opportunities. The TSA aims to offer more courses, dates and locations as it works towards gaining Construction Industry Training Board accreditation.



Results to date:

33,500 two-way movements avoided to date

86 per cent less NO2 and 90 per cent less CO2 than HGV equivalent