



# Our Green Bond Framework



# Introduction

We are the UK's largest water and wastewater services provider, serving 15 million customers across the South East of England. As well as being essential to life, our services are vital to the safe and smooth running of London and the Thames Valley. We recognise that the provision of water and wastewater services must be done responsibly and sustainably for the benefit of the environment and future generations - the decisions we make today will endure for many years. Being more sustainable underpins everything we do.

We look after 31,000 km of water pipes and 98 water treatment works, providing 2.6 billion litres of drinking water every day. We manage 109,000 km of sewer pipes and 351 sewage treatment works to safely remove and treat 4.6 billion litres of wastewater every day, before returning it to the environment.

We have agreed 55 performance commitments with our economic regulator Ofwat for 2015-2020. These are designed to deliver what is important to our customers in the most cost effective way. During the first two years of this regulatory period we have invested over £1 billion a year on infrastructure.

# Sustainability

Becoming a more sustainable business is an important consideration for our company, Board and investors and we need to strike a balance between what's best for customers, the environment, local communities and the future provision of our essential services. We are working hard to deliver upon our commitments and promises to customers and the environment, as reported in our [Corporate Responsibility and Sustainability Report](#), as well as our Annual Report and Financial statements, and Annual Performance Report. These reports provide a balanced view of our performance including where we have fallen short of our objectives. They provide details of fines, such as the £19.75 million fine for pollution incidents having occurred between 2012 and 2014, and regulatory rewards and penalties, and the £8.6 million penalty we incurred for failing to meet our agreed annual leakage target for 2016/17.

Under the United Nations Sustainable Development Goals (SDGs) we make a positive contribution to the following:

- Affordable and Clean Energy - we are working to increase the amount of self-generated renewable energy
- Responsible Consumption and Production – we are working to become more efficient, reduce waste and increase how much we recycle and re-use including bio solids to land
- Climate Action – we are working to increase the capacity to respond to the impacts of climate change and also mitigate our contribution to the causes of climate change

In 2016/17 we generated 267GWh of electricity from sewage, enough to power 86,000 homes for a year. Combining this with our other initiatives, one fifth of our energy comes from renewable sources. Following our agreement with Haven Power, 100% of the energy we now use is renewable.

Further, we aim to reduce our greenhouse gas emissions (carbon dioxide equivalent, 'CO2e') associated with running our equipment by 34% by 2020 compared to levels in 1990. As of today we have achieved a 24% reduction, excluding our purchase of renewable electricity.

The full details of our sustainability policy are detailed in [Appendix 1](#).



# Framework

We have developed a framework under which the entity Thames Water Utilities Limited (TWUL) and its subsidiaries can issue Green Bonds.

Our Green Bond Framework (“the Framework”) supports the financing of our water and wastewater recycling projects related to the environmentally sustainable management of natural resources and land use, as well as climate adaptation. We aim to provide transparency, disclosure, integrity and quality in our Green Bond reporting.

We follow the ICMA Green Bond Principles (“Green Bond Principles”), which has four components:

1. Use of proceeds
2. Process for project evaluation and selection
3. Management of proceeds
4. Reporting

## Definitions

“Eligible Green Projects” means sustainable water projects with a reduced climate footprint, wastewater projects with a reduced climate footprint and renewable energy projects.

“Eligible Green Portfolio” means a portfolio of Eligible Green Projects.

“Eligibility Criteria” means the criteria as per section 4. A third party consultant will review the Eligible Green Portfolio and issue a Green Portfolio Opinion based on the Eligibility Criteria.

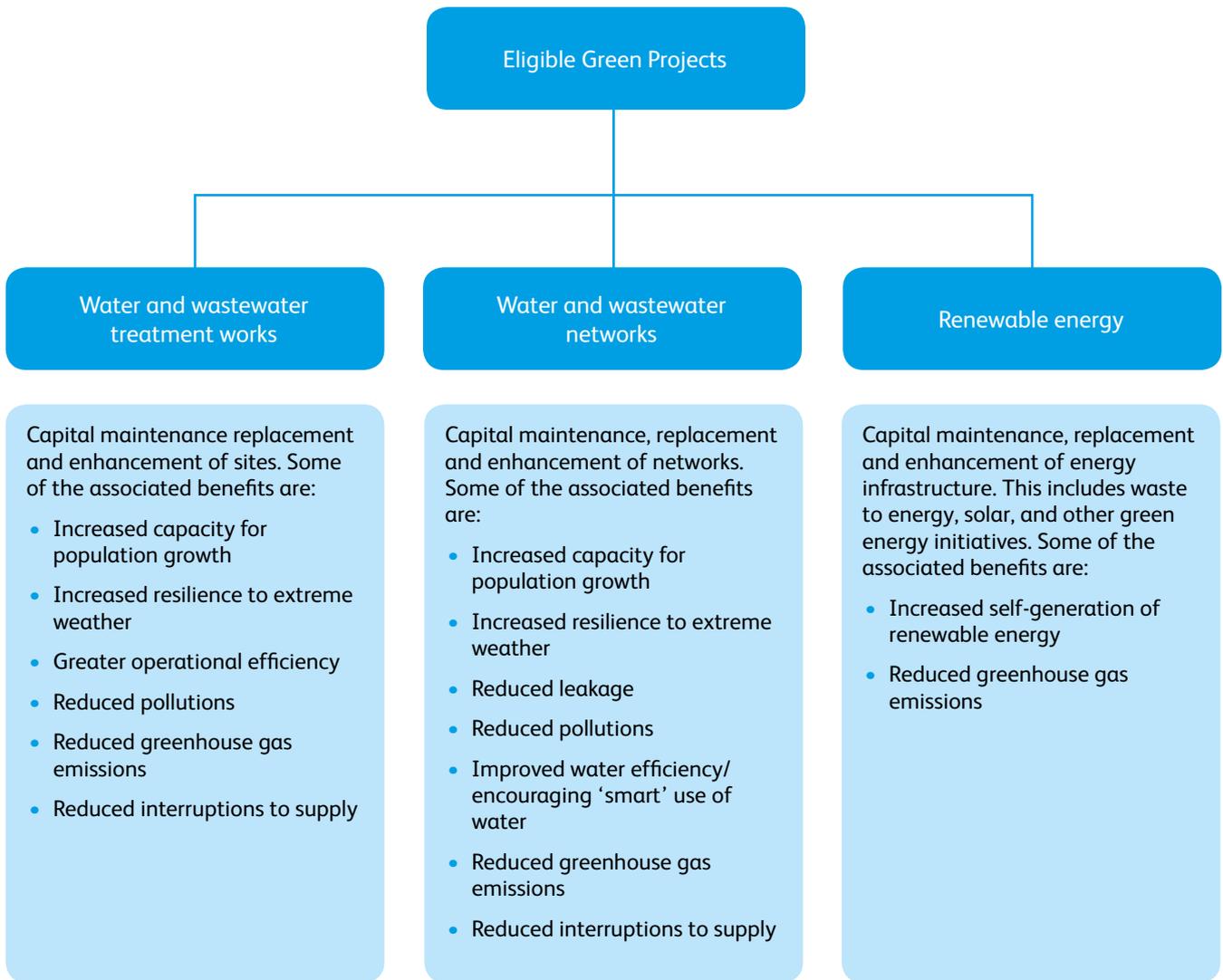


# Use of proceeds

Our projects fall within the following categories from the Green Bond Principles 2017: “sustainable water and wastewater management (including sustainable infrastructure for clean and/or drinking water), wastewater treatment sustainable urban drainage systems and river training and other forms of flooding mitigation” and “renewable energy” (including production, transmission, appliances and products).

We will allocate an amount at least equal to the net proceeds from sales of the Green Bonds to finance, refinance or invest in the Eligible Green Portfolio. This includes projects commenced since the start of the regulatory period beginning April 2015.

All Eligible Green Projects must meet the criteria outlined in one of three categories shown below:



For our inaugural Green Bond we have chosen projects of strategic, social and environmental importance. These are designed to reduce water leakage, encourage customers to use water efficiently, reduce pollutions into rivers and increase our wastewater treatment capacity. Additional details of these projects are described in [Appendix 2](#).

## Process for project evaluation and selection

We have processes in place to ensure strong governance over approval of capital expenditure.

Our Board reviews and approves our annual capital expenditure budget. All capital expenditure requires management approval and the level of management approval is determined through our schedule of delegated authority. This ensures there is appropriate scrutiny over the business case.

Projects are considered based on their relative merits including how they impact our performance commitments, health and safety, the environment and costs.

All decision making is made in line with the five principles underpinning our strategy:

1. Listening to our customers, understanding their needs and putting those needs at the forefront of our decision making
2. Being good custodians of the environment
3. Ensuring that our assets are maintained, renewed and optimised to give the very best 'whole life outcomes'
4. Operating our business with optimal efficiency and innovating continuously
5. Being crystal clear in all our activities, both internal and external, that we are responsible for the service we give our customers and the health and wellbeing of our assets

Eligible Green Projects must meet the Eligibility Criteria. Projects are selected by the Group CFO with input from our Sustainability, Treasury and Corporate Finance teams.

## Management of proceeds

The proceeds arising from the issuance of our Green Bonds will be appropriately managed at all times by our Treasury function, and will ultimately be used to finance, refinance or invest in eligible projects that are in keeping with the Green Bond Principles. Where any proceeds cannot be immediately allocated to finance or refinance these projects, the funds will initially be placed as deposits with Money Market Funds or bank counterparties that comply with our Treasury Policy.

The net proceeds of the Green Bond will be tracked using our internal management reporting process. Our Capital Reporting Team will report on a monthly basis all expense recognised against Eligible Green Projects. As long as the Green Bond is outstanding, the balance of the tracked proceeds will be periodically adjusted to match allocations to eligible Green Projects made during that period by our Treasury team.

Due to the changeable nature of large-scale infrastructure project costs, it will be necessary to provide an over-collateralisation of eligible projects to anticipated proceeds. We will initially use an over-collateralisation of at least 15% to allow for any changes going forward. We believe this is both sufficient and in keeping with similar arrangements seen in the Green Bond market.

While our inaugural Green Bond will only be used to refinance eligible projects that have been completed recently or are in progress, we are keen to look at extending the scope of potential future Green Bonds to include the financing of new Eligible Green Projects.



# Reporting

## Allocation reporting

Allocation reporting will be available to investors within one year from the date of the Green Bond issuance. There will be one report after issuance, as the proceeds will be used for the refinancing of eligible projects, therefore the whole amount raised will be fully used following settlement. Should there be any variance in the initial allocation reporting, such as divestments, we will duly update the allocation report within one year post issuance.

## Impact reporting

We will annually, and until the maturity of the Green Bond issue, provide investors with information within our Annual Report and Financial Statements, and Corporate Responsibility and Sustainability Report regarding the environmental impact of the category of projects.

We measure our performance against 55 performance commitments. Our performance for 2016/17 was reported in June 2017 in our Annual Report and Financial Statements and our Annual Performance Report.

We will report on a range of environmental and social impacts of the investments and expenditures funded with the Green Bonds. They cover all aspects of our service and examples include:

- Maintaining high quality drinking water and reducing interruptions to supply
- Reducing leakage from the network
- Helping customers to become more water 'smart'
- Delivering favourable condition for Sites of Special Scientific Interest
- Improving operational carbon performance
- Increasing renewable electricity generation
- Reducing the number of properties affected by sewer flooding
- Reducing the potential for pollution incidents
- Maintaining our assets such as water treatment works, sewers and pumps
- Delivering sustainable drainage systems
- Improving customer service and satisfaction

We separately publish our annual [Greenhouse Gas \(GHG\) emissions performance](#), as part of our Corporate Responsibility and Sustainability Report (and Annual Report). We have chosen to report 'kg of CO2e per mega litre of service' for water supply and water recycling treated as these are common business metrics for the industry sector.

## External review

We appointed DNV GL to independently verify our Green Bond Framework and underlying assets. DNV GL has reviewed the Framework content and underlying assets and has confirmed its alignment with the Green Bond Principles and claims made by the issuer, providing us and investors with a verification report.

# Appendix 1

We know the decisions we make today need to ensure delivery of our services for our customers for the longer term. We describe how we will do this through our nine sustainability themes below. We cannot do this alone and rely on delivering better outcomes in partnership with customers, stakeholders, alliances, suppliers and regulators.

## **Water as a precious resource**

We will manage the water cycle in the most sustainable way by taking less, losing less, and planning for resilient water resources for the long-term.

## **Providing sustainable drainage**

We will work to ensure our sewerage network is as resilient as possible and will take advantage of opportunities to deliver more sustainable drainage solutions.

## **Mitigating climate change**

We will minimise our carbon footprint associated with energy and fuel use, reduce our consumption of resources and their associated carbon or identifying lower carbon alternatives.

## **Climate change adaptation**

We will understand the potential impact of climate change on our business and customer service and develop resilient responses to minimise this impact.

## **Ensuring responsible operations**

We will operate our sites responsibly whilst respecting our neighbours, local communities and the environment. We will find safe opportunities to make our sites available for community use.

## **Enhancing customer inclusion**

Our customers are at the centre of what we do and we will actively seek to make our services affordable, engage them on what they want and provide fair and transparent charging.

## **Delivering efficient operations**

We will seek to reduce the use of natural resources, minimise waste, deliver efficient and effective operations for both today and the future and work with our supply chain to improve our resilience.

## **Sustainable and safe workforce**

We will work to ensure that we not only provide employment and improved employability of our current workforce but will provide opportunity for future employees of all skills and backgrounds. We want our people to be fit and healthy and return home safely each day and strive to deliver our health and safety commitment of zero incidents, zero harm and zero compromise.

## **Long-term sustainable investment**

We will take a longer-term view of managing the financeability of our business ensuring we remain attractive to both equity and debt investors. We will review and update this policy on a regular basis. We will report regularly on our progress through our Corporate Responsibility and Sustainability Report.

# Appendix 2

## Our inaugural Eligible Green Projects

### Metering

Category: Water and Wastewater networks

Due to an ever-growing population, ensuring that we can match supply of water with demand is key to being sustainable into the future. By fitting water meters we are able to better understand our water network and our customers' usage, which enables us to locate and fix leaks quicker. We have a number of metering programmes in operation including our progressive metering programme and bulk metering programme.

### Deephams sewage treatment works upgrade

Category: Water and Wastewater treatment

We are upgrading an entire sewage treatment works to meet new environmental standards and expected population growth for the area up to 2031. The upgrade will also improve the local environment by delivering significant odour reductions from the sewage works.

Deephams serves approximately 880,000 people and we are committed to minimising disruption, therefore whilst the upgrade works are ongoing we are continuing to operate this site at normal capacity.

### Thames Tideway Tunnel interfacing works

Category: Water and Wastewater networks

The Thames Tideway Tunnel is the biggest infrastructure project ever undertaken by the UK water industry. London's rapid population growth has put increasing strain on existing sewer networks. The 15 mile long tunnel will boost the capacity of London's sewer network and divert millions of tonnes of sewage from the River Thames. An independent company Bazalgette Tunnel Limited was commissioned following a competitive bidding process to construct the Thames Tideway Tunnel. We are responsible for certain interface and connecting works which joins our infrastructure to the Thames Tideway Tunnel.

### Trunk mains replacement

Category: Water and Wastewater networks

We have a network of 3,214km of trunk mains and other assets, with 38% of these trunk mains put in place before 1930. Trunk main bursts can cause a significant impact on our customers, including repeated flooding of homes, damage to businesses, and road closures. We are committed to reducing the risk of trunk main bursts and are investing heavily in:

- Expanding the monitoring of high consequence trunk mains
- Replacing of highest consequence trunk mains
- Gathering information, developing new technology, and building data models on condition and deterioration of trunk mains in order to make a case for further investment in the next regulatory period review.

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