

# THAMES WATER GREEN BOND

## DNV GL ELIGIBILITY ASSESSMENT

### Scope and Objectives

Thames Water Utilities Limited (henceforth referred to as “Thames Water”) is the UK’s largest water and wastewater services provider, serving 15 million customers across the South East of England. Its services are vital to the safe and smooth running of London and the Thames Valley. The provision of water and wastewater services needs to be done responsibly and sustainably for the benefit of the environment and future generations.

Thames Water is intending to issue a Green Bond in excess of £300 million to refinance sustainable water management projects (henceforth referred to as “the Bond”).

DNV GL Business Assurance Services Limited (henceforth referred to as “DNV GL”) has been commissioned by Thames Water to provide a Green Bond eligibility assessment on the Thames Water Green Bond. Our methodology to achieve this is described under ‘Work Undertaken’ below. We were not commissioned to provide independent assurance or other audit activities.

No assurance is provided regarding the financial performance of the Bond, the value of any investments in the Bond, or the long term environmental benefits of the transaction. Our objective has been to provide an assessment that the Bond has met the criteria established on the basis set out below.

### Responsibilities of the Management of Thames Water and DNV GL

The management of Thames Water has provided the information and data used by DNV GL during the delivery of this review. Our statement represents an independent opinion and is intended to inform Thames Water management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by Thames Water. DNV GL is not responsible for any aspect of the projects or assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV GL shall not be held liable if any of the information or data provided by Thames Water management and used as a basis for this assessment were not correct or complete.

### Basis of DNV GL’s opinion

We have adapted our green bond eligibility assessment methodology to create a Thames Water specific Green Bond Eligibility Assessment Protocol (henceforth referred to as “Protocol”) - see Schedule 2. Our Protocol includes a set of suitable criteria that can be used to underpin DNV GL’s opinion.

As per our Protocol, the criteria against which the Bond has been reviewed are grouped under the four Principles:

- **Principle One: Use of Proceeds.** The Use of Proceeds criteria are guided by the requirement that an issuer of a green bond must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental benefits.
- **Principle Two: Process for Project Evaluation and Selection.** The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a green bond should outline the process it follows when determining eligibility of an investment using Green Bond proceeds, and outline any impact objectives it will consider.
- **Principle Three: Management of Proceeds.** The Management of Proceeds criteria are guided by the requirements that a green bond should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.
- **Principle Four: Reporting.** The Reporting criteria are guided by the recommendation that at least annual reporting to the bond investors should be made of the use of bond proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

## Work undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by Thames Water in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation of a Thames Water specific Protocol, adapted to the purpose of the Bond, as described above and in Schedule 2 to this Assessment;
  - Assessment of documentary evidence provided by Thames Water on the Bond and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
  - Discussions with Thames Water management, and review of relevant documentation and evidence related to the criteria of the Protocol;
  - Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.
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## Findings and DNV GL's opinion

DNV GL's findings are listed below:

### 1. Principle One: Use of Proceeds.

For this Bond, Thames Water has chosen to refinance projects of strategic, social and environmental importance. The projects are designed to reduce water leakage, encourage customers to use water efficiently, reduce pollutions into rivers and increase their wastewater treatment capacity. This includes projects commenced since the start of the regulatory period beginning April 2015. The Thames Water Green Bond Framework presents the criteria used to define the appropriate use of proceeds. Thames Water intends to use the proceeds to refinance the projects presented in Schedule 1.

DNV GL concludes that the projects presented in Schedule 1 fall within the defined category of 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) of the Green Bond Principles 2017 and within the criteria set out in the Thames Water Green Bond Framework defining them as Eligible Green Projects.

### 2. Principle Two: Process for Project Evaluation and Selection.

DNV GL can confirm Thames Water's annual capital expenditure budget is reviewed and approved by Thames Water's Board in line with their governance processes. All decision making by the Board is made in line with five principles including listening to customers, being custodians of the environment, ensuring assets are maintained, renewed and optimised, operating efficiently and innovating continuously and responsibility for services and assets – as set out in the Thames Water Green Bond Framework.

The key merits of projects to be considered as Eligible Green Bond Projects include how they impact Thames Water's performance commitments, health and safety, environment and costs. The projects also need to be classified as either water and wastewater treatment works, water and wastewater networks or renewable energy project types in line with the Thames Water's Green Bond Framework.

DNV GL has reviewed the evidence and can confirm that the Eligible Green Projects and decision process for project selection meets the eligibility criteria defined by Thames Water in the Bond documentation. Thames Water has defined the process by which it will allocate funds to Eligible Green Projects and described the key merits used as well as the governance level responsible for selecting projects.

### 3. Principle Three: Management of Proceeds.

DNV GL has reviewed evidence showing how the Treasury function at Thames Water will appropriately manage the Green Bonds on a portfolio approach from the issuance of the Bond through to allocation to the Eligible Green Projects. The net proceeds of the Green Bond will be tracked using internal management reporting process with the Capital Reporting Team reporting on a monthly basis. 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. Where proceeds cannot be immediately allocated to the Eligible Green Projects, the funds will initially be placed as deposits with Money Market Funds or bank counterparties that comply with Thames Water's Treasury

Policy. DNV GL can confirm Thames Water has committed to maintain an over-collateralisation of at least 15% to account for the changeable nature of large scale infrastructure projects.

DNV GL can confirm that the management of proceeds will be tracked in an appropriate manner and attested to by a formal internal process.

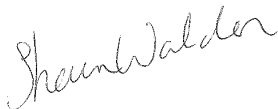
#### 4. Principle Four: Reporting.

DNV GL can confirm Thames Water has committed annually, until the maturity of the Bond, to provide investors with information on the environmental impact of the category of projects in their Annual Report and Financial Statements, and/or their Corporate Responsibility and Sustainability Report. Thames Water have committed to reporting a range of environmental and social impacts of the investments which are presented in the Thames Water Green Bond Framework and listed in Schedule 2 (4. Reporting) of this opinion.

On the basis of the information provided by Thames Water and the work undertaken, it is DNV GL's opinion that the Bond meets the criteria established in the Protocol and that it is aligned with the stated definition of green bonds within the Green Bond Principles.

#### for DNV GL Business Assurance Services UK Limited

London, 8<sup>th</sup> January 2018



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#### About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

## 1 SCHEDULE 1: DESCRIPTION OF CATEGORIES/ASSETS TO BE FINANCED THROUGH THE BOND

Eligible Green Categories Defined by the Thames Water Green Bond Framework	Projects funded by the Bond
<p><b>Water and wastewater treatment</b></p>	<ul style="list-style-type: none"> <li>• Deepham’s sewage treatment works upgrade</li> </ul>
<p><b>Water and wastewater networks</b></p>	<ul style="list-style-type: none"> <li>• Metering</li> <li>• Thames Tideway Tunnel interfacing works</li> <li>• Trunk mains replacement</li> </ul>
<p><b><i>Renewable energy projects</i></b></p>	<ul style="list-style-type: none"> <li>• <i>Not applicable for this Bond.</i></li> </ul>

## SCHEDULE 2: THAMES WATER-SPECIFIC GREEN BOND ELIGIBILITY ASSESSMENT PROTOCOL

### 1. Use of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
1a	Type of bond	<p>The bond must fall in one of the following categories, as defined by the Green Bond Principles:</p> <ul style="list-style-type: none"> <li>• Standard Green Use of Proceeds Bond</li> <li>• Green Revenue Bond</li> <li>• Green Project Bond</li> <li>• Green Securitized Bond</li> </ul>	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Term Sheet</li> <li>• Thames Water Green Bond Framework, January 2018</li> </ul>	<p>DNV GL can confirm that the Thames Water Green Bond falls within the category of a Standard Green Use of Proceeds Bond.</p>
1b	Green Project Categories	<p>The cornerstone of a Green Bond is the utilization of the proceeds of the bond for Green Projects, which should be appropriately described in the legal documentation for the security.</p>	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Term Sheet</li> <li>• Thames Water Green Bond Framework, January 2018</li> <li>• Green Bond Investor Roadshow Presentation</li> <li>• Green Bond Project Support</li> </ul>	<p>DNV GL concludes that the Bond documentation confirms the utilisation of proceeds is appropriately described.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
1c	Environmental benefits	All designated Green Projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer.	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Term Sheet</li> <li>• Thames Water Green Bond Framework, January 2018.</li> <li>• Green Bond Project Support</li> </ul>	The evidence reviewed gives DNV GL the opinion that the designated Green Projects provide clear environmentally sustainable benefits.
1d	Refinancing share	In the event that all or a proportion of the proceeds are or may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. re-financing, and where appropriate, also clarify which investments or project portfolios may be refinanced, and, to extent relevant, the expected look-back period for refinanced Projects.	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Framework, January 2018</li> <li>• Green Bond Project Support</li> </ul>	DNV GL can confirm Thames Water has committed to maintain at least a 15% buffer of investments and expenditures over green funding.

2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
2a	Investment-decision process	<p>The issuer of a Green Bond should outline the decision-making process it follows to determine the eligibility of projects using Green Bond proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> <li>• The environmental sustainability objectives</li> <li>• The process by which the issuer determines how the Projects fit within the eligible Green Projects categories identified in the Green Bond Principles;</li> <li>• The related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks associated with the Projects.</li> </ul>	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Term Sheet</li> <li>• Thames Water Green Bond Framework, January 2018</li> <li>• Green Bond Project Support</li> </ul>	<p>DNV GL has reviewed the evidence and can confirm that Thames Water has defined the process by which it will allocate funds to Eligible Green Projects and described the key merits used as well as the governance level responsible for selecting projects.</p>



Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
2b	Issuer’s environmental and social and governance framework	In addition to information disclosed by an issuer on its Green Bond process, criteria and assurances, Green Bond investors may also take into consideration the quality of the issuer’s overall framework and performance regarding environmental sustainability.	In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.  Evidence reviewed: <ul style="list-style-type: none"> <li>Thames Water Sustainability-policy</li> <li>Corporate responsibility &amp; sustainability report 2016/17</li> </ul>	We conclude that, from the information provided, the Bond is in line with how Thames Water is managing environmental sustainability. Thames Water’s documentation reflects this.

**3. Management of proceeds**

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
3a	Tracking procedure	The net proceeds of the Green Bond, or an amount equal to these net proceeds, should be credited to a sub-account, moved to a sub- portfolio or otherwise tracked by the Issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the Issuer’s lending and investment operations for Green Projects.	In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.  Evidence reviewed: <ul style="list-style-type: none"> <li>Thames Water Green Bond Term Sheet</li> <li>Thames Water Green Bond Framework, January 2018</li> </ul>	DNV GL found that the Thames Water Green Bond will be tracked in an appropriate manner and attested to by a formal internal process.

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
3b	Tracking procedure	So long as the Green Bond is outstanding, the balance of the tracked proceeds should be periodically adjusted to match allocations to eligible Green Projects made during that period.	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>Thames Water Green Bond Term Sheet</li> <li>Thames Water Green Bond Framework, January 2018</li> </ul>	DNV GL concludes that there is a clear process in place for the tracking of the balance taking into account disbursements.
3c	Temporary holdings	Pending such investments or disbursements to eligible Green Projects, the issuer should make known to investors the intended types of temporary placement for the balance of unallocated proceeds.	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>Thames Water Green Bond Term Sheet</li> <li>Thames Water Green Bond Framework, January 2018</li> </ul>	DNV GL conclude that Thames Water has made clear how it will manage any unallocated proceeds.
3d	Over-collateralisation	n/a	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>Thames Water Green Bond Term Sheet</li> <li>Thames Water Green Bond Framework, January 2018</li> <li>Green Bond Project Support</li> </ul>	DNV GL conclude that the Thames Water Green Bond has collateralisation that exceeds the value of the bond by at least 15%.

4. Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
4a	Periodical reporting	<p>In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and as necessary thereafter in the event of material developments. This should include a list of the Projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories).</p>	<p>In addition to reviewing the evidence below, we had several detailed discussions with Thames Water.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> <li>• Thames Water Green Bond Term Sheet</li> <li>• Thames Water Green Bond Framework, January 2018</li> </ul>	<p>DNV GL can confirm Thames Water has committed annually, until the maturity of the Bond, to provide investors with information on the environmental impact of the category of projects in their Annual Report and Financial Statements, and/or Corporate Responsibility and Sustainability Report. Reporting examples include:</p> <ul style="list-style-type: none"> <li>• Maintaining high quality drinking water and reducing interruptions to supply</li> <li>• Reducing leakage from the network</li> <li>• Helping customers to become more water 'smart'</li> <li>• Delivering favourable condition for Sites of Special Scientific Interest</li> <li>• Improving operational carbon performance</li> <li>• Increasing renewable electricity generation</li> <li>• Reducing the number of properties affected by sewer flooding</li> <li>• Reducing the potential for pollution incidents</li> <li>• Maintaining our assets such as water treatment works, sewers and pumps</li> <li>• Delivering sustainable urban drainage systems</li> <li>• Improving customer service and satisfaction</li> </ul>