THAMES WATER’S TRADING AND PROCUREMENT CODE

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# Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstraction</td>
<td>The licensed removal of water from the natural environment</td>
</tr>
<tr>
<td>Abstraction Licence</td>
<td>The licence required to remove water from the natural environment</td>
</tr>
<tr>
<td>Consumer Council for Water</td>
<td>A statutory consumer body for water and wastewater consumers in England and Wales</td>
</tr>
<tr>
<td>Defra</td>
<td>Department of Environment, Food and Rural Affairs, the UK Government department with responsibility for the water sector</td>
</tr>
<tr>
<td>Deployable Output (DO)</td>
<td>The output of a commissioned water source, group of sources or bulk supply as constrained by:</td>
</tr>
<tr>
<td></td>
<td>- abstraction licence, if applicable;</td>
</tr>
<tr>
<td></td>
<td>- environment;</td>
</tr>
<tr>
<td></td>
<td>- treatment;</td>
</tr>
<tr>
<td></td>
<td>- raw water mains and/or aquifers;</td>
</tr>
<tr>
<td></td>
<td>- pumping plant and/or well/aquifer properties;</td>
</tr>
<tr>
<td></td>
<td>- transfer and/or output main; and</td>
</tr>
<tr>
<td></td>
<td>- water quality</td>
</tr>
<tr>
<td>Drought</td>
<td>A prolonged period of abnormally low rainfall, leading to a shortage of water. In the United Kingdom this is defined as 15 consecutive days with daily precipitation totals of less than 0.2mm</td>
</tr>
<tr>
<td>Environment Agency</td>
<td>Regulator for the natural environment in England</td>
</tr>
<tr>
<td>Natural England</td>
<td>The UK Government's adviser for the natural environment in England</td>
</tr>
<tr>
<td>Ofwat</td>
<td>Economic regulator for the water sector in England and Wales</td>
</tr>
<tr>
<td>Price controls</td>
<td>The limits set by Ofwat on the charges that appointed companies can make for their services</td>
</tr>
<tr>
<td>RBMP</td>
<td>River Basin Management Plan is the Environment Agency’s plan for managing the water resources in a river basin</td>
</tr>
<tr>
<td>River Basin</td>
<td>The land area draining into a river</td>
</tr>
<tr>
<td>Sustainability Reduction or SR</td>
<td>Reductions in licensed abstraction that are required by the Environment Agency to provide environmental improvements</td>
</tr>
<tr>
<td>SWA</td>
<td>The water resource zone covering Slough, Wycombe and Aylesbury</td>
</tr>
<tr>
<td>SWOX</td>
<td>The water resource zone covering Swindon and Oxfordshire</td>
</tr>
<tr>
<td>Thames Valley</td>
<td>The collective name we give to the water resource zones outside London</td>
</tr>
<tr>
<td>Thames Water</td>
<td>Thames Water Utilities Limited, the statutory water and wastewater company responsible for the public water supply and wastewater networks in Greater London and the Thames Valley.</td>
</tr>
<tr>
<td>Water trade</td>
<td>An agreement between two companies to transfer water between them</td>
</tr>
</tbody>
</table>
WRMP  The Water Resources Management Plan is a water company’s long term plan for managing its supply demand balance.

WRZ  A water resource zone is the largest possible zone in which all water resources, excluding external transfers, can be shared. Hence it is the zone in which all customers experience the same risk of supply failure from a resource shortfall.

Water Supply Licensing or WSL  The competitive market provisions for water supplies introduced by the Water Act 2003.

Water Supply and Sewerage Licensing or WSSL  The competitive market provisions for water and sewerage services, introduced by the Water Act 2003 and expanded by the Water Act 2014.
1. INTRODUCTION

This is Thames Water’s Trading and Procurement Code (“Code”). It sets out the policies, principles and requirements that will apply when appointed water companies and third parties trade with Thames Water.

1.1 Why do we issue a Code?

Thames Water Utilities Limited (“Thames Water”) is, in principle, willing to trade with any party that either wishes to take from us, or offer to us, a reasonable volume of reliable, sustainable and cost-effective water resources.

The Water Services Regulation Authority (“Ofwat”) wants to encourage greater water trading between appointed water companies, to benefit customers and promote better, more sustainable use of the natural environment. Although many companies (including Thames Water) already trade water, Ofwat has introduced a financial incentive to encourage companies to consider more trading.

Ofwat is keen to make sure companies trade only where it is environmentally and economically sensible to do so. It wants to regulate trades to guard against abuses of market power. Therefore, if a company wants to apply for the trading incentive, it needs to have and comply with a Trading and Procurement Code that has been approved by Ofwat. Ofwat believes this is an appropriate level of ex-ante regulation, which is more proportionate and less intrusive than Ofwat needing to be involved in approving the individual trades that a company will undertake.

1.2 Using the Code

Thames Water will keep its Ofwat-approved Code up to date and publicly available, via its website.

This Code should be read in conjunction with Thames Water’s Network Access Code, which sets out in detail the operational and commercial arrangements that govern applications for use of, and supply from, Thames Water’s supply system for the purposes of competition under the WSL provisions. Where Thames Water seeks to export water, it will base these trades on its Access Code. The latest version of the Access Code is available on the Thames Water website.

1.3 Understanding this document

This document is structured as follows:

- Section 1 introduces the Code;
- Section 2 describes Thames Water, its regulatory framework, its water resources position, its approach to water trading (including current water trades) and the challenges it faces in supplying its customers;
• Section 3 sets out the key principles for water trades; and
• Section 4 lists useful reference material.

1.4 Contact details

Any queries in relation to this Trading and Procurement Code, Thames Water’s Water Resources Management Plan (“WRMP”) or in relation to water trading generally should be directed to:

Mr Chris Lambert
Supply Demand Senior Technical Adviser
Strategy, Planning and Assurance, Wholesale Water, Thames Water
Clearwater Court, Second Floor East, Vastern Road, Reading, Berks RG1 8DB.

Tel: 02035 770213
Mob: 07747 640213
Email: chris.lambert@thameswater.co.uk
2. THE CONTEXT FOR WATER TRADING

This section describes the context for water trading. It provides details of Thames Water, the regulatory framework in which it operates and its water resources position. It also sets out current and future water trading arrangements and the challenges facing the company to keep serving its customers.

2.1 Thames Water

Thames Water is a statutory water and wastewater company. It is responsible for the public water supply and wastewater networks in Greater London and the Thames Valley. It is the largest water and wastewater company in the UK. Every day it treats and supplies 9.5 million customers with treated drinking water, and removes and treats wastewater from 14.9 million customers.

Thames Water operates across a water supply area of more than 8,000 square km. It shares borders with 9 other appointed companies: Southern Water, Anglian Water, Bristol Water, Northumbrian Water (Essex and Suffolk), Wessex Water, South East Water, Severn Trent, Sutton and East Surrey Water and Affinity Water. Our water and wastewater supply areas are shown in Figure 1 below.

Figure 1 Water and Wastewater Supply Areas

Source: Thames Water
2.2 Regulatory framework

Thames Water operates under a comprehensive framework of statutory and regulatory obligations. These are set out in UK and EU legislation, including the Water Industry Act 1991 (as amended by the Water Act 2003 and Water Act 2014), the Competition Act 1998 and the European Habitats Directive and Water Framework Directive. These obligations set the boundaries for the way we serve our customers, specifying environmental and economic standards which we must meet.

Thames Water is regulated by the Water Services Regulation Authority (“Ofwat”), the Environment Agency and the Drinking Water Inspectorate (“DWI”).

- Ofwat is the economic regulator for all appointed water and wastewater companies and water-only companies in England and Wales. It sets limits on the charges that these companies can make for their services (“price controls”). Ofwat sets price controls in a process known as the Periodic Review (or “PR”). Controls were set in December 2014 (“PR14”) for the period April 2015 to March 2020.

- The Environment Agency seeks to maintain and improve the quality of ‘raw’ water in England and Wales, and is responsible for issuing water companies with abstraction licences and discharge consents. The Environment Agency is concerned with the quality of fresh surface and underground water, marine and estuarial waters, and strives to prevent/reduce the threat of water contamination.

- The DWI regulates all appointed water companies in England and Wales. It acts on behalf of the Secretary of State for the Department of Environment, Food and Rural Affairs (“Defra”) and the National Assembly for Wales. Its role is to assess the wholesomeness of water supplies. It also undertakes technical audits of water suppliers to examine all aspects of water quality, treatment and monitoring. In addition, the DWI requires each water supplier to submit quality data on a monthly basis for scrutiny. Where necessary, the DWI can require a company to implement schemes to improve water quality, and will monitor their progress.

2.3 Water resources

Thames Water’s area of operation sits almost entirely within the Thames River Basin District, shown below by Figure 2 below. It encompasses 10% of the land area of England and Wales and 25% of the population. The Thames Basin is the largest river basin in the South East of England, comprising chalk streams, aquifers, salt marshes and estuarine and coastal waters. It is mainly rural in the west and urban in the east. Almost half of the water bodies in the District have been artificially modified, which can cause sediment build up in surface waters, loss of habitat and change natural flows\(^1\). Thames Water is committed to playing its part, along with a host of

\(^1\) Environment Agency, Proposed update to the Thames River Basin Management Plan, October 2015, section 1.4, page 11
other organisations and interested stakeholders, in maintaining and improving the aquatic environment.

The average rainfall for the Thames catchment is 690mm in a year, substantially less than the average for England and Wales, 897mm. Of the rain that falls, about two thirds is either lost to evaporation or transpired by growing vegetation. Of the remaining ‘effective’ rainfall, approximately 55% is abstracted for use, making it one of the most intensively used water resource systems in the UK\(^2\). Of all the water abstracted, 82% is for public supply. Below-average rainfall and above-average water use means water demand is a high proportion of effective rainfall. Therefore, the catchment, as well as the wider South East region, is deemed to be under “serious water stress”\(^3\).

**Figure 2 Thames River Basin**

![Figure 2 Thames River Basin](https://example.com/figure2)

*Source: Environment Agency\(^4\)*

Thames Water manages its water supply area on the basis of six water resource zones (“WRZ”). These are areas within which all water resources can be shared and therefore customers experience the same level of service (and bear the same risk of

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\(^2\) Environment Agency, Thames Catchment Abstraction Management Strategy, May 2014, section 2, page 8

\(^3\) Environment Agency and Natural Resources Wales, Water stressed areas – final classification, July 2013, table 1, page 7

supply failure). They are defined by the major towns and cities, the main points where Thames pumps water from rivers or boreholes, and the major water mains.

The largest of these is London, which covers the Greater London area, followed by Swindon and Oxfordshire (“SWOX”). The water resources for both of these zones are largely based on abstraction from the River Thames, which is stored in reservoirs. The other zones to the west of London are Kennet Valley (includes Reading and Newbury); Henley; Guildford and Slough/Wycombe/Aylesbury (“SWA”). These latter four zones are largely reliant on groundwater abstraction although there are significant abstractions directly from local rivers, notably the River Kennet in Reading and the River Wey near Guildford.

Our WRZs are shown below in Figure 3. The WRZs outside London are referred to collectively as the “Thames Valley”.

Figure 3 Water Resource Zones (WRZ) in the Thames Water Supply Area

Thames Water takes its supplies from surface water (rivers and their supporting reservoirs) and from groundwater (aquifers). At times of drought it can also use its desalination plant at Beckton to treat brackish water from the Thames estuary and turn it into drinking water.

The proportion of surface water and groundwater used in supply is quite different between the London zone and the Thames Valley area, as follows:
- London: 80% from surface waters of the River Thames and the River Lee, via reservoirs, and 20% from groundwater; and
- Thames Valley: 40% from surface waters and 60% from groundwater.
- During periods of drought, the Thames Gateway Water Treatment Works at Beckton is able to treat brackish water from the Thames estuary to drinking water standards and put into supply in North East London.

Overall, Thames Water takes more than three quarters (77%) of its existing supply from surface water (rivers) and about a quarter (23%) from groundwater (aquifers).

The sources of water in our supply area are shown in Figure 4, below.

**Figure 4 Water Resources in the Thames catchment**

To understand if we have sufficient water to meet our customers’ needs, we compare the demand for water with the available supply, taking account of the uncertainties in the forecasts. This assessment produces the “supply demand balances” for each WRZ which show if there is sufficient water to meet customers’ needs or if there is a deficit. The supply demand balances across our supply area are shown in Table 1 below.
Table 1 Forecast supply demand balance (Ml/d) for Thames Water WRZs

<table>
<thead>
<tr>
<th>Water resource zone</th>
<th>2011</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>18.80</td>
<td>(59.40)</td>
<td>(132.70)</td>
<td>(213.10)</td>
<td>(291.70)</td>
<td>(361.10)</td>
<td>(415.90)</td>
</tr>
<tr>
<td>Swindon &amp; Oxfordshire</td>
<td>37.34</td>
<td>27.08</td>
<td>(0.14)</td>
<td>(12.05)</td>
<td>(21.30)</td>
<td>(26.70)</td>
<td>(32.66)</td>
</tr>
<tr>
<td>Slough, Wycombe and Aylesbury</td>
<td>21.74</td>
<td>11.57</td>
<td>7.93</td>
<td>4.89</td>
<td>0.77</td>
<td>(2.60)</td>
<td>(6.09)</td>
</tr>
<tr>
<td>Guildford</td>
<td>6.58</td>
<td>0.85</td>
<td>0.06</td>
<td>(1.14)</td>
<td>(2.14)</td>
<td>(2.85)</td>
<td>(3.80)</td>
</tr>
<tr>
<td>Henley</td>
<td>5.32</td>
<td>5.14</td>
<td>4.76</td>
<td>4.31</td>
<td>3.80</td>
<td>3.26</td>
<td>2.67</td>
</tr>
<tr>
<td>Kennet Valley</td>
<td>41.25</td>
<td>26.05</td>
<td>21.68</td>
<td>16.38</td>
<td>11.41</td>
<td>7.84</td>
<td>5.49</td>
</tr>
</tbody>
</table>

*Note: deficits are in parentheses (x.x)*
*Source: Thames Water's Water Resources Management Plan 2014*

### 2.4 Water trading

Thames Water supports the use of water trading, where beneficial to do so, as one tool within a suite of tools to manage supplies and protect the natural environment. Water trading is one way to use existing resources more efficiently, by allowing the transfer of water from areas with plenty of water to areas of water scarcity, thus benefitting the environment. Trading also helps to reduce the costs and increase the resilience of water supplies.

Water transfers are not a new phenomenon. Many appointed companies, including Thames Water, use exports and imports as part of the overall management of their supply demand balance. Some of the earliest transfers date back to the 19th century and were used to support rapid growth in industrial cities including Birmingham and Liverpool. Sometimes companies collaborate to build resources that benefit them both.

We have 20 bulk supply agreements with neighbouring water companies, both for the export and import of raw and treated water. The current volumes range from 0.1 Ml/d to 91.2 Ml/d (average). These can be for temporary support in an emergency situation, or as a permanently available supply. Water imports vary from 0.1 Ml/d to 20 Ml/d and exports vary from 0.2 Ml/d to 91.2 Ml/d – Thames Water is a net exporter of water, by volume. We also have 15 bulk export agreements with new appointees, to supply specific sites.

Thames Water also works closely with its neighbouring appointed water companies as part of the Water Resources in the South East Group ("WRSE"). The WRSE is an alliance of six South East England appointed water companies, the Environment Agency, Ofwat, Consumer Council for Water, Natural England, DWI and Defra. It aims to work together to find and share existing and new sources of water, and to develop long term plans for securing water supplies in the South East of England. The water companies are Thames Water, South East Water, Southern Water,
Portsmouth Water, Sutton and East Surrey Water and Affinity Water (Central and Southeast). Other WSLs, appointed companies and interested parties are invited to participate, and Northumbrian Water (Essex and Suffolk), Anglian Water and Severn Trent Water have already done so.

Thames Water also believes that water trading could be supported by the more flexible management of abstraction licences. For example, some companies (and other, private abstractors) currently abstract directly from the same water body or several water bodies that were hydrologically linked. A framework that allowed these abstractors to share or 'pool' their abstraction entitlements such that a cooperative trading arrangement was possible, would enable them to alter their actual abstraction on a mutually-agreed basis. This could improve water availability and the effective management of resources in both the short term and long term.

2.5 Challenges

There are three main factors that, in combination, pose significant challenges to our ability to provide services to customers effectively.

The first challenge facing Thames Water, along with many other water companies in England and Wales, is climate change and the potential effects on water availability. The latest official predictions lead us to expect, on average, that summers will become hotter and drier, leading to increased demand for water. By the 2040s, average summer rainfall could fall by 13% from today's levels. Winters are predicted to become generally wetter, with more intense storms. This will put additional pressure on our sewer network and increase the risk of flooding. By the 2040s, average winter rainfall could be 12% higher than today's levels.

Declining summer rainfall (and an increased risk of more extreme, long duration droughts) plus intensifying winter rainfall (and a higher likelihood of flooding) will put pressure on the capacity of our networks. On the water supply side these factors will, in combination, result in security of supply issues by 2040, without any mitigating action. Specifically, we have an expected supply deficit in our London network of 416 Ml/d and deficits in the Thames Valley WRZs of Swindon and Oxfordshire, Guildford and Slough, Wycombe and Aylesbury of 33 Ml/d, 4 Ml/d and 6 Ml/d, respectively.

The effect of a likely reduction in raw water availability is compounded by the second challenge, the need to reduce abstraction to provide more protection for the natural environment. Thames Water, along with most other appointed water companies, is required to comply with Environment Agency requirements on sustainability reductions ("SRs"). SRs are reductions in licensed abstraction that are required to provide environmental improvements, typically through increased flows in rivers which are identified as suffering from low flows due to the effects of abstraction.

The third challenge is the effect on water demand of population growth and changing customer expectations. We forecast a total increase in population in our area of
between 2.0 million and 2.9 million people by 2040 – three quarters of which is forecast in London. We forecast household demand to increase by approximately 250 Ml/d, although our non-household water use forecasts remain fairly static reflecting wider economic trends.

The Environment Agency has noted\(^5\) that

> “Changing lifestyles and an increase in population could have a substantial impact on demand for water. By the 2050s, the total population of England and Wales is expected to grow by an extra 15 million people, so despite forecasts of reductions in per capita consumption as a result of recent demand management initiatives by water companies, overall use is likely to grow.”

Thames Water believes water trading can play an important role in tackling these challenges.

3. **KEY PRINCIPLES OF THE CODE**

Thames Water is committed to negotiating and trading with other appointed water companies, companies licensed under the WSL and WSSL provisions, and commercial customers on a fair, reasonable, sustainable and transparent basis. Water trades will only be agreed where they are beneficial to Thames Water’s customers and minimise harm to the natural environment.

In its PR14 methodology papers, Ofwat set out guidance to companies on the principles to be included in a Code. This guidance is divided into principles that apply to either imports, or exports, or both.

Thames Water sets out these principles, its response to them, and its general approach to trading, in the tables below. For ease of reference, we follow the format set out by Ofwat.

The approach set out below forms the basis for more detailed commercial negotiations for a water trade agreement.

**Table 2 Principles supporting Thames Water’s approach to Imports and Exports**

<table>
<thead>
<tr>
<th>Principle</th>
<th>Thames Water’s approach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports and Exports</strong></td>
<td></td>
</tr>
<tr>
<td>Audit</td>
<td>For all new qualifying trades, Thames Water will prepare a report of the process we followed, to demonstrate compliance with our Code. We will submit this information to Ofwat, as part of the process for applying for qualifying water trade incentives.</td>
</tr>
<tr>
<td>Assignment</td>
<td>A trading partner is prohibited from assigning a qualifying trade agreement to any other party without consent from Thames Water.</td>
</tr>
<tr>
<td>Commencement</td>
<td>A qualifying trade must have been agreed no earlier than July 2013.</td>
</tr>
<tr>
<td>Compliance</td>
<td>Thames Water will take all reasonable and appropriate steps to ensure that it complies with such relevant laws and regulations as shall apply from time to time, including the Competition Act 1998. Thames Water expects its trading partner to do the same. Trades will also need to comply with Thames Water’s Network Access Code, where appropriate.</td>
</tr>
</tbody>
</table>

Thames is committed to rigorous compliance with all of its obligations, including its Trading and Procurement Code. For all successful qualifying trades, we will report on the processes we followed during the trade negotiations and our approach to cost allocation. The report will demonstrate that we have complied with all aspects of this Code. We will provide this report as part of our Business Plan submission.
Confidentiality

Thames Water may require the potential trade partner to sign a confidentiality agreement, at the outset of negotiations. This requirement will not be unfairly or unreasonably required or withheld, and will be aligned with the need and desirability for transparency.

Contract duration

Thames Water will seek to agree contract lengths that are reasonable and fair to both parties. We will consider short-term and long-term trades, and the contract duration will depend on the circumstances of the specific trade being discussed. As a general rule, where we seek to import water, we need to ensure water is available over a long-enough period to represent a meaningful and secure contribution to deployable output. Taking account of the cycle of water resources management plans and associated planning regimes, in most cases we would prefer a contract term of at least 20 years with long duration notice periods linked to the time we would need to find alternative sources of water.

Cooperation

Trading parties will co-operate with each other in the general interests of the continuous provision of wholesome water and the operation, maintenance and integrity of the public water supply system.

Emergencies

The water supply system is an essential public facility and remains under the control of Thames Water. We will retain primary responsibility for managing emergency procedures relating to our water supply network. We will expect our trading partner to cooperate if an emergency or security issue arises which could affect the water supply network and the trade agreement.

Ending trades

Thames Water currently has several import and export agreements with other water companies. We report on these to Ofwat ever year. Thames Water also has trading agreements with non-water companies. We are aware that to qualify for a trading incentive, a trade must have been agreed no earlier than July 2013. We assure Ofwat and others that we will not manipulate any of our current trades in order to exploit the financial incentives for trading. We would look to our current trading partners to do the same. If we agreed a new trade, we would prepare an audit report of the process, to demonstrate compliance with our Code. This report would include evidence to show that the trade was genuinely new, not a current trade that had been artificially ended and restarted. Such evidence would include details of the contracts and a clear summary of the negotiation process. We would provide this report as part of our Business Plan submission.

Environmentally-sensitive abstraction

Thames Water is committed to serving its customers in an environmentally-responsible way. We support the greater use of water trades to help allocate scarce resources more effectively and the provision of financial incentives is welcome. We already work closely with the Environment Agency and other interested stakeholders to manage our abstractions carefully, including reducing the volumes licensed for abstraction under the Environment Agency’s Sustainability Reductions programme. We are working with Ofwat and the Environment Agency to develop and implement the Abstraction
Incentive Mechanism (“AIM”) framework. The AIM will help to protect sources where there is a perceived marginal adverse environmental impact and alternative water sources or some other realistic means of reducing abstraction from the source are available that will not cause detrimental environmental impacts.

We assure Ofwat, the Environment Agency and others that we will only agree water trades where we are satisfied there is no undue adverse effect on the natural environment. We expect offers of water to us to include similar evidence of regard to environmental protection.

**Equity**

Thames Water will treat all trading partners and potential partners fairly and equitably, including in the provision of information. We have a very proactive, open and wide ranging stakeholder engagement process to ensure other water companies and third parties can input to the ongoing work to develop our Water Resources Management Plan (“WRMP”). Potential third party supply options that are submitted to us for consideration are subject to the same rigorous programme of investigation as options we are investigating internally. The results of the analysis of all potential supply options are shared with stakeholders to give them an opportunity to review and challenge the analysis undertaken. The information is subsequently shared with all stakeholders on Thames Water’s website.

**Qualifying trade**

A qualifying trade is a water trade agreement that complies with the principles set out in this Code and applies to all trades, including trades with non-water companies.

**Qualifying period**

A qualifying trade must be operating during the period April 2015 to March 2020.

**Rationality (Economic)**

Thames Water is committed to agreeing trades only where it is economically sound and beneficial to its customers to do so. We look at a wide range of options to manage our supply demand balance. We will only agree a water trade where it is more cost effective than other options available to us. Our commitment to economically-rational trades is underpinned by our approach to best value investment as detailed in our Final Water Resources Management Plan 2014 (“WRMP14”), Section 8: Programme Appraisal. Our detailed method is based on consideration of the Whole Life Costs of available options, optimised to give the best value to customers, the environment and society. For example, we consider the quality of water on offer, operational characteristics to ensure consistency with our network management, treatment and transport costs, sustainability, duration, resilience and availability.

**Rationality (Environmental)**

Thames Water is committed to protecting the natural environment for the benefit of its current and future customers. We will ensure that any water trade we agree will not compromise our obligations under UK and EU legislation, including the need to achieve good ecological status or potential under the Water Framework Directive (“WFD”). Our
commitment to environmentally-rational trades is underpinned by our approach to best value investment as detailed in our Final WRMP14, Section 8: Programme Appraisal. We ask third party suppliers to identify any material positive or negative aspects associated with the supply option identified through Strategic Environmental Assessment, HRA and WFD impact assessment.

Trade agreement
A trade agreement will need to be completed by the trading parties before a qualifying trade can begin.

Trade effects
A qualifying trade must not lead to any material deterioration in water quality or service to any customer, or to the supply system or to the natural environment.

Trading partner
A qualifying trade must be between wholly-unrelated companies.

Transparency
Thames Water already follows a transparent process of option selection and appraisal in its WRMP, including stakeholder engagement and the publication of information about our supply demand balance and likely future needs for water. We hold a Water Resources Forum every quarter to give stakeholders and third parties opportunity to hear about our proposals for investment first hand and to provide an opportunity for their input to the programme of work we are undertaking. We also hold technical stakeholder meetings to enable topics of particular interest to be followed up in more detail. All the information presented at the forums, together with notes of the meetings, is published on Thames Water's website at the following link:

http://www.thameswater.co.uk/about-us/17733.htm

Furthermore, we share information with other companies about water availability and potential trading opportunities as part of our work with the Water Resources South East (WRSE) and Water Resources East Anglia (WREA) groups. Thames Water remains committed to following a transparent process when agreeing new water trades, within the bounds of normal commercial confidentiality.

Water quality
Water trades can be for raw or treated water. Traders must abide by Water Quality Protocols as stipulated by the DWI.

WRMP
Thames Water already includes the consideration of water trades in its assessment of supply demand balance options in its WRMP. Water trades are considered in the same way as all other options, both to determine option feasibility and as part of our subsequent process of programme appraisal. Our Final WRMP14 sets out in Sections 4.4 and 7.5 the work we have undertaken as part of WRSE to investigate trades with neighbouring water companies, and those which have been taken forward into our preferred programme of investment. Section 7.4 gives details of the Notice within the Official Journal of the European Union (“OJEU Notice”) that we published in 2012 to raise wider
awareness with third party suppliers of the supply deficit that exists in the Thames Water area and the opportunities to submit options for water supply. The detailed process that we followed to assess those options received in response to the OJEU Notice is documented, together with details of the two options subsequently taken forward for implementation in AMP6 and those other options listed for further long-term investigation as part of our AMP6 programme of investigations. In February 2015 and February 2016 we re-issued the OJEU Notice to again raise awareness with third party suppliers of the supply deficit that exists in Thames Water’s area, and the opportunities to submit water supply options for consideration as part of our ongoing programme of water resources and supply options investigation.

Imports

**Competitive purchasing**

Thames Water’s current and future resource position makes it likely that an import agreement could be a valid option for us to pursue. Thames Water is aware of its obligations under UK and EU competition law and wholeheartedly supports the use of open and effective competitive processes. Our WRMP and use of OJEU Notices shows that we are committed to an open, transparent and genuine process for considering potential supplies to us. Our WRMP process for the Periodic Review in 2019 (“WRMP19”) programme of investigations includes consideration of potential imports, although opportunities to import water of sufficient volume, reliability and security are likely to be rare. If options for more than one import occur such that a competition between suppliers to Thames Water is necessary, we will assess those options on the basis of a suitable competitive process. In response to offers received in reply to the OJEU Notice published in 2012, Thames Water is currently investigating in detail two potential large raw water imports into the Thames catchment for supplying London in the long-term. These options were submitted by United Utilities and Severn Trent Water.

**Economic purchasing**

Thames Water’s current and future resource position may make it likely that an import agreement could be a valid option for us to pursue. Our WRMP includes consideration of potential imports. We are aware of the need to operate as an efficient company and provide services to our customers as efficiently as possible. Where we consider options to import water, we assure Ofwat and others that we will buy from the most economical sources available, having regard to the quality and quantity of water available, the impact on customers in the donor area and the effect on the natural environment and the operation of our network.

**Managing imports**

Thames Water operates its water supply network over a number of distinct and separate water resource zones. We will work with the exporting trade partner to ensure imports of water by Thames Water are as efficient as possible. We will look to minimise the costs of imports, for example by using existing infrastructure, where possible.
Non-discrimination

Thames Water’s current and future resource position may make it likely that an import agreement could be a valid option for us to pursue. Our Final WRMP14 includes consideration of potential imports, although opportunities to import water of sufficient volume are rare. The OJEU Notice published in 2012 indicated the deficit in Thames Water’s supply area and invited third parties to submit potential schemes for consideration as part of Thames Water’s ongoing programme of investigation to improve security of supply. Our Final WRMP14, Appendix S: Stakeholder Engagement sets out the wide ranging programme of engagement that Thames Water followed in producing its WRMP14 to ensure all stakeholders had ample opportunity to input to the process. We are following an equally comprehensive engagement programme for our WRMP19. Thames Water is willing to trade with any third party, as shown by our use of OJEU Notices and set out in detail in our WRMP. We will continue to not discriminate between potential suppliers when considering options for water imports.

Exports

Cost assessment

Thames Water will assess the costs of a potential trade with the same rigour and attention to detail as any of the other options in our WRMP. We will look at the potential economic and environmental impacts to ensure the trade is beneficial and made at least overall cost. We will always seek to allocate costs correctly and recover the full costs from any trade agreement. For example, in our Final WRMP14 Section 7: Appraisal of Options, we explain how we assess potential trades using UKWIR and Environment Agency’s 2002 guidance “The economics of balancing supply and demand” and Environment Agency and Eftec’s 2012 “Benefit Assessment Guidance”. More specifically, where export charges are not based on our standard tariffs, the charges are likely to be calculated initially based on the costs of supplying the trade, including the actual maintenance and operation costs of specific infrastructure in place to supply the export and an apportionment of the cost of abstraction, storage and transmission pumping costs to the supply. Charges might then change over time in relation to the change in wholesale tariffs, or some other appropriate method of indexation. Where possible we will use existing infrastructure to minimise the costs of a trade.

Managing exports

Thames Water operates its water supply network over a number of distinct and separate water resource zones. We will work with the importing trade partner to ensure exports of water by Thames Water are as efficient as possible. We will look to minimise the costs of exports, for example by using existing infrastructure, where possible.
4. **USEFUL REFERENCE MATERIAL**

This section lists relevant documents, with internet hyperlinks.

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<th><strong>Primary and Secondary Legislation</strong></th>
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<td><strong>6 Thames Water’s Network Access Code</strong></td>
<td><a href="http://www.thameswater.co.uk/access-code.pdf">http://www.thameswater.co.uk/access-code.pdf</a></td>
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<td><strong>7 Thames Water’s 2014 WRMP</strong></td>
<td><a href="http://www.thameswater.co.uk/about-us/5392.htm">http://www.thameswater.co.uk/about-us/5392.htm</a></td>
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