



Northumbrian Water Group

**Draft Trading and Procurement
Code**

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GLOSSARY

Abstraction	The licensed removal of water from the natural environment
Abstraction Licence	The licence required to remove water from the natural environment
Consumer Council for Water	A statutory consumer body for water and wastewater consumers in England and Wales
Defra	Department of Environment, Food and Rural Affairs, the UK Government department with responsibility for the water sector
Deployable Output (DO)	The output of a commissioned water source, group of sources or bulk supply as constrained by: <ul style="list-style-type: none"> • abstraction licence, if applicable; • environment; • treatment; • raw water mains and/or aquifers; • pumping plant and/or well/aquifer properties; • transfer and/or output main; and • water quality
Drought	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
Environment Agency	Regulator for the natural environment in England
Essex & Suffolk Water	The south east trading name of Northumbrian Water Group.
Natural England	The UK Government's adviser for the natural environment in England
Northumbrian Water Group	Northumbrian Water Group is one of ten regulated Water and Sewerage Companies in England and Wales, operating in the north east of England, trading as Northumbrian Water (NW), and in the south east of England, trading as Essex & Suffolk Water (ESW)
Northumbrian Water (North)	The north east of England trading name of Northumbrian Water Group
Ofwat	Economic regulator for the water sector in England and Wales
PR14 (PR19)	Periodic Review - every five years Ofwat, the economic regulator for the water and sewerage industry, sets price limits that enable water and sewerage companies to finance the delivery of services to customers, in line with relevant standards and requirements. The most recent was made in 2014 (PR14) and the next one is due in 2019 (PR19).
Price controls	The limits set by Ofwat on the charges that appointed companies can make for their services
Water trade	An agreement between two companies to transfer water between them
Water Resources Management Plan 2014 (WRMP)	The Water Resource Management Plan is an appointed water undertaker's strategic plan for managing water supply / demand balance over a 25 year period..
Water Resources Planning Guideline (WRPG)	The water resources planning guideline provides a framework for water companies to follow when developing and presenting their water resources plans
Water Resources Zone (WRZ)	Water Resource Zone, the largest possible zone in which all resources, including external transfers, can be shared and, hence, the zone in which all customers will experience the same risk of supply failure from a resource shortfall.

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1. INTRODUCTION

The Northumbrian Water Trading and Procurement Code (“Code”) sets out the policies, principles and requirements that will apply when appointed water companies and third parties trade with Northumbrian Water.

1.1 Why do we issue a Code?

Northumbrian Water Group 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 Northumbrian 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. 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.

Ofwat guidance

Trading and procurement codes – requirements and advice on principles to be included, July 2013

http://webarchive.nationalarchives.gov.uk/20150624091829/http://www.ofwat.gov.uk/pricereview/pr14/pap_pos201307finalapproachapp3.pdf

1.2 Using the Code

Northumbrian Water Group will keep its Trading & Procurement Code up to date and publicly available, via its website. The approved code will also be available on the Ofwat website.

1.3 Understanding this document

This document is structured as follows:

- Section 1 introduces the Code;
- Section 2 describes Northumbrian Water, its regulatory framework, its water resources position, its approach to water trading (including current water trades);
- Section 3 sets out the key principles for water trades; and

1.4 Contact details

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

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2. NORTHUMBRIAN WATER GROUP (NWG)

2.1 Northumbrian Water

Northumbrian Water is a statutory water and wastewater company in the north east. The business comprises the supply of both potable and raw water and the collection, treatment and disposal of sewage and sewage sludge, serving 2.7 million people in the major population centres of Tyneside, Wearside and Teesside as well as the large rural areas of Northumberland and County Durham. We provide only waste water services in Hartlepool.

Our Northumbrian Water operating area shares a land border with United Utilities, Yorkshire Water, Hartlepool Water and Scottish Water in the north.

2.2 Essex & Suffolk Water

Essex & Suffolk Water in the south east supply water services to 1.5 million people in Essex and 0.3 million in Suffolk. Our Essex area is part rural and part urban and includes the main population centres of Chelmsford, Southend and the London Boroughs of Barking and Dagenham and Havering and Redbridge. Our Suffolk area is mainly rural with the largest towns being Great Yarmouth and Lowestoft.

Our Essex & Suffolk Water operating area shares a border with Thames Water, Affinity Water and Anglian Water.

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Figure 1: Northumbrian and Essex & Suffolk Water Operating Area

Source Northumbrian Water Website



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2.3 NWG water resources

Northumbrian Operating Area

The Water Resource Zone (WRZ) is the basic building block of a Water Resource Management Plan. Companies will have a variable number of WRZs making up their total supply area. A WRZ is the largest area of a company's supply area where supply infrastructure and demand centres are generally integrated to the extent that customers in the WRZ should experience the same risk of supply failure due to climatic conditions. Northumbrian Water has 2 WRZs covering its supply area. These are the Berwick WRZ in the far North of the supply area and covering about 1% of the customers and the Kielder WRZ covering the remaining 99% of customers. The Berwick WRZ has 2 well fields centred around Berwick and Fowberry. There is some integration between the 2 areas of the WRZ and a further link between the 2 was due to be installed during this current AMP5 period. However recent modelling of the area has now cast some doubt on the sustainability of some of the licenses serving the WRZ and until this is resolved the work has been deferred.

The Kielder WRZ has been the subject of dialogue with the Environment Agency as they required us to demonstrate more fully how it is a single WRZ rather than 3 WRZs. This has resulted in the production of Appendix A which shows how water is integrated to such an extent over the whole WRZ, mainly by being supported by Kielder reservoir and the Tyne- Tees tunnel transfers, that it is a single WRZ and complies with the definition of a WRZ.

Figure 2 Water Resource Zones (WRZ) in the Kielder & Berwick Water Supply Areas
Source: Northumbrian Water



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Essex and Suffolk Water (ESW) Operating Area

ESW has geographically separate supply areas, known as the Essex supply area and Suffolk supply area (figure 1 in appendix 1). Water is supplied to approximately 1.5 million people in the Essex supply area and 0.3 million customers in the Suffolk supply area. In line with the WRPG, ESW's WRMP is based on assessments undertaken at a WRZ level.

In the case of ESW, four resource zones have been delineated, one in Essex (the Essex resource zone) and three in Suffolk known as the Blyth, Hartismere, and Northern/Central WRZs. Schematic diagrams of the WRZs and associated infrastructure are shown in figures 2 and 3 in appendix 1 for Essex and Suffolk respectively.

Figure 3 Water Resources in the Essex and Suffolk Water Supply areas
Source: Northumbrian Water WRMP



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2.4 Water Resource Zones Supply / Demand Forecasts

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: PR14 Balance of Supply (MI/d) for each Water Resource Zone

PR14 Balance of Supply (MI/d) Including Headroom	End of Amp 5	End of Amp 6	End of Amp 7	End of Amp 8	End of Amp 9	End of Planning Horizon
Year	2014/15	2019/20	2024/25	2029/30	2034/35	2039/40
Kielder	178	178	174	173	169	164
Berwick	0.83	3.5	3.5	3.5	3.5	3.5
Essex	51.98	34.92	38.53	42.56	42.79	62.28
Suffolk – Northern Central	14.6	11.5	9.6	7.5	6.7	5.6
Suffolk - Blyth	2.84	2.65	2.55	2.51	2.34	2.20
Suffolk - Hartismere	3.37	3.35	3.31	3.29	3.21	3.12

2.5 Statutory Obligations

Northumbrian Water Group 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.

Northumbrian Water Group 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 revenues that these companies can recover 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.

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3. ORIGIN, PURPOSE AND OPERATION OF THE CODE

3.1 NWG Position on Trading

Northumbrian Water Group supports economic growth within its supply area. We believe water trading can play a part in encouraging growth, as long as it is done in a sustainable way.

Our estimated water resource position over the medium term, as set out in our [Water Resources Management Plan 2014](#), suggests that we are more likely to offer exports than seek imports during this period.

We believe it is prudent to develop and implement a Code which is in line with Ofwat's requirements and principles, in readiness to deal with proposals from other companies to trade with Northumbrian Water Group.

Northumbrian Water Group has a draft bulk supply legal agreement on its website that will form the basis of discussions with importers and exporters.

https://www.nwl.co.uk/assets/documents/Water_Bulk_Supply_Agreement_-_Template_2016.docx

We have 15 bulk supply agreements with neighbouring water companies, both for the export and import of raw and treated water. These can be for temporary support in an emergency situation, or as a permanently available supply. Water imports vary from less than 1 MI/d to 91 MI/d on average and exports vary from less than 1 MI/d to 25 MI/d – Northumbrian Water Group is a net importer of water, by volume.

3.2 Purpose of the Code

We are willing to trade with both other water companies and with third parties. However, we believe it is likely that, initially at least, most new water trades will be between water companies, as they respond to the water trading incentives introduced by Ofwat in the 2014 price review.

Ofwat is keen to ensure water company customers and the environment are protected in water trades. Further, Ofwat wants to be sure that its regulatory proposals are working properly and do not have unintended consequences for customers. Therefore, if a water company wants to claim an export and (or) import incentive it must be operating consistently with and be able to demonstrate compliance with an approved trading and procurement code. Ofwat will assess this at the next price review when deciding whether a trade qualifies for an incentive payment.

3.3 Operation of the code

Northumbrian Water conforms to the following general high-level principles, which will govern its approach to negotiating trade agreements.

Assignment	A trading partner is prohibited from assigning a qualifying trade agreement to any other party without consent from Northumbrian Water Group.
Compliance	Northumbrian Water Group and the trader will take all necessary steps to ensure compliance with such laws and regulations as shall apply from time to time, including the Competition Act 1998.
Contract length	Northumbrian Water Group 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.

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Cooperation	Northumbrian Water Group and the trader will co-operate with each other in the general interests of continuous provision of water and the integrity of the water supply network.
Ending Trades	<p>Northumbrian Water Group has several current imports and exports with other water companies. Ofwat is already aware of these transfers through information we have submitted.</p> <p>We are aware of the Ofwat requirement for qualifying trades to be new trades beginning in or after July 2013. We can assure Ofwat and others that we have no intention of manipulating any of our current trades in order to exploit the financial incentives for trading. We would expect all of our trading partners to take a similar approach to the maintenance of existing trade agreements.</p> <p>If we agreed a new trade, the audit report that we would prepare as part of the compliance process would include evidence to show that the trade was new, not one that had been artificially ended and restarted.</p>
Environmentally-sensitive abstraction	<p>Northumbrian Water Group 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.</p> <p>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 include similar evidence of regard to environmental protection.</p>
Equal and Fair treatment Managing Emergencies	All parties seeking to trade with Northumbrian Water Group will be treated fairly and equally between each other, including in the provision of information. Northumbrian Water Group will retain primary responsibility for managing emergency procedures relating to all of its water supply system. The trader will be expected to cooperate with Northumbrian Water Group in the event of an emergency or security issue affecting the water supply system and the trade between the two parties
Qualifying Period	A qualifying trade must be operating during the period April 2015 to March 2020.
Qualifying Trade	A qualifying trade will be a new agreement with another water company for Northumbrian Water Group to import from or export to that company's water supply network
Rationality (economic)	Northumbrian Water Group 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.
Rationality (Environmental)	Northumbrian Water Group is committed to protecting the natural environment for the benefit of its current and future generations. 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").

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Start period of Operation Trade agreements	<p>A qualifying trade must start in July 2013 or later.</p> <p>A trade agreement will need to be signed before a qualifying trade can begin. Such an agreement will stipulate in detail the terms and conditions agreed by the trade parties</p>
Trade effects	<p>A qualifying trade should be at no detriment to any of Northumbrian Water Group's customers or the service provided to them, and should not have an adverse impact on water quality, the environment or the community.</p>
Trade Partners	<p>A qualifying trade must be between wholly-unrelated companies</p>
Trade terms	<p>Unless otherwise agreed, the supply to the import company will normally be subject to the same conditions in terms of interruptions, pressure and other conditions as is the supply to Northumbrian Water Group customers in the WRZ from where the water is supplied.</p>
Transparency	<p>Northumbrian Water Group is committed to an open and transparent process for trading, in line with its rigorous process for developing its wider water resources position under the WRMP.</p> <p>Central to any potential trade will be information about our water resources position. This is set out in our latest WRMP. We can assure our regulators and potential traders that we will at least maintain this level of transparency. Further information about the availability of water more generally in the wider natural environment can be obtained from the Environment Agency.</p> <p>Information about agreed trades will be submitted to Ofwat as part of existing reporting requirements that includes a list of all of our current bulk imports and exports. Information will also be contained within our WRMP, subject to requirements relating to national security and commercial confidentiality.</p> <p>Northumbrian Water Group is committed to rigorous compliance with all of its legal obligations, including the Trading and Procurement Code. We also expect our trade partners to be similarly committed.</p> <p>We will keep Defra, Ofwat, DWI and Environment Agency (as appropriate) fully informed of any qualifying trade proposals made to us, any proposals we make to others, and any trade agreements that are made, through existing reporting interfaces.</p> <p>For all qualifying trade proposals that are successfully completed we will carry out an internal audit of the process and provide that report to Defra, Ofwat, DWI and Environment Agency. The audit report will examine the processes followed during the trade negotiations, and demonstrate that we have complied with all aspects of this Code. Assurance on qualifying trades will also be provided as part of our Business Plan submission.</p>
Water quality	<p>Trades can be of untreated or treated water. Traders must abide by Water Quality Protocols as stipulated by Drinking Water Inspectorate (DWI)</p>
WRMP	<p>Northumbrian Water Group incorporates the consideration of water trading agreements within its existing option selection process for developing its WRMP (Section 4.0 Supply demand Balance of the WRMP). Section 3 of the WRMP outlines the output of discussions with neighbouring water companies about water trading and the options.</p>

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3.4 Managing Imports

Northumbrian Water Group is more likely to agree exports to other companies, than take imports. All 6 WRZs are estimated to have marginal or material supply demand balance surplus over the planning period to 2040.

If circumstances change over time and we believe a new import agreement is appropriate, the following principles shall be adhered

Competitive purchasing We are open and transparent when considering potential supplies of water to us from third parties. As part of the pre-consultation process for the plan, we have written to all neighbouring Water companies with a view of need and availability of water resources across our supply area.

We wholly support the use of competitive processes and are aware of our obligations under general UK and European law. Should more than one supplier bid to supply us with water we would be committed to using a structured and competitive process to determine the successful supplier.

In the first instance, any offers would be subject to an assessment of acceptability to examine the quality, quantity, and environmental sustainability of each. Assessment criteria would include the following:

- Compliance with our [network access code](#)
- Acceptability of quality, or cost to treat to an acceptable standard
- Variability in and risks to quality
- Reliability and variability of quantity, and pressure during high-demand periods and during critical droughts
- Flow constraints around connecting to existing infrastructure, ability to serve zone or requirement to develop new infrastructure
- Environmental sustainability of supply (no deterioration of raw water source)
- Business resilience of trading party.

Acceptable options would then be subject to further assessments to establish the preferred options for each WRZ. This would include an assessment of costs for any additional downstream asset needs. We would also assess any potential benefits such as additional resilience or flexibility that the water supply would offer. The fully assessed options would be included with other water resource options in the Economics of Balancing Supply and Demand (EBSD) assessment for each WRZ. This assessment takes account of the OPEX, CAPEX and environmental and social costs of each proposed option to determine the best value programme of options for the zone.

Economic Purchasing Our WRMP shows that we are open and transparent when considering potential supplies of water to us from third parties. As part of the pre-consultation process for the plan, we wrote to neighbouring water companies with view of need and availability of water resources across our supply area. 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 Northumbrian Water Group operates its water supply network over 6 distinct and separate water resource zones. We will work with the exporting trade partner to ensure imports of water by Northumbrian Water Group are as efficient as possible. We will look to minimise the costs of imports, for example by using existing infrastructure, where possible.

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Non-discrimination Northumbrian Water Group is obliged when preparing its WRMP to consider options to share water with other water companies or third parties. Our WRMP 2014 shows the extent to which we have already gone to raise awareness of and interest in water trading with other appointees and third parties. We published a general statement of need, which shows where we might require water resources in the future, across our area. We have also held specific discussions with neighbouring water companies about the feasibility of water sharing arrangements in the future. We remain willing to discuss potential trades with any third party. As our WRMP 2014 shows, we will not discriminate against or between any potential provider of water to us.

3.5 Managing Exports

Cost Assessment Northumbrian Water Group 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.

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 Northumbrian Water Group operates its water supply network over 6 distinct and separate water resource zones. We will work with the importing trade partner to ensure exports of water by Northumbrian Water Group are as efficient as possible. We will look to minimise the costs of exports, for example by using existing infrastructure, where possible.