

New Appointments and Variations (NAVs)

Bulk Charging Arrangements for 2024-25

Charges Methodology and Worked Examples

January 2024

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1. Executive Summary

Yorkshire Water as a major regional incumbent water and sewerage company provides key wholesale services for New Appointees and Variations organisations (NAVs) who operate in the wider Yorkshire Water area.

These wholesale services, in the form of providing bulk supplies of potable water and receiving bulk discharges of wastewater, are charged for under formal bulk supply and discharge agreements. The setting of prices (tariffs) for these services is a key activity in support of the competitive market for network operations and retail services (to household consumers).

For the 2024–25 charging year, Yorkshire Water has updated its bulk tariffs for NAVs and also made some key changes to how these tariffs are structured and presented to NAVs, in order to improve transparency and simplicity in charging.

1.1. Summary of our bulk tariffs and key changes made.

We continue to use the **‘wholesale-minus’ approach** to price setting as recommended by Ofwat in its guidance to incumbent water companies. The mix of property types and their expected water and wastewater demands will determine the wholesale ‘starting’ tariff for each NAV site based on the following **wholesale tariff menu** in Table 1.1, over the page.

Table 1.1. Menu of Wholesale tariffs for use as ‘starting’ tariffs for NAV sites

Charge	Unit	Water	Wastewater
Yorkshire Water area			
Households			
Volumetric	p/m3	179.57	207.77
Fixed	£/prop	12.79	-
Non-Households			
Consumption <50Mla	p/m3	176.45	199.38
Consumption <250Mla	p/m3	112.68	161.16
Consumption >250Mla	p/m3	95.10	147.10
Fixed	£/prop	-	-

Charge	Unit	Water
York Waterworks area		
Households		
Volumetric	p/m3	101.72
Fixed	£/prop	12.79
Non-Households		
Consumption <50Mla	p/m3	97.77
Consumption <250Mla	p/m3	85.89
Consumption >250Mla	p/m3	85.89
Fixed	£/prop	-

We have made a key change for 2024-25 in providing NAVs with **a menu-based approach to setting of the avoided costs** component of the wholesale-minus methodology. For NAV sites that are of a size of between 1 to 350 properties, bulk tariffs will be determined by a combination of wholesale ‘starting’ tariff derived for the site based on values in the wholesale tariff menu, in Table 1.1, and the avoided costs within the **avoided costs menu**, as detailed in Table 1.2 below.

Table 1.2 Menu of Water and Wastewater Avoided Costs for ‘typical’ sites based on number of properties.

Water

Water		Menu A	Menu B	Menu C	Bespoke avoided cost
Avoided costs	Unit	Sites up to 100 properties	Sites between 101 and 200 properties	Sites between 201 and 350 properties	Sites above 350 properties
Scientific services	£/prop pa	1.28	1.28	1.28	1.28
Emergency water	£/prop pa	0.36	0.36	0.36	0.36
Water operational costs	£/prop pa	0.64	0.62	0.56	Site specific
Leakage management	£/prop pa	11.47	11.16	10.01	Site specific
Business overheads	£/prop pa	1.86	1.82	1.65	Site specific
Asset replacement	£/prop pa	27.87	27.60	26.62	Site specific
Total avoided costs	£/prop pa	43.48	42.83	40.48	TBC

Sewerage

Sewerage		Menu A	Menu B	Menu C	Bespoke avoided cost
Avoided costs	Unit	Sites up to 100 properties	Sites between 101 and 200 properties	Sites between 201 and 350 properties	Sites above 350 properties
Wastewater operational costs	£/prop pa	9.67	8.60	7.73	Site specific
Business overheads	£/prop pa	1.91	1.70	1.53	Site specific
Asset replacement	£/prop pa	10.19	9.06	8.15	Site specific
Total avoided costs	£/prop pa	21.78	19.37	17.41	TBC

Where a NAV site is, or will be, serving more than 350 properties, we will provide a **site-specific bespoke tariff** based on the wholesale 'starting' tariff from our wholesale tariff menu and a site-specific assessment of the avoided costs component.

These tables 1.1 and 1.2 are repeated in section 2 of this document.

Other key features we have made to improve simplicity and aid transparency are:

Leakage Allowance: A fixed allowance for leakage losses between the site boundary, where we supply water to, and the NAV end-customers property boundary where the NAV meters water use. For 2024-25 we have fixed this **leakage allowance for all NAV sites at 6.1%**

Two-part tariff structure: For 2023-24 we introduced a two-part tariff structure, with a volumetric tariff for water and wastewater demand (set at a p/m³ price) and a per property avoided cost discount (set as a £/property per annum price).

This removes any perverse incentive on NAVs to not promote water efficiency and good water use by their end consumers, whether they be domestic or business customers.

For the 2024-25 charging year we have maintained this structure and the new menu-based tariffs are laid out and will be billed in this way. Site specific tariffs that are outside the menu-based range would also be presented and billed in this way.

Updated wholesale tariffs and avoided costs: Again this year, we have updated our NAV bulk tariffs to incorporate our 2024/25 published Wholesale Charges and our avoided costs using bottom-up three year averaging where possible. Detailed explanations for how we assess these costs and what they cover is provided later in this document. For information our 2024-25 Wholesale tariffs for water have increased by 11.7% compared to 2023-24 and for wastewater have increased by 5.6% compared to 2023-24.

We trust the changes we have made to how we set and present our bulk tariffs for NAVs better meet the needs of NAVs and other stakeholders in the competitive network ownership and operation market place.

Should NAVs or other stakeholders have any questions about how we set these charges, please contact Yorkshire Water. Our contact details in relation to the NAV market and charges in at the end of this document.

2. New Appointee bulk supply pricing

This document explains the updates we have made to our NAV bulk charging arrangements for the financial year 2024–25 compared to those we had in place for 2023–24.

In this section we explain how we amended our structure of charges for the provision of bulk supplies and bulk discharges for New Appointees and Variations (NAVs) against the charging guidelines and considered best practice, by of applying a ‘wholesale minus’ approach to setting the level of charges and using a ‘menu’ based structure for transparency, as referenced by Ofwat.

The New Appointments and Variations (NAVs) regime in England and Wales supports new entrants into the wholesale water and sewerage sector and also allows incumbent water and/or sewerage companies to expand into other geographic areas.

To operate within the incumbent’s region a NAV company may require a bulk supply of water and/or sewerage services from the incumbent water and/or sewerage company.

- A bulk supply is the supply of clean water services from an incumbent appointed company to a NAV company.
- A bulk discharge is the supply of sewerage services from an incumbent appointed company to a NAV company.

The incumbent will levy bulk charges for such services, and these charges will form part of the bulk supply and/or discharge agreements in place between the parties.

Critically, the bulk charges have a significant bearing on the future margin the NAV is able to achieve in relation to financing and maintaining their network on a site or across multiple sites. It is the expectation for NAVs to operate their local networks within the incumbents’ network area for a long period.

In January 2021, Ofwat published its guidance on setting bulk charges for NAVs¹. Ofwat also published papers from the Bulk Charging Working Group (the BCWG) on best practices for charging of bulk services during 2022–23.

¹ Bulk charges for new appointees – guidance on our approach and expectations, Jan 2021

We have developed our charges to allow NAVs to secure their water and sewerage needs from Yorkshire Water in line with Ofwat's guidance and the recommendations on best practice output from the BCWG in order to facilitate efficient NAV market entry in the Yorkshire region. Including importantly that tariffs should be structured using a 'menu-based' approach.

This document summarises our approach and includes our new menu of bulk supply tariffs.

Following consultation with NAVs during the autumn, and feedback that a menu-based approach with published values would be preferable to site-by-site pricing, we are able to move much of our charging towards a published 'menu' of wholesale tariffs and avoided costs. We continue to provide site specific prices where a NAV site characteristics fall outside the published menu range.

Central to Ofwat's guidance is the application of a **wholesale-minus approach**. This approach starts with the incumbents' wholesale tariff(s) for the relevant new site and then deducts the avoided costs that the incumbent no longer incurs where the NAV owns and maintains the new site network instead (the local network).

We continue to use the general wholesale-minus construct to set bulk supply prices and determine the avoided costs discount based on the present value of the average costs we would incur operating and maintaining such a local network over the lifetime of the assets.

Currently from Yorkshire Water, NAVs do not have visibility of the charges they are subject to without (i) utilising YW NAV charges calculation tool for 2023-24 (a workbook made available to NAVs) and (ii) having access to site specific information (consumption, number of connected properties and network length)

- Wholesale charges (the starting point of Ofwat's 'wholesale-minus' approach) are not presented in the 2023-24 bulk supply charging arrangements even though they are available.
- Avoided unit costs (deductions to the starting point to reflect NAV operating the site) cannot be calculated without having access to site specific inputs for NAV sites.
- As a result there is no 'menu' of charges differentiated by the type of development NAV operate. Ofwat/BCWG guidance shows a strong preference for moving towards 'menu-based' approaches.

2.1. Menu of charges – wholesale tariffs

Presented in Table 2.1 are the Yorkshire Water and York Waterworks wholesale tariffs for 2024–25 for use in calculating the appropriate weighted wholesale ‘starting’ tariff for the NAV site. Further details of how the **weighted wholesale starting tariff** is calculated is provided in section 2.2.

Table 2.1. Menu of Wholesale tariffs for use as ‘starting’ tariffs for NAV sites

Charge	Unit	Water	Wastewater
Yorkshire Water area			
Households			
Volumetric	p/m ³	179.57	207.77
Fixed	£/prop	12.79	-
Non-Households			
Consumption <50Mla	p/m ³	176.45	199.38
Consumption <250Mla	p/m ³	112.68	161.16
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Charge	Unit	Water
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Households		
Volumetric	p/m ³	101.72
Fixed	£/prop	12.79
Non-Households		
Consumption <50Mla	p/m ³	97.77
Consumption <250Mla	p/m ³	85.89
Consumption >250Mla	p/m ³	85.89
Fixed	£/prop	-

The wholesale tariffs are also published on the Yorkshire Water website under our webpages for Business customers and Retailers. The link to the Wholesale Charges webpage is: <https://www.yorkshirewater.com/business/wholesale-charges/>

When we charge the NAV for water and wastewater volumetric charges measured at the boundary via a bulk meter, we will adjust the weighted wholesale starting tariff for the site by the **leakage allowance**. See section 2.6 for more details on how the leakage allowance is set and applied.

2.2. Menu of charges – avoided costs menu

In developing our bulk charges for 2024-25, we have revised how we set out our bulk charges for NAVs in order to streamline and simplify our charge structure to aid transparency and useability for NAVs.

We publish a 'priced menu based' tariff, moving away from entirely site-specific charging. In order to develop the menu below, we reviewed all existing NAV sites in Yorkshire (ones built out, ones under construction, and ones with bulk supply agreements in progress) to consider where there were close correlations between site characteristics that are drivers for variable avoided costs.

The number of properties closely correlate with network length across the majority of NAV sites in our sample. We were able to define three typical sites thresholds based on grouping around an average site property density for each grouping. By having more than one menu typical site standard this protected sites currently paying for bulk supply or discharge services under site specific arrangements from facing high price variances as we cutover to a menu-based approach.

Our menu is set in Table 2.2 over the page, with three standards for 'typical' sites based on the number of properties on the appointed site when it is fully built out between 1 and 350.

For any NAV site that will serve more than 350 properties, we will develop a site-specific avoided cost value to apply on a per property basis.

Table 2.2 Menu of Water and Wastewater Avoided Costs for ‘typical’ sites based on number of properties.

Water

Water		Menu A	Menu B	Menu C	Bespoke avoided cost
Avoided costs	Unit	Sites up to 100 properties	Sites between 101 and 200 properties	Sites between 201 and 350 properties	Sites above 350 properties
Scientific services	£/prop pa	1.28	1.28	1.28	1.28
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Sewerage

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Business overheads	£/prop pa	1.91	1.70	1.53	Site specific
Asset replacement	£/prop pa	10.19	9.06	8.15	Site specific
Total avoided costs	£/prop pa	21.78	19.37	17.41	TBC

2.3. Working towards best practice

Ofwat has led an industry working group, the Bulk Charging Working Group (BCWG) looking at how charges for the bulk supply of services to NAVs are set by incumbents and seeking inputs from them along with the NAVs in the market on ways to improve transparency and identify best practice. The BCWG has looked at a range of areas such as consistency in the coverage of cost types to be considered in the wholesale minus approach, the basis for the wholesale tariff starting point, and also transparency in how information on charges, both how they are set and what they are, is effectively shared with NAVs.

The BCWG produced a paper in August 2021² that outlined how the relevant starting point tariff could be set and some principles for setting bulk tariffs. These principles are:

1. Bulk tariffs should be simple, clear, and not onerous to calculate / apply.
2. Tariffs should be structured using a menu-based approach.
3. Bespoke tariffs should be the exception.

As we advised in our NAV charges publication for 2023-24, we planned to further reform our charges towards a 'menu-based' approach. We believe our charges for 2024-25 do accomplish this and will provide to NAVs early in their commercial opportunities with developers a clear articulation of what they could expect to pay for bulk water and wastewater services from Yorkshire Water is the incumbent regional wholesaler.

Published in parallel to this document is a **checklist of cost categories** that the BCWG identified as having the potential for being in some way avoided by the incumbent where NAVs adopt new networks in the incumbents' place.

This avoided cost checklist details whether Yorkshire Water does include this cost type within the avoided cost stage of our NAV charges methodology or if not the rationale for it not being relevant to the setting of bulk charges.

2.4. Water efficiency incentives in bulk tariffs

The Water Industry Act 1991 includes a duty on every water undertaker or water supply licensee to promote the efficient use of water by their customers. However,

² BCWG Workstream 1 - Setting the relevant starting point and overall tariff approach

the current regulatory framework set by Ofwat does not include any direct incentivisation for NAVs for improving per capita consumption in their appointed areas.

In September 2022, Ofwat published a short report outlining a review it had undertaken on the incentives and support incumbent water companies were providing to developers in encourage the building of more water efficient homes.³

Within that report, Ofwat notes that how incumbents set their charges for the bulk supply of water has the potential to create some unwanted disincentives on NAVs to encourage or invest in water efficiency from their customers.

Ofwat states “if the charges are structured such that the new appointee can earn greater returns if its customers use more water, it could provide a perverse incentive for the new appointee to avoid encouraging its customers to conserve water.”

Ofwat’s report goes on to summarise an example of a charging structure that removes this disincentive from bulk charges through the use of a two-part tariff arrangement. Part one is a volumetric tariff for recovering the wholesale value of the water supplied by the incumbent to the NAV, and part two is a fixed discount value, or credit, applied on a per property connected basis as a means to provide for the ‘avoided cost’ element of the wholesale-minus approach to setting bulk charges for NAVs.

Under the above tariff structure, should volumes of water consumed, and/or wastewater discharged by the NAVs customers vary significantly from what was expected by the NAV at the time of its application for bulk services, the level of avoided costs discounting provided by the incumbent to the NAV remains stable (subject to future changes to the underlying drivers of avoided costs). The NAV’s customers would benefit from acting on the NAVs investments in the promotion of water efficiency through having lower water bills and the NAV is provided with a stable margin value on the bulk wholesale charges it faces for the appointed site.

We continue to use this two-part tariff methodology for setting bulk charges that addresses the concern highlighted by Ofwat, whilst still following the wholesale-minus approach.

³ Water companies’ environmental incentives to support more water efficient new homes, 7 Sept 2022

3. Our charging arrangements

Over the following sections we present our charging arrangements based on the 'wholesale-minus' approach including the treatment of avoided on site costs and other allowances updated for 2024-25.

Yorkshire Water is changing how it sets bulk charges for the 2024/25 period from being set on a site-by-site basis to being set using a fixed menu of standard 'typical' NAV sites.

We will transition existing bulk supply arrangements for current NAV appointed sites within our incumbent region over to this new menu-based charging approach for 2024-25

Some larger sites that are beyond the menu structure will continue to have bulk tariffs set on a bespoke basis.

In our charging approach we calculate the present value of the wholesale charges that we would apply if serving the customers on the site (i.e. our wholesale volumetric tariffs and any fixed charges), and then deduct the value of the costs that we have avoided by the NAV serving the site instead of Yorkshire Water.

We exclude the initial costs to construct the onsite network (mains, sewers, meters, and other network assets) as we expect the NAV to recover these costs directly from the developer up front prior to adoption. Similarly, any costs to reinforce our upstream or downstream networks to manage growth from new developments are excluded from the setting of bulk supply charges (we explain these additional charges later in this document). Such costs do not get recovered through our wholesale tariffs to end customers and are not relevant with setting wholesale tariffs for provision of bulk services.

We also exclude the revenues and costs we would collect and incur for the provision of retail services to the end consumers. These are already allowed for in the tariffs NAVs can charge its customers. This includes the costs we would otherwise incur for the management of bad debt that are within the retail allowed revenues.

To set the present value of our future operating costs we discount these cashflows based on an assumed NAV return on capital.

3.1. Tariff structure

Our bulk charges tariff structure is shown in Figure 2. with the tariff output for the NAV site being in two parts.

- Part 1 is the **volumetric tariff** that will be applied to water usage values (from the boundary meter or other meter data as relevant),
- Part 2 is applied as a **fixed charge** (typically negative) for each property connected at the NAV site. It is important to consider when the site is in its build phase this charge element will apply to those properties connected at that point and not the future completed site property count. Only when the site has been completed and all properties are connected will the fixed discount element apply in full.
- Both parts 1 and 2 are specific to the characteristics of the site as advised by the NAV when it applies for a bulk supply and/or discharge agreement and seeks prices.

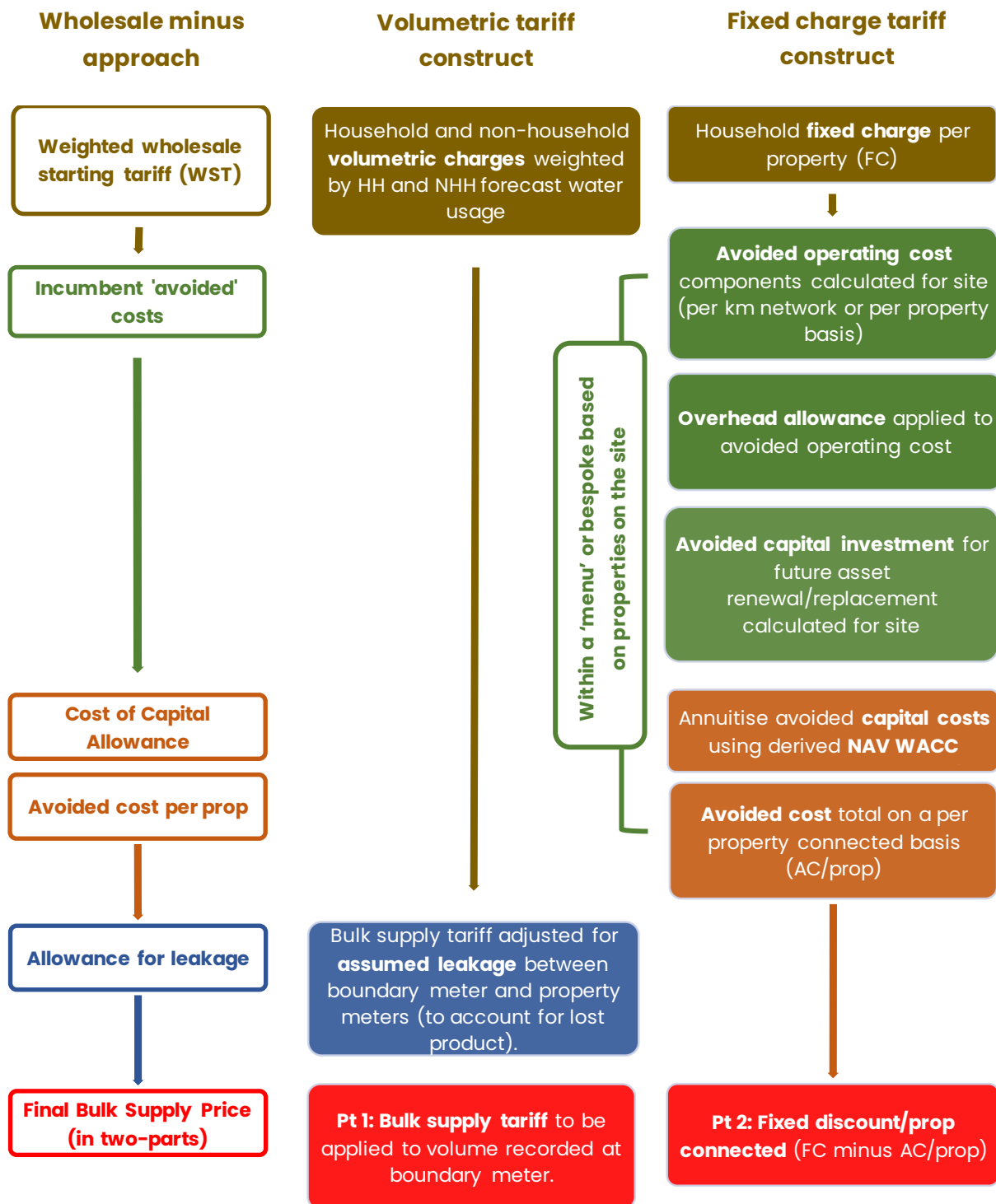
To apply this approach we will use meter readings from the boundary meter to bill the volumetric component of the tariff and use the latest information from the NAV on connected properties at the relevant site for the per property charge component. We will bill NAVs on a monthly frequency under the two-part bulk tariff approach.

It should be noted that there may be infrequent circumstances where this two-part tariff approach could result in a credit to the NAV where the volumetric related charge is smaller than the net avoided cost charge – for example, where some properties on a site during the build phase have been connected but are not fully occupied and the legitimate water demand via the bulk supply is very low. Please note we will limit our invoices for bulk supplies in these circumstances at zero.

We require the NAV to provide regular updates on the counts of connected properties during the site build phases. Where such information was not made available in a timely manner, Yorkshire Water would estimate the number of connected properties based upon an assumed build and connection rate and by cross-checking with water demand to the site.

Both the volumetric and per connected property parts of the tariff will be reviewed annually and would be expected to be revised as underlying wholesale tariffs move and our avoided costs change over time.

Fig 2. Site specific two-part tariff – summary of approach



3.2. Wholesale weighted starting tariff

We calculate the wholesale tariff 'starting point' for the setting of bulk charges through a 'weighted' approach based on the mix of properties (household and non-household) to be built and served at the site and their relative forecast water consumption. This method remains consistent with Ofwat's latest guidance.

The fixed charge element of our wholesale tariffs is used in combination with the calculation of avoided costs on a per property basis.

Our wholesale household measured water tariffs for 2024-25 are 11.7% higher than for 2023-24. For wastewater the increase is around 5.6%. These increases are a combination of CPIH at 4.2% and a positive K-factor set by Ofwat for 2024-25 due to reduced forecasts for household water consumption compared for our PR19 Final Determination.

The formula for the **weighted wholesale starting tariff** is shown in **Figure 2.1**.

We assume all household and non-household properties at the site will be **metered** and therefore we use wholesale tariffs for metered properties in our published tariffs.

Where the new development site to be adopted by the NAV sits within the defined geographical area for **York Waterworks**, then the starting point will be derived from our published York Waterworks wholesale tariffs (water services only). Our published tariffs detail what these charges would be within the York Waterworks area. In **Appendix A** of this paper we provide details of the local parishes which make up the historical York Waterworks territory. Should you be unsure whether the site is within this territory, please contact Yorkshire Water with full details of the site address and plot locations and we can advise accordingly.

Figure 2.1. Calculating the weighted wholesale tariff starting point.



Weighted Wholesale Starting Tariff

$$= \frac{N_{HH}C_{HH}Tariff_{HH} + N_{NHH}C_{NHH}Tariff_{NHH}}{N_{HH}C_{HH} + N_{NHH}C_{NHH}}$$

N_{HH}, N_{NHH}: number of HH and NHH on site

C_{HH}, C_{NHH}: HH and NHH annual demand (m³)

Tariff_{HH}, Tariff_{NHH}: HH and NHH 'wholesale' volumetric tariffs

The 'wholesale' fixed tariff is not used in creating the weighted wholesale starting tariff but is applied to the 'net avoided cost' component of the two – part tariff on a per property basis.

The formula is used to calculate the weighted starting tariff for both water and wastewater services. For wastewater, we apply a standard 95% 'return to sewer' rate to the household and non-household annual water demand as a default.

If the NAV has reason to request a site-specific return to sewer rate, for example it knows a non-household property at the site will be involved in water being consumed in a production process that is not ultimately going to foul wastewater, then it should contact Yorkshire Water. We would require a NAV to evidence such site or property characteristics and justify a deviation from our standard 95% value in advance of finalising a bulk discharge tariff for inclusion in the discharge agreement.

In the unusual case that premises on the site will not be individually metered, we request the NAV contacts Yorkshire Water to seek further advice – for example, where a **common billing agreement** is proposed for the NAVs customers⁴.

⁴ In such cases the weighted wholesale tariff starting point may be impacted as well as the assessment of avoided costs.

Finally a factor is applied to the wholesale starting volumetric tariff (from part 2.1.1) to account for the expected **loss of water through leakage** on the NAVs network between the boundary meter (measuring volumes for the whole site) and the meters at the on-site premises (measuring volumes at individual premises).

We have set this level of allowance using our historical leakage performance data from our more modern DMAs, as we explain further in part 2.6.

The leakage allowance is applied to both water and sewerage bulk volumetric tariffs, where relevant.

Where we do not use meter read data from a bulk meter at the NAV site boundary, but instead use the reads from meters at end customers premises, no leakage allowance is applicable.

3.3. On-site costs avoided – ongoing opex and capex

In assessing the level of on-site costs avoided by Yorkshire Water where a NAV serves a site, we prioritise a **bottom-up approach**, looking at the type and level of costs typical to newer parts of our networks. Where we are unable to do this, we assess costs by normalising our cost data across the whole of our region or operations (top-down).

Where we can we use the average of the last three financial years information to 2022-23 to set these costs, in order to remove any volatility in expenditures that may be experienced in a single year.

Avoided costs are made up of:

- Ongoing **operating expenditures** to service and maintain the on-site water and/or wastewater networks. We apply a percentage uplift to avoided operating costs for water and wastewater costs. These additions are to cover **overheads and corporate costs**.
- **Capital expenditures** for future replacement and renewal of assets over time, based on expected asset lives and replacement rates. This includes replacement of meters and chambers, mains and associated fixtures, sewers, etc. Our assessment of capital expenditures includes overhead costs covering activities at our corporate centre.

Outlined below are the key avoided cost components that we build into our bulk supply charging approach.

3.3.1. Scientific services – sampling and testing costs

Some of the costs incurred by Yorkshire Water for the collection of regulatory water samples, analysis, monitoring and reporting each year are avoided where a NAV is instead serving a site. Based on our latest cost information and the total number of connected properties in our region reported in our APR, we have estimated a fixed discount for scientific services on a £/property/year basis.

Although our water quality sampling costs do not in practice change linearly in line with the number of new properties connected to our network, we understand the Drinking Water Inspectorate (DWI) places sampling requirements on new NAV sites in a way that may place such costs on the NAV operations. Therefore, we continue to include an avoided cost for sampling into our charges.

3.3.2. Water and sewerage operational costs

For our water network, we apply flushing as the predominant pipe cleaning method. The cleaning technique is employed on the distribution network rather than trunk main network. For our sewer network, operational costs cover activities such as jetting and CCTV surveys. Based on updated cost data and the total length of our networks reported in our APR, we have estimated the discount for water and sewerage operations on a £/metre basis. The £/metre rates are then applied to the 'menu' of typical sites to derive a series of £/prop values to allow these discounts to be readily applied to sites based on their range of properties.

It should be noted that costs associated with Highways Drainage are recovered within our wholesale wastewater volumetric charges. However, as we do not avoid any unique costs related to highways drainage where a NAV adopts a local wastewater network, we have made no additional discount to our charges to NAVs for the provision of bulk wastewater services. The avoided costs are within the costs we have assessed for operating our wastewater networks in general.

3.3.3. Leakage management costs

Active and reactive leakage management expenditure is the average cost for detecting and repairing leakage across our network. We have used updated source data to 2021-22 and have estimated the average leakage management costs to set a discount on a £/metre basis. The £/metre rate is then applied to the 'menu' of typical sites to derive a series of £/prop values to allow the leakage discounts to be readily applied to sites based on their range of properties.

3.4. On-site costs avoided – long-run avoidable costs

Ofwat's bulk charges for NAVs guidance ask companies to:

"... consider the level, timing and profile of all costs incurred over the lifetime of the asset, including through the estimation of an equivalent average annuity. The incumbent's historical costs could be a reasonable and practical proxy for estimating ongoing maintenance costs."

For the calculation of the long-run avoidable costs for future asset replacement and renewals we use the equivalent (annual) annuity (EAA). This approach presents the net present value of a series of future potentially uneven costs as a series of equal annual costs over the lifetime of the investment.

Our approach to estimate the EAA has remained the same as last year, but we have updated input cost information with 2022-23. This approach is used to estimate external meter and meter chamber replacement costs, water and sewerage street furniture replacement costs, mains/sewers renewal costs, and communication pipes and stop taps replacement costs.

The calculation considers the relative lives of the assets above and the application a NAV specific cost of capital (NAV WACC).

The **NAV WACC** value we use in our bulk supply charges to estimate the long-run avoidable costs as an annuity for the current year is **4.16%**. This has been maintained as per 2023-24 and years previously, using Ofwat's earlier guidance to incumbents on setting of bulk charges for NAVs (from May 2018) as the basis for setting an appropriate NAV WACC.

3.5. Business overhead

In setting an allowance for indirect costs and relevant corporate overheads, we have set an avoided cost allocation in proportion to the level of overhead costs Yorkshire Water incurs compared to our direct operating costs for our Water Network Plus and Wastewater Network Plus revenue controls.

These overhead cost allowances are applied to the operating costs assessed as being avoided to operate and maintain the local network. We believe approach closely reflects the asset ownership aspects of the NAVs business, with the full 'retail revenues' being collected by the NAV to cover retail services it delivers outside

these bulk 'wholesale' charges (including again an allocation for overheads associated with a retail business).

3.6. Leakage allowance (bulk metered site)

Where water supplied to the NAV site is measured at the boundary by a bulk meter, we need to account for the difference in the billed volume at the bulk meter compared to the billable volume at the premise's meters in aggregate (the volume applicable to wholesale tariffs) due to leakage losses.

The difference is evaluated as a percentage discount and applied to the starting volumetric tariff to reflect the volumes recorded at the premises meters that the NAV will use for billing its customers.

For 2024-25 bulk charging, we have moved to a **fixed leakage percentage value** for all bulk supply agreements at **6.1%**. We apply this automatically within the bulk supply charges menu into the wholesale starting volumetric tariff.

We have assessed leakage losses on more modern DMAs (up to 20 years in age) within our water network across our region. We will continue to track our leakage performance and model future leakage to reflect a fair level of leakage attributable to modern metered networks and new-build features.

This does not impact the ongoing and long-run avoided costs that are captured in the fixed charge tariff part.

The leakage allowance is applied to both water and sewerage bulk tariffs, where relevant. Where we do not use meter read data from a bulk meter at the NAV site boundary, but instead use the reads from meters at end customers premises, no leakage allowance % discount is applicable⁵.

3.7. Local Authority Rates

We make no explicit avoidable cost adjustment from our bulk supply charges in relation to local authority rates, as we do not envisage the initial on-site network assets to be accrued to the NAVs asset base. However, should a NAV within our region face rates payable related to a specific development we would be willing to

⁵ The exclusion of a leakage allowance adjustment may also apply where premises on site are not individually metered – we would need to assess this in consultation with the NAV.

work with them to consider a mechanism to recognise this cost where necessary and subject to evidence.

3.8. Sewer pumping stations

Our bulk supply charges menu does not currently give a fixed discount for sites where a NAV may have a sewer pumping station. The treatment of the incumbents avoided costs associated with sewer pumping stations (SPS) at NAV sites will continue to be determined outside our core NAV bulk pricing.

We do model these avoided operational and maintenance costs separately on behalf of NAVs when they enquire about the additional features of their wastewater on-site networks.

NAVs should continue to make enquires to Yorkshire Water at the earliest opportunity should it know the details of a planned SPS at its site.

3.9. Competition Act

Given our Competition Act duties, we have considered how we can comply with the regulatory guidance and charging principles. Namely, that the minus from the wholesale starting point should vary according to local avoided costs for the specific site, but that incumbents should make bulk supply tariff information readily available to NAVs.

In atypical cases we would look to adapt our bulk supply charging arrangements to the specific unique circumstances. We recognise that where a NAVs solution will deliver capabilities further upstream than we see in a typical development, we may consider incorporating bespoke elements into any final bulk supply pricing arrangement.

We have tested our bulk supply charging approach against a range of reference points, including our Wholesale large user tariffs and a long run financial appraisal to ensure we avoid margin squeeze.

3.10. VAT chargeable

All charges are subject to the addition of any Value Added Tax chargeable.

4. Worked example

To illustrate our approach to setting bulk charges, we provide a **worked example**.

We consider a NAV site with **300 household properties** and **2 non-household properties**. Both bulk water and wastewater services are required by the NAV. The annual water demand has been estimated by the NAV at 130m³/yr. for each household property and 4,000m³/yr. for each non-household property. A rate of return to sewers of 95% of water demand is used to estimate the wastewater demand. We have assumed there is no connection for surface water to the site.

The total length of water mains on the example site is 3.0km and the total length of sewers is 2.5km. As the number of properties at the site is between 201 and 350, this site would sit into Menu C in our published menu of avoided costs. If the site was beyond the 350 properties range, we would need to know the planned lengths of the onsite water and wastewater networks as relevant ahead of Yorkshire Water confirming final tariffs into a bulk supply and/or discharge agreement.

In Table 4.3. below we have shown as a comparison the equivalent Wholesale large user tariff (based on the assumed total annual demand of the site) as a comparable benchmark.

Table 4.1. List of key NAV customer and site characteristics

NAV characteristics	Values
Total length of mains (km)	3.0
Total length of sewers (km)	2.5
Nr of HH properties	300
Nr of NHH properties	2
Annual HH water demand (m ³ /yr./prop)	130
Annual NHH water demand (m ³ /yr./prop)	4,000
Annual HH wastewater demand (m ³ /yr./prop) at 95% return-to-sewer	123.5
Annual NHH wastewater demand (m ³ /yr./prop) at 95% return-to-sewer	3,800

Table 4.2. Wholesale charges for water and wastewater based on the NAV characteristics

2024-25 Wholesale charges	Values
Water:	
Fixed HH charge	£12.79 /prop pa
Volumetric HH charge	179.57 p/m ³
Volumetric NHH charge (0-50MI)	176.45 p/m ³
Volumetric NHH charge (>50-250MI)	112.68 p/m ³
Wastewater:	
Fixed HH charge	£- /prop pa
Volumetric HH charge	207.77 p/m ³
Volumetric NHH charge (0-50MI)	199.38 p/m ³
Volumetric NHH charge (>50-250MI)	161.16 p/m ³

Table 4.3. Starting weighted tariff, total avoidable costs, leakage allowance and final tariffs

Name	NAV site
Weighted starting water vol rate (p/m³)	179.04
Weighted starting sewerage vol rate (p/m³)	206.34
Starting water fixed charge per HH prop	£12.79
Water avoidable costs (£/prop pa)	-£40.48 (from Menu C)
Sewerage avoidable costs (£/prop pa)	-£17.41 (from Menu C)
Leakage allowance (%)	6.1% (fixed)
Water bulk supply vol tariff (p/m³)	168.12
Water bulk supply fixed tariff (£/prop pa)	-£27.69 (or -£2.31 per month)
Sewerage bulk supply vol tariff (p/m³)	193.76
Sewerage bulk supply fixed tariff (£/prop pa)	-£17.41 (or -£1.45 per month)
Equiv. water bulk supply vol tariff (p/m³)	161.19
Equiv. sewerage bulk supply vol tariff (p/m³)	184.91
Equiv. NHH LUT water (p/m ³)	For 47.0MI = 176.45
Equiv. NHH LUT sewerage (p/m ³)	For 44.65MI = 199.38

In Table 4.4, we present how for a range of typical NAV sites our water and wastewater bulk supply and discharge tariffs would change between 2023-24 and

2024-25. Note the underlying wholesale tariffs have increased by around 12% for water and 6% for wastewater between 2023-24 and 2024-24 charges.

Although as we now follow a mix of menu-based approach and site-by-site approach where more than 350 properties will be on the site, each example generates a unique two-part tariff and variance between 2023-24 and 2024-25 rates, it is noteworthy that all examples show water tariffs increasing from last year by a greater percentage than the change in the underlying wholesale water tariffs.

For these example scenarios, we have assumed household water demand is 130 m³/yr/prop and commercial demand is 2000 m³/yr/prop, with a 95% return to sewer (and no surface water drainage connection).

Table 4.4. Example sites showing change in bulk supply and discharge tariffs from 2022-23 to 2023-24

	Site scenario	Service	HH props	NHH props	Network length (km)	FY 2023/24		FY 2024/25			% Change in tariff	NAV Wholesale margin
						BSP vol tariff (p/m ³)	Net fixed/prop charge (incl. avoided costs) (£/prop pa)	BSP vol tariff (p/m ³)	Net fixed/prop charge (incl. avoided costs) (£/prop pa)	Leakage allowance		
1	Small low density water site	Water	80	-	1.0	147.95	-38.23	168.62	-30.69	6.1%	18.7%	17.7%
2	Medium dual service site	Water	200	-	1.8	150.36	-32.14	168.62	-30.04	6.1%	13.4%	17.4%
		Sewerage	200	-	1.8	183.91	-16.87	195.10	-19.37	6.1%	-0.3%	7.5%
3	Medium dual service site	Water	200	5	1.8	152.35	-32.14	167.80	-27.69	6.1%	13.6%	12.4%
		Sewerage	200	5	1.8	185.15	-16.45	192.91	-17.41	6.1%	0.5%	5.0%
4	Large dual service site	Water	500	5	4.5	151.29	-29.49	168.23	-28.84	6.1%	13.6%	14.9%
		Sewerage	500	5	4.5	184.48	-16.70	194.05	-18.84	6.1%	0.0%	6.4%
5	Very large dual service site	Water	2000	-	15.0	151.97	-26.06	168.62	-25.42	6.1%	13.7%	15.5%
		Sewerage	2000	-	15	185.87	-14.05	195.10	-15.86	6.1%	-0.1%	6.2%

Note - For scenarios 1, 2 and 3 they come into avoided cost menus 'Menu A', 'Menu B' and 'Menu C' respectively. Both scenarios 4 and 5 are for sites with over 350 properties and would thus be provided with **bespoke tariffs** and avoided costs based on property mix and network lengths of the on-site NAV networks.

5. Other charges

5.1. Surface water drainage fixed charges

Where a NAV connects the development site to our sewerage network for drainage of surface water, we will levy our standard wholesale surface water drainage fixed charges in full on a per property per annum basis but billed monthly against connected properties at that time. For non-household premises we will use the business banded charges published within our annual Wholesale Charges scheme.

This approach is consistent with our bulk supply charges for last year.

5.2. Bulk meter and meter reading and maintenance costs

We do not build the costs to install, operate and read bulk meters at the boundary of the NAV site into our bulk charges at present. These costs are recovered through our Infrastructure Charges where these are classified as associated with network reinforcement, or via our Wholesale tariffs from the generality of customers.

5.3. Site specific expenditure and cost recovery

Site specific costs associated with any contestable work the NAV instructs Yorkshire Water to carry out, plus any non-contestable works, will be charged in accordance with our New Connection Charges, as published annually.

We do not provide for Income Offsets in our New Connection Charges (and have not done so since 2018-19).

Where the NAV faces other specific costs on an individual site that are not covered by our bulk supply menu or site-specific tariffs, we will work with the NAV to understand the asset and its maintenance requirements and consider what further costs, if any, Yorkshire Water would avoid on an ongoing basis and how this could lead to additional bulk tariff adjustments.

5.4. Infrastructure Charges and Environmental Incentives

Our New Connections Charges⁶ require the NAV to pay **Infrastructure Charges** on a per property connected basis. Infrastructure Charges are set at a level to recover over time our forecast expenditure required to reinforce our networks due to growth in our region. The charges are split into three charge components – charges for water connected, foul connected, and surface water connected. These charges apply equally to NAVs, developers and self-lay providers, whomever is the lead organisation making the new connections arrangements with Yorkshire Water.

Where the NAV does not connect the properties on its site for surface water ultimately to our sewerage network (but deals with surface water itself in the locality), Yorkshire Water will not levy the surface water infrastructure charge component to the NAV.

Environmental Incentives for the construction of low water use housing, which come through as reductions in our Infrastructure Charges (water and foul) as detailed within our New Connections Charges, will continue to be available to NAVs as well as other market participants on an equal basis. We encourage NAVs to avail themselves of our New Connections Charges and the incentives published within these so they can have full discussions with their developer clients.

5.5. Meter accuracy testing

If you have doubts about the accuracy of a bulk supply meter, you can request that the meter is tested. Yorkshire Water will charge a fee which covers the cost of exchanging the meter and testing its accuracy. The fee is bespoke, and we will provide a quotation upon request.

If the results show the meter is outside its accuracy range the meter test fee and meter exchange fee will not be payable.

5.6. Provision of wholesale logger data

Where Yorkshire Water have logging equipment attached to a bulk supply meter, we can provide you with the data relating to the bulk supply. We will provide you with access to a platform where the data can be viewed or downloaded.

⁶ www.yorkshirewater.com/developers/developer-services-charges Charges for 2024-25 will be published by 1 February 2024 and include revised environmental incentives.

Access will be provided for one year, after this period you will be required to re-apply should you wish to continue access to the data. There is an annual charge for this service published in our Wholesale Charges for 2023-24.

5.7. Provision of other information

Yorkshire Water may be able to provide, upon request and payment of the relevant fee, other data or information that the NAV may require to comply with its' reporting obligations. This includes, but is not limited to:

- Population Equivalent reports.
- Dangerous Substances reports.
- Pollution Inventory reports.

We will charge for such additional information. If you would like to discuss this service, please contact your Yorkshire Water Client Relationship Manager.

5.8. Trade effluent advice in relation to an Application or Direction

Yorkshire Water are required to assess a trade effluent discharge in relation to any applications made to the NAV regarding a Trade Effluent Consent or Direction as prescribed in the Water Industry Act 1991. The charge made for this is based on the volume and nature of the effluent. This can only be provided for effluents being discharged to the Yorkshire Water sewer network as part of the Bulk Discharge Agreement.

If you believe you will be discharging trade effluent into our sewer network, you should contact Yorkshire Water as soon as you become aware of this, so that we can assess the impacts and work with you on consents and the associated trade effluent charges.

Where the NAV is taking enforcement action for a breach of section 111 or trade effluent provisions of the Water Industry Act 1991, Yorkshire Water will provide the NAV with all reasonable support as requested by the NAV to support the enforcement action. The costs associated with this support are charged on incident-by-incident basis and include the recovery of direct and indirect costs.

If you would like to discuss trade effluent requirements, please contact your Yorkshire Water Client Relationship Manager.

Should a NAV have any questions about how we set our NAV bulk tariffs or anything in this charge's publication, please get in contact with Yorkshire Water in the first instance via our email:

Network.access@yorkshirewater.co.uk

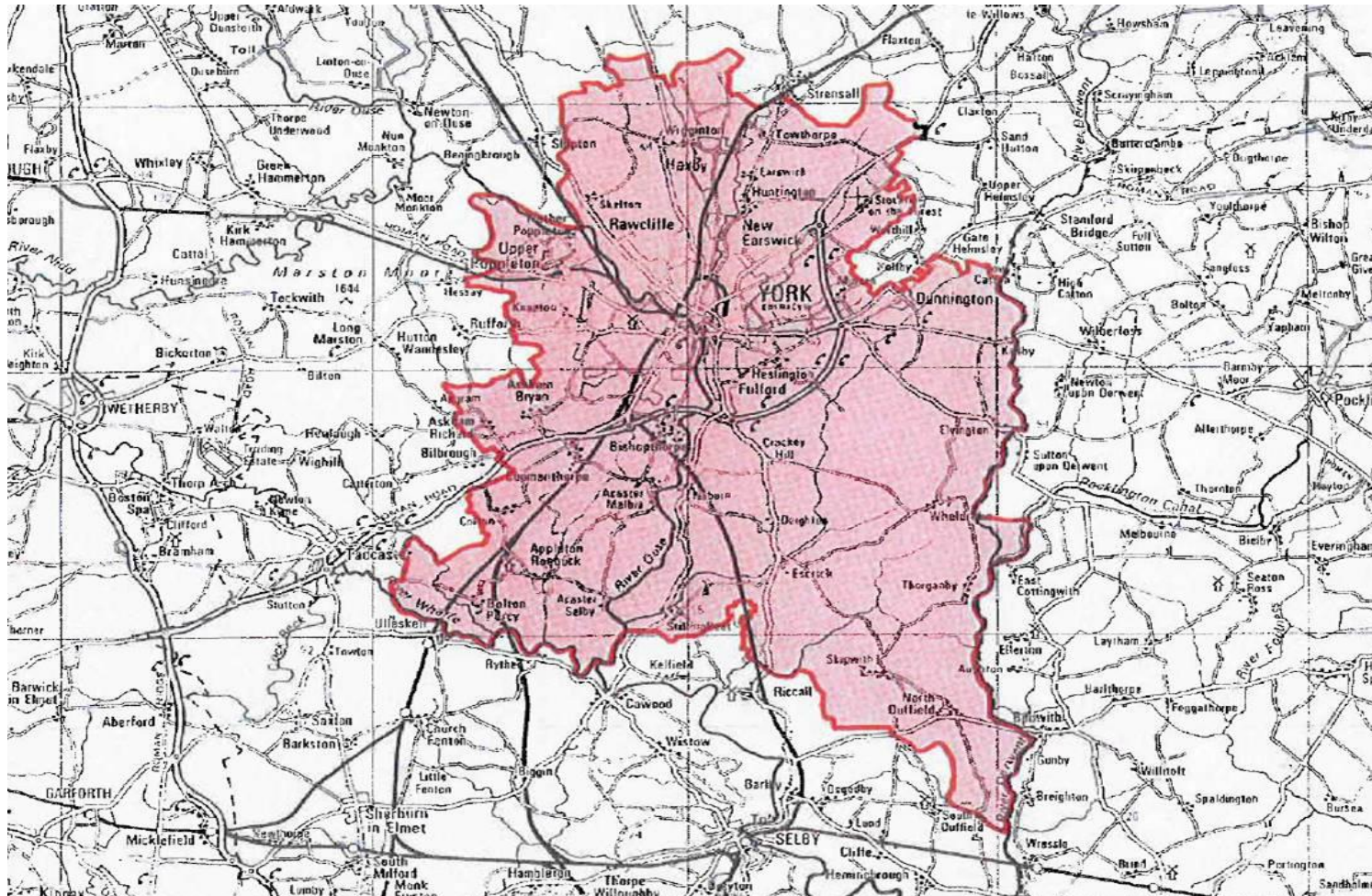
We aim to continue to make our charges for bulk services for NAVs transparent and straightforward. We would welcome feedback on the usability of this publication so that we can continue to keep the provision of bulk supply charge information as easy as possible for NAV users to understand and self-serve.

6. Future changes to our charges

We will update our bulk supply charges as our Wholesale charges change annually to recover the allowed revenue as determined through the regulatory price review process. Should we need to make revisions or interventions to our charges approach due to material changes in Ofwat's guidance or the introduction of relevant charging rules we will inform NAVs in advance.

7. Appendix A. – York Waterworks area

NAVs serving sites within the York Waterworks area will be subject to different wholesale water 'starting' tariffs from Yorkshire Water for bulk supply charges.

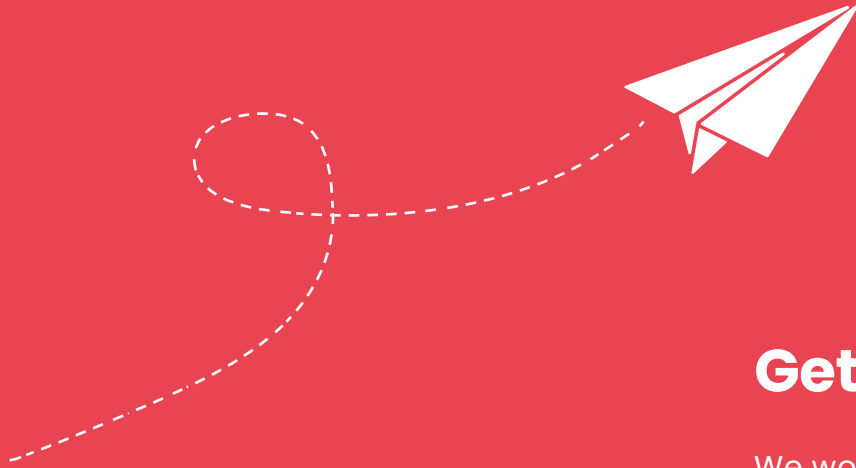


York Waterworks Map (extract from licence)

York Waterworks territory is detailed by the parishes that make up the area. If the NAV site resides within one of these parishes Yorkshire Water will use our published York Waterworks tariffs for setting the wholesale starting tariff:

Parish Name

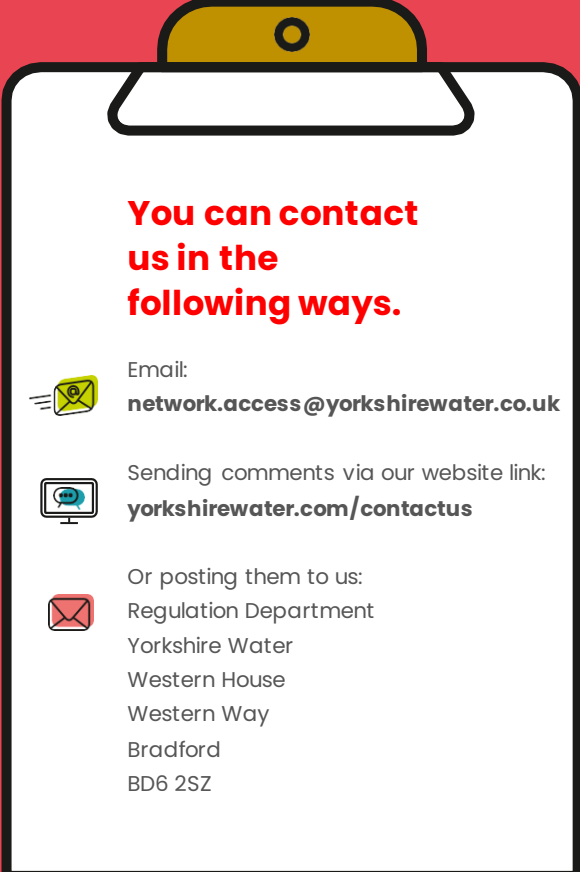
Acomb	Haxby
Acaster Malbis	Heworth
Acaster Selby	Heworth without
Askham Bryan	Heslington
Askham Richard	Holgate
Appleton Roebuck	Huntington
Bishopthorpe	Kexby
Bolton Percy	Knavesmire
Bootham	Micklegate
Castlegate	Monk
Clifton	Murton (Flaxton)
Clifton Without	Osbaldwick
Colton	Rawcliffe
Companthorpe	Scarcroft
Deighton	Skipwith
Dunnington	Stillingfleet
Earswick	Skelton
Elvington	Stockton-on-Forest
Escrick	Thorganby
Fulford	Towthorpe
Fishergate	Walmgate
Guildhall	Wheldrake
	Wiggington
	York




Get in touch with us


We would welcome your comments or questions on this document.


Please send us your comments using the contact details on this page.



You can contact us in the following ways.

Email:  **network.access@yorkshirewater.co.uk**

Sending comments via our website link:  **yorkshirewater.com/contactus**

Or posting them to us: 
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