

WWSL Bulk Charges for NAVs Method Statement

Wessex Water

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Version history

Version number	Version name	Publication date
1.0	Indicative charges 2023-24	01/12/2022

Note: The charges within this document are indicative to help our NAV customers in setting and communicating their charges, reflecting both the impact of inflation and our updated methodology. We will publish our final bulk supply charges and calculator on 1 February 2023. Wholesale charges in this document reflect our latest forecasts and do not align with our indicative wholesale charges published in October 2022. All charges are subject to change.

1. About this document

- 1.1 This method statement sets out Wessex Water Services Limited’s approach to setting charges for New Appointments and Variations (NAVs). It relates to bulk supply and discharge agreements between incumbents and NAVs, not between incumbents.
- 1.2 This document has been developed with transparency in mind, to demonstrate how we have accounted for industry best practice and to provide assurance that our bulk charges remain cost reflective.
- 1.3 This method statement forms one of a number of documents that we publish with regard to Bulk Charges for NAVs, as summarised in Figure 1-1:

Figure 1-1: Charges publication documents

<u>Wholesale charges</u>	<u>Household charges</u>	<u>Bulk charges for NAVs</u>	<u>New connection services charges</u>
Wholesale charges scheme	Household charges scheme	Bulk charges for NAVs scheme	New connection services charges scheme
Wholesale charges Board assurance statement	Household charges scheme Board assurance statement	Bulk Charges for NAVs Board assurance statement	New connection services charges Board assurance statement
Wholesale charges Statement of Significant Change	Household charges statement of significant changes	Bulk charges for NAVs method statement	New connection services Statement of Significant Change
		Bulk Charges for NAVs calculator	New connection services charges calculator
			New connection services charges worked examples

- 1.4 Our final bulk tariffs are set out in the charges schedule published separately on our website¹². At the same location, we have also published a charges calculator to allow potential NAVs to easily assess the likely charges they will incur. Appendix 2 provides an example of how the calculator may be used.
- 1.5 To request a copy of this or any of the bulk charges for NAVs documents, please contact us using the details below:

Email: wholesale@wessexwater.co.uk

Telephone: 0330 123 1122

Write to: Head of Wholesale Services Wessex Water Claverton Down Bath, BA2 7WW

¹ <https://corporate.wessexwater.co.uk/our-performance/our-charges>

² For completeness, we have also included our 2023-24 charges within this document

2. Introduction

- 2.1 The NAV market was established to enable developers and large business customers to choose their water and sewerage undertaker for a specific geographic area, typically one which has never previously been served by an incumbent.
- 2.2 We set bulk supply for NAV charges to cover the bulk supply or discharge agreements between incumbents and new appointees, using a wholesale minus approach. We review and publish bulk charges for new appointees at least annually, in line with the expectations set out in Ofwat's January 2021 revised guidance on bulk charges for new appointees³.
- 2.3 For our 2023-24 charges we have:
- retained a wholesale minus approach to setting the tariff;
 - moved to a more bottom-up calculation of avoided costs; and
 - included provision for adjustments to the bulk supply tariff due to innovative solutions and other services offered.

³ <https://www.ofwat.gov.uk/publication/bulk-charges-for-new-appointees-guidance-on-our-approach-and-expectations/>

3. Our wholesale minus approach

- 3.1 We use a wholesale minus approach for setting our bulk charges for NAVs, which is consistent with the latest Ofwat guidance⁴ (January 2021).
- 3.2 “This approach starts from the relevant wholesale tariff(s) and deducts costs that the incumbent would no longer incur if a new appointee supplied the site instead.
- 3.3 There are four essential elements in this approach:
- the wholesale charges or set of charges as the relevant starting point from which to deduct the relevant costs;
 - the ‘minus’ element which consists of the costs to be deducted from the relevant starting point. There are three categories of avoided costs that may apply:
 - ongoing costs;
 - a wholesale allowed return on on-site assets; and
 - depreciation on on-site assets”⁵.
- 3.4 The wholesale minus approach is summarised in Figure 3-1:

Figure 3-1: The wholesale minus approach to bulk charges



- 3.5 Each element is considered in turn. The following explanation of our approach is applicable to both water and wastewater services unless otherwise stated.

The relevant starting point

- 3.6 The relevant starting point is our wholesale charges that reflects the new appointee’s end customer base on the site.
- 3.7 This method statement takes as given our wholesale charges⁶ as a data source for the calculation of bulk charges for NAVs. Our wholesale charges are calculated annually and are set to recover allowed revenue as determined through the five year price control process. Annual revenue allowances are adjusted to reflect in period determinations and are indexed to November CPIH inflation. Due to this regulatory process, the relevant wholesale starting point does move year on year.
- 3.8 We create an ‘overall weighted average’ tariff that reflects the combined measured wholesale charges (fixed and volumetric) of all the NAV’s customers on that site. This accounts for different types of end-customers, including households and non-households. We do this by using information on the number of households and non-households on the site and their consumption. As such, we also account for different discharge arrangements (foul, Surface Water Drainage (SWD) and Highway Drainage (HWD) to inform the relevant starting point.

⁴ [Bulk charges for new appointees – guidance on our approach and expectations \(ofwat.gov.uk\)](https://www.ofwat.gov.uk/bulk-charges-for-new-appointees-guidance-on-our-approach-and-expectations/)

⁵ [Bulk charges for new appointees – guidance on our approach and expectations \(ofwat.gov.uk\)](https://www.ofwat.gov.uk/bulk-charges-for-new-appointees-guidance-on-our-approach-and-expectations/), p.9

⁶ Further information on our wholesale charges and the assurance of them can be found on our website: [Our charges | Wessex Water](https://www.wessexwater.co.uk/our-charges/).

- 3.9 A final site-specific fixed charge is applied for water to recover the cost of the single bulk meter, based upon the total expected water consumption.
- 3.10 HWD is included in the relevant wholesale starting point charged to NAVs because it is a socialised cost of collecting and treating water that drains from the highways into our network.
- 3.11 The inclusion of SWD in the relevant starting point depends on the services that the NAV offers to its end customers. For example, if all properties on a site have sustainable drainage solutions, we would not expect this to be included in the bulk charges we set but would be included final charges for those customers, such that the NAV is appropriately remunerated for the service it provides, not us as the incumbent.
- 3.12 For the avoidance of doubt, retail costs (such as billing services and reading the meters of end customers) are not recovered by wholesale charges and are not included in the relevant starting point.
- 3.13 Competition costs refer to the upfront set up and ongoing operating costs we incur as an incumbent operating in the non-household retail market. These costs form part of our non-household wholesale charges and therefore form part the wholesale starting point for our NAV charges, dependent on the number of non-household customers the NAV site serves.

Adjustment for Leakage

- 3.14 We make a downward adjustment of 5.5% to the volume recorded at the bulk meter to account for any on-site leakage that might impact the effective price at the end-customers' meters. This deduction is applied directly to the recorded volume consumed on a NAV site.
- 3.15 This adjustment accounts for the long-run average volume of water that would have counterfactually leaked from the network beyond the bulk meter, had we been operating the network instead of a NAV.
- 3.16 To calculate the quantum of on-site leakage as a percentage of the total volume at the bulk meter, we have constructed a theoretical model using expert engineering knowledge that calculates the leakage in an area over 60 years. We created a notional local network with a demand forecast consistent with that made in our most recent Water Resources Management Plan (2019). Over a 60-year horizon, average consumption per domestic property reduces from 104m³ per annum in 2020 to 93m³ per annum in 2080.
- 3.17 At year zero, leakage is almost zero in the newly laid network. A deterioration function was then created which simulates the increase in leakage over time as the network deteriorates. This function is exponential, so over time leakage increases significantly. An intervention threshold of 50 litres per property per day (or circa 20% of billed volume) was chosen as the point at which a company would intervene to reduce leakage back to a reasonable level. As the network deteriorates, leakage increases faster, and exponentially more frequent interventions are required. The costs of these interventions are included, on an average basis, within our avoided cost calculation.
- 3.18 The resulting 60-year average leakage is 15 litres per property per day compared to the total average bulk meter volume of 264 litres per property per day. This is calculated as 5.5% of total volume.
- 3.19 We recognise the potential variability of this calculation and have therefore performed sensitivity testing of all the variable parameters, trialling significantly different deterioration

rates and different intervention thresholds. This analysis resulted in leakage figures of 4.5% to 6.5%, a variation of +/- 1% compared to the average value. This gives greater confidence that the approach we have taken is reasonable and robust.

Relevant avoided costs

3.20 We consider three categories of avoided costs (avoided ongoing costs, wholesale allowed return and depreciation) in turn below. The following explanation of our approach is applicable to both water and wastewater services unless otherwise stated.

3.21 We recognise the progress made by the Ofwat bulk charges working group (section 4) and have considered each item in the checklist developed by the avoided costs sub-group, as summarised in Appendix 1.

Avoided ongoing costs

3.22 Avoided ongoing costs relate to the ongoing costs of operating and maintaining assets that we, as an incumbent, avoid in the NAV serving the site instead of ourselves.

3.23 We have considered the following costs:

- Direct operating costs
- Direct capital maintenance costs
- Central costs

Direct operating and direct capital maintenance costs

3.24 We have considered the activities we do and the activities we would avoid if a NAV were to serve a site instead of ourselves. We have considered this on an activity by activity, bottom-up basis, with reference to the NAV checklist (Appendix 1) and our own experience of the activities and costs of serving a site. We have then identified the direct operating costs and direct capital maintenance costs of those activities from our accounting system.

3.25 Direct operating costs refers to expenditure avoided in the operating and monitoring of assets. Direct operating costs include but are not limited to labour costs, power, materials and consumables, Local Authority rates, and general and support costs. Direct capital maintenance costs refers to expenditure on activities such as asset replacement and asset renewals required to maintain the network. Capital maintenance costs includes all infrastructure maintenance and replacement costs.

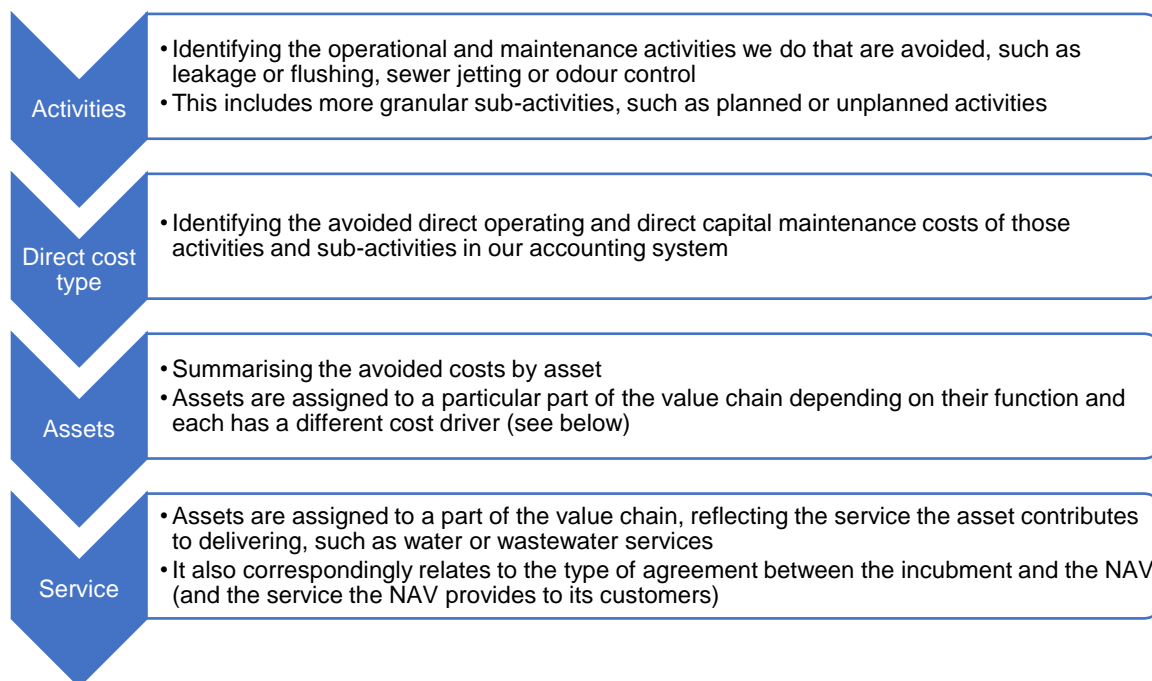
3.26 Our accounting system records the direct operating and direct capital maintenance costs to assets. Based on the costs identified, the relevant avoided direct costs have been allocated to one of the following asset areas:

- Mains (water) / sewers (waste)
- Communication pipes
- Water meters
- Pumping stations (water / waste)

3.27 Within our account system and reflecting the structure of our business by function and service delivered, assets are assigned to a part of the value chain (e.g., a water pumping station is assigned to treated water distribution, which is part of wholesale network plus).

3.28 We summarise our approach to identifying and capturing the relevant avoided direct operating and direct capital maintenance costs in Figure 3-2.

Figure 3-2: Cost structure within which we have considered the relevant avoided direct costs



3.29 We have used a 3-year average of cost information for direct operating costs and direct capital maintenance costs to inform the avoided ongoing costs.

3.30 We recognise that the level, timing and profile of direct capital maintenance costs varies over the lifetime of the asset. We have not considered it proportionate to consider capital maintenance costs on a net present value, asset by asset, basis. Instead, we have considered the direct capital maintenance costs we incur in maintaining our asset stock (e.g., pumping stations), a stock which is made up assets of different ages and taken a three-year average (2019-20 to 2021-22) of this to help smooth any uneven spend profiling.

3.31 Within the relevant avoided costs for wastewater, we include all costs associated with HWD and SWD such as clearing and maintaining drainage areas and de-silting. When we undertake these types of activities, it is difficult to attribute whether, for example, the de-silting activity was due to foul, SWD or HWD in the network or the appropriate mix of purposes.

Central costs

3.32 We have considered and identified the relevant avoided central costs, with reference to the NAV checklist (Appendix 1) and our own experience. We do not typically avoid any costs associated with central functions immediately as a result of a new site being added to our network because the costs do not normally directly correlate to levels of activity. For example, we do not initially avoid any FTE costs associated with central HR, legal or finance functions if one NAV were to operate a new site instead of ourselves because the change is generally marginal, however we would avoid costs if a significant number of sites were to be taken on by NAVs.

3.33 We acknowledge that Ofwat guidance suggests we should include the notional incremental central cost increase that we would observe if a significant number of sites were to be taken

on by NAVs, scaled to a single NAV site (and therefore scaled to relevant cost drivers). We have therefore included a top-down allocation of overheads (again based on a three-year average of cost information). Appendix 1 summarises the central costs, with reference to the checklist, that we have included.

- 3.34 We note in the checklist⁷ that business rates are included both as a checklist column and centrally avoided cost (C17). This is reflected within our avoided costs where business rates are allocated to central costs.
- 3.35 All central costs have been allocated pro-rata to direct operating and capital maintenance costs and included in the direct operating and direct capital maintenance costs summarised in Table 3-2.

Cost drivers

- 3.36 Based on the above approach, we have identified the total costs by asset listed in paragraph 3.263.25 we incur based on a three-year average for activities we consider relevant for a new development site.
- 3.37 We have further identified a set of cost drivers to scale the total costs by asset to give a view of the level of avoided costs at a site. We have considered the most relevant cost driver for each asset type as set out in Table 3-1.

Table 3-1: Cost drivers considered and used, water and waste

Category	Breakdown			
	Asset area	Mains / Sewers	Communication pipes	Meters
Cost drivers considered	<ul style="list-style-type: none"> • Volume - water / sewerage • No. of properties • Km of main / sewers 	<ul style="list-style-type: none"> • Volume – water • Km of comms. Pipe • No. of comms. pipes 	<ul style="list-style-type: none"> • Volume – water • No. of meters 	<ul style="list-style-type: none"> • Volume - water / sewerage • kW of pumping stations • No. of pumping stations
Final cost driver	Km of main / sewers	No. of comms. pipes	No. of meters	kW of pumping stations

- 3.38 Based on operational insight, we consider the length of mains and sewers the most appropriate driver of direct operating costs and direct maintenance costs related to the treated water distribution and sewerage collection parts of the network as there is a strong direct relationship between length and cost.
- 3.39 We have discounted the use of volumetric drivers (water, wastewater) across all the assets, because assets require maintenance even if there are no flows. On a similar basis, we have discounted the number of properties as a driver of cost, again because if there is no demand, maintenance will still be required.
- 3.40 Based on operational insight we have made the assumption that changes in length of a communication pipe does not have a significant impact on cost. We have also assumed that in most cases the length of a communication pipe to a property does not vary greatly.
- 3.41 The capacity of pumping stations (supply and waste) was the preferred cost driver. The advantage of this cost driver is that it should closely reflect the scaled costs associated with a

⁷ [Sub-Group-3-NAV-Wholesale-minus-framework.xlsx \(live.com\)](#)

specific pumping station. Also, if a NAV pumping station is contributing to the flow of the incumbent’s network upstream or downstream, this should be captured in the avoided cost.

3.42 Table 3-2 summarises and quantifies the relevant avoided costs per length or count of asset (cost driver) derived from the above steps.

Table 3-2: Avoided ongoing costs per asset, including central costs 2023-24

Avoided cost	Unit	Water	Wastewater		
		Water	Sewerage	SWD	HWD
Main pipes & wastewater sewers					
Avoided direct operational costs	£ per km	1,001.02	598.40	289.74	273.14
Avoided direct capital maintenance costs	£ per km	1,701.50	616.83	268.28	252.91
Total avoided cost	£ per km	2,702.52	1,215.23	558.02	526.05
Communications pipes					
Avoided direct operational costs	£ per communication pipe	3.46			
Avoided direct capital maintenance costs	£ per communication pipe	5.99			
Total avoided cost	£ per communication pipe	9.46			
Meters					
Avoided direct operational costs	£ per meter	2.86			
Avoided direct capital maintenance costs	£ per meter	3.95			
Total avoided cost	£ per meter	6.81			
Pumping Stations					
Avoided direct operational costs	£ per kW	149.05		194.87	
Avoided direct capital maintenance costs	£ per kW	17.85		121.97	
Total avoided cost	£ per kW	166.91		316.83	

Wholesale allowed return

3.43 On a new development site, if an incumbent were to serve it, the assets would be fully funded by the developer. Therefore, initially there would be no avoided returns as there would be no addition to the Regulatory Capital Value (RCV) associated with the site.

3.44 We recognise that when a NAV takes on a site that they will still be taking a risk as a result of owning and operating the on-site assets. Therefore, it is appropriate that the NAV receives a return for this risk and we have therefore included an avoided return in our bulk charges calculation.

3.45 There has currently been no discussion or best practice guidance on NAV returns as part of the bulk charges working group. However, Ofwat in its bulk charges for NAVs guidance⁸, has set out a methodology for calculating a NAV WACC. We have used this methodology and updated it appropriately (for example updating PR14 values with those determined at PR19) and used the equity delta (cost of equity wedge) implied by the method, to give an updated value for the NAV WACC.

3.46 In the regulated framework set by Ofwat, an incumbent’s return is calculated as the WACC multiplied by the RCV.

3.47 We have applied this approach to those assets which, if owned by the incumbent, would eventually through routine capital maintenance be added to the RCV. This therefore relates to the non-infrastructure assets on site (meters and pumping stations for water and pumping stations for wastewater). Replacement of infrastructure assets do not get added to the RCV but instead are recovered pound for pound from customers (similar to opex).

⁸ <https://www.ofwat.gov.uk/wp-content/uploads/2018/05/Bulk-charges-for-NAVs-final-guidance.pdf>

3.48 We have also provided for a working capital adjustment to acknowledge where a NAV may need to incur expenditure in advance of receiving income in any one particular year. We have calculated this adjustment as the allowed NAV WACC multiplied by one year of maintenance expenditure for the site. We include the working capital adjustment within the allowed return line of our NAV avoided cost, as summarised in Table 3-3.

Table 3-3: Return on on-site assets 2023-24

Avoided cost	Unit	Water	Wastewater		
		Water	Sewerage	SWD	HWD
Main pipes & wastewater sewers	£ per km	66.73	24.19	10.52	9.92
Communication pipes	£ per communication pipe	0.24			
Meters	£ per meter	2.48			
Pumping Stations	£ per kW	21.71	148.28		

Note: This includes both the return and working capital adjustment

Depreciation

3.49 Depreciation provides a broad equivalence to the annual average of capital maintenance expenditure incurred over the life of an asset, which is discussed in the section on Direct operating and direct capital maintenance costs (paragraphs 3.24 to 3.31).

Setting final bulk tariffs

3.50 We have considered, identified and quantified the relevant avoided costs and returns on an asset or size of asset basis, for the asset types set out in paragraph 3.263.25.

3.51 Whilst this provides transparency of the make-up of avoided costs in the wholesale minus calculation, we have received feedback from stakeholders (see section Stakeholder engagement) that setting charges bespoke to each site using site-specific asset information would not be appropriate. This is because of concerns around data provision, complexity and administrative scalability of site-specific charging and less upfront surety of charges when NAVs are assessing the financial viability of future potential sites, before they know the exact technical details.

3.52 We have therefore set final bulk charges based on a notional site.

3.53 As part of Ofwat's charging publications for new connection services, incumbents are required to publish the cost make-up of connecting a new site for a number of pre-defined site-scenarios or worked examples⁹. These worked examples had "been agreed collectively by companies, in consultation with stakeholders, during 2021"¹⁰.

3.54 We have used the scenarios for a large housing development (200 properties) to inform the asset ratios for a notional site. On this basis, we have used the number of properties as the cost driver for mains and sewers with an assumption for the average length of main or sewer per property; and we assume a one-to-one ratio of communication pipes and meters to properties.

3.55 We have also made the assumption that a standard size meter smaller than 25mm (household or non-household) and standard size communication pipe (household or non-household) is installed for all properties.

⁹ [Common Terms And Worked Examples Effective April 2022.pdf \(ofwat.gov.uk\)](#)

¹⁰ [Common Terms And Worked Examples Effective April 2022.pdf \(ofwat.gov.uk\)](#), p.1

3.56 Our final avoided costs capture the full menu of avoided costs scalable to the number of properties on the site (Table 3-4). We have considered it appropriate to present this for a notional site without pumping stations and for a notional site, scalable to the total capacity of pumping stations. This is because there are other more relevant factors than property numbers that drives the need for and capacity of pumping stations on a site. In addition, we recognise that the costs of operating and maintaining pumping stations are significant and in a single notional site charging structure this would create a noticeable cross-subsidising effect from sites without pumping stations to those with.

3.57 Our approach means on average, a NAV is appropriately remunerated for the avoided costs.

Table 3-4: Menu of avoided costs for a notional NAV site, with and without pumping stations 2023-24

Avoided cost	Unit	Water	Wastewater		
		Water	Sewerage	SWD	HWD
Main pipes, wastewater sewers, communication pipes & meters					
Avoided direct operational costs	£ per property	11.33	2.99	1.45	1.37
Avoided direct capital maintenance costs	£ per property	18.45	3.08	1.34	1.26
Allowed return	£ per property	3.05	0.12	0.05	0.05
Total avoided cost	£ per property	32.83	6.20	2.84	2.68
Pumping Stations					
Avoided direct operational costs	£ per kW	149.05		194.87	
Avoided direct capital maintenance costs	£ per kW	17.85		121.97	
Allowed return	£ per kW	21.71		148.28	
Total avoided cost	£ per kW	188.61		465.11	

Note: allowed return includes working capital adjustment

3.58 In addition to the avoided activity level costs referred above, we are also open to passing on any environmental or other innovative cost savings to NAVs. It is appropriate we consider this on a site-specific basis, rather than a notional basis to ensure full and appropriate remuneration to a NAV for the interventions made. To ensure any such interventions are accounted for in how we calculate the charges we are not proposing a prescriptive methodology here, but rather committing to a principle to discuss this on a case-by-case basis.

3.59 Similarly, we are proposing a principles-based approach to considering the impact of any additional services offered, either by us to a NAV or by a NAV to us. Please do get in touch with us, our contact details are provided in section 0.

3.60 In summary, we are open to continuing discussions with NAVs around additional services.

NAV data requirements

3.61 Although we are using a notional site, we do require some information from NAVs to inform the charges menu:

- Number of household and non-household properties on site
- Number of properties connected for SWD
- Capacity of pumping stations on site

3.62 Additionally if NAVs know their water and or wastewater volumes on site for household and or non-household, this will feed into their charges calculation.

- 3.63 If a NAV does not know the volume on their site, an estimate based on the forecast average consumption for water in our region will be applied. The 5.5% leakage adjustment is then applied to give the final estimated water volume on site.
- 3.64 For wastewater the industry standard 95% return to sewer allowance is applied to estimated water volume.
- 3.65 These data inputs are all requested within our bulk charges for NAVs calculator¹¹ and are used to set final charges.

¹¹ Can be found on our website here: <https://corporate.wessexwater.co.uk/our-performance/our-charges>

4. Developing our charges

Industry best practice

- 4.1 Ofwat runs a 'New Appointee bulk charging working group' which is attended by representatives of both incumbent companies and NAVs. This group is developing industry best practice for the setting of bulk charges, including the use of a more bottom-up wholesale minus approach. Key outputs of the group, including the wholesale minus charging framework, have now been published¹².
- 4.2 We continue to be fully engaged with the working group and have been updating our approach to align with the best practice as it continues to evolve.
- 4.3 In Summer 2022 the avoided costs sub-group developed an avoided costs checklist¹³ for incumbents to consider in the calculated of bottom-up avoided costs.
- 4.4 We have considered all costs included in the checklist, as summarised in Appendix 1.
- 4.5 At times, how we term what we do and capture our costs within the above structure, does not perfectly align to the activities in the checklist. However we are confident that we have included all relevant avoided costs. As part of our continuous data improvements, we will continue to review the granularity of our bottom-up costs used in the calculation.
- 4.6 Our inclusion of capital maintenance costs in the bulk charges calculation is consistent with our accounting approach to capitalisation.

Stakeholder engagement

- 4.7 We have engaged with Ofwat and stakeholders to discuss our proposed approach to setting charges. In particular, we have:
- 4.8 **Written to NAVs in our area.** We wrote¹⁴ to notify NAVs of the likely impact of high inflation on the relevant wholesale starting point this year; discuss our proposed changes to a more bottom-up method of setting charges and provide opportunity for further discussion.
- 4.9 **Spoken to two NAVs** who operate in our area, as part of our continuous dialogue. We have reflected on the key messages from these discussions, which were¹⁵:
 - Bottom-up method of considering the relevant avoided costs (to ensure all costs are considered), with recognition that central costs such as overheads might be more suited to a fully allocated approach
 - Documentation detailing our cost allocation and avoided cost checklist
 - Confidence of cost reconciliation to the APR regulatory accounts
 - Concerns around the administrative scalability of bespoke charges requiring site-specific asset data

¹² <https://www.ofwat.gov.uk/regulated-companies/company-obligations/ofwat-regulating-the-industry-compliance-requirements-charging/new-appointee-bulk-charging-working-group/>

¹³ [Sub-Group-3-NAV-Wholesale-minus-framework.xlsx \(live.com\)](#)

¹⁴ <https://corporate.wessexwater.co.uk/-/media/files/wessexwatercorporate/document-library/our-charges/2023-24/bulk-charges-for-navs-letter-august-2022.pdf>

¹⁵ These key messages are not intended to comprehensively capture every aspect of our respective discussions, or provide verbatim accounts. We hope these are an accurate reflection of what was discussed and do not unduly misconstrue or misrepresent any views presented.

- A preference for simplicity of the final bulk charges to help NAVs assess the financial viability of sites
- Clarifying our approach to HWD and highlighting how we are accounting for those avoided costs

4.10 We have valued the engagement and feedback received through these conversations and would welcome further discussions.

4.11 **Engaged with Ofwat** bilaterally on key aspects of our approach, including:

- Wholesale allowed return. We expect this will be an area of discussion at future working groups
- Our approach to HWD. We have included avoided costs for HWD implicitly in the bottom-up consideration of activity-based costs (see paragraph 3.31). Ofwat suggested a preference to apply a top-down deduction based on the percent of highways looked after by a NAV. We have not been able to apply this for 2023-24 charges and have therefore included this in the section below as something we can look into going forwards.
- Our proposed approach to use asset ratios to develop a view of a notional, average site, instead of pursuing site-specific charging based on NAV provided asset data, reflecting NAV feedback.

Changes for 2023-24

4.12 We have moved from a top-down to bottom-up approach for calculating the direct avoided costs, reflecting working group discussions. We have also included an avoided cost element for returns.

4.13 We have considered and where feasible adopted feedback from our engagement with stakeholders for our 2023-24 charges, including:

- Publishing this document to provide clarity and transparency
- Adopting a notional site for the basis of charging with a simple menu (see section Setting final bulk tariffs)
- Confirming source cost data reconciles to the APR (see paragraph 15.1)

4.14 Due to the change in methodology from a top-down to bottom-up approach, we cannot make a like-for-like comparison of the menu of avoided costs for 2023-24 compared to 2022-23 charges. However, we have compared avoided costs for a notional site and observe that for both water and waste sites, with and without pumping stations the avoided cost element has increased. This is primarily attributable to:

- inclusion of a WACC return;
- moving to a bottom-up approach has revealed increased avoided costs in some areas, especially costs associated with pumping stations;
- the change in cost drivers, e.g. the switch to a per property cost driver for mains, communication pipes and meters has increased the avoided costs. The switch to per pumping station kW capacity from last year's per m³ has also increased the avoided costs
- the impact of inflation on avoided costs

Considerations for future changes

4.15 Reflecting the evolving nature of best practice, continuation of working group discussions, longer-term recommendations arising from the peer review and feedback from stakeholder engagement, we plan to consider the below (and anything else that arises in the interim) as part of our next review of charges:

- Number of years of source cost data;
- Approach to accounting for direct capital maintenance avoided costs over the respective life of assets;
- Service level identification of wastewater avoided costs by foul, SWD and HWD (see paragraph 3.31), and as part of this consider the use of length of highways as an appropriate cost driver of highway water drainage avoided costs;
- Approach to remunerating NAVs for the risk taken in serving the site; and
- Continuous review of cost drivers, for example we could consider cost drivers for direct operating costs separate to cost drivers for direct capital maintenance costs.

5. Assurance

- 5.1 We have reconciled our bottom-up avoided costs with our Annual Performance Report (APR) regulatory submission to Ofwat. This gives assurance that all costs have been considered and none have unintentionally been omitted.

Independent Peer Review

- 5.2 To ensure our new methodology is compliant with all relevant guidance and charging principals, we have (in addition to our normal assurance procedures) had our charges model and methodology, including this Method Statement, externally peer reviewed by Frontier Economics (October 2022).
- 5.3 We have published the full peer review report from Frontier, which can be found on our website¹⁶.
- 5.4 In summary, “Frontier Economics were commissioned by Wessex Water to peer review its revised methodology for setting bulk charges for New Appointments and Variations (NAVs) in 2023/24. In particular, the aim of this work was to assess whether the Wessex approach complies with the most recent bulk charging guidance for new appointees issued by Ofwat¹⁷,^{18, 19}, emerging best practice from the Bulk Charging Working Group (BCWG)²⁰, as well as its obligations under the application of the Competition Act 1998²¹.

The scope of this work is limited to a review of Wessex’s bulk charging methodology and a high level review of its underlying bulk charges model only. A technical review has been separately commissioned for a formal assurance of the efficiency of inputs, calculations and accounting approach.²²”

- 5.5 Frontier Economics found that, “Subject to the limitations of our peer review and the high-level nature of Ofwat’s guidance, we consider that Wessex’s approach for setting bulk charges for new appointments and variations and its approach to explaining them to stakeholders in its method statement is
- in line with the latest guidance available,
 - has made progress towards aligning to the current industry best practice (which we note continues to evolve), and
 - not inconsistent with the economic principles of competition law²³.
- 5.6 Frontier Economics recommend that, “Going forward, we consider that a longer time period than the current three years for the averaging of costs may be more appropriate for the calculation of direct ongoing capital maintenance costs, to give greater consideration to the level, timing and profile of all maintenance costs incurred over the lifetime of the asset. This

¹⁶ <https://corporate.wessexwater.co.uk/our-performance/our-charges>

¹⁷ [Ofwat, January 2021, Bulk charges for new appointees – guidance on our approach and expectations](#)

¹⁸ [Ofwat, January 2021, Bulk charges for new appointees - conclusions on revising our guidance](#)

¹⁹ [Ofwat, September 2022, Information notice: Expectations, assurance and information requirements for water company charges for 2023-24](#)

²⁰ [Ofwat Bulk Charging Working Group, August 2022, Setting the relevant starting point and overall tariff approach](#)

²¹ [UK Competition Act, 1998, and other Enactments \(Amendment\) Regulations 2004 \(S.I. 2004 No.1261\)](#)

²² Frontier Economics (2022), Wessex’s Approach to Setting Bulk Charges for New Appointments and Variations (NAVs), p.1

²³ Frontier Economics (2022), Wessex’s Approach to Setting Bulk Charges for New Appointments and Variations (NAVs), p.9

would also potentially give greater consideration to the length of the regulatory cycle. We recommend that Wessex continues to consider ways to reflect the smoothing the costs over the whole asset life”²⁴.

Technical Audit

- 5.7 We have used Mott MacDonald, as expert technical auditors, to review all our charges including bulk charges for NAVs. Mott MacDonald found that our bulk charges for NAVs contain no errors and comply with all relevant guidance.

²⁴ Frontier Economics (2022), Wessex’s Approach to Setting Bulk Charges for New Appointments and Variations (NAVs), p.9

6. Glossary

Term	Definition
Bulk agreements	Bulk supply agreements and bulk discharge agreements.
Bulk charges	The charges for bulk services, i.e. bulk supplies and bulk discharges.
Bulk discharge	Supply of wastewater from one wastewater company to another.
Bulk discharge agreement	A contract setting out the terms and conditions for bulk discharges.
Bulk services	Bulk supplies and bulk discharges.
Bulk supply	Supply of water from one water company to another.
Bulk supply agreement	A contract setting out the terms and conditions for bulk supply.
End-customers	Household retail customers and business retail customers.
Full-service NAV	A full-service NAV is a NAV that provides drinking water (either buying it wholesale or supplying it from a local resource like a borehole) and treats wastewater onsite and then discharges it locally or treats it and reuses it for irrigation and toilet flushing.
New Appointment and Variation (NAV)	A water company that (either directly or indirectly) has replaced, or will replace, one or more incumbent water companies in relation to specific sites and for whom we do not currently set individual price controls. Although a NAV can operate its own treatment facilities, a NAV normally obtains a bulk supply of water from, and/or agrees a bulk discharge of wastewater to, an incumbent water company.
Regulatory Capital Value (RCV)	The regulatory capital value (RCV) is one of the critical components underlying price limits. It was developed for regulatory purposes. It is the value of the capital base of each water and or sewerage company for the purposes of setting price limits. The RCV is now widely used by the investment community as a proxy for the market value of a regulated business.
Direct operating costs	Expenditure avoided in the operating and monitoring of assets. Direct operating costs include but are not limited to labour costs, power, materials and consumables, Local Authority rates, and general and support costs.
Direct capital maintenance costs	Expenditure on activities such as asset replacement and asset renewals required to maintain the network. Capital maintenance costs includes all infrastructure maintenance and replacement costs.
Consumer Prices Index including owner occupiers' housing costs (CPIH)	According to ONS, CPIH is the most comprehensive measure of inflation. In the water and sewerage industry charges are linked to November CPIH.
Surface Water Drainage (SWD)	Rainwater that drains from roofs of buildings and yards and other hard standing areas appurtenant to buildings into drainage systems.
Highway Drainage (HWD)	Rainwater that drains from roads and footpaths and flows into drainage systems.

Appendix 1 Checklist of avoided costs

Checklist		Water		Wastewater		Central Costs	Notes / Comments
Code	Activity	Direct operating cost	Direct capital maintenance cost	Direct operating cost	Direct capital maintenance cost		
WD1	Routine and adhoc water quality sampling. Regulatory monitoring at every site irrespective of size	✓	✓				
WD2	DWI - Drinking Water Safety Planning (Water Supply (Water Quality) Regulations 2016 - Regs 27 & 28), Monthly water quality reporting, submission of annual data returns.	✓	✓				
WD3	Monitoring and auditing of Laboratory performance - Water Supply (Water Quality) Regulations 2016 - Regulation 16	✓	✗				Opex only by its nature
WD4	Water Fittings inspections - enforcement of Water Supply (Water Fittings) Regulations 1999	✓	✗				Opex only by its nature
WD5	Supplementary water quality monitoring e.g. Response to customer contacts,	✓	✓				
WD6	Additional flushing/sampling due to poor performance and/or condition of assets owned and maintained by the upstream incumbent	✓	✗				Opex only by its nature
WD7	Local Authority and Public Health England Liaison and updates.	✓	✗				Opex only by its nature
WD8	Planned Maintenance - e.g. flushing activities	✓	✓				
WD9	Unplanned Maintenance	✓	✓				
WD10	Emergency Response	✓	✓				
WD11	Meter maintenance / replacement	✓	✓				
WD12	Meter accuracy testing costs	✓	✗				Opex only by its nature
WD13	Meter reading	✗	✗				This is a retail cost, therefore we have excluded.
WD14	Battery replacement	✓	✗				Opex only by its nature
WD15	Arrangements for sharing meter data	✓	✗				Opex only by its nature
WD16	Standby arrangements	✓	✗				Opex only by its nature

WD17	Incumbent bulk metering costs	x	x				This is not an avoided cost (we would not incur bulk metering costs if we ran the site)
WD18	Financial penalties for GSS failure - Also GSS payments made to customers as a consequence of upstream incumbent failure.	✓	x				Opex only by its nature, implicitly included
WD19	Network losses / unaccounted for water at a direct wholesale cost.	✓	x				We capture this in the leakage adjustment to the relevant wholesale starting point
WD20	Activities to monitor and control leakage/unaccounted for water	✓	✓				We capture this in the leakage adjustment to the relevant wholesale starting point
WD21	Wholesale cost for 'free' water provided under social tariffs	x	x				This is a retail cost. It is funded through standard customers retail bills via the cross subsidy so there should be no avoided cost to the incumbent
WD22	Offsite network maintenance / repair (No income if NAV tariff assumes connection at boundary)	x	x				We assume that the NAV connection is at the boundary and therefore there is no income
WD23	Water resource planning and drought plans	x	x				This is not an avoided cost (this would only be an avoided cost if the NAV had their own water resource)
WWD1 and WWD17	Planned / unplanned pumping station maintenance			✓	✓		
WWD2 and WWD18	Planned sewer jetting maintenance			✓	✓		
WWD3	Unplanned / emergency response and or maintenance			✓	✓		
WWD4	Telemetry			✓	✓		
WWD5	Planned / unplanned sewer jetting, blockage removal			✓	x		Opex only by its nature
WWD6	Incumbent customer meter data costs + supplementary data.			x	x		This is a retail cost, therefore we have excluded.
WWD7	Incumbent discharge costs for water losses not returned to sewer i.e. where bulk discharge costs are based on a bulk water meter.			✓	✓		We account for this by applying the non-return to sewer allowance to volume
WWD8 and WWD22	Capital replacement in made up ground			✓	✓		
WWD9 and WWD23	Wholesale cost for 'free' sewerage provided under social tariffs			x	x		This is a retail cost. It is funded through standard customers retail bills via the cross subsidy so there should be no avoided cost to the incumbent

WWD10 and WWD24	Sewer flooding remediation and compensation			✓	✗		Opex only by its nature
WWD11	Financial penalties for GSS failure - Also GSS payments made to customers as a consequence of upstream incumbent failure.			✓	✓		Opex only by its nature, implicitly included
WWD12 and WWD25	Offsite network maintenance / repair (No income if NAV tariff assumes connection at boundary)			✗	✗		We assume that the NAV connection is at the boundary and therefore there is no income
WWD13	Tankering incl. pre NAV approval			✓	✓		
WWD14	Trade effluent costs - admin, monitoring, data sharing with downstream incumbent			✓	✓		
WWD19	Incidence response sewer jetting			✓	✓		
WWD20	De-silting			✓	✓		
WWD21	Clearing and maintenance of drainage areas.			✓	✓		
WWD26	Discharge permits/costs			✓	✓		
C1	Finance/ HR / Legal and IT staff resource costs					✓	
C2	Regulatory Costs - Licence fees, regulatory reporting and compliance					✓	
C3	NAV application and administration costs.					✓	
C4	End customer billing and customer service costs					✗	This is a retail cost, therefore we have excluded.
C5	Management costs					✓	
C6	External consultancy					✓	
C7	IT systems and development					✓	
C8	Travel and subsistence					✓	
C9	Vehicle fleet costs					✓	
C10	Plant, tools and equipment					✓	
C11	Health and Safety					✓	
C12	Insurance					✓	
C13	Employer pension					✓	
C14	Employer NI					✓	
C15	Premises and utilities					✓	
C16	Telecommunication costs					✓	
C17	Business Rates					✓	

C18	Recruitment					✓	
C19	Training and Development					✓	
C20	Bank charges incl. those relating to customer income collection					✗	This is a retail cost, therefore we have excluded.
C21	Customer bad debt and debt recovery costs.					✗	This is a retail cost, therefore we have excluded.
C22	Revenue protection and voids management.					✗	This is a retail cost, therefore we have excluded.
C23	External audit / accountancy costs					✓	
C24	Asset Financing Costs					✓	
C25	Working Capital					✗	This is not an avoided cost, however we have made a provision for this. Please see section on returns
C26	Incumbent Working Capital					✗	This is not an avoided cost, however we have made a provision for this. Please see section on returns
C27	Marketing, Branding and Customer Relations					✓	
C28	Billing systems costs					✗	This is a retail cost, therefore we have excluded.
C29	Billing and other postage / stationery costs					✗	This is a retail cost, therefore we have excluded.
C30	Cost of Debt					✓	Please see section on returns – this is covered by the returns and working capital allowance we provide.

Notes:

WWD15 and WWD16 not in checklist

Central costs have been allocated on a top-down basis

Appendix 2 Calculator Worked Example

As a worked example, we will examine a theoretical new development of 200 households and 10 non-households with both water and wastewater services supplied by a NAV. On the site we will assume that volumes are known for water but not for wastewater and all properties are not connected for SWD. The site also has one 10kW water pumping station and one 10kW sewerage pumping station, both operated by the NAV.

For this site, data would be input into our Bulk Charges for NAVs calculator which is available on our website²⁵, we are also happy to provide a copy on request. Each sheet of the calculator will be examined in turn.

Inputs NAV

	A	B	C	D
1	Inputs NAV			
2				
3	Site information	Unit	Value	
4				
5	Which of the following services do you provide on site?			
6	Water household service		Yes	
7	Water non-household service		Yes	
8	Wastewater household service		Yes	
9	Wastewater non-household service		Yes	
10				
11	Do you know the water volume you provided to site?			
12	Water household		Yes	
13	Water non-household		Yes	
14				
15	Do you know the wastewater discharge volume on site?			
16	Wastewater household		No	
17	Wastewater non-household		No	
18				
19				
20	Water			
21				
22	Household properties	nr	200	
23	Household volume per year	m ³	18,406	
24	Non-household properties	nr	10	
25	Non-household volume per year	m ³	920	
26	Total capacity of water pumping stations (if no pumping stations please enter 0)	kW	10	
27				
28				
29	Wastewater			
30				
31	Household properties connected for SWD	nr	-	
32	Household properties not connected for SWD	nr	200	
33				
34	Non-household properties connected for SWD	nr	-	
35	Non-household properties not connected for SWD	nr	10	
36				
37	Total capacity of sewerage pumping stations (if no pumping stations please enter 0)	kW	10	
38				
39				
40				
41				
42				

The questions on the NAV input sheet are required and should be completed with the best available information. If an input is not applicable for the specific site (such as for wastewater volumes in this instance) then that input line will be greyed out.

²⁵ <https://corporate.wessexwater.co.uk/our-performance/our-charges>

Summary of inputs

	A	B	C	D	E
1	Summary of inputs				
2					
3	Site information	Unit	Value		
4					
5	Which of the following services do you provide on site?				
6	Water household service		Yes		
7	Water non-household service		Yes		
8	Wastewater household service		Yes		
9	Wastewater non-household service		Yes		
10					
11	Do you know the water volume you provide to site?				
12	Water household		Yes		
13	Water non-household		Yes		
14					
15	Do you know the wastewater discharge volume on site?				
16	Wastewater household		No		
17	Wastewater non-household		No		
18					
19					
20	Water				
21					
22	Household properties	nr	200		
23	Household volume per year	m ³	18,406		
24	Non-household properties	nr	10		
25	Non-household volume per year	m ³	920		
26	Total capacity of water pumping stations (if no pumping stations please enter 0)	kW	10		
27					
28					
29	Wastewater				
30					
31	Household properties connected for SWD	nr	-		
32	Household properties not connected for SWD	nr	200		
33	Household discharged volume per year	m ³	16,524		
34	Non-household properties connected for SWD	nr	-		
35	Non-household properties not connected for SWD	nr	10		
36	Non-household discharged volume per year	m ³	826		
37	Total capacity of sewerage pumping stations (if no pumping stations please enter 0)	kW	10		
38					
39					
40					

This sheet summarizes the inputs relevant to the particular site as entered by the NAV on the “Inputs NAV” tab. If there were figures that were not known, such as wastewater volumes in this instance, then the calculator will provide an estimate which will be displayed here. In this instance wastewater volume is calculated as water volume less leakage with the return to sewer allowance also applied.

Schedules

	A	B	C	D	E	F	G	H
1	Schedules							
2								
3	Household wholesale charges - to inform wholesale starting point							
4								
5	Water							
6								
7	Charge	Unit	Water					
8	Meter Charge ¹	£ per annum	5					
9	Volume Charge	£ per m ³	2.2351					
10	¹ For the purposes of simplicity when charging we make the assumption that all meters are the size of a standard meter of <25mm.							
11								
12	Wastewater							
13								
14	Charge	Unit	Sewerage	SWD	HWD			
15	Drainage Charge ²	£ per annum		25	23			
16	Volume Charge	£ per m ³	1.7246					
17	² For the purposes of simplicity when charging we make the assumption that all meters are the size of a standard meter of <25mm.							
18								
19	Non-household wholesale charges - to inform wholesale starting point							
20								
21	Water							
22								
23	Charge	Unit	Water					
24	Meter Charge ¹	£ per annum	5					
25	Volume Charge	£ per m ³	2.2807					
26	¹ For the purposes of simplicity when charging we make the assumption that all meters are the size of a standard meter of <25mm.							
27								
28	Wastewater							
29								
30	Charge	Unit	Sewerage	SWD	HWD			
31	Drainage Charge ²	£ per annum		25	23			
32	Volume Charge	£ per m ³	1.7544					
33	² For the purposes of simplicity when charging we make the assumption that all meters are the size of a standard meter of <25mm.							
34								
35	Summary avoided costs							
36								
37	Avoided cost	Unit	Water	Wastewater				
38				Sewerage	SWD	HWD		
39	Main pipes, wastewater sewers, communication pipes & meters							
40	Avoided direct operational costs	£ per property	11.33	2.99	1.45	1.37		
41	Avoided direct capital maintenance	£ per property	18.45	3.08	1.34	1.26		
42	Allowed return	£ per property	3.05	0.12	0.05	0.05		
43	Total avoided cost	£ per	32.83	6.20	2.84	2.68		
44	Pumping Stations							
45	Avoided direct operational costs	£ per kW	149.05		194.87			
46	Avoided direct capital maintenance	£ per kW	17.85		121.97			
47	Allowed return	£ per kW	21.71		148.28			
48	Total avoided cost	£ per kW	188.61		465.11			
49	Note: allowed return includes working capital adjustment							
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

This sheet shows our wholesale charges and avoided costs applicable to NAVs.

Water and Wastewater Calc

	A	B	C	D
1	Water calc	Unit	Value	
2	Weighted average wholesale tariff			
73				
74	Avoided costs			
100				
101	Final NAV tariff			
102				
103	Weighted average wholesale tariff water	£ per m³	2.2948	
104	Volumetric avoided cost water	£ per m³	0.0469	
105	Final NAV tariff water	£ per m³	2.2479	
106				
107				
108				
109				
110				
111				
112				
113				
114				
115				
116				
117				
118				
119				
120				
121				
122				
123				
124				
125				
126				
127				
128				
129				
130				
131				
132				

This sheet calculates a water weighted average wholesale tariff and the avoided costs for the NAV site in the corresponding sections (which expand outwards to show detailed calculations). The “Final NAV tariff” section summarises the final tariff that will be applied on site. The Wastewater Calcworks on a very similar basis.

Outputs summary

	A	B	C	D	E	F	G
1	Outputs summary	Unit	Water	Wastewater			
2							
3	Total wholesale fixed charge	£	1,050	4,830			
4	Total wholesale volume charge	£	40,860	29,947			
5	Total wholesale charge	£	41,910	34,777			
6							
7	Total wholesale charge	£	41,910	34,777			
8	Total volume (after leakage adjustment)	m ³	18,263	17,350			
9	Weighted average wholesale charge	£ per m ³	2.2948	2.0044			
10							
11							
12	Avoided costs - main pipes, wastewater sewers, communication pipes & meters	£	639	2,461			
13	Avoided costs - pumping stations	£	217	4,651			
14	Total avoided costs	£	857	7,112			
15							
16	Total avoided costs	£	857	7,112			
17	Total volume (after leakage adjustment)	m ³	18,263	17,350			
18	Total avoided costs	£ per m ³	0.0469	0.4099			
19							
20	Final NAV tariff	£ per m³	2.2479	1.5945			
21							
22							
23							
24							
25							
26							
27							
28							

This sheet summarises the NAV tariff for both water and wastewater.