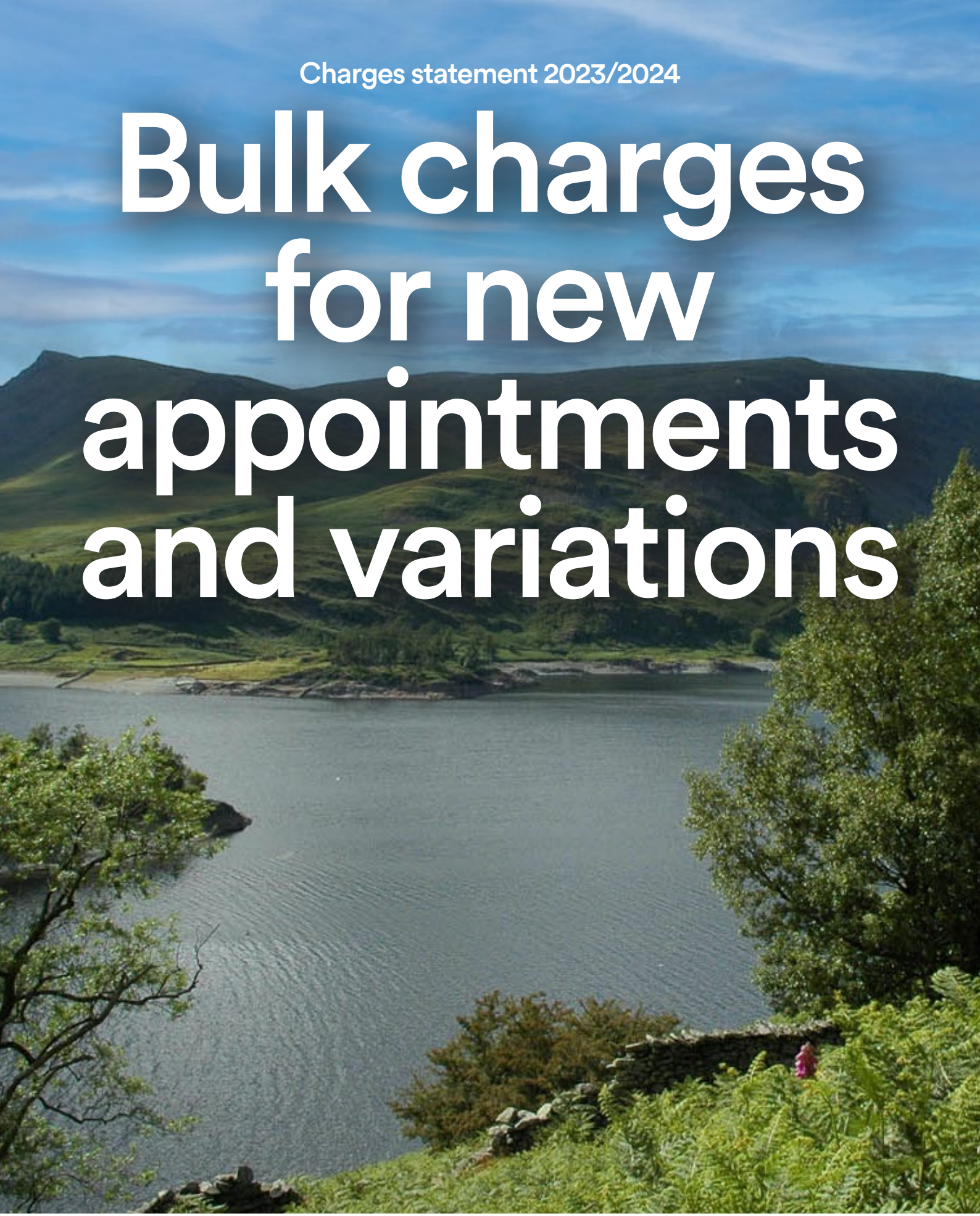
Charges statement 2023/2024

# Bulk charges for new appointments and variations



United Utilities

Water for the North West

# Our charges publications 2023/2024

United Utilities Water Limited has published four charges schemes, prepared in accordance with Ofwat's charging rules, and one charges statement for the 2023/2024 charging year. They include the charges to be paid for services provided by us in the course of carrying out our function as a water and sewerage undertaker. Below are details of all the schemes published by us.

This charges statement is:


## Bulk charges for new appointments and variations

(this document)

This charges statement sets out the charging policies and charges for bulk services provided to new appointments and variations.

Our charges schemes are:


## Household charges scheme

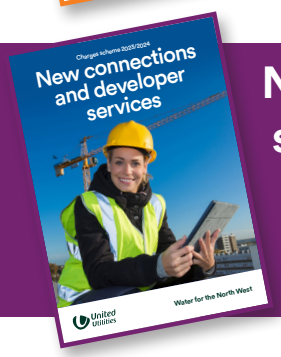
This charges scheme sets out our charging policies and the charges our household customers must pay for our services.


## Wholesale water charges scheme

This charges scheme sets out our charging policies and charges for the wholesale water services we provide.


## Wholesale sewerage charges scheme

This charges scheme sets out our charging policies and charges for the wholesale sewerage services we provide.

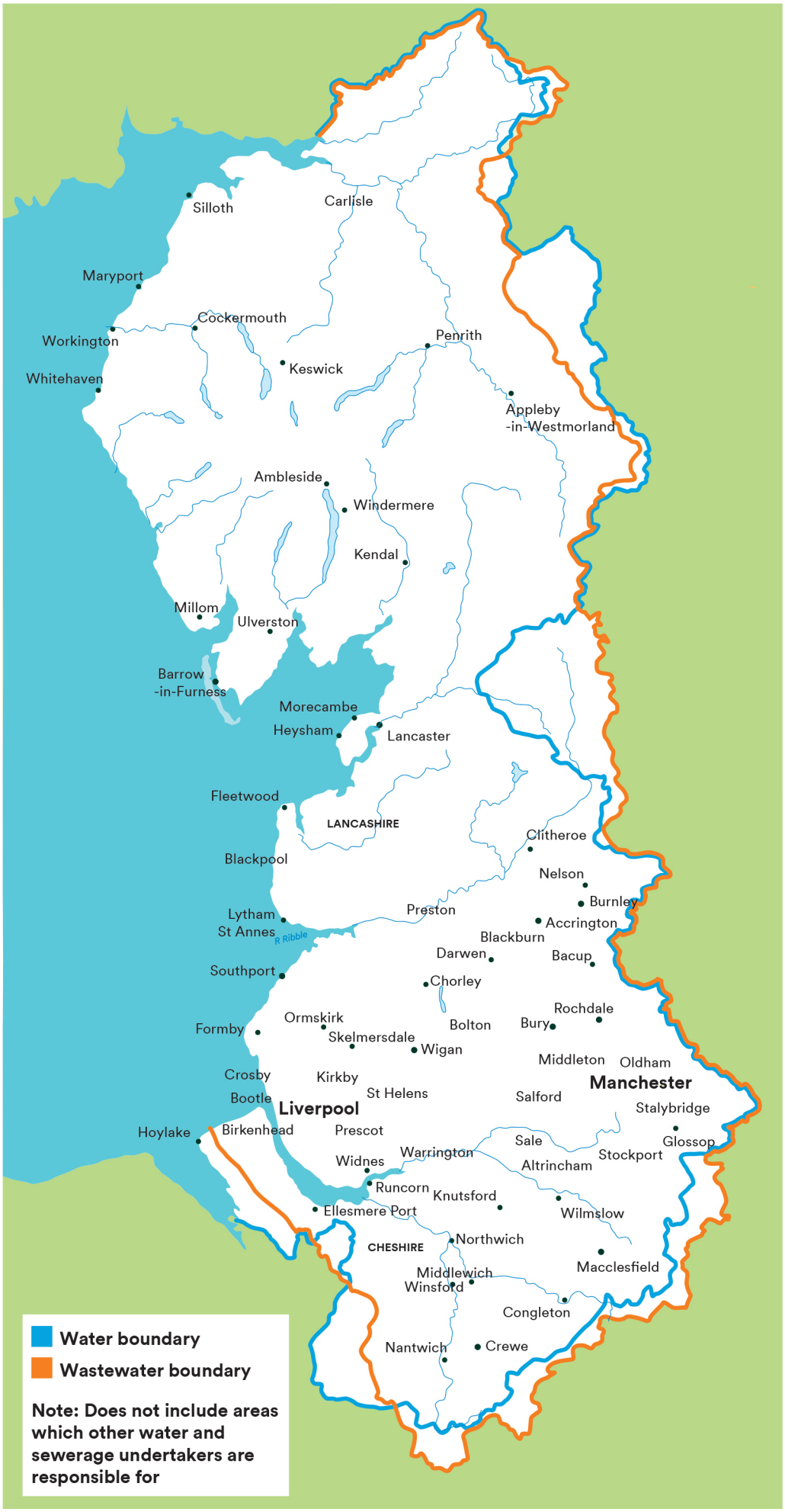



## New connections and developer services charges scheme

This charges scheme sets out our charging policies and charges for the water supply and sewerage connections and developer services we provide.

All of the documents shown above are available to download from **unitedutilities.com**

## Where we provide our water and sewerage services



# Contents

# 1. INTRODUCTION

This charges statement contains details of United Utilities Water Limited's bulk charges for NAVs for the period 1 April 2023 to 31 March 2024.

It explains how we will demand and recover the specific charges for bulk supplies and discharge services provided directly by us to NAVs.

There is one type of service provided:

- Primary services related to the supply of water and wastewater services to a NAV site.

The amount or value of each standard charge made under this statement is detailed in schedule 5 and is stated exclusive of VAT. Where any service is not provided for in this statement, we may fix an appropriate charge.

The charges in this document, where applicable, comply with the requirements of our Instrument of Appointment.

To the extent that the information in this charges scheme is inconsistent with any agreement binding upon us, the agreement will prevail.

## 1.1 Meter reading data service

United Utilities Water offers a transfer of meter reading data service which is available to all Sewerage Undertakers in receipt of a Bulk Discharge operating within the United Utilities Water region.

Sewerage Undertakers are under no obligation to use the Services provided by United Utilities Water and are free to procure their own services from independent providers.

Further details on this service can be found on the United Utilities website.

# 2. GENERAL PROVISIONS

## 2.1 Liability for charges

You are liable for charges applied to each and every connected site where you receive a service from us and charges for any other wholesale service you receive from us.

## 2.2 Payment terms

We will use our standard bulk agreement payment terms when billing NAVs. These terms state that payment is due either 15 days from the date of the invoice, or 30 days from the end of the billing period, whichever is later.

We will bill large sites on a more frequent basis. However, we may consider a longer billing period, subject to collateral being in place.

## 2.3 Value Added Tax (VAT)

All charges published in this document exclude VAT. VAT will be applied to charges as required by relevant legislation.

## 2.4 Metered charges

Bulk charges for NAV sites will usually be based on consumption as recorded by the bulk supply meter(s) and any applicable fixed charges which will include a standing charge per bulk supply meter, based on its size.

For some sites consumption may instead be determined by the on-site meters and not a bulk meter. This may apply to wastewater only NAV sites (where there is no bulk meter present) and for NAV sites that include a trade effluent consent.

More complex sites may require charges to be based on both a bulk meter and on-site meters. In such circumstances we will work with the NAV to agree the approach.

Where charges are based on a bulk meter, our tariffs include an appropriate allowance for on-site leakage.

### 2.4.1 On-site meters

We apply a 100 percent discount against the end-user meter standing charge for all on-site meters, where the NAV provides the water service.

### 2.4.2 Access to the bulk supply meter

You must allow us access to the bulk supply meter at all reasonable times.

## 2.5 Developer services and new connections charges

This charges statement covers bulk charges for NAVs. New connections charges can be found in our new connections and developer services charges scheme.

# 3. BULK CHARGES FOR NEW APPOINTMENTS AND VARIATIONS

## 3.1 Composition of our bulk charge for NAVs

Our bulk charges for NAVs are made up of two parts:

- a volumetric charge; and
- a fixed charge.

These charges are set out below, and in accordance with Ofwat's guidance on bulk charges for NAVs, are expressed on an end-user basis.

## 3.2 Volumetric charges

These charges will be applied against volumes recorded by either the bulk meter for water or to the on-site end-user meters as covered in Section 2.4.

### 3.2.1 Non return to sewer allowances

For volumetric sewerage charges we assume that, on average, 5% of metered water volumes supplied are not returned back to sewer. Water companies have historically represented non return to sewer assumptions in customer charges in one of two different ways:

- Indirect method - charges are based on 100% of volumes recorded by the water meter, but a 5% adjustment is built into the tariff
- Direct method - charges are based on 95% of volumes recorded by the water meter, but no adjustment is made to the tariff, i.e. the tariff will be 5% higher than it otherwise would have been using the indirect method

Both methods result in the same customer bill for foul services.

A best practice guide has been provided by the RWG (Retailer Wholesaler Group) on 30 Sep 2022, which recommends that all water companies should, from 1 April 2023, be using the "direct method" above when levying charges to retailers for foul services supplied to non-household customers.

For UUW, we had previously been using the indirect method, and therefore from 1 April 2023 we will be publishing wholesale tariffs for the non-household foul service which reflect a change to the "direct method". In other words our wholesale non-household sewerage tariff will be 5% higher than it otherwise would have been using the indirect method, but applying a 5% lower volume when calculating non-household customer charges. However, for household customers, we will continue to use the indirect method.

For our 2023-24 NAV charges relating to non-household customers on NAV sites, we will not be making the change to the direct method, and will instead continue to use the indirect method. As the majority of NAV sites in our region serve household premises, we will continue to use the Indirect method for our NAV charges for both Household and Non-household premises, otherwise the difference in methodology could cause significant issues for NAV sites containing both household and non-household premises.

### 3.2.2 Regionally representative volumetric charges

Where a NAV site consists of household and/or non-large user non-household customers, we will apply a single regionally representative volumetric charge.

This charge may not apply in cases where there is a large user or a trade effluent consent on the NAV's site. Please see sections 3.2.3 and 3.2.4 for more information on applicable volumetric charges in such circumstances.

### 3.2.3 Volumetric charges where there is a large user

We define a large user as a non-household customer eligible for our Select tariffs i.e. consuming more than 50,000 m3 of water per year.

If there is a large user, we will weight the charge using the assumed consumption of all on-site end-users.

This weighted charge will be calculated using the following formulas.

$$Weighted\ volumetric\ charge - water = \frac{\{(V_{hh} * C_{hh}) + (V_{nhh} * C_{nhh}) + (V_{50} * C_{50}) + (V_{180} * C_{180}) + (V_{750} * C_{750})\}}{(V_{hh} + V_{nhh} + V_{50} + V_{180} + V_{750})}$$

$$Weighted\ volumetric\ charge - foul = \frac{\{(V_{hh} * C_{hh}) + (V_{nhh} * C_{nhh}) + (V_{sel} * C_{sel})\}}{(V_{hh} + V_{nhh} + V_{sel})}$$

Where: C is the volumetric charge associated with the end user group and V is the total assumed consumption associated with the end user group. The subscripts (HH, NHH, 50, 180, 750, SEL) denote the user group.

Volumetric charges can be found in sections 5.1.1 and 5.1.2 and assumed consumption can be found in section 5.1.3.

You will need to tell us about the on-site customer mix in your application so that we can calculate the weighted charge. We have published an Excel template on our website ('Bulk charges for NAVs – charge multiplier input') that you should use to submit this information to us. Note that you only need to do this if you have a large user on your site or, as discussed in section 3.3.4, surface water from your site drains to our network.

You can also use our bulk charge calculator to see how we calculate the bulk charge for sites with large users or trade effluent consents. You can find it on our website.

### 3.2.4 Volumetric charges where there is a trade effluent consent on site

Where sites include a trade effluent consent, wastewater charges for the trade consent will instead be based on consumption from the appropriate on-site meter(s) using the trade effluent Mogden formula (see Section 5.2.7) which takes into account the relative strengths for chemical oxygen demand and suspended solids of the particular effluent.

Wastewater charges for all other wastewater volumes for the site, excluding the trade effluent consent, will either be based on the regionally representative volumetric charge

where there is no large user (see Section 3.2.2), or a weighted charge where there is a large user present (see Section 3.2.3).

### 3.2.5 Use of water for fire-fighting purposes

In accordance with section 147 of the Act, where we receive a valid application, no volumetric water charges will be applied to the proportion of water supplied to supply points which are used for fire-fighting, the testing of fire-fighting apparatus or fire-fighting training purposes.

## 3.3 Fixed charges

There are four types of fixed charges that may be applicable to a NAV site:

- On-site meter standing charges;
- Bulk supply meter standing charge;
- Select fixed charges; and
- Surface water drainage and highway drainage charges.

### 3.3.1 On-site meter standing charges

We provide a 100 percent discount against on-site meter standing charges where the on-site meters are owned and maintained by the NAV.

### 3.3.2 Bulk supply meter standing charge

The NAV will be liable to pay an annual meter standing charge for the bulk supply meter(s).

We do not charge a fee for the installation of the bulk meter.

### 3.3.3 Select fixed charges

These charges will be applicable where there is an on-site end user that would be eligible for our Select tariffs.

Our Select tariffs incorporate a fixed and volumetric element. These charges include a discount for the costs we incur when we interact with the non-household retail market. The fixed charge does not include a discount for on-site avoided costs, as this discount is applied wholly against the volumetric tariff.

### 3.3.4 Surface water drainage and highway drainage charges

If any surface water from premises within a NAV's site boundary enters into a public sewer owned by us, then the NAV will be liable to pay surface water drainage charges. This is also the case if water enters our sewer through a private sewer or drain, or through a section of a public sewer that the NAV owns.

Highways Drainage is water that drains from roads and footpaths into public drainage systems. The service is provided to the Highways Authority – it is not a service that is directly provided to customers or NAV sites (unlike foul sewerage or surface water

drainage). Companies are prohibited from charging the Highways Authority for this service but are allowed under legislation to recover the cost from their customers regardless of the extent to which they directly benefit from the road system.

Where we provide a foul sewerage and/or surface water drainage service to a NAV site, we will also apply charges for highways drainage.

We will charge for surface water drainage and highway drainage on an end user basis. This means that the charge will not be based on the total area of the NAV site, but on the number of individual household premises on the NAV site and the individual site areas of any individually rated non-household premises on the site. The NAV should supply the relevant charging bands for its non-household customers using the excel template published on our website, as set out in section 3.2.3. If an end-user changes charging bands during the year, let us know and we'll amend the charge.

### 3.3.5 Vacant premises and surface water and highways drainage charges

We will apply fixed charges for surface water and highways drainage in respect of all properties on a NAV site where we have been notified that they are connected for wastewater services (regardless of whether they are Occupied or Vacant). We have included an additional 10% discount within our NAV charges for surface water and highways drainage which is intended to reflect that some properties may not be occupied and that the NAV will not be able to recover any revenue from these from such customers.

We will not apply any surface water and highways drainage charges to a NAV site where there is no consumption on the bulk meter. Similarly we will not charge for any individual property that has not yet been connected for water.

### 3.3.6 Discounts to surface water and highways drainage charges

Occasionally, some but not all of a NAV site may drain into our sewer. This may be due to the layout of the site or to innovative drainage solutions installed by the NAV.

In such cases, we will provide further discounts against our surface water drainage and highway drainage charges. These discounts will be determined on a case-by-case basis during the bulk discharge agreement process.

If a customer on a NAV's site would have been eligible for our concessionary surface water drainage and highway drainage charges, then the starting point for the surface water drainage and highway drainage charge will be adjusted accordingly. See our wholesale sewerage charges scheme for more information.

# 4. HOW WE CALCULATE LONG-RUN AVOIDED ON-SITE COSTS

NAVs will be responsible for providing wholesale services to the 'last-mile' of the network, meaning UUW will avoid the costs associated with operating and maintaining assets within the NAV's area. This section sets out how we have sought to reflect these avoided costs in our bulk charges.

## 4.1 The wholesale-minus approach

Ofwat published guidance on bulk charges for NAVs in 2018, which recommends that incumbents should adopt a wholesale-minus approach. Under this approach, companies should take the end-user wholesale charge as a starting point and deduct appropriate avoided costs. Our methodology aligns to this approach.

In 2020 Ofwat consulted on revising its bulk charges guidance and published its conclusions in January 2021. We have made changes to our bulk charges for NAVs to ensure that we are aligned to the latest rules. For example we have introduced changes to when we apply charges for Highways Drainage as outlined in section 3.3.4.

We have additionally completed the Bulk Charges Working Group's 'wholesale-minus charging framework' to inform our calculations when calculating the avoided costs for our NAV tariffs.

## 4.2 How we have developed our approach

Our bulk charges have been informed by feedback received from NAVs through a formal consultation process, as well as ongoing informal discussions.

NAVs told us that bulk charges should:

i. Incorporate a stable and transparent margin (the 'minus' element of the wholesale-minus approach).

ii. Enable them to speedily bid for sites, with no need to contact UUW to clarify the applicable charge.

This led us to develop a standardised approach, which reflects the long-run avoided on-site costs across different sites on average.

Alternatively where there is a large user on site, we weight volumetric charges using the assumed consumption of all on-site end-users. Where there is a trade effluent consent on site we use instead the trade effluent Mogden formula which takes into account the relative strength of the particular effluent. This approach allows charges to more accurately reflect individual site characteristics where appropriate.

We want to keep an open dialogue between ourselves and NAVs to ensure our charges continue to reflect NAVs' preferences and market developments. We welcome feedback on all aspects of our bulk charging arrangements.

### 4.2.1 Our standardised approach

We reflected the typical characteristics of a new development and its end customers, in developing our standardised approach. These assumptions are set out in more detail in our bulk charges for NAVs consultation published in 2019, available on our website.

We have made two main standardising assumptions to reflect:

i. The average network length per plot on a new development.

ii. Typical consumption per plot on a new development.

These assumptions are based on internal data and reflect the characteristics of new developments in our region.

We expect the standardised charge to be appropriate for the majority of NAV sites. However, in rare circumstances, a particular development may contain assets we did not consider in our cost build up. In such cases, we may consider adjusting the standardised charge to account for the site-specific variance in cost. If there is high demand for a bespoke adjustment, we will consider moving to a bespoke charging approach in future years.

For example, we might consider the following cases justify a bespoke adjustment:

i. Where a NAV can demonstrate that an on-site water pump is required, and operating the pump would not be the responsibility of the private land owner.

ii. Where surface water retention tanks are required, and the NAV is able to provide robust evidence that a cheaper solution like a sustainable drainage system is not viable.

iii. Where the on-site infrastructure network required is unusually extensive when expressed on a per-plot basis.

## 4.3 On-site avoided costs

Ofwat defines on-site avoided costs as those “costs that the incumbent water company would no longer incur if a NAV supplied the new development instead”. This section describes our approach to calculating on-site avoided costs. For more detail on the items included in our discount please consult our bulk charges for NAVs consultation documents, available on our website.

### 4.3.1 Long-run vs short-run avoided costs

We are careful to distinguish between long-run avoided costs and short-run avoided costs. Short-run avoided costs may not sufficiently account for costs the NAV will face over the lifetime of the site. As a result, we have aligned our bulk charge discount to the concept of long-run avoided costs.

### 4.3.2 Ongoing costs

The discount includes a deduction to reflect the wholesale activities that UUW will avoid as a result of the NAV serving the site. These activities include, for example, mains repair, water quality sampling, sewer blockage resolution and the pumping of wastewater.

### 4.3.3 Working capital costs

We consider that UUW will experience some working capital benefits from providing a NAV with wholesale services, relative to serving the end-users. Therefore, we provide a working capital discount to reflect these avoided costs.

### 4.3.4 On-site leakage

UUW will avoid any costs associated with leakage in the on-site network. Our NAV bulk charge includes a discount to reflect this. The discount is implemented via an adjustment to the bulk charge, not an adjustment to volumes recorded at the bulk meter.

Note that we also include this discount in our foul bulk charge to ensure that NAVs are not disadvantaged by differences between the volume recorded by the bulk meter and their customers' meters.

### 4.3.5 Normal profit

In addition to the working capital deduction, we include an allocation of normal profit to reflect the business risk faced by the NAV. This is supplementary to any allowance for return on assets.

### 4.3.6 Non-household retail market operation costs

We deduct costs associated with our interaction with the non-household retail market from NAV bulk charges relating to non-household end-users.

# 5. SCHEDULE OF BULK CHARGES FOR NAVS 2023/2024

This schedule lists our bulk charges for NAVs.

All charges apply from 1 April 2023.

Charges are annual unless stated otherwise.

## 5.1 Volumetric charges

### 5.1.1 Bulk water volumetric charges

| End-user | Volumetric charge for bulk supply | Memo – wholesale charge |
|---|---|---|
| Standard use – per cubic metre (m3) | **£1.363** | **N/A** |
| *You should only refer to the charges below where there is a large user on-site. Use the formula set out in 3.2.3 and the consumption assumptions in 5.1.3 to calculate the bulk charge.* | | |
| Household – per cubic metre (m3) | **£1.363** | **£1.783** |
| Non-household – per cubic metre (m3) | **£1.363** | **£1.814** |
| Select 50 – per cubic metre (m3) | **£1.306** | **£1.384** |
| Select 180 – per cubic metre (m3) | **£1.203** | **£1.274** |
| Select 750 – per cubic metre (m3) | **£0.871** | **£0.925** |

**Note**: If Select charges are applicable to any end-users on a NAV site, the NAV will be liable to pay an appropriate fixed charge. Fixed charges for Select end-users can be found in section 5.2.3.

### 5.1.2 Bulk foul volumetric charges

| End-user | Volumetric charge - based on bulk meter | Volumetric charge – based on on-site meters | Memo – wholesale charge |
|---|---|---|---|
| Standard use – per cubic metre (m3) | **£0.959** | **£1.000** | **N/A** |
| Standard use with pumping station – per cubic metre (m3) | **£0.838** | **£0.878** | **N/A** |
| *You should only refer to the charges below where there is a large user on-site. Use the formula set out in 3.2.3 and the consumption assumptions in 5.1.3 to calculate the bulk charge.* | | | |
| Household – per cubic metre (m3) | **£0.959** | **£1.000** | **£1.188** |
| Non-household – per cubic metre (m3) | **£0.959** | **£1.000** | **£1.284** |
| Select – per cubic metre (m3) | **£1.111** | **£1.145** | **£1.247** |

| | | | |
|---|---|---|---|
| Household with pumping station – per cubic metre (m3) | **£0.838** | **£0.878** | **£1.188** |
| Non-household with pumping station – per cubic metre (m3) | **£0.838** | **£0.878** | **£1.284** |
| Select with pumping station – per cubic metre (m3) | **£0.989** | **£1.024** | **£1.247** |

**Note:** Charges that include an allowance for pumping stations only apply to those volumes going through the pumping station. Charges for any volumes not going through a pumping station would be based on the standard rate.

### 5.1.3 Assumed end-user consumption

We use the following consumption assumptions to calculate an appropriate weighted charge where there is a large user on the NAV's site. These assumptions should be used as per the formula set out in section 3.2.3.

| End-user | Water consumption | Foul consumption |
|---|---|---|
| Household – m3 per year | **87** | **87** |
| Non-household – m3 per year | **250** | **250** |
| Select 50 – m3 per year | **50,000** | **-** |
| Select 180 – m3 per year | **180,000** | **-** |
| Select 750 – m3 per year | **750,000** | **-** |
| Select sewerage – m3 per year | **-** | **50,000** |

## 5.2 Fixed charges

### 5.2.1 On-site meter standing charges

| Meter size | On-site meter standing charge | Memo – wholesale charge |
|---|---|---|
| Household | **£0.00** | **£15.16** |
| 12/15 mm | **£0.00** | **£15.12** |
| 20/22 mm | **£0.00** | **£15.31** |
| 25/28 mm | **£0.00** | **£32.57** |
| 30/32/35 mm | **£0.00** | **£32.57** |
| 40/42 mm | **£0.00** | **£52.63** |

| | | |
|---|---|---|
| 50/54 mm | **£0.00** | **£68.80** |
| 75/80 mm | **£0.00** | **£91.42** |
| 100 mm | **£0.00** | **£102.60** |
| 150 mm | **£0.00** | **£111.73** |

### 5.2.2 Bulk supply meter standing charges

| Meter size | Bulk supply meter charge | Memo – wholesale charge |
|---|---|---|
| 12/15 mm | **£15.12** | **£15.12** |
| 20/22 mm | **£15.31** | **£15.31** |
| 25/28 mm | **£32.57** | **£32.57** |
| 30/32/35 mm | **£32.57** | **£32.57** |
| 40/42 mm | **£52.63** | **£52.63** |
| 50/54 mm | **£68.80** | **£68.80** |
| 75/80 mm | **£91.42** | **£91.42** |
| 100 mm | **£102.60** | **£102.60** |
| 150 mm | **£111.73** | **£111.73** |

### 5.2.3 Select fixed charges

| End-user | NAV fixed charge | Memo – wholesale charge |
|---|---|---|
| Select 50 | **£21,084.64** | **£21,500.00** |
| Select 180 | **£40,376.72** | **£41,300.00** |
| Select 750 | **£295,052.28** | **£303,050.00** |

### 5.2.4 Surface water drainage and highway drainage charges

| Charging band | Chargeable area m2 | Surface water drainage charge | Highway drainage charge | Surface water drainage charge with on-site pump | Highway drainage charge with on-site pump |
|---|---|---|---|---|---|
| Household | - | **£54.56** | **£23.41** | **£40.84** | **£17.52** |
| Band 1 | Up to 124 | **£75.27** | **£32.26** | **£56.24** | **£24.11** |
| Band 2 | 125 - 299 | **£186.98** | **£80.12** | **£139.71** | **£59.87** |
| Band 3 | 300 - 649 | **£416.69** | **£178.57** | **£311.35** | **£133.43** |
| Band 4 | 650 - 1,499 | **£942.78** | **£404.04** | **£704.45** | **£301.90** |
| Band 5 | 1,500 - 2,999 | **£1,971.96** | **£845.13** | **£1,473.45** | **£631.48** |
| Band 6 | 3,000 - 6,999 | **£4,384.31** | **£1,879.00** | **£3,275.97** | **£1,404.00** |
| Band 7 | 7,000 - 11,999 | **£8,329.69** | **£3,569.87** | **£6,223.97** | **£2,667.42** |
| Band 8 | 12,000 - 17,999 | **£13,761.75** | **£5,897.91** | **£10,282.82** | **£4,406.94** |
| Band 9 | 18,000 - 24,999 | **£19,725.38** | **£8,453.75** | **£14,738.86** | **£6,316.67** |
| Band 10 | 25,000 - 49,999 | **£34,405.05** | **£14,745.05** | **£25,707.55** | **£11,017.55** |
| Band 11 | 50,000 - 74,999 | **£57,342.08** | **£24,575.21** | **£42,846.16** | **£18,362.68** |
| Band 12 | 75,000 - 99,999 | **£80,279.07** | **£34,405.37** | **£59,984.75** | **£25,707.80** |
| Band 13 | 100,000 - 124,999 | **£103,216.09** | **£44,235.53** | **£77,123.36** | **£33,052.93** |
| Band 14 | 125,000 - 149,999 | **£126,153.12** | **£54,065.69** | **£94,261.96** | **£40,398.06** |
| Band 15 | ≥ 150,000 | **£149,090.56** | **£63,896.05** | **£111,400.89** | **£47,743.33** |

### 5.2.5 Surface water drainage and highway drainage charges for eligible community groups

Charged based on band 1 as shown in table 5.2.4

### 5.2.6 Surface water drainage and highway drainage charges (for eligible schools)

| Charging band | Chargeable area m2 | Surface water drainage charge | Highway drainage charge | Surface water drainage charge with on-site pump | Highway drainage charge with on-site pump |
|---|---|---|---|---|---|
| Band 1s | Up to 124 | **£75.27** | **£32.26** | **£56.24** | **£24.11** |
| Band 2s | 125 - 299 | **£93.49** | **£40.06** | **£69.86** | **£29.94** |
| Band 3s | 300 - 649 | **£208.35** | **£89.29** | **£155.68** | **£66.72** |
| Band 4s | 650 - 1,499 | **£471.39** | **£202.02** | **£352.23** | **£150.95** |
| Band 5s | 1,500 - 2,999 | **£985.98** | **£422.57** | **£736.73** | **£315.74** |
| Band 6s | 3,000 - 6,999 | **£2,192.16** | **£939.50** | **£1,637.99** | **£702.00** |
| Band 7s | 7,000 - 11,999 | **£4,164.85** | **£1,784.94** | **£3,111.99** | **£1,333.71** |
| Band 8s | 12,000 - 17,999 | **£6,880.88** | **£2,948.96** | **£5,141.41** | **£2,203.47** |
| Band 9 s | 18,000 - 24,999 | **£9,862.69** | **£4,226.88** | **£7,369.43** | **£3,158.34** |
| Band 10s | 25,000 - 49,999 | **£17,202.53** | **£7,372.53** | **£12,853.78** | **£5,508.78** |
| Band 11s | 50,000 - 74,999 | **£28,671.04** | **£12,287.61** | **£21,423.08** | **£9,181.34** |
| Band 12s | 75,000 - 99,999 | **£40,139.54** | **£17,202.69** | **£29,992.38** | **£12,853.90** |
| Band 13s | 100,000 - 124,999 | **£51,608.05** | **£22,117.77** | **£38,561.68** | **£16,526.47** |
| Band 14s | 125,000 - 149,999 | **£63,076.56** | **£27,032.85** | **£47,130.98** | **£20,199.03** |
| Band 15s | ≥ 150,000 | **£74,545.28** | **£31,948.03** | **£55,700.45** | **£23,871.67** |

### 5.2.7 Trade Effluent charges

The charge is based on a standard unit charge per cubic metre of trade effluent discharged to a public sewer. The standard unit charge is based on the Mogden formula using the following factors:

| | |
|---|---|
| **R** | Reception and conveyance |
| **V** | Preliminary and primary treatment |
| **B1 & B2** | Biological treatment |
| **S** | Sludge treatment and disposal |

The charge per cubic metre of a particular trade effluent is calculated by adding the standard unit charge(s) for each of the above factors which are applicable to the treatment and disposal of that particular effluent, having first adjusted where necessary items B2 and S. This is to take account of the relative strengths for chemical oxygen demand and suspended solids of the particular effluent and the average effluent (mixed sewage and trade effluent) received at our wastewater treatment works in long-term average rainfall conditions.

| **The Mogden formula by which this calculation is made is:** | |
|---|---|
| $C= (R + V + B^1) + (B^2 \times Ot/Os) + (S \times St/Ss)$ | |
| Where: | |
| **C** | is the unit charge per cubic metre of trade effluent discharged |
| **R** | is the unit cost per cubic metre for the reception and conveyance of sewage |
| **V** | is the unit cost per cubic metre of the preliminary and primary treatment of the sewage in our wastewater treatment works |
| **B** | is the unit cost per cubic metre of the biological oxidation treatment of settled sewage. It consists of two elements: $B_1$ is the unit charge per cubic metre relating to volume related secondary treatment costs and $B_2$ is the unit cost per cubic metre relating to all other biological oxidation treatment costs |
| **S** | is the cost of per cubic metre of treatment and disposal of primary sewage sludge |
| **Ot** | is the chemical oxygen demand (COD) in mg/l of the trade effluent after 1 hour quiescent settlement at pH7 or at the pH of the mixed sewage |
| **Os** | is the chemical oxygen demand (COD) of **350** mg/l of average strength settled sewage |
| **St** | is the suspended solids in mg/l of the trade effluent at pH7 or at the pH of the mixed sewage |
| **Ss** | is the suspended solids of **230** mg/l of average strength crude sewage |

If the combined foul effluent and trade effluent discharge from a premises is more than 50 megalitres (50,000 cubic metres) per annum, a reduced rate for reception and conveyance is applied.

Standard unit charges per cubic metre (m3) for effluent of average strength based on the following Mogden formula elements:

| Mogden formula elements | Volume charge per m3 | Volume charge per m3 – with on-site pump |
|---|---|---|
| R = Reception and conveyance | **£0.1415** | **£0.0201** |
| R = Reception and conveyance – large users | **£0.3041** | **£0.1827** |
| V = Preliminary and primary treatment | **£0.1822** | **£0.1822** |
| $B_1$ = Biological treatment (volume related secondary treatment costs) | **£0.0552** | **£0.0552** |
| $B_2$ = Biological oxidation (based on chemical oxygen demand of 350mg/l) | **£0.1431** | **£0.1431** |
| S = Sludge treatment and disposal (based on suspended solids of 230mg/l) | **£0.1847** | **£0.1847** |

# 6. WORKED EXAMPLES

## 6.1 Example 1 – household development

A NAV site has 150 household connections. The NAV would like a bulk supply of water and wastewater services. The site has one bulk supply meter. In addition, the entire NAV site drains to United Utilities' network. The scenario can be summarised like this.

| Service | Water | Wastewater |
|---|---|---|
| Household | 150 | 150 |
| Non-household | - | - |
| Select 50 | - | - |
| Select 180 | - | - |
| Select 750 | - | - |
| Select sewerage | - | - |
| Bulk supply meters | 1 x 100mm | - |
| Surface water drainage | - | 150 |
| Highway drainage | - | 150 |

### 6.1.1 Volumetric charges

The volumetric charges levied against usage recorded at the bulk supply meter will be the standard volumetric charges as set out in section 5.1 - £1.363/m3 for water and £0.959/m3 for foul respectively.

We do not weight the charge as there are no large users on-site.

### 6.1.2 Fixed charges

The NAV will pay a fixed charge for its bulk supply meter. Section 5.2.2 indicates this charge will be £102.60.

The NAV will also be liable to pay an annual surface water drainage and highway drainage charge. Section 5.2.4 indicates this charge will be (£54.56 + £23.41) x 150 = £11,696.

## 6.2 Example 2 – a mix of household and non-household plots

A NAV site has 100 household and 5 non-household connections (each is assumed to be Band 1 for Highways Drainage charging purposes). The NAV would like a foul sewerage bulk supply service. United Utilities will provide water services to the site. The entire NAV site will drain directly to a nearby watercourse without entering UUW's network. The scenario can be summarised like this.

| Service | Water | Wastewater |
|---|---|---|
| Household | - | 100 |
| Non-household | - | 5 |
| Select 50 | - | - |
| Select 180 | - | - |
| Select 750 | - | - |
| Select sewerage | - | - |
| Bulk supply meters | - | - |
| Surface water drainage | - | - |
| Highway drainage | - | 105 |

### 6.2.1 Volumetric charges

The volumetric charges levied against aggregate site consumption will be the standard volumetric charge for a wastewater only NAV as set out in section 5.1.2 - £1.000/m3.

Aggregate site consumption is measured using consumption recorded at the water meters of United Utilities' wholesale customers.

We do not weight the charge as there are no large users on-site.

### 6.2.2 Fixed charges

There is no bulk supply meter so no meter standing charge is payable.

The NAV site drains directly to a watercourse without entering our network so we do not charge the NAV for surface water drainage. The site does receive a foul sewerage wastewater bulk supply service and so is eligible for highways drainage charges. Section 5.2.4 indicates this charge will be £23.41 x 100 + £32.26 x 5 = £2,502.30.

## 6.3 Example 3 – a mix of regular and large non-household users

A NAV site has a mix of non-household end-users, including one large user and 10 regular users. The large user would eligible for UUW's Select 50 tariff if it was within UUW's region. The NAV would like to buy water, foul and surface water drainage services from UUW. The scenario can be summarised like this.

| Service | Water | Wastewater |
|---|---|---|
| Household | - | |
| Non-household | 10 | 10 |
| Select 50 | 1 | - |
| Select 180 | - | - |
| Select 750 | - | - |
| Select sewerage | - | 1 |
| Bulk supply meters | 1 x 100mm | - |
| Surface water drainage | - | 11 |
| Highway drainage | - | 11 |

### 6.3.1 Volumetric charges

There is a large user on the NAV site which means we will use the formula set out in section 3.2.3, the charges in sections 5.1.1 and 5.1.2 and the consumption assumptions in section 5.1.3 to calculate the ongoing volumetric charge.

$$Weighted\ volumetric\ charge - water = \frac{\{(£1.363 * 2{,}500) + (£1.306 * 50{,}000)\}}{(2{,}500 + 50{,}000)}$$

$$Weighted\ volumetric\ charge - foul = \frac{\{(£0.959 * 2{,}500) + (£1.111 * 50{,}000)\}}{(2{,}500 + 50{,}000)}$$

The total volume associated with standard use non-household customers is calculated by multiplying the volume assumption for that customer class by the number of customers in that class.

Note that there is no trade effluent customer on the site, so we do not adjust the foul charge.

The resulting charges are £1.309/m3 for water and £1.104/m3 for foul.

### 6.3.2 Fixed charges

The NAV will pay a fixed charge for its bulk supply meter. Section 5.2.2 indicates this charge will be £102.60.

The NAV will pay a fixed charge relating to the on-site large user. Section 5.2.3 indicates this charge will be £21,084.64.

The NAV's NHH customers would all be band 4 surface water and highways drainage customers if they were in UUW's Area of Appointment, other than the Select customer which would be a band 8.

Therefore, section 5.2.4 indicates the fixed charge payable would be ( ( 10 x ( £942.78 + £404.04 ) ) + ( £13,761.75+ £5,897.91 ) ) = £33,127.86