

CHARGING ARRANGEMENTS FOR NEW CONNECTION SERVICES 2018/19

New development and infrastructure charges (this document is the Charges Scheme for infrastructure charges for all customers, developers and self-lay providers)





CHARGING ARRANGEMENTS FOR NEW CONNECTION SERVICES 1ST April 2018 – 31st March 2019

This charging arrangements document for new connection services incorporates the Charges Scheme for infrastructure charges for end-user household customers. The Charging Schemes for the year starting 1 April 2018 is contained in a series of individual booklets as follows:-

- Charging Arrangements for New Connection Services this booklet
- Customer Enquiries and complaints
- General conditions, payment dates, options and charges
- · Collection of domestic water debts
- Collection of commercial water debts

The charging arrangements document contains the full range of new connection service charges and applies to all customers, developers, retailers, self lay providers or new appointments and variations (NAVs) as set out in the document.

Introduction

This charging arrangement reflects the new approach to charging for new connection services. The Water Act 2014 has allowed Ofwat to change the current charging framework to a new framework. Ofwat published its "Charging rules for new connections: decision document" in December 2016 identifying the rules that the new charging mechanism will need to abide by.

The full charging rules that apply in England are available on Ofwat's website at:

https://www.ofwat.gov.uk/publication/charging-rules-new-connection-services-english-undertakers/

These rules expect us to follow four overarching principles:-

- Stable and predictable charges
- Transparent and customer focused charging
- Fairness and affordability
- Environmental Protection

In setting these charges we have taken steps to ensure that the present balance of charges between Developers and other customers prior to these new charges are broadly maintained.

We published on the Water UK and Bristol Water's website a consultation document in November 2017 and circulated to Developers and Self Lay Providers operating within our area.

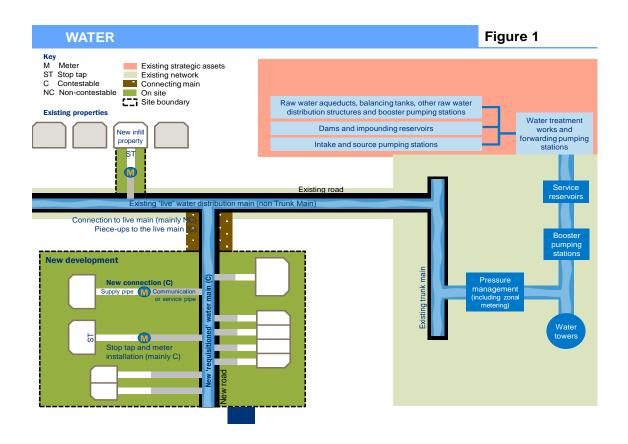
These charges are produced using sector guidance "Charges for connection services Edition 1" produced by Water UK and the Ofwat's guidance "Charging Rules for New Connection Services (English Undertakers) dated August 2017.



This document is to be read in conjunction with the Water UK charging spreadsheet available on the Bristol Water website https://www.bristolwater.co.uk/developers-and-slos/new-supplies-new-mains/ populated with Bristol Water data to enable customers to compare and calculate the costs of mains and services.

Our Charging Approach

Figure 1 below identifies the different elements of work



Areas of costs we incur are split into three categories:

• Site - Specific

Those works undertaken within the dark green shaded areas and brown with white dots. A proportion of the costs of the water mains installed for these works are recovered from developers with offsets for income generated from the development (Income Offset).

Site specific refers to work on, or the provision of, water structures or facilities located on a development up to a point on the existing network where the connecting pipework is of nominal bore internal diameter no larger than that of our existing network.



The site costs includes design administration fees. These are charged on a sliding scale depending on development size and are refunded if a project proceeds within a suitable timescale. Re-design fees are applied once a significant change is made to an existing produced design. Re-design fees are non-refundable. For designs produced by Self Lay Providers or their design partners a checking fee is charged equivalent to the design fee and is refunded if a project proceeds. This ensures that costs are fairly recovered from developments that do not proceed, as well as those that do.

• Network Reinforcement Works

Those works undertaken within the light green area. The costs of these works are recovered by means of infrastructure charges payable by developers where appropriate. These costs will be solely to cover reinforcement works and not to address existing shortfalls in the network.

Resources and Treatment

Those works undertaken in the pink area. These are funded through general charges to customers and are not recovered through new connection charges.

1.1 General

For information relating to development enquiries, please see our Developer's Charter on our website: www.bristolwater.co.uk/developments.

Charges incurred for Development sites can be a combination of the following charges. Principle requirements will be the need to make a connection to existing mains, laying of onsite mains to service a site and site-specific property connection charges.

1.2 Record Plans

The provision of a copy of our mains record plan for proposed developments is free of charge.

1.3 New Mains and major Connections

New mains can either be laid by Bristol Water's term contractor or a Self-Lay Provider. The decision lies with the developer. A third option for developers is to service the site by infrastructure owned and maintained by a NAV (New Appointments and Variations).

Further information on the routes available to customers for new connections infrastructure is on our website: www.bristolwater.co.uk/developments.

Initial feasibility checks, to determine how a development can be supplied, are free of charge unless significant investigation is required, in which case the fees in the table below apply. Enquiries requiring the design and costing of new mains installations or major service connections for non-domestic purposes including self-lay mains and requisition mains applications as well as preliminary designs produced for budget purposes only, are also subject to the fees below:-

Design administration fees are charged on a sliding scale depending on development size and are refunded if a project proceeds within 12 month of application. Re-design fees are applied once a significant change is made to an existing produced design. Re-design fees (a minimum of £100+VAT up to the full design fee are not refundable. For designs produced by Self Lay Providers or their design partners there is a checking fee equivalent to the design fee which is also refunded if a project proceeds within 12 months.



Design administration fees will remain at same charge as 2017/18.

Design Administration Fees	Previous Fee	New Fee
Residential	2017/18	2018/19
<10 houses	£300+VAT	£300+VAT
11-25 houses	£400+VAT	£400+VAT
26-75 houses	£600 +VAT	£600 +VAT
76-150 houses	£900+VAT	£900+VAT
151-300 houses	£1,200+VAT	£1,200+VAT
>300 houses	£1,500+VAT	£1,500+VAT
Commercial		
< 0.5 l/s	£300+VAT	£300+VAT
0.6-2 l/s	£500+VAT	£500+VAT
2.1-5 l/s	£800+VAT	£800+VAT
5.1-10 l/s	£1,000+VAT	£1,000+VAT
10.1-15 l/s	£1,500+VAT	£1,500+VAT
>15 l/s	£2,000+VAT	£2,000+VAT

If the site is a combination of residential and commercial/industrial only a single fee is payable: whichever is the greater out of the fee that corresponds to the residential element of the development and the fee that corresponds to the commercial/industrial element of the development. Application fees may be taken into account when calculating the payments required/made in relation to any resulting main laying.

1.4 Requisition Charges and Income offsets

The requisition charge previously applied whereby mains are requisitioned for a development site, i.e. the Developer pays Bristol Water to lay mains on the development site. Up to 31 March 2018 the requisition charge was calculated based on the cost of mains to be installed on the site together with the expected income to be received over a 12 year period. The DAD's (Discounted Aggregate Deficit) calculation works out the level of charge. This "discount" was commonly known as the income offset and was offset against mains installations only.



From 2018/19 the "Requisition" of site-specific mains and other charges will be based on the schedule of rates shown in section 2 below. Based on the average recovered charge in the past two years which showed we recovered net 15% of the total site specific cost in requisition charges after deducting the income offset, we will provide developers with an 85% discount to the cost of on-site mains calculated using the schedule of rates below. The net amount represents Requisition Charges. We show the two elements separately as the income offset is available irrespective of the competitive option that developers may choose, including where Bristol Water does not undertake on-site work (and under the legislation there is no requisition).

The benefit of this approach is that customers can calculate the income offset without asking us for a quote. This will provide developers with greater certainty and shorten the time necessary for all, including self lay providers, to understand development costs.

This approach will be available to New Appointments and Variations (NAVs) and Self Lay Providers on an equivalent basis as other developments. This is of particular benefit of our proposed approach for the development of competition in the developer services market, compared to the alternatives of retaining the previous requisition "DAD" calculation.

Where Bristol Water adopts on site assets in respect to an agreement under section 51A of the Water Industry Act 1991, an Asset Payment will be made, calculated on the same basis as the income offset. For NAVs the income offset will be deducted from the bulk supply charges in the first year of supply. We will require information from self-lay providers and NAVs on the characteristics of the development. We will then calculate the asset payment based on 85% of the value of the on-site mains development costs we calculate using the schedule of rates in section 2 below.

1.5 Developer Payment

These fees are levied on Self Lay Providers (SLP) for "Non Contestable" or "Contestable" work (that an SLP chooses not to do) and is undertaken by Bristol Water.

The fee is based on actual costs incurred to provide the work, if it is not possible to base on the fixed rates set out in this document.

Where the Developers payment is greater than the on-site charges that would have been due, then there is an option for the SLP to defer the difference to be paid until the water mains have been installed and adopted by Bristol Water.

Asset Payments (Payments made by Bristol Water to adopt a self laid main) will be calculated as set out in section 1.4 above.

Upstream reinforcing mains as a consequence of a development are recovered through Infrastructure Charges which apply to all new developments, including where a Self Lay Provider has been engaged by the Developer.

This includes where a scheme provides for an upsized main for future development the apportioned cost of upsizing will be funded from Infrastructure Charges and not borne by the Developer through other new development charges.



1.6 Diversions

Basic advice on the requirement for a mains diversion is provided free of charge.

The design and costing of simple mains diversions are subject to a fee of £360+VAT. This cost is based on our cost of providing this service.

Payment should be included with the enquiry. Further charges may be payable if certain investigations are required.

Fees relating to the provision of a preliminary design and budget estimate for the diversion of larger mains (generally those over 300mm in internal diameter) are determined on a case by case basis, following receipt of the request and relevant details from the developer. Such fees normally start at £2,500+VAT.

Diversion of mains and services are charged at full cost with the estimated cost paid as a deposit and adjusted once the final account has been calculated.

Diversions below an estimated £5,000 are offered at a fixed cost and only revisited if the scope of work required changes substantially from the original estimate.

2.0 Site-specific Water Mains Charges

These charges apply to new site specific water mains. These mains are installed to serve a site and are dependent on pipe material, size and surface type. These mains costs in 2.1 are per metre and include labour, plant, materials and overheads and before any income offset is applied.

2.1 Mains

Description (£/metre)	Diameter	No/Minimal Excavation	Verge/Unmade Ground/Field	Footway (Rigid)	Road (Type 3/4)
PE Pipe Standard	63/90	£19.82	£45.65	£172.37	£200.91
PE pipe Barrier	63/90	£30.53	£56.35	£183.07	£211.62
PE pipe Standard	125	£25.90	£53.31	£187.84	£217.86
PE pipe Barrier	125	£40.35	£67.75	£202.28	£232.31
PE pipe Standard	180	£40.85	£79.53	£253.09	£289.58
PE pipe Barrier	180	£55.36	£94.04	£267.60	£304.10
PE pipe Standard	250	£58.31	£101.54	£294.66	£334.77
PE pipe Barrier	250	£101.14	£144.37	£337.49	£377.60

Costs are per metre

The above rates will cover the vast majority of scenarios. Anything work not covered above will be priced on a case by case basis.



2.2 Thrust Blocks

Description	Diameter	No/Minimal Excavation
Thrust	63/90	£142.73
Blocks		
Thrust	125	£194.70
Blocks		
Thrust	180	£259.97
Blocks		
Thrust	250	£336.04
Blocks		

These are total costs

2.3 Connections to Existing Site Mains (diameter is existing main)

Description	Diameter	No/Minimal Excavation	Unmade Ground
In-Line Connection	63/90	£262.90	£337.85
In-Line Connection	125	£272.71	£349.59
In-Line Connection	180	£355.90	£446.12
In-Line Connection	250	£425.08	£520.09

Total cost which includes up to 2 metres of pipe

2.4 Connections to Existing Mains where cut out or under pressure connection

Description	Diameter	No/Minimal Excavation	Verge/Unmade Ground/Field	Footway (Rigid)	Road (Type 3/4)
Connection	63/90	£710.41	£829.92	£1607.70	£1791.03
Connection	125	£724.38	£850.65	£1649.55	£1835.02
Connection	180	£973.41	£1125.98	£1995.58	£2194.87
Connection	250	£1196.08	£1359.96	£2272.69	£2479.45

Total cost which includes up to 2 metres of pipe

2.5 Fittings

Description	Diameter	No/Minimal Excavation	Verge/Unmade Ground/Field	Footway (Rigid)	Road (Type 3/4)
Fittings	63/90	£232.01	£233.28	£503.72	£554.26
Fittings	125	£236.90	£238.11	£500.21	£548.57
Fittings	180	£303.66	£304.75	£571.80	£619.28
Fittings	250	£375.52	£376.51	£632.56	£677.04

Fittings includes Air Valves, Hydrant, Washout, Valve or Meter and includes chamber and cover.

These are total costs



2.6 Mains Pressure Test including third party verification

Description	Diameter	No/Minimal Excavation
Pressure Test	63/90	£303.89
Pressure Test	125	£303.89
Pressure Test	180	£303.89
Pressure Test	250	£472.93

These are total costs

2.7 Mains Chlorination including flushing, sampling and analysis

Description	Diameter	No/Minimal Excavation
Chlorination	63/90	£657.70
Chlorination	125	£657.70
Chlorination	180	£657.70
Chlorination	250	£657.70
Sampling and analysis where not carried out as part of chlorination per sample		£161.51

These are total costs

2.8 Trial Holes

Description	Verge/Unmade Ground/Field	Footway (Rigid)	Road (Type 3/4)
Trial Hole < 1 m3	£291.09	£733.60	£835.92
Trial Hole > 1 m3	£194.70*	£579.34*	£645.94*

^{*} Price is per cubic metre These are total costs

2.9 Others

Description	Unit	Price
Excavating in Rock/Concrete	Cubic metre	£150.63
Granular Fill E/O	Cubic metre	£76.08
Traffic lights 2 way	Day	£23.19
Traffic lights 3 way	Day	£34.79
Traffic lights 4 way	Day	£59.02
Traffic Plan	Number	£309.24
2 Man Stop and Go	Day	£530.72
Lane Closure up to 40 mph 1	Day	£908.17
day		
Lane Closure up to 40 mph	Day	£721.70
additional days		
Lane Closure up to 50 mph 1	Day	£1224.75
day		
Lane Closure up to 50 mph	Day	£1038.27
additional days		



Road Closure Diversions	Week	£483.73
advance warning notices		
(site specific) including		
installation and maintenance		
checks - up to 20 signs		
Road Closure Diversions	Week	£276.53
advance warning notices		
(site specific) including		
installation and maintenance		
checks - up to 20 signs		
additional week		
Road Closure Diversions	Week	£789.83
advance warning notices		
(site specific) including		
installation and maintenance		
checks - up to 40 signs		
Road Closure Diversions	Week	£527.68
advance warning notices		
(site specific) including		
installation and maintenance		
checks - up to 40 signs		
additional week		
Road Closure Diversions	Week	£1095.91
advance warning notices		
(site specific) including		
installation and maintenance		
checks - up to 60 signs Road Closure Diversions	Week	£785.11
	vveek	2705.11
advance warning notices (site specific) including		
installation and maintenance		
checks - up to 60 signs		
additional week		
Topsoil Strip including store	Square metre	£3.87
and reseed	Oquare metre	20.07
and resecu		
Temporary stockproof	Metre	£8.63
fencing		
3 Strand Post and wire	Metre	£7.07
fencing		
Post and Rail Fencing	Metre	£14.91
Pin and Tape Demarcation	Metre	£4.72
Crossing point including gate	Number	£231.93
In Situ Grade C20 or C30	Cubic metre	£179.70
Foam Concrete Grade C4	Cubic metre	£149.88
E/O Coloured Tarmac	Square metre	£32.76
E/O Anti Skid Surfacing	Square metre	£237.64
Continuous road marking	metre	£16.53
lines		
Intermittent road marking	metre	£16.53
lines		
Road marking letters and	Number	£179.69
shapes		
Road studs	Number	£33.80



Re-lay kerb	metre	£89.48
Re-lay edging	metre	£61.22
Marker post and plate	Number	£66.04
Reinstatement of land drains	Number	£238.64

2.10 Watercourse crossing including reinstatement

Description	Diameter	Price
Watercourse Crossing	63/90	£2196.85
Watercourse Crossing	125	£2347.42
Watercourse Crossing	180	£2508.31
Watercourse Crossing	250	£3149.59

These are total costs

2.11 Road Closure Fees

Where mains of services are required to cross the public highway the local Highway Authority may dictate that the work will require a road closure to ensure the safety of the general public and the workforce undertaking the work. Road closure charges vary from each local authority. In certain circumstances if there is a road closure in the location we may be able to undertake the work at the same time. We will advise in advance if a road closure is required and the minimum notice period that the Local Authorities require is 3 months. A list of road closure fees by council, correct at the time of writing, is as follows:

Bath & North East Somerset Council

Temporary Orders (up to 18 months) = £650 + advertising costs below Advertising cost (£700-£1500)

Additional costs for advertisement and posting notices will be invoiced separately once the advertising period is complete.

Bristol City Council

Temporary Traffic Regulation Order = £1770

(Plus £695 per additional item)

Includes extra cost if legal/advertising cost amount to more. E.g. Large Road Closure.

Somerset County Council

Temporary Full Order (up to 18 months) = £1000

Cost includes £335 administration and production of signing schedule and diversion route. £665 for placing adverts in local paper.

North Somerset Council

Temporary Order (up to 18 months) = £1175

Cost Breakdown

- Temporary Order (£620),
- Advertising (£325),
- Posting of Notices (£230),

Urgent Notice (5 day or 21 day maximum) = £199

Cancellation fee = £75



South Gloucestershire Council

Temporary Order (Up to 28 Days) = £1575 Temporary Order (Over 28 Days) = £2625 5 day notice = £208.43

Wiltshire Council

Temporary Traffic Order = £1050 Emergency / Urgent Closure = £170 Extension of the closure period = £170 Re-enactment of Temporary Traffic Order within 18 months = £380

Gloucestershire County Council

Temporary Traffic Order = £1129.50 Include these cost if:

- £287 for deferral of start date
- £287 for any extension to closure
- £150 per any additional road on same application

2.12 Land Entry Costs

Where mains and/or services are required to be laid in third party land. These costs would include potential compensation costs to land owners for loss of crops etc. We estimate a value of £10/metre for mains and services laid. The charge levied will be the actual costs incurred.

2.13 Archaeological/Ecological Charges

These fees become payable when mains and or services are due to be laid in land that is of Archaeological/Ecological importance. At the design stage we investigate any potential route issues and engage Archaeologists/Ecologists as necessary. Reports start at around £1,000 but could include recommendations that require a watching brief etc. Whilst excavation is ongoing we have an obligation to report any Archaeological finds. Both reports could have an impact on the timing of the works.

2.14 Exceptional Items

These are items that are priced on a case by case basis as there are too many variables to give standard charges, some examples below:-

Rail Crossings
Bridge Crossings
Archaeological Areas
Ecological Areas
Motorway Crossings
River Crossings
Large Diameter Mains Connections
Non Open Cut Mains Installation



3.0 Site-specific Connection Charges (Services)

These charges apply to new site-specific connections except where customers are replacing existing lead or galvanised pipes. In these two cases the connection to the company's mains may be free. Copies of the booklet explaining these schemes can be obtained by calling the number below or it is also on our website: www.bristolwater.co.uk

The procedure for new connections is described in detail in our New Connections Information pack, copies of which can be obtained by contacting the New Supplies Department on 0345 602 8022 or at www.bristolwater.co.uk/new-supply-info-pack.

Payment must be received before a connection will be made. The following prices will apply for most new 25mm or 32mm outside diameter pipes, up to 15 metres in length, connected to mains up to 200mm internal diameter. However for connection sizes out of this range, not included in the listed examples and not covered by the accompanying charging template, we will provide an estimate, and if below an estimate of £5,000 this will represent a fixed cost.

All charges include the cost of the Company supplying and fitting the meter. VAT at the current rate will be added to charges where applicable. All of the charges have been calculated based on the cost of the Company supplying these services.

A maximum of six separate connections are allowed in any one trench.

Inspection visits due to work not being up to standard or work not being ready when an inspection has been booked will incur extra charges. Charges will also be payable in the event that connection work cannot be made on the scheduled date due to the development site not being sufficiently prepared (abortive visit charge). This may be levied for each connection, which cannot be completed on this date.

The preferred method of providing a new connection is via a boundary box installed in the footpath or, alternatively, on private property, less than one metre inside the boundary with the highway in which the main is laid. In some circumstances, but only with the prior agreement of the Company, boundary boxes may be acceptable in other locations. The alternative method is via a wall mounted box at the front of the property. It should be in a position which gives a meter reader unimpeded access, otherwise it will require a remote radio meter to be fitted by Bristol Water. In all cases, the meter must be in a location which can be safely accessed at all times by a meter reader or Company employee.

The Company does not accept internal meters. However when circumstances dictate, at the Company's discretion, meters may be provided at a location other than outside the property at a cost to be determined at the time.

There are three common examples of new connections, tapping only, tapping plus service pipe, and tapping plus service pipe and boundary box. The requirements and costs associated with each option as follows (The full charging schedule for mains and services is in Appendix B)



3.1 Tapping only

Tapping only applies principally to connections to mains in site roads and in private land such as fields and other un-surfaced areas.

The Customer provides and fits a boundary box or wall mounted box and excavates and lays the service pipe¹ and trace wire to a point 150mm above the main. The company exposes and taps the main and fits the meter. The customer then backfills and reinstates the surface as appropriate.

Costs:	£
Basic cost	£270
Each additional service in same trench (Maximum 6)	£205
Additional Charge if wall mounted box not readily accessible	£39

3.2 Tapping plus service pipe

Tapping plus service pipe applies principally to connections to mains in adopted and other existing surfaced roads (including footpaths, verges etc) where a boundary or wall mounted box is to be installed on private land. **The customer** provides and fits a boundary box or wall mounted box and excavated and lays the service pipe and trace wire to the highway boundary leaving sufficient pipe and trace wire to be connected to the main. **The Company** excavates to the main, lays the service pipe and trace wire, taps the main, backfills, reinstates and fits the meter.

Costs:	£
Basic Cost including first metre of excavation and pipe	£715
Each additional service in same trench (maximum 6 in total)	£205
Additional cost per metre of standard pipe	£117
Additional cost per metre of barrier pipe	£121
Additional cost per metre for each additional standard PE service in same trench	£2
Additional cost per metre for each additional barrier pipe service in same trench	£5
Additional charge if wall mounted box not readily accessible	£39

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¹ Service Pipe – this is the length of pipe between the Company's main and the property. It is usually in two parts: the Company service pipe (known as the communication pipe), which normally runs from the main to the highway boundary, and the customer service pipe (known as the supply pipe) which is the remainder.



3.3 Tapping plus service pipe and boundary box

Tapping plus service pipe and boundary box applies principally to connections in adopted and other surfaced roads (including footpaths, verges etc). **The customer** excavates and lays the service pipe and trace wire to the highway boundary, leaving at least one metre of pipe and trace wire to be connected to the main. **The Company** provides and fits a boundary box, excavates to the main, lays the service pipe and trace wire, taps the main, backfills, reinstates and fits the meter.

Costs:	£
BW fits box and taps main, including first metre of pipe	£870
BW fits box and taps main in contaminated land, including first metre of	£932
pipe	
Each additional service in same trench (maximum 6 in total)	£303
Each additional service in same trench in contaminated land (maximum	£342
6 in total)	
Additional cost per metre of standard PE pipe	£117
Additional cost per metre of barrier pipe	£121
Additional cost per metre for each additional standard PE service in	£2
same trench	
Additional cost per metre for each additional barrier pipe service in	£5
same trench	
BW fits box and taps main in one excavation (surfaced road, footpath,	£844
verge)	
BW fits box and taps main in one excavation (private unsurfaced land)	£454

3.4 Ancillary Charges

Costs:	£
Fee for additional inspection visit	£91
Abortive installation charge (to be paid if installation not ready for	£234
connection to be made)	

3.5 Service pipe disconnection charge

£651

This fee may be incurred for lead or galvanised iron service pipe replacements up to 1" diameter where the new connection and disconnection require separate excavations.

In certain other situation, removal of apparatus may be charged for at cost.

3.6 Non Standard Costs

Where possible we offer fixed costs. By exception, where there are elements of the work that are unusual or of high risk, we will price then individually on a site specific basis. Railway and river crossings are typical examples where site specific pricing will be appropriate.



3.7 Non-Physical Connection Charges

These fees are levied on Self Lay Providers as an administrative fee for processing self laid service connections.

Non-physical connection charges will remain at same charge as 2017/18.

Charge	First Connection on	First Connection of a	Remaining
	site	batch	Connections
2017/18	£28.70	£20.86	£15.69
2018/19	£28.70	£20.86	£15.69

4.0 Infrastructure Charges

4.1 General

When water is first made available for domestic purposes (including such properties as hotels or offices) then an infrastructure charge is due. This charge is in addition to any charges for connections or site specific mains and must be paid by the person who pays for the connection. The charge is due as soon as the connection to the main has been made and it is capable of providing water for domestic purposes. The purpose of the charge is a contribution to the cost of providing the infrastructure of pipes, pumping stations and treatment works necessary for the provision of water services as a direct consequence of developments.

Infrastructure charges do not apply where the water is required solely for process needs.

The level of Infrastructure charge is set on a yearly basis and adjusted to ensure our costs are recovered over a five year period. This means that the infrastructure charge set every year will be based on the latest estimate of the investment required and the number of new connections expected in the next 5 years.

We apply a single level of Infrastructure Charge across our supply area, as we plan our water supplies as a single Water Resource zone and have the ability to supply much of the supply area from more than one treatment works. Therefore although we considered zonal charging, we do not believe it to be appropriate for our community.

We consulted on whether we should vary infrastructure charges according to the water efficiency and sustainability of the development. We did not identify through our consultation any specific options for water efficiency that were not already requirements of Part G of the Building Regulations to use water efficient fittings which apply to all developments. We remain open to further options from our customers, developers and stakeholders to introduce efficiency incentives within infrastructure charges in future years.

For non-domestic use the charge will be based on loading units and the relevant multiplier of the standard charge. For each application with more than 24 loading units the loading units are totalled to calculate the relevant multiplier of standard charges.

Appendix A to this document gives the value of loading units and examples.

Costs:	2017/18	2018/19
Infrastructure Charge	£365.48	£351



The £351 charge per property is the average Infrastructure charge for the next five years based on 5% increase in new connections per year and an assessment of off-site mains required together with known growth mains required, and growth mains already provided but not paid for (as an estimate of equivalent expenditure required over the next 5 years):

Item	2018/19	2019/20	2020/21	2021/22	2022/23
Past growth expected as typical	£309,735	£309,735	£309,735	£309,735	£309,735
for the future					
Known Growth mains	£823,600	£997,639	£1,517,600	£1,517,600	£1,696,335
Developer Driven off site Mains	£200,000	£200,000	£200,000	£200,000	£200,000
Total	£1,261,473	£1,307,374	£1,827,335	£1,827,335	£2,006,070
Predicted Properties	4,250	4,450	4,670	4,905	5,150

4.2 Domestic housing

For domestic housing developments, a single standard charge is made on each separate dwelling. The charge is never less than one standard charge.

4.3 Redevelopment

For sites being redeveloped, provided a live connection has existed at any time in the five years before redevelopment started, credit will be given for the maximum number of premises connected to our network within that period. Alternatively, meter records may be used to determine previous consumption. If the existing connection is not greater than 20mm or 3/4" internal diameter, only one standard infrastructure charge credit will be given, irrespective of the number of existing fittings.

An infrastructure charge is also payable if a service connection is "up-sized" to supply redevelopment, for example an extension to a hotel or nursing home.



5.0 Timing of Payment of Charges and Payments

Design administration fees and checking fees are payable at the time of application.

Re-design fees are payable at the time of revision.

Refund of design administration fees will be made within 6 weeks of the requisition or Developer payment charge being paid.

Infrastructure Charges are due once the property is capable of taking water. This does not affect the timing of reinforcing mains laid to service the site.

On-site connection Charges are due prior to requisition connection being made.

Non-Physical Connection Charge is payable once the self laid connection is made.

Developers Payment to be paid prior to any necessary "Non Contestable" or "Contestable" works that a Self Lay Provider chooses not to do. The Developers Payment will be reduced by the expected final Income Offset Asset Payment.

Asset Payments to be paid by Bristol Water within 5 weeks of invoice. For medium to large schemes we offer to assess and pay a monthly valuation based on work completed within a particular month. This is intended to reduce the upfront financial burden to Self Lay Providers.

Diversion Costs to be paid upfront as a deposit and adjusted on scheme completion unless value is less than £5,000 in which case is an upfront fixed cost.

Payments to be made electronically where possible although we do have a facility to take payments over the phone and accepted cheques.

Standard Traffic Management is assumed (Standard two way lights and signing lighting and guarding), with actual traffic management costs recovered if different.

No additional security deposits other than for specific aspects set out above which reflect the commitment risk of Bristol Water are required.



Costed Examples

Example One

Single Householder connection, with capacity mains outside property (i.e. no upstream reinforcement required and no previous use being replaced).

Description	Mains	Service Cost	Infrastructure Charge	Total
Short Side service Connection 17/18	£ -	£ 853.00	£ 365.48	£ 1,218.48
Short Side service Connection 18/19	£ -	£ 870.00	£ 351.00	£ 1221.00
Long Side service Connection 17/18	£ -	£ 1,543.00	£ 365.48	£ 1,908.48
Long Side service Connection 18/19	£ -	£ 1,572.00	£ 351.00	£ 1,923.00

Short side service consists of tapping main, 1 metre of service pipe and provision of boundary box.

Cost breakdown - short side

Reference 2.3, for 2018/19

 $1 \times £870 = £870$

Long side service consists of tapping main 1 metre footpath, 5 metre road crossing and 2 metres of footpath and installation of boundary box.

Cost breakdown - long side

Reference 2.3 for 2018/19

 $1 \times (£870 + 6 \times £117) = £1,572$

In both cases 1 property infrastructure charge of £351 applies.



Example Two

Small development site - 10 houses – Capacity in mains at site entrance, on site mains and services required 63mm x 35metres required standard pipe.

Description	Mains	Service Cost	Infrastructure Charge	Total
Small development site 17/18	£ 0	£ 11,980.00	£ 3,654.80	£ 15,634.80
Small development site 18/19	£ 521.26	£ 12,210.00	£ 3,510.00	£ 16,241.26

Service cost includes 50% short side and 50% long side.

Cost of mains includes charge after income offset applied for 18/19 is set at 15% of total installation cost paid up front.

In this case for the small development the fixed income offset is less than currently would be applied, because the site costs are relatively low compared to the number of properties connected.

Cost breakdown 2018/19

Design Administration - £300 excl VAT (refunded if proceeds with 12 months)

Mains

Connection (In footway) - £1,607.70

Mainlaying in trench provided by Developer - £673.75

End Washout - £232.01

Pressure Test - £303.89

Chlorination – £657.70

Total - £3,475.05, net of 85% income offset £521.26

Services

Short Services $-5 \times £870 = £4,350$

Long Services $-5 \times (£870 + 6 \times £117) = £7,860$

Total = £12,210

Infrastructure charges

10 properties x £351 = £3,510



Example Three

Medium Development Site – 50 houses, 25 built in year 1 – Capacity in mains at site entrance, on site mains and services required 70metres of 63mm, 105 metres 90mm standard pipe.

Description	Mains	Service Cost	Infrastructure Charge	Total
Medium development site 17/18	£ 0.00	£ 59,900.00	£ 18,274.00	£ 78,174.00
Medium development site 18/19	£ 925.51	£ 61,050.00	£ 17,550.00	£ 79,525.51

Service cost includes 50% short side and 50% long side

Cost of mains includes charge after income offset applied for 18/19 is set at 15% of total installation cost paid up front.

In the case for the medium development the fixed percentage income offset is less than currently would be applied, because the on-site mains bring in more customer income relative to the cost.

Cost breakdown 2018/19

Design Administration - £600 excl VAT (refunded if proceeds with 12 months)

<u>Mains</u>

Connection (In footway) - £1,607.70

Mainlaying in trench provided by Developer – 175 x £19.25 =£3,368.75

End Washout - £232.01

Pressure Test - £303.89

Chlorination - £657.70

Total = £6,170.05, net of 85% income offset = £925.51

<u>Services</u>

Short Services $-25 \times £870 = £21,750$

Long Services $-25 \times (£870 + 6 \times £117) = £39,300$

Total = £61,050

Infrastructure charges

50 houses x£351 = £17,550



Example Four

Medium Development Site – 50 houses, 25 built in year 1 – Insufficient capacity at site entrance, 200 metres of upstream reinforcement required 90mm standard pipe, on site mains and services required, 70metres of 63mm, 105metres of 90mm standard pipe.

Description	Mai	ns	Ser	vice Cost	Infrastructure Charge	Total	
Medium development site 17/18	£	3,229.00	£	59,900.00	£ 18,274.00	£	81,403.00
Medium development site 18/19	£	925.51	£	61,050.00	£ 17,550.00	£	79,525.51

Service cost includes 50% short side and 50% long side

Cost of mains includes charge after income offset applied for 18/19 is set at 15% of total installation cost paid up front.

In this case the additional capacity required at the site means a larger income offset on the fixed basis lowers the cost compared to the current approach based on future customer income. The offsite capacity is reflected in infrastructure charges, rather than in mains costs.

Cost breakdown 2018/19

Design Administration - £600 excl VAT (refunded if proceeds with 12 months)

<u>Mains</u>

Connection (In footway) - £1,607.70

Mainlaying in trench provided by Developer – 175 x £19.25 =£3,368.75

End Washout - £232.01

Pressure Test - £303.89

Chlorination - 657.70

Total = £6,170.05, net of 85% income offset = £925.51

Services

Short Services $-25 \times £870 = £21,750$

Long Services $-25 \times (£870 + 6 \times £117) = £39,300$

Total = £61,050

Infrastructure charges

50 houses x£351 = £17,550

In this example, there will be a 2.5% reduction in charges.



Example Five

Large Development Site – 500 houses phasing over ten years 50 houses/year, 25 in year 1 – Capacity in mains at site entrance, on site mains and services required, 960metres of 63mm, 30metres of 90mm, 90 metres of 125mm and 390metres of 180mm standard pipe.

Description	Mains	Service Cost	Infrastructure Charge	Total
Large development site 17/18	£ 4,101.00	£ 599,000.00	£ 182,740.00	£ 785,841.00
Large development site 18/19	£ 7,687.74	£ 610,500.00	£ 175,500.00	£ 793,687.74

Service cost includes 50% short side and 50% long side

Cost of mains includes charge after income offset applied for 18/19 is set at 15% of total installation cost paid up front.

In this case the fixed income offset results in a slightly higher mains cost, although this is a very small change in the context of the total developer service cost.

Cost breakdown 2018/19

Design Administration - £1,500 excl VAT (refunded if proceeds with 12 months)

Mains

Connection (In footway) - £1,995.58

Mainlaying in trench provided by Developer $-960 \times £19.25 + 30 \times £19.25 + 90 \times £25.90 + 390 \times £40.85 =£37,320$

Washouts $-10 \times £232.01 = £2,320.10$

Pressure Test $-10 \times £303.89 = £3,038.90$

Chlorination $-10 \times 657.70 = £6,577.00$

Total = £51,251.58, net of 85% income offset = £7,687.74

Services

Short Services $-250 \times £870 = £217,500$

Long Services $-250 \times (£870 + 6 \times £117) = £393,000$

Total = £610,500

Infrastructure charges

500 houses x£351 = £175,500



Example Six

Large Development Site – 500 houses phasing over ten years 50 houses/year, 25 in year 1 – insufficient Capacity in mains at site entrance, 1km of mains reinforcement required 180mm standard pipe, on site mains and services required, 960metres of 63mm, 30metres of 90mm, 90 metres of 125mm and 390metres of 180mm standard pipe.

Description	Mains	Service Cost	Infrastructure Charge	Total
Large development site 17/18	£ 77,665.00	£ 599,000.00	£ 182,740.00	£ 859,405.00
Large development site 18/19	£ 7687.74	£ 610,500.00	£ 175,500.00	£ 793,687.74

Service cost includes 50% short side and 50% long side

Cost of mains includes charge after income offset applied for 18/19 is set at 15% of total installation cost paid up front.

In this case the insufficient capacity at the site entrance results does not result in additional charges compared to Example Five as would currently be the case as these work will be funded through Infrastructure Charges.

Cost breakdown 2018/19

Design Administration - £1,500 excl VAT (refunded if proceeds with 12 months)

Mains

Connection (In footway) - £1,995.58

Mainlaying in trench provided by Developer $-960 \times £19.25 + 30 \times £19.25 + 90 \times £25.90 + 390 \times £40.85 =£37,320$

Washouts $-10 \times £232.01 = £2,320.10$

Pressure Test $-10 \times £303.89 = £3,038.90$

Chlorination - 10 x 657.70= £6,577.00

Total = £51,251.58, net of 85% income offset = £7,687.74

Services

Short Services $-250 \times £870 = £217,500$

Long Services $-250 \times (£870 + 6 \times £117) = £393,000$

Total = £610,500

Infrastructure charges

500 houses x£351 = £175,500

In this example, there is a 8% reduction in charges.



Appendix A

Examples of calculation of infrastructure charges incorporating a Relevant Multiplier (RM)

New Development

Fitting	No. of Fittings (Proposed)	Loading units per fitting (see table below)	Total Loading Units
WC flushing cistern	25	2	50
Wash basin (not in a house)	20	3	60
Shower	15	3	45
Sink (tap nominal size ½" or 15mm)	15	3	45
Communal or commercial appliance	3	10	30
		Total	230

Relevant Multiplier (RM) = Total loading units (230)/24 = 9.58Infrastructure charge = Standard Domestic Infrastructure Charge x RM (£351) x (9.58) = £3,362.58

Redevelopment of offices into housing

Fitting	No. of Fittings (Proposed)	Loading units per fitting (see table below)	Total Loading Units
WC flushing cistern	21	2	42
Wash basin (not in a house)	20	3	60
Shower	2	3	6
Sink (tap nominal size ½" or 15mm)	4	3	12
		Total	120

Relevant Multiplier (RM) = Total loading units (120)/24 = 5

Credit is given for existing use on a specific site. Thus there would be no infrastructure charge payable on the first five dwellings on the development. A standard infrastructure charge would be payable on all subsequent dwellings.



Loading units for calculating the Relevant Multiplier

Water fitting/appliance	Loading unit
WC flushing cistern	2
Wash basin in a house (see note 2)	1.5
Wash basin elsewhere	3
Bath (tap nominal size 3/4" or 20mm)(see note 3)	10
Bath (tap nominal size larger than 3/4" or 20mm)(see note 3)	22
Shower	3
Sink (tap nominal size ½" or 15mm)	3
Sink (tap nominal size larger than ½" or 15mm)	5
Spray tap	0.5
Bidet	1.5
Domestic appliance (subject to minimum allowance of six loading	3
units per house)(see notes 4 and 5)	
Communal or commercial appliance (see note 4)	10
Any other water fitting or outlet including a tap but excluding a	3
urinal or water softener	

Notes for Appendix A

- 1. Any fitting includes any plumbing =, dedicated space or planning or other provision for that fitting.
- 2. "House" means any building or part of building which is or will be occupied as a private dwelling.
 - This includes a flat, boat or caravan connected to the water supply.
- 3. "Bath" includes a whirlpool or Jacuzzi.
- 4. "Domestic appliance" means any water-using appliance including a dishwasher, washing machine and waste disposal unit other than in a house, including communal facilities.
- 5. A minimum of six loading units shall be included for each house for domestic appliances whether or not the dwelling has any such appliances. This does not apply where neither a washing machine nor a dishwasher can be provided and there is no plumbing outlet, dedicated space or planning or other provision for either appliance in the house.