

September 2022

Water companies' environmental incentives to support more water efficient new homes

1. About this document

This is a review of water companies' environmental incentives, such as charging discounts to support more water efficient new homes. We also highlight a range of approaches that water companies use to encourage better environmental outcomes. We have conducted this review to strengthen their use and effectiveness and to inform how environmental incentives should be regulated from April 2025.

In the first two sections of this report we set out why we are undertaking this review and why environmental incentives are important. Section 4 sets out the results of our review of the current environmental incentives for developer services. The rest of the report provides examples of good practice in developer services as well as examples from other types of charges in the water and wastewater sectors.

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2. This review and next steps

This review follows our October 2021 conclusions on developer charges and incentives.¹ In it we said that we would undertake and publish a review of water companies' approaches to setting, communicating and engaging on environmental incentives for 2022-23, highlighting good and poor practice, to strengthen their use and effectiveness. This will also inform how environmental incentives should be regulated from April 2025.

In this review, we have looked at the environmental incentives that water and wastewater companies offer, both as part of their charges for developer services and more widely, to support better environmental choices. We have also looked at a range of other ways that water companies have used the charges they set to influence and incentivise their customers towards environmentally beneficial behaviours. These examples showcase the wide range of methods by which charges can be used to incentivise customers towards particular behaviours.

We are pleased to see that this year some companies have worked to launch or improve the environmental incentives they provide. For example Thames Water has launched a new innovative discount scheme; Severn Trent Water's new environmental discounts are clearly communicated on its web pages; and Affinity Water has worked to ensure that its bulk charges for new appointees are consistent with supporting water efficiency. We also recognise that companies are working through other means to deliver more sustainable new homes, such as Dŵr Cymru's work on sustainable drainage, and the Enabling Water Smart Communities initiative, led by Anglian Water.

It is also clear from our review that much more can be done, with many companies not offering effective incentives or not appearing to communicate them effectively. We will therefore be engaging with industry on both the environmental incentives they can offer over the coming year and on how we regulate environmental incentives for developer services from April 2025.

1. Ofwat, [Scope and balance of developer charges and incentives – conclusions](#)

English companies' charges for developer services

Under our charging rules, English companies² are required to determine their charges in accordance with charging principles set out in the rules, which include (among four others) the principle of environmental protection.

Until April 2025, English companies are required to ensure that the balance of charges that developers pay and other customers pay to cover the costs of a new development are broadly maintained at pre-2018 levels (unless there is a clear objective justification why it is necessary not to do so). Traditionally, water companies have done this by providing a discount on developer services known as income offset. However, some water companies are now moving to providing discounts in the form of environmental incentives in order to use these discounts to encourage developers to build new properties that use less water and require the treatment of less surface water.

Welsh companies' charges for developer services

Currently, charges for developer services in Wales are regulated primarily through the legislation set out in the Water Industry Act 1991. The legislative changes amending the charging regime so that Ofwat can set charging rules for Welsh companies³ (as we do for English companies) have not yet been brought in by the Welsh Government. Until this legislation is commenced, there are some options for incentivising environmental outcomes through charges that are not available to the Welsh companies.



2. Companies whose areas of appointment are wholly or mainly in England.

3. Companies whose areas of appointment are wholly or mainly in Wales.

3. Why are environmental incentives important?

Our water resources are coming under increasing pressure from population growth, economic development and climate change. Society expects that water will be available for users while also protecting and improving the environment we live in. While water shortages are forecast to be most acute in the south and south east of England, severe drought is a widespread risk that needs to be managed. These factors all contribute to a growing sense of urgency that we need to act now to avoid severe restrictions to water use in the coming years.

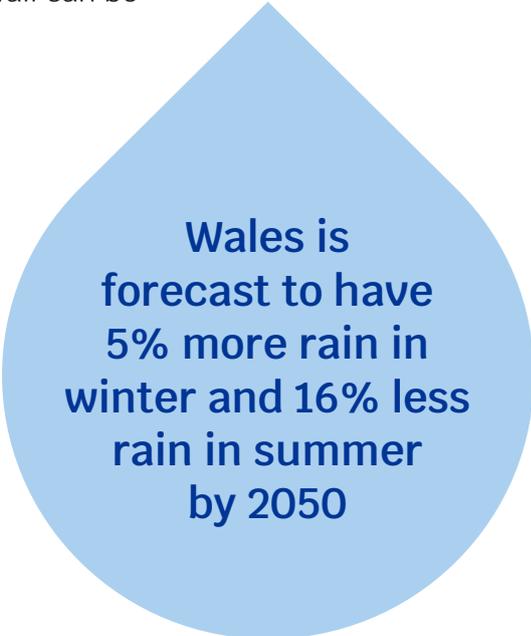


**Most of England
is in serious
water stress**

A growing population and increases in the intensity of rainstorms as a result of climate change increase pressure on sewers. We already see cases of insufficient sewer or treatment capacity resulting in localised flooding and/or pollution in our rivers and the sea.

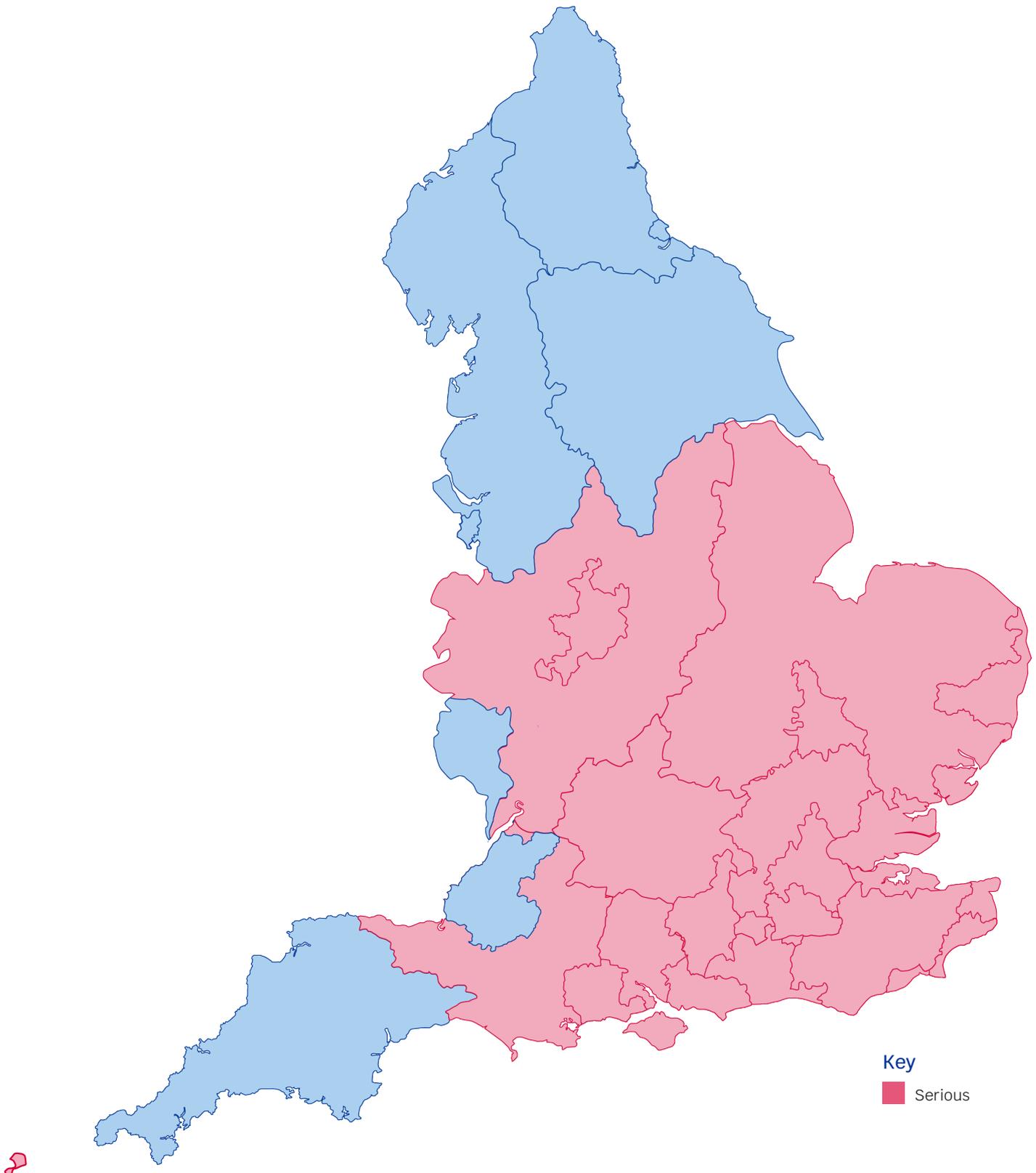
While recognising that long term planning, collaboration across organisations, and a wide range of tools are needed to address these challenges, we think that water companies' charges have a role to play. Here, we particularly focus on charges to incentivise developers. Building new homes that are sustainable can contribute to alleviating these problems for water companies and for society. If water-saving and water-recycling measures are built into the new properties, it can be both easier and cheaper for the new customer to use less water. Building new housing developments with sustainable drainage systems (SuDS) means that heavy rainfall can be better managed.

The structure of the charging regime for the provision of developer services can influence the degree to which developers prioritise water efficiency and sustainable drainage in the design of properties they build. Water companies can provide discounts to developers if they build new properties which will use less water or return less water to the public sewer system. We are therefore looking at ways that water companies currently use their charges for developer services to incentivise developers to build new properties that use water efficiently.



**Wales is
forecast to have
5% more rain in
winter and 16% less
rain in summer
by 2050**

Environment Agency's classification of water stressed areas in England



Source: Environment Agency, [Water stressed areas – final classification 2021](#)

4. Current environmental incentives

Tables 1 and 2 summarise companies' environmental incentives for developer services. Building regulations require new homes to have estimated usage of less than 125 litres per person per day (l/p/d), or 110 l/p/d in some areas, calculated on the basis of installations of fittings and fixed appliances that use water efficiently. A number of companies use this approach to offer discounts to developers. They provide discounts to the water infrastructure charges⁴ payable by developer customers for improving per capita water consumption.

Northumbrian Water, Severn Trent, Thames Water, United Utilities, Portsmouth Water and South Staffs Water appear to be the only companies that offer incentives for developers to build homes that consume less water, beyond that required by building regulations.

4. Charge payable upon connection of a property to the network for the first time and required to be calculated so as to reflect projected costs of network reinforcement.

Table 1: Discounts for improving water efficiency – 2022-23 charging arrangements

Company	Water infrastructure charge 2022-23 £ per connection	Criteria for water efficiency discount – achieving estimated usage of a certain level in litres per person per day (l/p/d)	Water efficiency discount (applied to infrastructure charge) £ per qualified property
Anglian Water	293	N/A	N/A
Hafren Dyfrdwy	411	N/A	N/A
Northumbrian Water	130	105	130
Severn Trent	363	100	280
Southern Water	0	110	230
South West Water	96	N/A	N/A
Thames Water	445	Tiered discount: i) achieve 110 l/p/d; ii) discount for rainwater harvesting and grey water recycling; iii) water neutrality	Tiered discount offering: i) £200; ii) £1,000; and iii) £1,800
United Utilities	302	100	272
Dŵr Cymru	428	N/A	N/A
Wessex Water	199	N/A	N/A
Yorkshire Water	80	125	The percentage discount will be equal to the percentage that the estimated water usage is below 125 l/p/d
Affinity Water	366	110	84
Bristol Water	309	110	75% discount trial for selected developments
Portsmouth Water	321	100	50% discount
South East Water	633	Discount offered for a smaller diameter connection (20mm instead of 25mm)	£50
South Staffs Water	305	100	40% reduction
Sutton and East Surrey Water	312	It offers a 15% reduction to infrastructure charges if bathroom fittings are A-rated OR grey water recycling or rain water harvesting it fitted. If both these conditions are met the reduction is 30%	

Discounts to sewerage related charges are set to incentivise more efficient drainage and some companies provide discounts for reducing the amount of surface water entering public sewers.

Table 2: Discounts for sustainable surface water drainage – 2022-23 charging arrangements

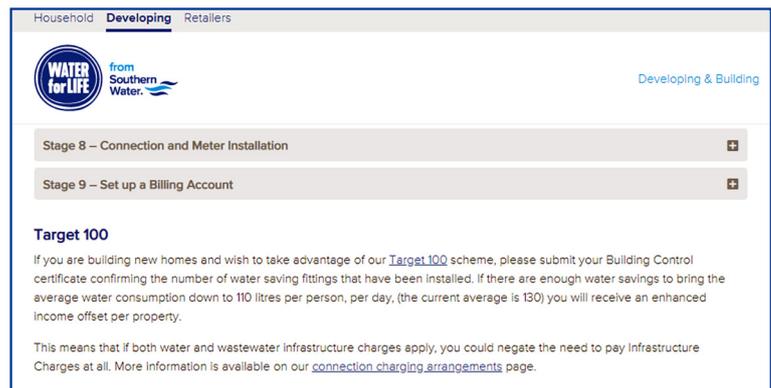
Company	Sewerage infrastructure charge 2022-23 £	Criteria for sustainable drainage/surface water reduction discount	Efficiency discount (applied to sewerage infrastructure charge) £ per qualified property
Anglian Water	490	N/A	N/A
Hafren Dyfrdwy	411	N/A	N/A
Northumbrian Water	95	Discount for no surface water draining into public sewer	95
Severn Trent	295	Discount for no surface water draining into public sewer	124
Southern Water	608	N/A	N/A
South West Water	707	N/A	N/A
Thames Water	320	SuDS to remove surface water runoff by 95% or ensuring no surface water enters the network	25
United Utilities	279	Discount for no surface water draining into public sewer	251
Dŵr Cymru	428	Discount for no surface water draining into public sewer or for removing surface water from an alternative site/area that is connected to the same network in the vicinity of the new development	100
Wessex Water	664	Discount for approved SuDS and no surface water draining into public sewer	332 598
Yorkshire Water	220	Exemption from surface water infrastructure charge (£160) if the final destination of the surface water for the proposed development is a watercourse or soakaway	160

It is important that companies audit the discounts they have applied to ensure developer compliance with the specifications they are meant to deliver. We encourage companies to review the efficacy of their approaches and act on learning from industry experience and best practice.

5. Communicating and engaging with developers

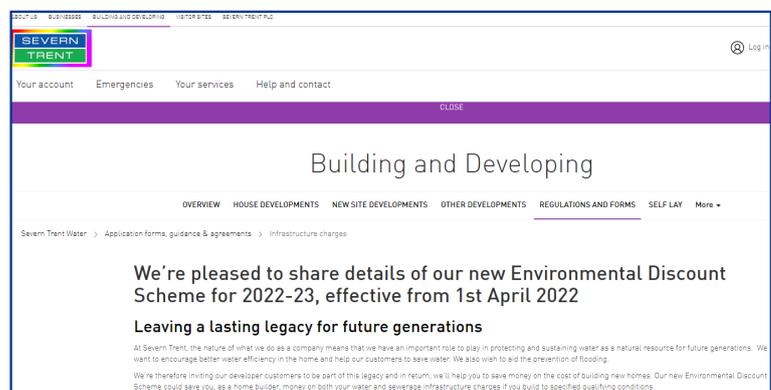
An important aspect of any incentive scheme is how effectively it is communicated to customers. Incentives are more effective if developers know about them prior to planning and design decisions being made. We have therefore looked at whether companies are actively promoting environmental incentive on their websites.

Southern Water provides a good example of the active promotion of its environmental incentive scheme on its website. When looking for information about making a new water connection, the existence of the 'Target 100' scheme is prominently highlighted on the web pages that provide basic information about getting a new water connection.⁵ This includes providing a brief explanation of what this incentive scheme is and how customers can get more information about it.



Severn Trent Water provides another good example, with a dedicated page for its new Environmental Discount Scheme, with links from key pages.⁶

When looking at the websites of several water companies, it was difficult to find any information at all about the existence of their developer services environmental incentive schemes without reading through the full charging publications. This does not mean that these water companies are not promoting such schemes in other ways, such as through direct communications with developer customers. However, it highlights the importance of both having an environmental incentive scheme and ensuring that the customers are aware that the incentive exists at a point where it can influence the decisions around the design on the properties being built. We expect companies to actively promote these incentives.



5. Southern Water, [water connection](#)

6. Severn Trent, [environmental discount scheme for 2022-23](#)

6. Incentives for water recycling and water neutrality

The map in section 2 shows that **Thames Water** supply area is in serious water stress. By 2040, Thames Water will need to address a forecast shortfall in water supply that could be as much as 1.1 billion litres of water a day.

Thames Water launched an environmental incentive scheme for developer services in February 2022. The company has replaced the income offset with efficiency incentives under three tiers for water and a flat discount (£25) for sewerage. The discounts are per property and set against infrastructure charges.

Thames Water offers three levels of incentive to developers for water efficiency.

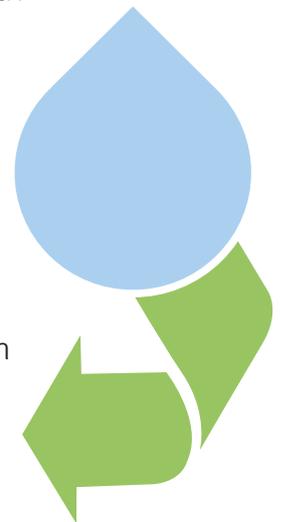
- Tier 1 – £200 discount for developments designed to achieve 110 (l/p/d), which is already required by the Greater London Authority;
- Tier 2 – £1,000 discount for rainwater harvesting or grey water recycling or other water reuse technology. To be eligible for a tier 2 discount, the criteria under tier 1 must be met as well; and
- Tier 3 – £1,800 per property for achieving water neutrality. Compliance with criteria under tier 1 and 2 must be demonstrated to be eligible for a tier 3 discount. A water neutral development does not add to the water demand pressures of the relevant water resource zone. This is achieved by making the new development as water efficient as possible and then offsetting the efficient demand by making savings on existing homes and businesses.

The discounts in the different tiers are not additive – developments that qualify for a tier 3 discount will receive a total of 1,800 per property and not in addition to the discounts under tiers 1 and 2.

Developers can also receive a wastewater incentive for reducing surface water run-off leaving the development into Thames Water's sewerage network. The discount is £25 discount per property. To qualify for this discount, developers can either use SuDS (which reduce by 95% or more the volume discharged into the network), or remove all surface water runoff.

Thames Water's Environmental Incentive Scheme was available from April 2022 and its effects are still to be measured.⁷ We welcome Thames Water's ambition to promote environmental sustainability through its charging arrangements for new connection services. We also encourage other companies to think expansively about how to promote sustainability among developer customers.

7. Thames Water, Newsroom: [Thames Water to reward water neutrality. Charging arrangements for new connection services](#)
Map: Environment Agency (2021), [Water stressed areas – 2021 classification](#)



7. Water neutrality at new appointee sites

Affinity Water, Albion Water, BUUK Infrastructure and Aquality, with technology partners and industry experts, are winners of Ofwat's Water Breakthrough Challenge for their innovative project to deliver water neutrality at new appointee sites.⁸ They have won £2.9 million to deliver water-saving solutions in new housing developments.

Any new development – whether served by the incumbent or a new appointee – would normally increase the total amount of water used within the area. However, at three new housing developments to be served by new appointees, each of which will eventually comprise around 1,000 houses, the aim is to make the sites water neutral. In other words, the total amount of water used within the area will stay constant despite these new housing developments.

The partners will use new technologies to minimise water demand and offset water consumption. First, household demand will be reduced in residential properties by installing water saving devices, such as shower heads, tap inserts and larger equipment that recycle washing machine water or collect rainwater.

Second, the project offsets the residual customer usage to maintain existing baseline network demand, by installing larger technologies like greywater recycling and ultra-low flush toilets in commercial buildings, such as schools and leisure centres.

Expected impacts are lower bills for customers on these new sites. This project also gives the opportunity to water companies to trial water neutrality strategies in new developments and to strengthen industry partnerships.⁹



8. [New Appointees and Variations](#) are limited companies which provide a water and/or sewerage service to customers in an area which was previously provided by the incumbent monopoly provider.

9. Ofwat, [Water Innovation Fund – Winners](#)

8. Enabling Water Smart Communities

A partnerships of water companies, councils, developers, the Future Homes Hub, academics and others, led by **Anglian Water**, has won funding through Ofwat's innovation fund to address current barriers to integrated water management.

Integrated water management combines infrastructure, technologies, policies and behavioural change initiatives. It is a combination of solutions to reduce risks of water scarcity, frequent flood events, sustained droughts and impacts on water quality for customers.

The aim of the project is to demonstrate a replicable approach so that integrated water management becomes the new norm for housing developments.

9. Partnership working to deliver sustainable drainage

Dŵr Cymru has been involved in a number of projects to develop surface water solutions. These includes basins and planters, swales, porous paving, filter strip, grass channels and geocellular storage. Dŵr Cymru calls it its 'RainScape approach'.

Dŵr Cymru's flagship experiment is Greener Grangetown, a £2 million partnership between Cardiff Council and Dŵr Cymru. It is a sustainable drainage system project designed to increase the resilience of the urban sewer network and improve life quality in public space. The water company created 'rain gardens', planted areas that mimic the natural environment and slow rainwater run-off flows. They clean and divert rainwater directly into the nearby River Taff. The project partners estimate that the project removes more than 40,000m³ of rainwater from the combined sewer network each year.

In January 2019, the Welsh Government introduced legislation on sustainable drainage systems as part of the schedule 3 of the Flood and Water Management Act 2010. All new development of more than one building or where the construction area covers 100m² of land or more will need a sustainable drainage system for surface water. Every system needs to be approved by an approving body before construction work begins.

10. Wholesale charges for 2022–23

The water retail market for business customers in England opened in April 2017. Wholesale services continue to be provided by the water companies, which set wholesale charges. Some water companies offer incentives to business retailers and hence to their business customers to install water efficient fittings and sustainable drainage solutions.

Water efficiency interventions

Thames Water offers water efficiency incentive to business retailers to support its ambition to deliver demand reductions across its region.

The incentive is provided for proven water efficiency interventions by business retailers that enable non-household customers to reduce their demand. These may include installing water saving devices and fixing internal plumbing.

The incentive payment is calculated using a standard rate per litre per day saved. The average reduction is measured on a per litre per day basis. The standard rate is £0.08 per litre per day for the water amount saved. For example, if the verified water efficiency intervention results in saving 10,000 litres per day, the incentive payment to the business retailer will be £800.¹⁰

Sustainable drainage

United Utilities charges business retailers for surface water drainage based on the site area. The relevant charge is determined by the site area charging band of the premises.

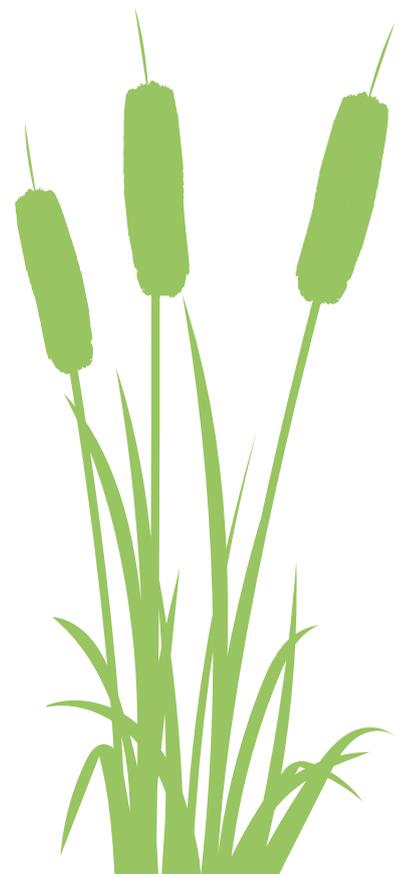
United Utilities introduced an incentive for SuDS in April 2020. For metered customers it offers a reduction in chargeable area of 80% to the area of the site drained by a sustainable drainage system. Following determination of the applicable chargeable area in such cases, a new surface water charging band is allocated to the premise.

Qualifying sustainable drainage systems include:

- green roof;
- infiltration system;
- bio-retention system;
- detention basin; and
- ponds and wetlands.¹¹

10. Thames Water, [Wholesale charges](#)

11. United Utilities, [Wholesale charges](#)



11. Bulk supply charges for New Appointees

When considering whether charges are incentivising good environmental outcomes it is also important to consider whether charges could be having the opposite effect and taking action to remove such perverse incentives.

When a new appointee is appointed to serve a new development, it usually provides water and/or wastewater services by obtaining a bulk supply or bulk discharge agreement from the local incumbent water company rather than developing its own separate water supply and waste treatment systems.

We published guidance last year on how to set these charges.¹² We highlighted that the structure of bulk supply charges has the potential to influence the business decisions of the new appointee. For example, if the charges are structured such that the new appointee can earn greater returns if its customers use more water, it could provide a perverse incentive for the new appointee to avoid encouraging its customers to conserve water.

Affinity Water's bulk supply charges are an example of how bulk supply charges can be structured such that they avoid this potential perverse incentive. It sets a two-part tariff for new appointees, with a fixed annual charge and volumetric charge. It then applies a credit to the fixed part element of the tariff to reflect the costs that Affinity Water has avoided due to the new appointee providing and maintaining part of the infrastructure that supplies the customers in the new appointee's area of operation. By structuring its tariff in this way, the new appointee would not gain or lose potential profits if its customers use more or less water as the volumetric charges are passed directly to the customer, only being adjusted to take into account leakage. This means that the new appointee is able to promote water efficiency measures to its customers without and concerns about negatively impacting its business.

The industry has also set up the NAV Bulk Charging Industry Group. This group is considering a range of issues relating to how bulk supplies are set, including how water efficiency incentives can be included within bulk supply charges to new appointees.

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

**Ofwat (The Water Services Regulation Authority)
is a non-ministerial government department.
We regulate the water sector in England and Wales.**

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