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# PR19 final determinations

**Our approach to regulating developer services**

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# **PR19 final determinations: Our approach to regulating developer services**

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## 1. Introduction

Water companies must allow new connections to their networks. A major demand for new connections comes from new housing developments. This technical appendix sets out our final decision about how we regulate developer services in Price Review 2019 (PR19).

Our decisions take into account the representations made on all our draft determinations, responses from companies to our queries and additional information provided following further engagement with companies and other stakeholders as part of the final determination process. In the interest of brevity, where no representations have been made on our draft determination proposals, we do not repeat our reasoning in all cases. Please see the [PR19 draft determinations](#) for further details.

### 1.1 Our proposals

On 18 July 2019 we [published a consultation](#) on proposed changes to how we regulate developer services. We had not fully reflected these proposed changes in the non-fast track companies' draft determinations that we published at the same time, because our proposals required additional data and/or the agreement of companies. We published illustrative unit rates related to our proposed developer services reconciliation in the annex to our consultation document, based on the data we had at the time and before any efficiency challenge was applied.

Since our proposals involve a change of approach from our [PR19 methodology](#), our consultation document set out our:

- reasoning for the proposed approach;
- option assessment; and
- assessment of the impacts.

We said that, overall, our proposed approach to regulating developer services within PR19 aims to:

- strengthen customer protections by reducing the risk that companies are allowed too much revenue and ensure risk is allocated appropriately whilst allowing an appropriate efficiency challenge;

- ensure our approach is internally consistent taking into account our cost assessment, end-of-period reconciliation, forecasting incentives and new connection charging rules; and
- simplify the setting, monitoring and reconciling of developer services activities.

Our proposals reflected changes to how we modelled developer services costs as set out on 18 July 2019 in our '[PR19 draft determinations: Securing cost efficiency technical appendix](#)'. This addressed issues stakeholders had previously raised with us and our own evolving view following further internal review.

Developer services activities includes diversions. We also consulted on whether the list of Excluded Charges for the purposes of Condition B should include amounts payable in relation to diversions other than those required by the Water Industry Act 1991.

## **1.2 Subsequent stakeholder engagement**

We have engaged with companies during the consultation period as follows:

- On 12 August 2019, as part of our query response process, we clarified the basis for the efficiency challenge and provided updated unit rates broken down by year.
- On 16 August 2019 we held a teleconference with all companies. This summarised our proposals, before focussing on the related developer services data request. The aim was to ensure companies understood what we were asking for and to consider potential improvements.
- Subsequently, on 20 August 2019, we amended the data request to ensure it was clearer and more targeted.

Since the close of the consultation period we have considered all representations. As noted in our [reasons for making the RFI-related modifications to condition B of companies' licences](#), we have also considered relevant points raised by companies during this licence modification process where they relate to the issues within this appendix. We have also:

- Engaged with some companies on a bilateral basis where we wanted to understand better any key issues they raised, where we considered there was a significant misunderstanding of our proposals and/or at the request of the company.

- On 2 October 2019 we informally consulted all 17 companies on an illustrative Grants and Contributions feeder model to test and verify our implementation. Companies helpfully provided us with feedback, which enabled us to amend the model in late October 2019 in time for our final determinations. The additional information, which was obtained in the 20 August 2019 data request, is used in this model to allow us to separately identify elements of the diversions charges and costs. Not all of the data collected in the request is used in our modelling. However, it will provide a useful snapshot of company forecasts which may be used to inform further policy development in this area.

### **1.3 Structure of this document**

Our final decision regarding the approach to developer services covers four areas:

- the developer services end-of-period reconciliation (section 2),
- incentivising accurate developer services forecasts (section 3),
- the treatment of developer services in our control (section 4); and
- the treatment of diversions (section 5).

Within each of the above sections, we discuss:

- the approach proposed in July;
- representations made on the issue; and
- our final policy decision and rationale.

We set out the approach we have used to calculate the unit rate and the unit rates themselves in the annex.

## 2. Developer services end-of-period reconciliation

### 2.1 Our approach proposed in July 2019

#### 2.1.1 Background

The way we regulate water companies to help ensure developers receive good customer service and companies only recover their efficient costs.

We set out our planned approach to regulating developer services in our [PR19 methodology document](#) and in particular in [Appendix 7](#). We decided to introduce a volume-based symmetric revenue correction for developer services within a total revenue control to encourage timely and quality new connections. We said that we recognise that the costs and average revenues of new connections can be influenced by development size and type. We therefore planned to assess the expected costs and average revenues for different sizes and types of connection.

Our approach to setting price controls for developer services reflected learning from our approach to PR14 wholesale controls, which we consider may have created a financial disincentive on companies to provide new connections. Under the PR14 methodology, the amount of allowed revenue was not automatically adjusted for the volume of connections. That is, a water company would not be allowed to automatically recover additional revenue from an increase in the number of connections but would be expected to bear any increased costs. This approach also did not take account of any changes in the mix of connections, which may impact costs. Although, companies could make a case for adjustment if demand for connections was unexpectedly high. We also set out that if a company increased revenue from non-developer customers by unduly reducing connection charges we may take corrective action.

Our PR19 methodology allowed companies to set out up to ten bands for each of the network plus controls for connections, each band for connections with broadly similar characteristics. For each of these bands, we expected companies to set out the key characteristics, services provided and the expected costs, revenues and volumes associated with them. This would then form the basis of the revenue adjustment mechanism at the end of the period, where we planned to determine the total revenue adjustment after considering the volume changes associated with each band.

We noted that a key advantage of this approach would be to incentivise companies to provide developer services efficiently and respond to competition; while also ensuring that developers and customers are adequately protected, where appropriate, by targeted regulation.

### 2.1.2 Issues identified

In our consultation we identified three issues with the approach we set out in our PR19 methodology.

**Cost challenge.** We consider it is difficult to have a high degree of confidence in companies' unit rates for bands of developer service connections, because:

- companies' proposed services differ and this makes comparative benchmarking less reliable;
- companies' proposed services do not align with other data, e.g. grants and contributions data; and
- our cost modelling data is based on expenditure rather than grants and contributions data.

If companies' proposed unit rates are not cost reflective then they could potentially result in too much or too little revenue being recovered from customers.

In addition, costs associated with new developments and connections are now modelled with base costs, which is a change in approach from our initial assessment of plans<sup>1</sup>. We include these costs in our base cost models because we consider they are associated with growth-driven activities, which we deem are largely routine and incurred in the normal running of a water company when population is increasing. We also consider these costs follow similar cost drivers to operational and capital maintenance and we do not expect a significant step change in what drives growth related enhancement expenditure during PR19. This approach also resolves identified cost allocation differences between opex, maintenance and growth related expenditure. We consider this to be a superior approach compared to the standalone models used to model new development and connection costs at our initial

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<sup>1</sup> Please see our 'Securing cost efficiency technical appendix' for more details.

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assessment of plans. However, it does make it more challenging to produce an independent view of unit rates for bands of developer service connections.

**Administrative burden.** We are also concerned that, given the number of disaggregated services companies have proposed, the end-of-period true up would be resource intensive for both companies and Ofwat. We would need to ensure that companies' proposed breakdowns of services are well defined and then ensure these are adhered to in the final true-up. For companies, this would require detailed attribution of the costs for the different types of developments and the provision of assurance on this data.

**Cost reflectivity.** In their initial business plan submissions some companies did not split their customers into customer groups in accordance with our guidance. For example, we encouraged companies to distinguish between contestable and non-contestable costs to reflect, for example, that self-lay providers may undertake some work which would reduce companies' costs. However, not all companies provided a breakdown on this basis. This means that companies' allowed revenue could not be set to take account of their market share for developer services.

We sought further information on the level of self-lay activity within company forecasts in our August 2019 data request. However, we found that companies clearly approach this on an inconsistent basis which meant we could not be confident that the data was robust enough for price setting purposes.

### **2.1.3 Our option assessment**

We assessed three options which are summarised below.

**Option 1: Retain the approach set out in our PR19 methodology.** Under this approach, we would retain the approach we set out in our PR19 methodology documents.

**Option 2. Introduce a new, simpler approach to reconciliation.** Under this approach, we would introduce a simplified reconciliation approach based on a common cost driver. This would generate a company-specific unit rate. Implicitly, this would reflect the unique characteristics of the company, such as the degree of self-lay penetration, the mix of brown and greenfield development, etc.

### **Option 3. Introduce an Ofwat determined, multivariate approach to reconciliation.**

This would be similar to option 2 in that we would use common cost drivers across companies. However, under this approach we could use a number of cost drivers, for example:

- length of new mains as the driver for requisition costs;
- number of diversions as the driver for price controls diversions costs; and
- number of new connections to drive all other costs.

Our assessment was that option 2 was preferred as it addresses the issues we have identified.

## **2.2 Stakeholders' representations**

Our overall summary of responses is as follows:

- Northumbrian Water, Thames Water, United Utilities and Dŵr Cymru support our preferred option (i.e. option 2).
- Anglian Water support the approach in principle but make representations regarding implementation.
- Hafren Dydrdwy, Severn Trent Water and Southern Water make representations or comments related to our proposals.
- Bristol Water, South East Water, South Staffs, South West Water and Yorkshire Water do not agree with our proposals.
- All other companies make no representations.

A summary of the key issues raised by companies and our response is below.

### **Issue 1. Scope of the reconciliation**

#### *Stakeholders' representations*

Anglian Water considers that the reconciliation does not appropriately protect customers or companies since it does not capture all the costs related to growth. To address this, it proposes three growth-related Outcome Delivery Incentives that are based on the difference between its understanding of our proposed reconciliation and other key growth costs that it faces.

Southern Water considers that the majority of the costs of growth are met by developer customers and that our proposals would insulate household and business customers from the most material risks associated with growth expenditure.

Bristol Water considers that diversions should be excluded from the calculation.

### *Our view*

We will not alter the scope of the reconciliation to include broader growth-related costs, because:

- we in our PR19 methodology we decided to introduce a volume-based symmetric revenue correction for developer services within a total revenue control to encourage timely and quality new connections – broadening the scope of the reconciliation would not better achieve this objective;
- the scope of the reconciliation is wider than Anglian Water seems to believe – since it is based on Grants and Contributions revenues that are gross of the income offset, it covers companies' chargeable requisition and infrastructure costs; and
- wider growth related costs are covered by cost sharing arrangements and there is not a convincing case to make such a sector-wide adjustment.

We have considered the Anglian Water proposed growth-related ODIs on their merits as possible ODIs for Anglian Water. We discuss the details of this in 'Anglian Water final determination'.

All companies have agreed to a change in their excluded charges. Therefore, only revenues related to section 185 diversions are included within our calculation for this reconciliation. However, we consider that properties connected and diversions can be linked in terms of changes of costs and we do not consider it appropriate or proportionate to treat section 185 diversions differently from other developer service costs.

## **Issue 2. Cost reflectivity**

### *Stakeholders' representations*

Bristol Water and South Staffs consider our approach to be too simplistic and suggest we take a more detailed approach. Yorkshire Water notes that the developer

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services market is dynamic, so a single unit rate based on companies' forecasts would likely prove inaccurate. South East Water claims we should do a case-by-case end-of-period reconciliation to allow us to consider each companies' application on its merits.

### *Our view*

Bristol Water proposes a reconciliation based on two unit rates. We have concerns with Bristol Water's proposed approach, because:

- it excludes revenues related to requisition charges<sup>2</sup> and infrastructure charges<sup>3</sup>, making it less cost-reflective of costs related to these activities; and
- the proposed unit rate for self-lay connections is based on the value of the adopted assets, rather than the costs the company would incur during the 2020 to 2025 period. This leads to a significantly higher unit rate than when the company undertakes the work themselves.

We will not do a case-by-case reconciliation at the end of the period that would allow us to consider each companies' application on its merits, because:

- we only undertook such an exercise at the end of the 2015 to 2020 period since there was no automatic developer services reconciliation mechanism covering the 2015 to 2020 period that we set out in advance;
- although a single unit rate is relatively simple, it does ensure a degree of cost reflectivity since it is company-specific and reflects companies' forecast mix of developments, self-lay penetration etc.;
- on an *ex ante* basis it is a 'fair bet'<sup>4</sup> for customers and companies; whereas
- an *ex post* assessment is likely to be detrimental to customers, since such an assessment would only be initiated by companies if it was in their interests to do so.

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<sup>2</sup> Requisition charges are set by the water company for the provision of the new water mains or public sewers (a requisition) to recover the costs reasonably incurred in providing them.

<sup>3</sup> Infrastructure charges are paid by developers to the water company when a property is connected to the company's water supply or sewer for the first time. They contribute to wider network reinforcement to meet the increased demand arising from the new connections.

<sup>4</sup> That is, neither companies nor customers are more likely to gain or lose from this arrangement.

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### Issue 3. Nature of the adjustment

#### *Stakeholders' representations*

In our consultation, we said we would apply the reconciliation as a revenue adjustment. Northumbrian Water supports this approach. Yorkshire Water considers the adjustment should be to the Regulatory Capital Value (RCV) since the expenditure is capital and an RCV adjustment would allow reconciliation impacts to be smoothed over a longer period.

Hafren Dydrdwy and Severn Trent Water suggest that the adjustment should be a mix of revenue and RCV; they consider this to be consistent with our approach to setting companies' allowed revenues. They suggest this change should be made in-period through an adjustment to the Revenue Forecasting Incentive (RFI) model.

#### *Our view*

The developer service reconciliation will be applied through a revenue adjustment at the 2024 price review (PR24). We remain of the view that applying corrections for variances from allowed revenues to the following price control period is a more appropriate timeframe.

The reconciliation is based on differences in the number of properties connected compared to those forecast. Including developer services within the single till means that changes to developer services revenue require an in-period change in other customers' charges. The RFI reconciliation, which could be driven by changes in developer services revenue, would (for any outstanding imbalance which is not corrected in-period) be applied as a revenue adjustment at PR24. We consider, therefore, that the adjustment created by the developer service end-of-period reconciliation should also ensure allowed revenues change over a relatively short time period and lead to a relatively close alignment between costs and revenues.

Furthermore, we consider this is consistent with our treatment of developer services revenue at PR19 as PAYG revenue.

We do not agree with applying any RFI in-period adjustment as a mix of revenue and RCV adjustment. This would create an internal inconsistency within the RFI and would not fully address the concern regarding bill volatility. This is because, as mentioned above, the RFI incentivises companies to avoid a revenue imbalance

from arising in the first place by making an in-period change to revenue collected from other customers

## **Issue 4. Calculation of the unit rates**

### *Stakeholders' representations*

Anglian Water considers that our cost allowances, number of connections and the reconciliation mechanism needs to be based on consistent data. It suggests we should satisfy ourselves of the variation in unit rates and their implications.

Bristol Water suggests that a single unit rate should be applied over the period, rather than a different unit rate for each year, since there is little variation. Bristol Water also questions why we had:

- used their forecast of costs and number of new connections, given that elsewhere we used our own forecasts;
- used developer services revenues, rather than costs;
- not included the number of properties connected by new entrant water companies (NAVs)<sup>5</sup> and self-lay providers (SLPs)<sup>6</sup> and requests that we provide clarity on our approach.

Bristol Water also requests that we remove the efficiency challenge on developer services.

South East Water, though, found it unclear how we had set the efficiency rate.

### *Our view*

We consider our approach to setting efficient unit costs based on companies' forecasts is a pragmatic solution to a complex problem. The base cost efficiency challenge is applied to the company specific unit rates after removing the scope

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<sup>5</sup> New appointment and variations provide water and/or sewerage services to customers in an area previously served by the incumbent monopoly provider. A new appointment is made when Ofwat appoints a company for the first time to provide services for specific geographic area. A variation is where an existing appointment is varied to extend the areas served.

<sup>6</sup> SLPs are accredited operatives who can lay the pipework for a new water main or sewer rather than have the infrastructure laid by the water company. The water company will take over responsibility for (that is, adopt) self-laid pipes that meet the terms of its agreement with the provider.

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challenge by setting forecast cost drivers equal to companies' forecast cost drivers. We consider this approach ensures alignment between the developer service reconciliation and cost assessment. While there are differences in unit costs between companies, these differences are reduced by calculating unit costs on a *gross* basis. Customers are also protected by regulatory and competition law, which says that companies' charges for developer services must be cost reflective. For these reasons, our approach to determining the unit rates for final determinations is largely unchanged albeit for a couple of minor changes discussed below.

We consider that a different unit rate per year increases cost reflectivity with a minimal increase in complexity. Therefore, we do not alter our approach in this regard.

To clarify our approach regarding the use of revenue data, the purpose of the reconciliation is to make a cost-reflective adjustment to companies' allowed revenues at the end of the period. However, we use revenues related to developer services, because:

- for various regulatory and competition law reasons, companies' charges for developer services must be cost reflective – therefore, it is an appropriate proxy for costs;
- we consider that companies' grants and contributions data is more comparable across companies and is a better reflection of costs related to developer services than the expenditure data available to us; and
- basing the reconciliation on revenue data aids internal consistency since we use grants and contributions data to calculate net totex.

We only use companies' forecasts to calculate the unit rate used in the reconciliation. This is an estimate of the cost to the company from an additional property connected. Companies' forecasts for revenue related to developer services reflects their own forecasts. Therefore, dividing this through by their forecasts is an appropriate starting point for this estimate<sup>7</sup>.

In our July 2019 draft determinations, our definition of the 'number of new connections' only included properties connected by the incumbent water company or

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<sup>7</sup> Making a pro-rata adjustment to both the numerator and denominator to reflect own projections for the number of new connections would not affect this estimate, but adds needless complexity

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SLPs. For our final determinations, we refine our definition by including the properties connected by NAVs. This is because:

- properties connected by NAVs relate to developer services costs – notably, offsite work; and
- including these properties ensures there is no financial disincentive on companies not to facilitate entry by NAVs in a timely way.

We consider it is appropriate to apply the base cost efficiency challenge when calculating the unit rate. Developer services is a component of companies' base costs so applying the base cost efficiency challenge ensures alignment between the developer services reconciliation and cost assessment. However, we make two alterations to the efficiency challenge we use to calculate the unit rate.

- Firstly, we remove any scope challenge by setting forecast cost drivers equal to companies' forecast cost drivers. This ensures that the efficiency challenge applied to the unit rates only reflects a 'cost' efficiency challenge rather than a 'cost and scope' efficiency challenge.
- Secondly, we apply a limit such that the efficiency challenge 'EC' is not greater than one. In other words, we do not increase unit rates for companies whose base cost allowance is higher than what they requested in their April 2019 business plan submission.<sup>8</sup> We consider this will provide a more cost reflective unit rate for those companies affected.

## Issue 5. Application of the reconciliation

### *Stakeholders' representations*

Anglian Water considers that our query response of 12 August 2019 suggested we would use company forecasts of growth to trigger this reconciliation. They are concerned this approach would create a deadband before the revenue reconciliation kicks in.

### *Our view*

Although we use companies' forecasts to calculate unit rates, the reconciliation will be based on a difference between the forecasts of properties we have used to set

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<sup>8</sup> September 2018 business plan submission for fast track companies.

allowed revenue and actual properties connected. We set this out in a consultation in July 2019. We also set this out in the section on implementation below.

## **2.3 Our final determination decision and reasons**

We note that most companies either support our proposed approach (option 2) or do not object to it.

We decide to implement option 2 since it addresses the issues we have identified, in particular our concerns regarding:

- the cost challenge, since eliminating disaggregated unit rates also eliminates the potential for companies to over-recover revenue if one or more of these unit rates is not cost reflective; and
- administrative burden, because using a common definition and a single rate for each company makes the reconciliation of the price control less burdensome on companies and ourselves.

Option 2 is also more closely aligned with our cost modelling approach than option 1, which helps ensure that the reconciliation mechanism works as intended. Option 2 also ensures a degree of cost reflectivity since it is based on a company-specific unit rate. This unit rate implicitly reflects companies' mix of developments and cost factors specific to that company. We recognise though that by being based on an aggregate unit rate, cost reflectivity is lower than in option 1 since the reconciliation does not automatically take account of changes in the mix of services companies provide - but we consider that this is outweighed by the benefits.

Option 3 could increase cost reflectivity relative to option 2, but it would also be more complex. We have not seen convincing evidence to suggest that the additional complexity is merited.

## **2.4 Implementation**

We have clarified and refined our approach to implementing option 2 as discussed in the section on representations above.

The new developer services revenue adjustment factor (DSRA) will apply for each of the network plus water and wastewater controls of each company as follows:

$$\text{DSRA} = \sum_{t=1}^5 (\text{AC}_t - \text{FC}_t) \times \text{Unit Rate}_t$$

Where:

**t** = each charging year of the price control period with the first year starting on 1 April 2020 and the last year starting on 1 April 2024;

**AC<sub>t</sub>** = the actual number of new properties connected for the relevant service occurring in charging year **t** - this includes properties connected by NAVs and SLPs so that the full impact of local infrastructure reinforcement is matched with the total new properties connected;

**FC<sub>t</sub>** = our forecast number of new properties connected for the relevant service occurring in charging year **t** as set out in the annex - this includes properties connected by NAVs and SLPs so that the full impact of local infrastructure reinforcement is matched with the total new properties connected; and

**Unit Rate** = a number relating to the relevant service in charging year **t**. This number is calculated by Ofwat and set out in the annex.

We will apply this adjustment to companies' allowed revenue at PR24.

## 3. Incentivising accurate developer services forecasts

### 3.1 Our approach proposed in July 2019

#### 3.1.1 Background

In our PR19 methodology we decided to introduce an incentive on water companies to accurately forecast the number of new connections during the 2020-25 period by applying penalties if there were large differences between the volume of new connections provided and the companies' forecasts. Potential benefits of this incentive were to encourage companies to engage with developers, plan for new developments and reduce the scale of any end-of-period reconciliation.

In our PR19 methodology we also said that we would apply the Revenue Forecasting Incentive (RFI) to incentivise companies to collect the right amount of revenue and protect customers from unnecessary bill volatility. We decided not to include developer services within the RFI, because – given the developer services forecasting incentive – this risked a company potentially being penalised twice for an inaccurate forecast of developer services activity.

On 18 July 2019 we [consulted on a licence change](#) that allows us to set an RFI formula as part of companies' final determinations that incentivises water companies to recover shortfalls in revenue in previous charging years. All companies agreed to this licence change. We subsequently made this licence modification on 4 November 2019 and it came into effect on 10 November 2019.

#### 3.1.2 Issues identified

In our consultation we identified two issues to do with the approach we set out in our PR19 methodology.

**Reduced relevance of companies' new connected property forecasts.** We use our forecasts of the total number of connected properties to determine base cost allowances, which are based on Office for National Statistics (ONS) household

growth rate projections.<sup>9</sup> This means that companies' forecasts of new connected properties would now have no impact on:

- the allowed revenue that we set at PR19 for the AMP7 period; and
- any developer services reconciliation (since this would need to be based on the difference between our forecast of connections and actual connections).

Therefore, the rationale for a developer services forecasting incentive has weakened.

**Adverse interactions with the RFI.** Some stakeholders had raised concerns that they might be penalised by the RFI if their developer services revenue was different from the allowed revenue. In our view, we consider that this is unlikely to be a significant issue, because:

- our proposed approach to cost modelling addresses key concerns with our previous approach, which some companies argued led to an inaccurate forecast of developer services revenue; and
- if there was a significant difference between actual and allowed developer services revenue then, potentially<sup>10</sup>, we could apply discretion in applying a penalty under the RFI.

However, we acknowledge that there could be an administrative burden to both ourselves and companies if we were to ever apply discretion in applying a penalty under the RFI.

### 3.1.3 Our option assessment

We consulted on two options summarised as follows.

**Option 1: Retain the approach set out in our PR19 methodology.** Under this option, we would base our developer services forecasting incentive on companies' forecasts submitted in their business plans.

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<sup>9</sup> See 'Securing cost efficiency technical appendix' for more details.

<sup>10</sup> We would set out our position on matters related to the application of the RFI reconciliation in our forthcoming PR19 reconciliation rulebook.

**Option 2: Eliminate the developer services forecasting incentive and reinstate developer services back into the Revenue Forecasting Incentive for the purposes of the penalty calculation.** Under this option, we would not apply an end-of-period penalty based on companies' forecasts. Instead, we would ensure the RFI covers all price control revenue, including developer services.

Our assessment was that option 2 was preferred since it addresses the issues we had identified whilst creating an incentive on companies to continue to engage with developers and accurately forecast developer services demand when setting charges during the 2020 to 2025 period.

### **3.2 Stakeholders' representations**

Our overall summary of responses is as follows:

- Anglian Water, Hafren Dyfrdwy, Northumbrian Water, Severn Trent Water, Thames Water, United Utilities and Dŵr Cymru agree with our preferred option.
- South Staffs Water, South West Water and Yorkshire Water do not agree with our preferred option.
- South East Water raises some issues with our approach.
- All other companies make no representations.

The key issues raised by companies are summarised below.

#### **Issue 1: Single till and related issues**

##### *Stakeholders' representations*

Hafren Dyfrdwy, Severn Trent Water, South Staffs Water, South West Water, Northumbrian Water and Yorkshire Water consider that including developer services within a single till is not desirable. For example, because increases in developer service revenue would require a reduction in revenues from other customers, this could create bill volatility.

However, Hafren Dyfrdwy, Severn Trent Water, Northumbrian Water and United Utilities acknowledge that it is not practical to address this by making a fundamental change in our approach at such a late stage in the process. South Staffs Water sets

out potential remedies if we did not make such a change. United Utilities consider that we should retain a single till only if we were confident it would be consistent with future charging rules.

Yorkshire Water suggests we develop a standalone developer services specific incentive that suitably accounts for the potential variability of activity in this market.

South East Water considers that Ofwat guidance says they should not lower other customers' bills if they collect more revenue from developers and that we were unclear what companies' should do in such a circumstance.

#### *Our view*

In our consultation document we proposed a change in how we incentivise companies to make effective developer services forecasts. We had previously envisaged that developer services should be within the water and wastewater network plus control (and as such developer services had been included within the RFI for the purposes of calculating the revenue adjustment) and we had not proposed a change to this. However, as noted above, some companies question whether this approach was right.

We recognise that including developer services within the network plus controls inherently means that main customers' bills can be affected by developer services revenue. Developer services revenue composes a small fraction of companies' allowed revenue and generally the impact on non-developers' charges should be small. However, we do recognise that there may circumstances where this is not the case.

We decide to keep developer services within the network plus controls, because introducing a separate control at PR19:

- is not practical - introducing a separate control for developer services would be a significant change in approach, requiring a new approach to be developed and involve a change in companies' licence which would not have been practical in the timeframe available to us; and
- has unclear net benefits - we consulted on our approach previously when determining our methodology for PR19 and companies have not presented new evidence to demonstrate a change would be in customers' interests.

However, we do recognise that there is merit in reviewing this issue in future. We plan to do so as part of developing our PR24 methodology.

## **Issue 2: Flexibility in applying the RFI penalty**

### *Stakeholders' representations*

Hafren Dyfrdwy and Severn Trent Water suggest a potential exemption to RFI penalties due to variations in developer services income. (They also propose to mitigate the impacts of this through an in-period adjustment – we discuss our view on this in section 1 above).

South West Water considers that the RFI penalty should be adapted as it does not take account of any exceptional weather impacts.

### *Our view*

We will consult in our PR19 reconciliation rulebook on our approach to applying the RFI penalty and whether there are circumstances where it would make sense to take a flexible approach. We want to ensure that we apply the RFI in a way that avoids undue administrative burden. However, if we were to agree with a company that a change in their planned bill profile for future charging years would be in customers' interests, it might be appropriate to review how we might apply any RFI penalty. We will consider this issue further and set out position when we consult on our forthcoming PR19 Reconciliation Rulebook.

We will not adapt the RFI penalty *ex post*, for example in light of exceptional weather. We allow for some variation in companies revenues around their allowed revenue by setting a deadband. We consider that in general companies should be able to collect revenue within this range.

## **Issue 3: Timing of the adjustment**

### *Stakeholders' representations*

South Staffs Water suggests that the developer services reconciliation should be made in period. The aim of this would be to change allowed revenues in line with

changes in the number of connections and thereby avoid potential volatility to other customers' charges.

#### *Our view*

We agree that there are benefits to adjusting allowed revenue in line with efficient developer services expenditure. However, we consider there is a significant practical issue with adopting the approach suggested by South Staffs Water. Developer services revenue is frequently collected in advance of the connection being made. This means we might observe a change in developer services revenue, but not the number of connections in a given year. That is, the change in companies' actual revenue and allowed revenue could be out of step. Through the operation of the RFI, this could therefore make bill volatility worse, rather than better.

### **3.3 Our final determination decision and reasons**

We note that most companies either agree with our approach or make no representation.

We are implementing option 2, because:

- we use our own forecast of connected properties based on ONS household projections to determine base cost allowances, which reduces the need for a specific forecasting incentive related to developer services;
- including developer services within the RFI would create an incentive on companies to continue to engage with developers and accurately forecast developer services demand during the 2020 to 2025 period; and
- including developer services in the RFI would address concerns around any potential adverse interaction with the RFI penalty.

### **3.4 Implementation**

We have clarified and refined our approach to implementing option 2 as discussed in the section on representations above.

For RFI, we are:

- reflecting our decision in annex 3 of companies' notification of final determination documents; and
- publishing an illustrative model on our website to show how the proposed developer service reconciliation could work.

As noted above, we will consult on relevant aspects of our implementation in our forthcoming reconciliation rulebook.

## **4. The treatment of developer services in the revenue control**

### **4.1 Our approach proposed in July 2019**

#### **4.1.1 Background**

In our PR19 methodology, we decided to retain developer services income inside our price control in order to protect customers from any potential abuse of market power of water companies. We also said that we would remove contributions from developer services from gross totex (i.e. for our calculations of net totex and therefore cost-sharing arrangements) and that this should maintain incentives for cost efficiency.

In our draft determinations, we calculated net totex by:

- basing this on cost data related to developer services (i.e. 'new connections' and 'new developments'); and
- applying an estimated recovery rate to this reflecting the contribution to these costs made by developers. Since this focused on contributions from developers this was net of the 'income offset'<sup>11</sup>.

We generally applied a common recovery rate. In deriving our industry rate we capped the discount related to the income offset so that the infrastructure charge assumption could not go below zero.

#### **4.1.2 Issues identified**

In our consultation we identified two key issues to do with the approach we set out in our PR19 methodology.

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<sup>11</sup> This 'income offset' is a sum of money offset against the charges that would otherwise be applied for the provision of a Sewer or Water Main in recognition of revenue likely to be received by the relevant undertaker in future years for the provision of: i. supplies of water to premises connected to the new Water Main; or ii. sewerage services to premises connected to the new Sewer.

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**Misalignment with our developer service reconciliation.** In section 3 of this document, we decide to base the unit rates in the developer services reconciliation on grants and contributions *gross revenue* (i.e. before any income offset), because this would provide better estimates of companies' costs associated with developer services. However, the approach we took to calculating net totex in draft determinations was based on **net revenue** (i.e. reducing revenue by the value of any income offset). These two approaches would not align appropriately as some revenue would be covered by both cost-sharing arrangements and our developer service reconciliation.

**Perceived interaction with our charging rules.** Rule 19 of our '[Charging rules for new connection services for English water companies](#)' states:

*'In setting charges in accordance with the present rules, undertakers should take reasonable steps to ensure that the present balance of charges between Developers and other customers prior to the implementation of these rules is broadly maintained. An undertaker may only depart from this general requirement where (and to the extent that) this is rendered necessary by circumstances providing clear objective justification for doing so. Any such justification must be clearly identified in any Charging Arrangements prepared pursuant to these rules.'*

A key way English companies can ensure that the balance of charges is broadly maintained is through setting the income offset. United Utilities and Severn Trent Water had previously argued that applying a common Recovery Rate conflicts with the charging rules, since the income offset each company applies in order to comply with Rule 19 of the new connection charging rules varies.

We said our assumed recovery rate should not impact how companies set their charges, as we do not require companies to align their charges with them. Charging rules are related to the structure of the charges, whereas our price control is about the total revenue companies are allowed to recover. However, we can see that a significant misalignment between our assumed recovery rate and companies' actual recovery rate could be seen as being inconsistent.

### **4.1.3 Our option assessment**

We consulted on two options summarised as follows.

**Option 1: Retain the approach we applied to fast track companies' draft determinations.** Under this approach, we would continue to set a common Recovery Rate and apply this to companies' expenditure data related to developer services.

**Option 2: Alter our approach.** Under this approach, we would ensure a consistent approach between the data used for our calculation of net totex and the developer services reconciliation. In both cases, this would be based on grants and contributions gross revenue.

Our preferred option was option 2 since it ensures alignment between our developer services reconciliation and calculation of net totex by using consistent developer services data. For English companies it also addresses concerns with our calculation of net totex since this approach eliminates the need to estimate a recovery rate for companies.

## 4.2 Stakeholders' representations

Our overall summary of responses is as follows:

- Northumbrian Water, Thames Water, United Utilities, Dŵr Cymru and Yorkshire Water agree with our preferred option.
- Anglian Water, Hafren Dyfrdwy and Severn Trent Water found our proposed approach unclear.
- All other companies do not make representations.

The key issues raised by companies are summarised below.

### Issue 1: Clarification

#### *Stakeholders' representations*

Anglian Water considers that we need to clarify the interaction of totex sharing mechanism, growth reconciliation and allowed revenues.

South East Water comments on our use of recovery rates. Generally, our proposed approach as set out in the consultation would do away with the need for such recovery rates. We have assumed that developers should contribute to the expenditure in which we have allowed for South East Water's "high growth areas"

around Guildford and Ashford. Here we had to assume a recovery rate as South East Water had not included grants and contributions in their forecasts for this expenditure. South East Water notes that this would necessitate an introduction of zonal charging for developers.

### *Our view*

We described our proposed approach in our consultation document in July. We have engaged with stakeholders since then as described in section 1. We engaged bilaterally with Anglian Water, at their request, to help clarify our approach.

To clarify our approach regarding recovery rates: we no longer need to estimate these. This is because we now use developer services revenue gross of the income offset when setting both net totex and the unit rate within the developer services reconciliation.

For specific areas where there is high growth, which often spans multiple price review periods, we do not see zonal charging as a negative proposition to be overcome – companies are entitled to have zonal charging and this may be appropriate in high growth areas to ensure that charges and costs are appropriately matched. This view was reinforced in July 2019 when we published '[Charging rules for new connections and new developments for English companies from April 2020 – decision document](#)', explaining that we think there is further scope to improve cost reflectivity of infrastructure charges “including infrastructure charges that vary by geographical area (though, consistent with our Charges Scheme Rules, not typically for neighbouring developments, and retaining an averaging over time), to reflect different costs”.

## **Issue 2: Allocation of costs to PAYG revenue and RCV when setting PR19 revenues**

### *Stakeholders' representations*

In response to our informal consultation on an illustrative Grants and Contributions feeder model, some companies consider that our change in the definition of net totex would mean that total allowed revenue would change, together with an impact on bills. United Utilities also notes that the RFI reconciliation could penalise companies as a result of this change.

*Our view*

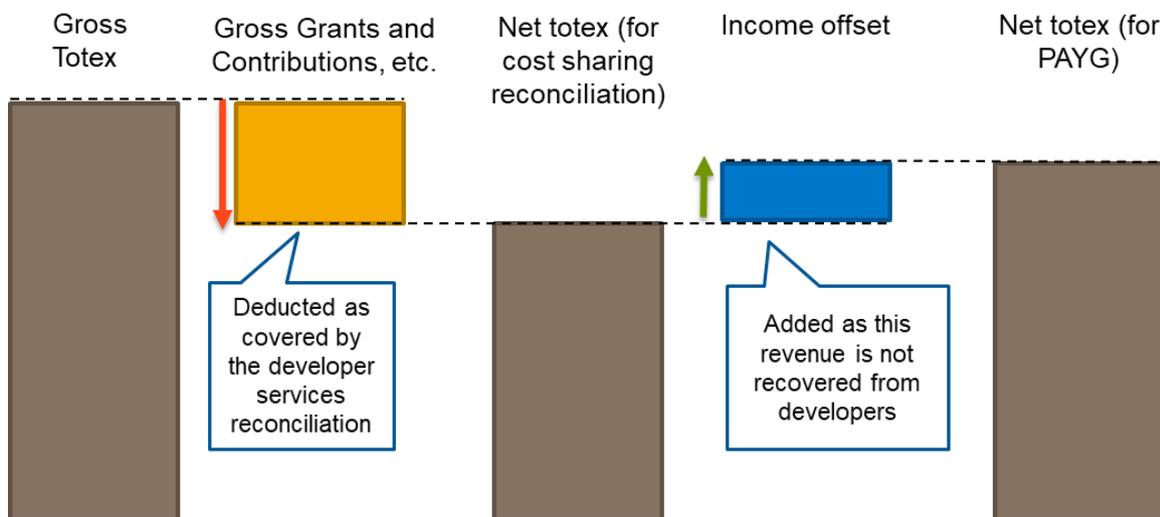
Our objective in changing our definition of net totex (i.e. reducing it by ‘grants and contributions revenue’ which excludes the income offset reduction) is to ensure a consistent approach between the data used for our calculation of net totex for the cost sharing reconciliation and the developer services reconciliation.

At the draft determination stage:

- net totex was remunerated either in year or through RCV additions as determined by their PAYG ratio; and
- Grants and Contributions (net of the income offset) was recognised in the financial model in the period it was forecasted to be received from developers on a cash basis.

If we continued to only subject net totex to the PAYG ratio then our change in the definition of net totex would lead to more costs being treated as PAYG revenue and less as RCV. This would increase customers’ bills in the 2020 to 2025 period (although reduce them thereafter). This is not our intention. Therefore, we have adjusted our modelling approach to avoid this outcome. This is shown in figure 1.

**Figure 1: Calculation of net totex for the cost sharing reconciliation and PAYG calculations**



After calculating our revenue requirements, price control Grants and Contributions are added back in afterwards to give the total price control revenue requirement. We also take into account the developer contributions when calculating the household bill numbers.

### **Issue 3: Implementation cost sharing mechanism**

#### *Stakeholders' representations*

Hafren Dyfrdwy and Severn Trent consider that we have not specified how the PR19 totex cost sharing mechanism would be implemented and raised potential issues. They propose that the totex cost-sharing mechanism is either applied:

- on the basis of gross totex (i.e. outturn gross totex compared to the gross totex assumption at FD); or
- excludes outturn developer services income in the calculation.

#### *Our view*

We will apply the totex cost sharing mechanism on net totex, by excluding actual developer services revenue gross of the income offset. This approach is consistent with how we set the developer services reconciliation.

### **4.3 Our final determination decision and reasons**

We note that all companies either agree or do not disagree with it.

We have decided to implement option 2. This ensures alignment between our developer services reconciliation and calculation of net totex for the cost sharing reconciliation by using consistent developer services data. For English companies it also addresses concerns with our calculation of net totex since this approach will eliminate the need to estimate a recovery rate for companies.

### **4.4 Implementation**

We have clarified our approach to implementing option 2 as discussed in the section on representations above.

We apply this approach to all companies' final determinations.

## 5. The treatment of diversions

### 5.1 Our approach proposed in July 2019

#### 5.1.1 Background

A 'diversion' is when a company is required to move an existing main or sewer or other apparatus at the request of a third-party, for example to enable the laying of new infrastructure such as new road or railway.

At draft determinations we included all diversions income within the price control. Our base cost assessment models included gross historical diversions costs and therefore produced an efficient allowance for diversions. However, our approach did not consider any expected step changes in diversions expenditure.

#### 5.1.2 Issues identified

In our consultation we identified a number of issues to do with our previous approach as follows.

**Our cost model does not allow us to project major increases in diversions expenditure.** United Utilities submitted a cost adjustment claim of around £100m based on a projected, large increase in diversions expenditure. This large increase in diversions is driven by diversions other than those requested under section 185 of the Water Industry Act 1991, for example due to High Speed 2 (HS2). This projected step change in diversions may not be fully captured in our base historical cost models that use historical costs.

Severn Trent Water raises concerns that our approach to developer service reconciliation would not take account of some sources of uncertainty, including differences between forecast and actual diversions numbers and HS2 uncertainty.

**The expenditure is relatively unpredictable.** United Utilities acknowledges that such diversions are uncertain and therefore the actual level of expenditure required over the 2020 to 2025 period is unpredictable. This means that, even if we were to establish a central estimate for this type of expenditure, actual expenditure could end

up being significantly different from this. This would expose customers and companies to significant financial risk.

### 5.1.3 Our option assessment

We consulted on two options summarised as follows.

**Options 1: Retain the approach we applied to companies' draft determinations.** Under this option, we would keep all diversions income within the price control and water companies could bear the full difference between the forecast and actual cost of these diversions. The developer services reconciliation model may not eliminate the full risk of this, since a diversion does not necessarily involve the making of new connections.

**Option 2: Set non-section 185 diversions income outside of the price control.** Under this option, these diversion receipts would be classified as 'Other contributions (non-price control)' and we would list them as 'excluded charges'. This would mean that water companies would have to bear the risk of any deviation from our view of diversions costs but would also be able to retain all of the revenue related to them.

We recognised that there are benefits and risks under each option. Our preferred option was option 2 since the balance of benefits and risks are more favourable to customers.

To allow for possible implementation of option 2, we asked companies if they would be prepared to agree to a change in the definition of excluded charges. We also, as part of our data request, asked companies to disaggregate their diversions data into the three classes to be able to verify and implement our approach.

## 5.2 Stakeholders' representations

Our overall summary of responses is as follows:

- all companies support our preferred option, the proposed change to excluded charges or both (NB a number of companies did not initially respond as part of their representations, but did so through the query process); and
- all companies subsequently agree to the change in the definition of excluded charges to enable option 2.

The key issues raised by companies are summarised below.

## **Issue 1: Cost adjustment claim**

### *Stakeholders' representations*

United Utilities considered that our preferred option was not sufficient to address their cost assessment claim and therefore we still ought to approve this.

### *Our view*

We consider that our approach does meet the objective of their cost adjustment claim, as we exclude the relevant diversions costs from our modelling, but by being outside of price control the company can recover most of the costs from developers. Following publication of the slow track draft determinations, we engaged further with United Utilities who acknowledged that the issues raised in the cost adjustment claim would be resolved given the approach we were proposing to take at final determinations.

## **Issue 2: Unrecoverable revenues**

### *Stakeholders' representations*

United Utilities raises a concern about how they could recover the small proportion of New Roads and Street Works Act diversions costs that they would not be able to recover from developers (since the legislation caps the proportion of costs a water company can recover through their charges for this work). They propose that this shortfall should be subject to cost sharing.

### *Our view*

Legislation limits the amount of revenue that companies can recover from the customer of the diversion. Therefore, we make a minor adjustment to companies allowed revenue to ensure they can recover this shortfall from other customers. In calculating this, we assume companies could recover at least 82% of their costs from the customer of the NRSWA diversion.

We do not make this shortfall amount subject to cost sharing. Water companies are exposed to only 8% or 18% of the costs of these diversions, since they can recover other costs from the customer of the diversion. Therefore, they already benefit from a high level of protection from changes in costs. Excluding this shortfall amount helps to retain incentives on companies for cost efficiency.

### **5.3 Our final determination decision and reasons**

We are implementing option 2. We recognise that there are benefits and risks under each option, but consider that the balance of benefits and risks are more favourable to customers under option 2.

If we were to keep all diversions income within the price control then water companies would not be able to abuse any market power and they would face financial incentives for cost efficiency. However, this approach would not address our concern that non-section 185 diversions are relatively unpredictable and therefore customers and companies are exposed to significant financial risk.

Option 2 addresses all of the issues we identify. We also note that legislation that requires companies to carry out diversions (such as the New Roads and Street Works Act 1991) can also limit the amounts that companies can recover by reference to their costs. This provides protection to customers from abuse of any market power by water companies. Companies also face reputational incentives related to cost efficiency, although we recognise that the overall incentive for cost efficiency under option 2 is weaker than under option 1.

### **5.4 Implementation**

To give effect to our proposals related to diversions, we have agreed a change to the definition of Excluded Charges in paragraph 2 of Condition B for each company to include the following:

‘In relation to the period from 1 April 2020 to 31 March 2025, amounts payable in relation to the alteration or removal of any relevant pipe (as defined in section 158 of the Water Industry Act 1991) or other apparatus that the Appointee is required to carry out under the New Roads and Streets Works Act 1991 or any other statutory provision except a provision of the Water Industry Act 1991.’

We clarify our approach to implementing option 2 as discussed in the section on representations above.

## Annex: Developer services reconciliation model – unit rates and new connections forecasts

We calculate the unit rate for each company based on the following formula:

$$\text{Unit rate}_t = \text{Developer service revenue}_t / \text{Company's forecast of new properties connected}_t \times \text{EC}$$

Where:

**Developer services revenue** = companies' forecast of price controlled grants and contributions revenue consistent with

For water:

- connection charges;
- infrastructure charges (before applying the income offset discount);
- requisitioned mains;
- diversions (price control); and
- other contributions (price control)

For wastewater:

- infrastructure charges (before applying the income offset discount),
- requisitioned sewers
- diversions (price control); and
- other contributions (price control).

**Company's forecast of new properties connected** = companies' view of total number of properties connected in charging year t. This includes properties connected by NAVs and SLPs so that the full impact of local infrastructure reinforcement is matched with the total new properties connected.

**EC** = Efficiency challenge we apply to companies' relevant expenditure. This is based on a direct application of the base econometric modelling results with an efficiency challenge that removes any scope challenge by setting forecast cost drivers equal to companies' forecast cost drivers. We also apply a floor such that the efficiency challenge is not greater than one.

We set out below the parameters:

- that would inform our developer services revenue adjustment (**DSRA**) in tables A1 and A4; and
- used to calculate companies' unit rates are in tables A2, A3, A5 and A6.

## Water

**Table A1: Water network plus: Unit rates in 2017-18 prices and our forecast of new connections to be used in companies' end-of-period developer services reconciliation (charging year beginning 1 April)**

Company	Unit rate £ <sup>12</sup>					Our forecast number of new properties connected (FC <sup>13</sup> )				
	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Anglian Water	1,086.3	1,022.0	978.0	957.0	982.8	18,308	17,457	20,117	19,296	19,097
Northumbrian Water	1,056.9	1,047.9	1,044.4	1,052.2	1,048.8	11,412	10,796	13,021	12,355	12,346
United Utilities	1,052.3	1,045.0	1,039.0	1,050.2	1,062.6	15,967	14,980	16,360	14,973	14,666
Southern Water	1,516.6	1,703.5	1,895.6	1,767.4	1,754.0	8,758	8,462	10,172	9,982	10,031
South West Water	1,047.4	1,181.8	1,340.7	1,328.5	1,316.5	6,836	6,545	8,081	7,998	8,055
Thames Water	789.8	811.4	829.9	852.8	871.1	30,581	27,874	39,913	38,464	37,731
Dŵr Cymru	1,995.9	1,992.6	1,988.9	1,986.0	1,982.7	7,470	7,517	8,201	7,800	7,576
Wessex Water	678.2	726.2	756.0	776.5	811.3	5,637	4,144	5,083	4,951	4,877
Yorkshire Water	454.0	503.7	505.7	484.2	487.8	10,832	9,970	11,986	11,545	11,521
Affinity Water	1,121.6	1,159.6	1,160.0	1,160.4	1,160.8	11,545	10,875	14,950	14,468	14,305
Bristol Water	1,041.6	1,102.3	1,116.6	1,132.4	1,156.2	4,912	4,526	4,825	4,831	4,902
Portsmouth Water	551.9	538.5	518.2	485.9	451.1	2,083	1,894	2,164	2,137	2,242
SES Water	1,487.7	1,564.4	1,628.8	1,653.9	1,753.3	2,221	2,109	2,867	2,724	2,684
South East Water	1,509.7	1,518.2	1,500.4	1,474.2	1,444.7	8,658	8,332	9,807	9,431	9,402
South Staffs Water	1,384.7	1,512.1	1,595.8	1,416.8	1,423.2	3,684	3,435	4,536	4,330	4,348
Severn Trent England	1,596.3	1,586.3	1,584.8	1,579.6	1,559.9	23,325	21,701	26,248	25,596	26,053
Hafren Dyfrdwy	1,414.6	1,408.2	1,409.9	1,410.4	1,410.8	406	379	461	451	459

<sup>12</sup> After application of efficiency challenge.

<sup>13</sup> These numbers are based on companies' forecasts of their 'total properties connected'. Given this definition, we have assumed companies' have included SLOs and NAVs within this data. However, we have not verified this. Therefore, we may take steps to check this before applying these numbers in our reconciliation. Where necessary, we will adjust these numbers to ensure that the definition of actual and forecast numbers is undertaken on a consistent basis.

**Table A2: Water network plus: Company view of developer services revenue in 2017-18 prices and companies' forecasts of new properties connected (charging year beginning 1 April)**

Company	Company view of developer services revenue £m					Companies' forecasts of new properties connected				
	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Anglian Water	44.4	46.9	46.9	45.7	43.0	34,518	38,782	40,530	40,331	36,940
Northumbrian Water	20.0	19.6	19.0	18.5	18.6	18,954	18,742	18,197	17,560	17,728
United Utilities	27.1	28.1	29.2	30.7	32.3	25,763	26,914	28,064	29,214	30,364
Southern Water	22.9	24.6	26.6	24.6	23.2	13,896	13,258	12,895	12,782	12,131
South West Water	9.9	11.3	12.4	12.5	12.1	9,416	9,524	9,242	9,416	9,207
Thames Water	42.7	41.0	38.9	38.5	38.4	50,730	47,470	44,035	42,366	41,361
Dŵr Cymru	17.7	17.9	18.2	18.2	18.2	8,859	9,000	9,139	9,172	9,203
Wessex Water	5.1	5.1	5.1	5.1	5.1	7,451	6,959	6,685	6,508	6,229
Yorkshire Water	10.7	10.8	10.9	10.4	10.5	23,645	21,466	21,569	21,534	21,578
Affinity Water	19.6	20.3	20.3	20.3	20.3	17,495	17,494	17,494	17,493	17,492
Bristol Water	8.0	7.4	7.4	7.4	7.4	6,750	5,885	5,841	5,778	5,660
Portsmouth Water	1.2	1.1	1.1	1.0	1.0	2,116	2,064	2,047	2,084	2,148
SES Water	3.6	3.8	4.1	4.3	4.6	2,407	2,449	2,541	2,620	2,612
South East Water	17.0	17.3	17.4	17.3	17.2	10,051	10,201	10,354	10,510	10,667
South Staffs Water	13.9	14.4	14.7	9.9	9.8	6,190	6,190	6,189	6,189	6,188
Severn Trent England	44.6	47.3	50.0	50.6	50.8	27,965	29,817	31,555	32,064	32,572
Hafren Dyfrdwy	0.7	0.8	0.8	0.8	0.8	517	551	584	593	602

**Table A3: Water network plus: Efficiency challenge (EC) that is applied to companies' unit rates**

<b>Company</b>	<b>EC<sup>14</sup></b>
Anglian Water	84.4%
Northumbrian Water	100.0%
United Utilities	100.0%
Southern Water	91.8%
South West Water	100.0%
Thames Water	93.9%
Dŵr Cymru	100.0%
Wessex Water	100.0%
Yorkshire Water	100.0%
Affinity Water	100.0%
Bristol Water	88.0%
Portsmouth Water	100.0%
SES Water	100.0%
South East Water	89.5%
South Staffs Water	97.9%
Severn Trent England	100.0%
Hafren Dyfrdwy	100.0%

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<sup>14</sup> Wholesale water modelled base plus cost efficiency challenge excluding scope challenge (after removal of enhancement opex from company business plans and removal of enhancement opex implicit allowance from modelled base plus costs).

## Wastewater

**Table A4: Wastewater network plus: Unit rates in 2017-18 prices and forecast new connections to be used in companies' end-of-period developer services reconciliation (charging year beginning 1 April)**

	Unit rate £ <sup>15</sup>					Our forecast number of new properties connected (FC <sup>16</sup> )				
	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Anglian Water	701.4	716.5	678.7	858.1	1,251.7	22,102	21,180	25,600	24,611	24,542
Northumbrian Water	367.1	347.2	350.3	364.7	372.2	4,575	4,172	4,370	3,954	3,983
United Utilities	388.0	375.4	364.3	340.3	318.5	15,991	14,999	16,402	15,008	14,695
Southern Water	1,089.2	1,097.9	1,101.9	1,106.2	1,115.6	16,222	15,591	18,564	18,133	18,256
South West Water	1,077.5	1,231.9	1,420.0	1,402.5	1,423.0	4,991	4,746	5,846	5,798	5,798
Thames Water	256.2	260.2	263.8	269.6	274.7	45,788	42,342	59,363	57,254	56,186
Dŵr Cymru	991.9	986.2	980.8	977.5	971.9	7,750	7,776	8,405	8,029	7,827
Wessex Water	671.0	679.6	691.5	707.7	740.5	10,879	9,087	10,439	10,283	10,375
Yorkshire Water	327.0	361.5	361.0	361.5	359.9	10,735	9,927	11,835	11,389	11,400
Severn Trent England	478.4	443.1	467.5	458.2	486.7	25,503	23,705	29,081	28,222	28,549
Hafren Dyfrdwy	439.1	436.6	437.8	437.5	437.3	212	202	251	245	250

<sup>15</sup> After application of efficiency challenge.

<sup>16</sup> These numbers are based on companies' forecasts of their 'total properties connected'. Given this definition, we have assumed companies' have included SLOs and NAVs within this data. However, we have not verified this. Therefore, we may take steps to check this before applying these numbers in our reconciliation. Where necessary, we will adjust these numbers to ensure that the definition of actual and forecast numbers is undertaken on a consistent basis.

**Table A5: Wastewater network plus: Company view of developer services revenue in 2017-18 prices and companies' forecasts of new properties connected (charging year beginning 1 April)**

Company	Company view of developer services revenue £m					Companies' forecasts of new properties connected				
	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Anglian Water	33.9	38.0	36.8	46.2	63.1	40,667	44,528	45,568	45,232	42,353
Northumbrian Water	3.8	3.8	3.8	3.8	3.8	9,699	10,268	10,185	9,790	9,601
United Utilities	10.3	10.4	10.5	10.2	9.9	25,275	26,404	27,507	28,634	29,760
Southern Water	26.2	25.3	24.9	24.5	23.7	24,028	23,046	22,615	22,176	21,271
South West Water	8.2	9.4	10.5	10.6	10.5	7,265	7,354	7,130	7,271	7,104
Thames Water	19.6	19.2	17.0	17.4	16.9	73,971	71,592	62,575	62,440	59,539
Dŵr Cymru	9.0	9.1	9.2	9.2	9.1	8,660	8,801	8,939	8,974	9,005
Wessex Water	9.2	9.2	9.2	9.2	9.2	13,406	13,238	13,009	12,712	12,149
Yorkshire Water	8.7	8.8	8.9	9.0	9.1	22,716	20,729	20,990	21,176	21,492
Severn Trent England	16.1	15.9	17.7	17.6	19.0	33,575	35,908	37,885	38,496	39,106
Hafren Dyfrdwy	0.1	0.1	0.1	0.1	0.1	251	268	283	288	293

**Table A6: Wastewater network plus: Efficiency challenge (EC) that is applied to companies' unit rates**

<b>Company</b>	<b>EC<sup>17</sup></b>
Anglian Water	84.1%
Northumbrian Water	94.6%
United Utilities	95.6%
Southern Water	100.0%
South West Water	96.0%
Thames Water	96.9%
Dŵr Cymru	95.8%
Wessex Water	97.8%
Yorkshire Water	85.0%
Severn Trent England	100.0%
Hafren Dyfrdwy	100.0%

<sup>17</sup> Wholesale wastewater modelled base plus cost efficiency challenge excluding scope challenge (after removal of enhancement opex from company business plans and removal of enhancement opex implicit allowance from modelled base plus costs).

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

Ofwat  
Centre City Tower  
7 Hill Street  
Birmingham B5 4UA

Phone: 0121 644 7500  
Fax: 0121 644 7533  
Website: [www.ofwat.gov.uk](http://www.ofwat.gov.uk)  
Email: [mailbox@ofwat.gov.uk](mailto:mailbox@ofwat.gov.uk)

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