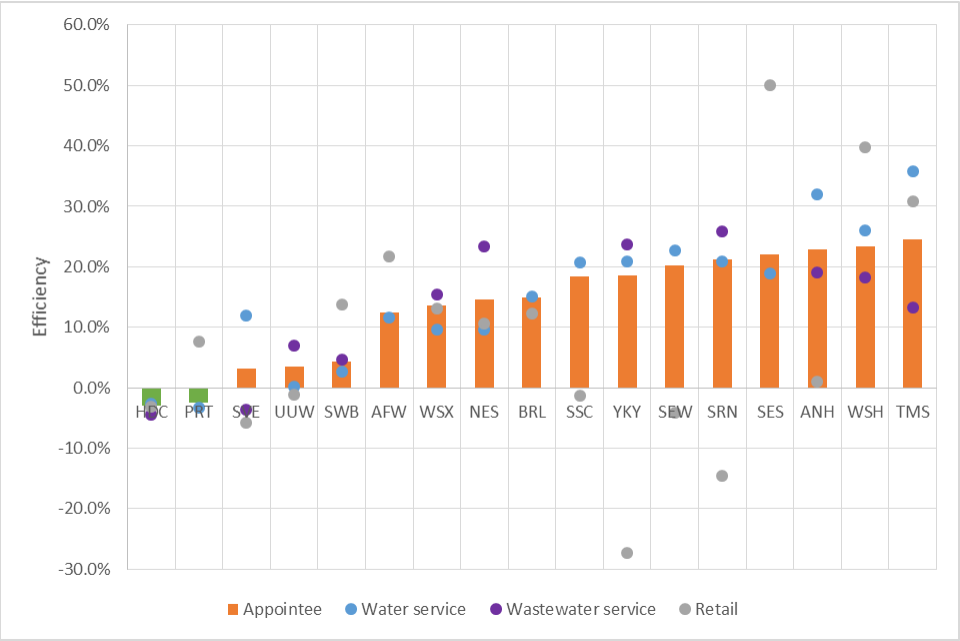
Chapter 4
Cost efficiency

4.0 Cost efficiency

4.1 Overview

We are very pleased that the cost efficiency of our AMP7 proposals has been recognised through Ofwat's IAP Totex baseline. This means Hafren Dyfrdwy's (HDD) AMP7 cost efficiency is the best in the sector. We were the only company to outperform the regulatory baseline in all three services (Wholesale water, Wholesale Wastewater and HH Retail, see figure 1). This efficiency, combined with the fact that our customers have the lowest combined bill in the sector is a really important part of ensuring our bill remains affordable.



PR19 Cost efficiency as calculated by Ofwat in the IAP

In this chapter we set out two representations on Non household costs and business rates. We also respond to specific actions and provide the additional information on developer services. It is structured in the following way:

Section heading	Key representation	Relevant appendix
4.2 Non household costs	HH costs can't be used to forecast NHH costs	None
4.3 Water investments	4.3.1 Evidence we have no Metaldehyde obligations	None
	4.3.2Developer services	Developer data tables
4.4 Waste water investments	4.4.1 NEP assumptions	None
4.5 Updated expenditure tables	Commentary to accompany expenditure required data tables	Data tables WS1, WS2, WWS1, WWS2, R1, R4
4.6 Updated developer services tables	Commentary to accompany expenditure required data tables	None

4.2 Nonhousehold costs

In relation to action reference HDD.CE.A1, the draft determination includes an intervention on our non-household (NHH) price control. The DD assessment rationale states:

"Intervention required.

In light of the lack of evidence of the high costs for small businesses, we challenge Hafren Dyfrdwy to reduce costs of small business retail customers to the same level as its residential retail customers. "

The DD states the company's customers in the NHH retail segment are predominantly businesses with low water use (<5Ml per annum) and therefore consider that the retail costs for small business customers should be the same as for residential retail. We have reviewed our costs, alongside Ofwat's retail modelling approach and we disagree that the HH costs are a reasonable proxy. Our plan includes £2.1m of costs and Ofwat's DD includes £1.3m, which is around a 40% challenge. This is a significant reduction and inconsistent with the household (HH) assessment in which Ofwat assessed our retail costs as being relatively efficient.

The revenue assumptions appear to be consistent between our plan and the DD therefore our representation focuses on costs.

Our representation justifies our costs and removes the need for an Ofwat intervention by reviewing costs in two ways:

- Firstly we set out the additional costs seen in the NHH price control that are not seen in the HH control (and therefore why the HH costs cannot be used as a proxy); and
- Secondly we present comparative data from PR16 which shows our costs are average when compared to non-household retail costs in the rest of the industry at that time.

4.2.1 The HH retail model underestimates NHH costs

We understand the reason for Ofwat using the HH retail model to challenge our costs and for several costs this is an appropriate approach. However there are three areas where we see a material difference in costs between the two customer groups and think the simplistic approach applied is underestimating our costs:

- The bill size is an input in the HH retail model, but the assumptions used do not accurately reflect the 0-5 Ml/a NHH group. The main impact is that the bad debt and doubtful debt costs are higher in NHH because the bills are higher so any unpaid bills accrue a higher bad debt cost;
- The HH model does not include any assumptions for trade effluent costs; and
- The model is primarily based on retail costs in England, which means it doesn't include any costs associated with obligations applicable only in Wales.

We address each of these points in turn.

Bad debt and doubtful debt costs

Ofwat's assumption needs to be £348,000 higher to correctly account for NHH bad debt costs.

The £2.1m cost plan submission included £0.6m relating to costs of NHH bad debt, which reflects debt cost performance close to 3% of turnover, or around £15 per customer per year on average.

The DD interventions assumed debt performance consistent with HH levels, which would average at £6 per customer per year or 1.2% of revenue. Across the 5 year period this variance would understate the allowance for debt costs by £348,000 compared to the debt to revenue ratio included in the plan.

The 0-5 Ml/a category includes a wide range of customers; at the lower end are very small businesses with consumption very similar to households (90-100m^3 per year), while the upper end has customers using 50 times the volume. At the lower usage end of the NHH customer group it would be reasonable to compare revenue (and costs) with HH customers, but taking this approach for customers at the upper end of the range

would not. The average bill value for the group as whole is significantly higher than an average household – around 3.1x higher for water and 5.8x higher for waste.

When a customer defaults with a larger bill the amount of debt outstanding will be greater. Bill size is recognised as a driver within Ofwat's models; we think that Ofwat needs to take account of the difference in small NHH retail bills when modelling an appropriate retail cost allowance.

	19/20	20/21	21/22	22/23	23/24	24/25	AMP7
HH Customer numbers ('000)		95.024	95.504	95.994	96.487	96.984	95.999
HH Revenue (£'000)		28,529	28,589	28,577	28,666	28,769	143,129
HH Debt costs (£'000)		650	669	712	588	423	3,043
Debt cost per customer (£)		6.84	7.01	7.42	6.10	4.36	6.35
Customer no's - NHH <5 ('000)		7.907	7.934	7.948	7.961	7.976	7.945
NHH <5 Revenue (£m)	4,115	4,141	4,167	4,305	4,459	4,584	21,656
Debt cost per plan	123,206	112,936	115,848	119,311	124,146	127,335	599,575
Debt cost % turnover	2.99%	2.73%	2.78%	2.77%	2.78%	2.78%	2.77%
Debt cost @ HH customer rate		**54,084**	**55,599**	**58,978**	**48,534**	**34,787**	**251,981**
Debt cost @ NHH revenue rate		**112,936**	**115,848**	**119,311**	**124,146**	**127,335**	**599,575**
Variance to NHH revenue %		**58,852**	**60,248**	**60,333**	**75,612**	**92,548**	**347,594**

While many retail activities are the same for all customers irrespective of size, there are some key differences. Larger customers have more frequent billing, more meter reads and more complex billing arrangements. This is particularly true for the waste water service where our non-household customers have surface water charges based on their actual site area (rather than a proxy based on property type) and some also have trade effluent.

Trade effluent costs are not considered in the household model at all and are therefore missing entirely from the NHH price control draft determination. We currently have 21 business with trade effluent consents for which the retail allowances were agreed as part of PR16. Billing trade effluent is more complex to contract manage and bill than regular sewerage given that there needs to be measurement of the strength of the discharge in addition to the volume – this is not something that is required for any household.

Customer service in Wales

We have a small team based in Wrexham to provide the retail service to NHH customers. We provide additional services in Wales that are not included in the cost of service of the retailers in England. They include services such as:

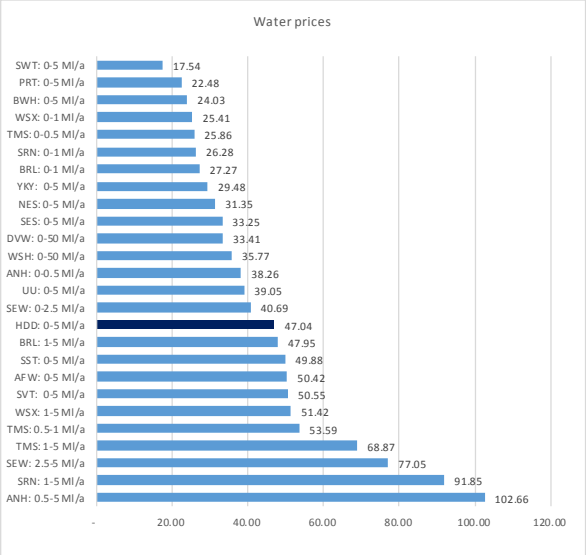
- Bilingual bills and information
- Translation services
- Customer service tracking.

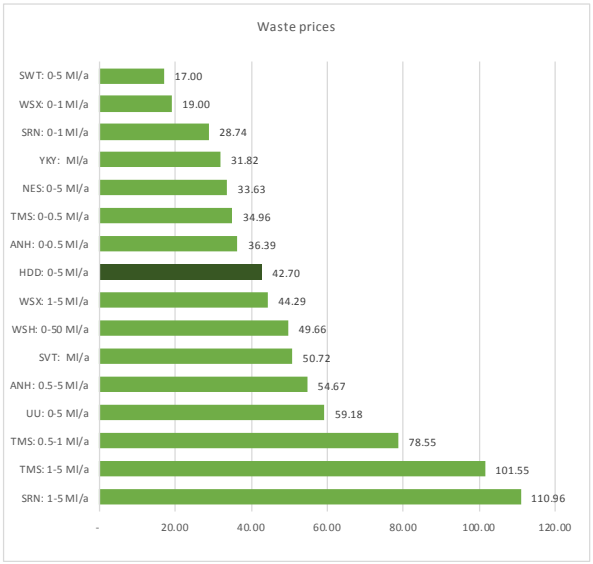
Our customer service tracker is more expensive on a per customer basis because fewer customers to share the cost but have to include sample sizes of similar size to other companies in order to get statistically significant results. This means a much larger percentage of the customer base need to be surveyed.

It is difficult to estimate the additional cost associated with these services because costs are not captured at that level of granularity. However it does provide additional explanation for our seemingly higher costs.

4.2.2 Comparative data shows we are not inefficient

There are only two companies operating in Wales where competition has not been introduced. This makes comparative analysis difficult. However, we have reviewed the PR16 determination and this shows our original proposed costs (at £2.1m) are around average and within the allowed tolerance across the retail market.





The analysis above is based on PR16 cost allowances inflated with CPIH. We note that when considering the appropriate future protections for customers of exited retailers, Ofwat found that actual costs for exited retailers had risen more quickly than the rate of inflation and therefore the "mid-table" estimate for HD retail costs may be somewhat conservative. When this analysis is coupled with the fact that companies in Wales have additional obligations that create costs not experienced by the other companies it suggests we are likely to be towards the upper quartile for water and at or beyond upper quartile for waste services.

Conclusion

The evidence presented shows that the DD does not take account of the additional services and costs in the NHH business, specifically bad debt costs, trade effluent and services specific to Wales. Our analysis provides evidence that quantifies around £0.5m (c60% of the gap between our plan and the DD) and we have provided further qualitative evidence to explain the remaining difference and that overall our costs compare well to the rest of the market.

4.3 Water investment

There are two areas where we are providing further information:

1. Metaldehyde – in response to Ofwat's specific query
2. Developer services costs – in response to data request and to respond to the DD.

4.3.1 Metaldehyde

In action **HDD.CE.A2** Ofwat state that there may be significant impacts in terms of investment or type of investment as a result of the Metaldehyde ban. The company should investigate and agree with the DWI the scale and timing of any potential changes compared to its submitted plans.

We do not have an undertaking for Metaldehyde and did not include any investment at our treatment works to mitigate Metaldehyde risk. The letter below from the DWI confirms this is the case.

dwi
guardians of drinking water quality

DRINKING WATER INSPECTORATE
Area 5B
Nobel House
17 Smith Square
London. SW1P 3JR

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DWI Website: www.dwi.gov.uk

13 August 2019

Shaun Dowen
Business Lead
Water Regulations & Public Health
Severn Trent Centre,
2 St John's Street
Coventry
CV1 2LZ

Dear Shaun

Hafren Dyfrdwy – Metaldehyde

DWI can confirm that Hafren Dyfrdwy did not include any investment at treatment works to mitigate Metaldehyde risk. Dee Valley's undertaking for metaldehyde related to Boughton water treatment was taken to secure compliance with the metaldehyde standard however this does not include any Metaldehyde product substitution costs.

DWI are currently in the process of agreeing an undertaking to this effect for Boughton works in Chester which is now a Severn Trent asset, and will be included in the revised metaldehyde catchment management undertaking for Severn Trent Water.

Water supply zones in Hafren Dyfrdwy fed by the Boughton works will be covered by a bulk supply undertaking for monitoring and liaise regularly with Severn Trent Water on progress with the measures being

Yours sincerely

Steve Youell
Inspector

Department for Environment, Food and Rural Affairs
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Welsh Government

Please note: The last sentence in the DWI letter appears unfinished. We sought clarification from the DWI but, due to leave, this has not arrived. Our interpretation is that this should read "*Water supply zones in Hafren Dyfrdwy fed by the Boughton works in England will be covered by a bulk supply agreement. Hafren Dyfrdwy will need to liaise regularly with Severn Trent Water to check on the progress being made with their control measures*"

4.3.2 Developer Services

Cost assessment representation

Summary

We are very supportive of Ofwat's revised assessment of developer services / growth expenditure. It has moved, from a separate enhancement model used at the IAP, to inclusion in an expanded set of botex econometric models (termed botex+). Given our concerns with the IAP approach, we think that this is a positive and pragmatic development.

However, it seems there is a possibility that a new specific growth model could be introduced using the supplementary data submission that has been requested alongside the slow track draft determinations. We believe that such an approach runs a major risk of producing results that are not robust, with surprising changes at a very late stage in the process:

- Developer services cost assessment data does not appear to be currently fit for purpose for the assessment of discrete developer services costs. It is unlikely that the new data request will iron out all of these issues sufficiently.

- A late model change would also lack transparency, particularly where data comparability is known to be challenging. There would be no opportunity to test and challenge model robustness, and the modelling work will not have benefitted from the extensive engagement and review given to the botex models, a process that has worked very well.

Ofwat has rightly explored a number of different options throughout the PR19 process before landing at the current approach. Given these circumstances, we think the botex+ approach used in slow track draft determinations is a sensible and pragmatic approach to apply at FD. Given the data and modelling difficulties that have arisen in this area, there looks to be a strong case for initiating collaborative work following PR19 in order to develop a more robust basis for assessing developer services costs and revenues in future reviews.

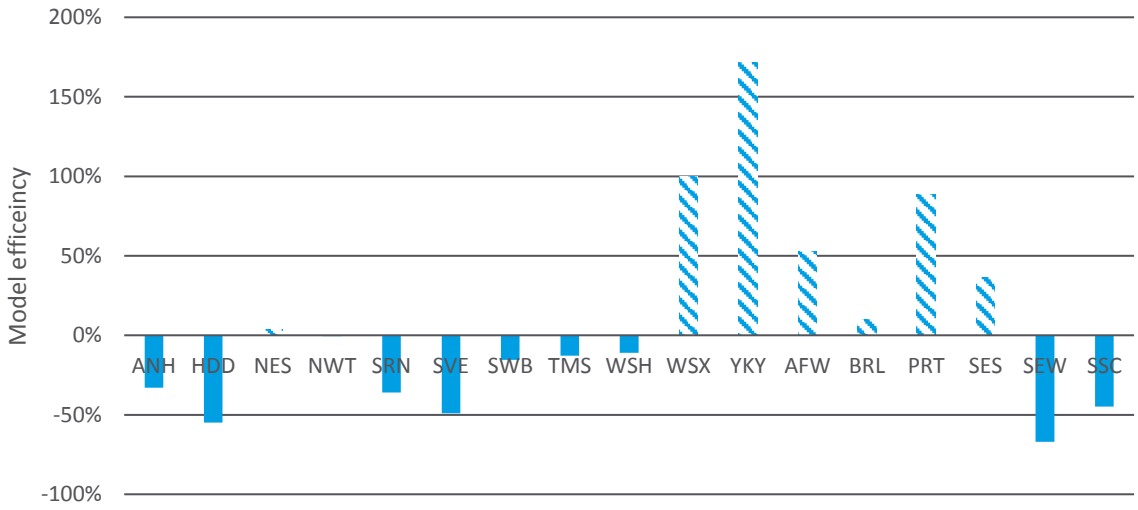
Previous representations

In our IAP and DD representations, we set out in detail that the IAP growth model was not accurately reflecting efficiently incurred developer services expenditure. The issues with the approach can be summarised as being largely related to:

- material inconsistencies in the growth data used to populate the unit cost models (examples of which are provided in Annex A);
- consistency and coherence issues regarding the accounting treatment of contestable activity and;
- complexity and lumpiness affecting the relationship between off-site network reinforcement requirements and short term new development volumes.

These issues resulted in dramatic disparities between company developer services business plan costs and disproportionately large inferred efficiency challenges despite the model only holding companies to a median historic unit cost. In our opinion, these values should not be interpreted as showing efficiency of company business plans. It is not logical to assume that companies can outperform or underperform an efficiency benchmark for a material and relatively consistent activity by the amount assumed. Rather, we consider major limitations with both input data and the predictive power of the model that was used to have been significant drivers of the observed deviations.

Figure: Assumed efficiency from the IAP water growth model. Ofwat used company costs where the model was showing the companies costs to be efficient (hatched bars)



We are pleased that Ofwat has reconsidered the way in which efficient Developer Services costs are to be estimated. Ofwat has clearly sought to improve the quality of its growth models as shown by the specific query on developer services costs and volume in May 2019. This information has not been used in the slow track DDs, indicating that further work is still required to arrive at robust estimates of efficient expenditure.

Communications with Ofwat and other companies with respect to the subsequent data request (presented alongside this submission) clearly suggest that the scope and interpretation of various aspects of developer services remain subject to material uncertainty (for example, through the assumptions different companies have applied when seeking to apportion contestable activity retrospectively). It is very much our view that this should be now focused on making improvements at future price reviews rather than attempting to arrive at an untested fix in this late stage of PR19.

Given this context, we consider that the botex+ approach used in slow track DD's (expanding the botex models to include growth expenditure), is a pragmatic one that should now be retained for the Final Determinations.

Estimating growth costs in botex+ models is pragmatic

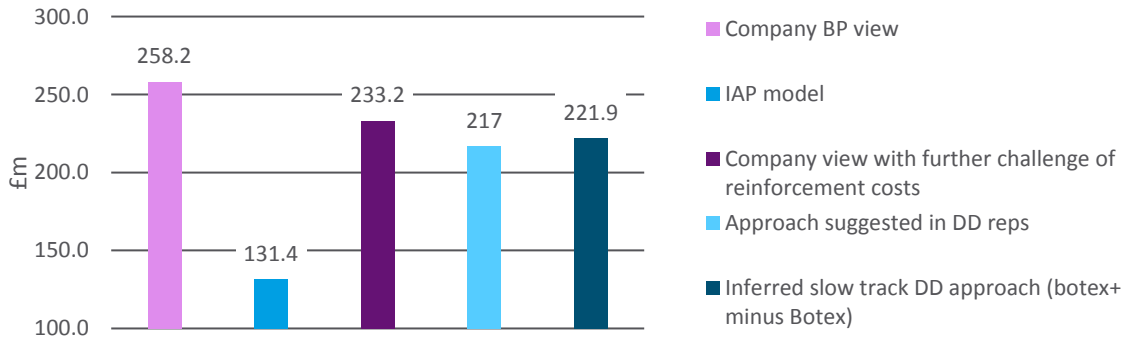
Given the data and time constraints facing the development of a new robust developer services model, the assessment of these growth costs through expanded botex+ models is appropriate and pragmatic.

Assessing developer services expenditure alongside other base expenditure removes the need to make sure that the costs are accurately interpreted and consistently allocated. This is one of the most material barriers to a robust stand-alone developer services cost model and we do not believe that data confidence will improve sufficiently for it to be effectively used in PR19.

In its Cost Assessment Q&A session, Ofwat has stated that it has tested and satisfied itself that the expenditure has similar characteristics to base expenditure which can be explained by similar cost drivers, and that the expanded botex+ models remain robust. In broad terms, and for the purposes of arriving at an approach for PR19, we consider this a reasonable position to adopt. For example, it is reasonable to assume that new development will affect all companies and that on-site activity (new connection and requisitions expenditure) can be considered as broadly scalable – essentially the more connections a company serves, the more new development it can expect. Similarly, increasing costs that may be expected from working on sites in more urban areas should, in part, be accounted for through the density cost drivers.

If the impact of the change from botex to botex+ models is isolated (i.e. by running the slow track DD econometric models but using historic botex rather than botex+ to derive the model coefficients), the implied allowances for developer services look to be more logical. For Severn Trent, the developer services efficiency challenge changes from 49% at the IAP to 14% at slow track DD. While we consider the extent of this deviation still to be significantly higher than would be expected from a more fully developed approach to modelling developer services costs, it nevertheless looks much more realistic than the output of the IAP growth model. Additionally, we note that the slow track DD inferred allowance of £222m converges closely with the alternative approach that we set out in our fast track DD response (£217m, using disaggregated unit costs and separate consideration of AVP transition and strategic network reinforcement schemes - Appendix 1, Section 3.5.2).

Figure: Company forecast Developer services costs and associated modelled approaches



This is also reflected across the sector. The industry wide efficiency challenge derived from the IAP unit cost models moves from 19% to a more logical outperformance of 1.9% when inferred from Botex+. This is also more in line with the Ofwat casework benchmarking that we set out in our DD response (Appendix 1, Developer services annex 2).

It would not be appropriate to make further changes to cost assessment at this stage

We do not consider it would be appropriate to make further changes to the approach taken to developer services cost assessment at this late stage in the price review process. Given the extent of the data and modelling issues associated with the IAP growth model, we consider there to be significant risks associated with developing a new approach to modelling costs. These risks make the transparency of the model development process – in order to allow appropriate challenge and testing – particularly important (and we note that the adoption of a transparent and consultative approach has been key to the effective development of Botex models). We do not think it would be appropriate to introduce new and untested cost models at FD, in what is clearly a challenging assessment area both because of data quality at model design.

We would also urge caution in the consideration of further modifications to Botex modelling at FD in order to seek to better capture developer services costs. The approach adopted in the slow track DDs is clearly a very approximate one, and a number of options could be considered for its improvement. For example, as we highlighted in our IAP submissions and DD representations, there are material differences between companies in terms of the ways in which Asset Value Payments have been accounted for, with this raising significant cost comparability issues (particularly for cost forecasts). Effort could be devoted to seeking to correct for this and such inconsistencies in order to arrive at a refined Botex+ assessment, and in principle this would seem desirable. We would emphasise, however, that identifying an appropriate means of correcting for such issues can itself raise further significant complexities and thus assessment risks. Again, it does not seem appropriate to introducing such changes at the FD stage without there having been adequate opportunities for challenge and testing in what is a difficult area for cost assessment.

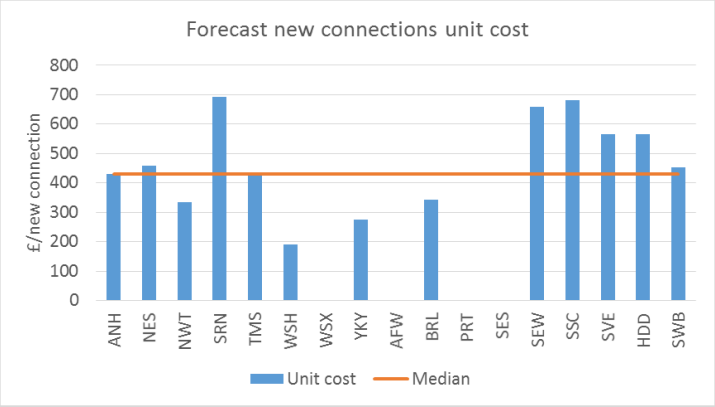
Given the data and modelling difficulties that have been faced, we consider there to be a strong case for collaborative work to be progressed following PR19 with the aim of developing a robust basis for modelling developer services costs for future reviews. Such work might be appropriate for collaborative agencies such as WaterUK.

Annex A: Examples of data issues highlighted in our IAP and fast-track DD responses

Inconsistent treatment of new development costs and volumes

We identified that some companies did not include any new connections capital expenditure in their business plan table (WS2 line 12). We do not consider that it is plausible for a company to forecast no new connections expenditure. Therefore, this suggests that either: costs were presented net of G&C (effectively removing gross costs), categorised as opex, or categorised in another data line.

Figure: New connections expenditure as set out in company business plans



Ofwat has issued several all company queries regarding the treatment of diversions expenditure. As per our responses, diversions are not considered to be part of new development enhancement expenditure. Instead they relate to the movement of existing assets due to the activity of a wide range of stakeholders. This is separate to the connection, growth or expansion of the network as a result of new development. Diversions are considered to be base rather than enhancement expenditure (either: opex – renewals expensed in year, or capex MNI). Therefore, we do not consider that they should be included in developer services enhancement modelling. However, it is not clear if other companies have also followed this approach.

With regards to new connections activity, it is apparent that the classification of new connections also varies. Analysis of new connections, new properties connected, new billed properties, change in total billed properties and change in voids suggests that there is inconsistency in the way in which volumes are reported.

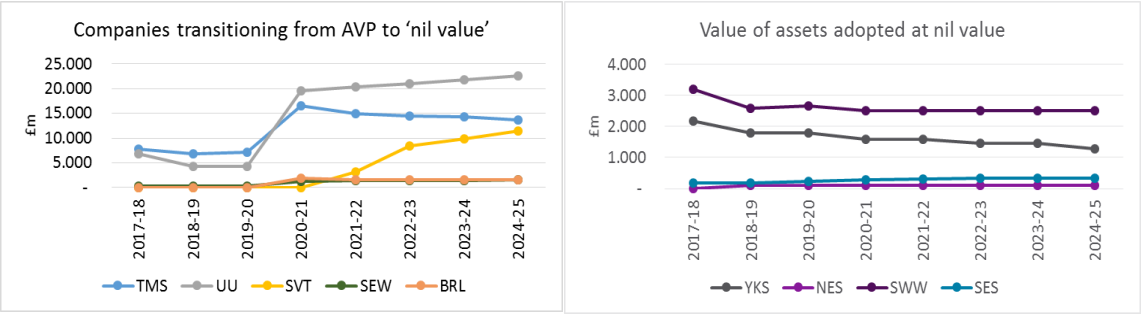
Inconsistent cost and activity data will distort the development of models and any resultant efficiency interpretations that may be derived.

Accounting for Self-lay activity

Identifying self-lay expenditure is both complex and its regulatory treatment has been subject to change. Whilst self-lay penetration will almost certainly vary between companies and over time, it is hard to isolate as companies will continue to provide non-contestable aspects and a component of contestable activity in most cases.

Irrespective of the actual activity incurred, there is variance in the way in which the customer contribution to self-lay activity can be accounted for. We currently make this contribution through the payment of an asset value payment to developer/self-lay providers. Asset value payments are a cost to the company and therefore increase developer services expenditure. However, an alternative is to adopt SLP constructed assets at nil value and instead reimburse developers through an equivalent income offset. Whilst this has no impact on the net customer contribution, it will materially reduce the expenditure companies incur. Given that we anticipate making £44m of asset value payments in AMP6, this has a material impact on developer services expenditure (more than 18% of our developer services costs).

Figure: Accounting of SLP activity as inferred from company business plan submissions



Ofwat's charging rules for English companies stipulate that, for English companies, in AMP7 asset value payments should be phased out in preference for the income offset approach. Reviewing APP28 data across the AMP6/AMP7 transition identifies likely variance in historic and future approaches. As shown in the figures above, companies on the left graph appear to show a step change or transition to adopting assets at net nil value (inferred as moving from AVPs to income offset). Whereas, on the right, this suggests a consistent approach between AMPs (inferred as companies historically using income offset). A further subset of six English companies show no assets adopted at net nil value (inferring either no SLP activity, or a continuation of AVPs from AMP6 into AMP7). This analysis illustrates both the potential for historic developer services expenditure to be materially affected by accounting policies between companies and for future expenditure to be on a different basis to the past. Both issues will affect the predictive capability of any model and the ability to interpret any variance as true inefficiency.

Revenue treatment representation

Summary

We consider that developers are already well protected from being incorrectly charged through a wide range of mechanisms:

- Existing market power - if we set out charges too high we will simply lose market share to SLPs;
- Charging rules – we must maintain the balance of charges between customer and developers;
- Casework challenges (developers can refer us to Ofwat – they will then determine whether or not the charges are appropriate. Note that Ofwat's casework rates do suggest that our DS costs are efficient); and
- The proposed DS volume adjustment mechanism – using an average unit cost – if revenues change solely due to a change in activity any penalty/ windfall will be neutralised.

However, Ofwat is proposing to provide further revenue protections. We are concerned that these proposals will lead to unintended adverse impacts. Our concerns are focused on the way in which developer services revenues are treated in the RFI and cost sharing mechanisms. In our earlier representations, we suggested that differences in developer service revenues should be resolved through an adjustment to the RCV. Our preference remains for an end-of-period adjustment which would minimise the volatility in bills for other customers, but we think that part of the difference could be adjusted through revenue and the remainder through the RCV. We suggest a mechanism for this in section 1.2.3.

Ofwat's approach

Ofwat set out three reasons for removing the separate developer services forecasting incentive mechanism it had proposed, and for including developer services revenue within the scope of the RFI:

1. The move from relying on companies' forecasts of growth for cost assessment to using its own forecasts (drawn from independent sources) has reduced the need for a forecasting incentive for developer services.
2. Including developer services revenue within the scope of the RFI would "create an incentive on companies to continue to engage with developers and forecast developer services demand during 2020-25".
3. "Including developer services in the RFI would address concerns around any potential adverse interaction with the RFI penalty". Some companies, including ourselves, raised concerns that variations in developer services revenues could lead to penalties under the RFI.

Ofwat's developer services forecasting incentive mechanism appeared complex, so some simplification is welcome. However, we do not think it addresses the concerns that we raised and may simply create different adverse interactions from the one it has replaced.

If developer charges must be cost-reflective, they cannot be adjusted because of past over or under-recovery. Charges below cost will be anti-competitive, and charges above cost will distort the market by removing the incumbent as an effective option. Companies will only be able to adjust wholesale charges to regular customers if there is a variance in developer services contributions. This creates undesirable volatility in customer bills and a risk of perverse incentives to avoid charging developers for costs that they should reasonably bear. We identify a simple solution to reducing this risk.

Separately, we also have concerns about the way that developer services income may feature in calculations to implement the totex cost-sharing mechanism. These concerns apply whether or not our suggested RFI refinement is adopted. We discuss this issue further in a separate section.

Concerns with the proposed use of the RFI

We are concerned that Ofwat's proposed RFI arrangements could distort the fair balance of charges to different types of customers, including between current and future customers. It also has the potential to create

unnecessary volatility in charges over time. We briefly summarise our concerns before setting out a targeted way to tackle these risks.

Balance of charges between customers – current, future and developers

A key risk with the approach now proposed by Ofwat for DD is that it could lead to an unfair balance of charges between current and future customers, whilst also altering the balance between households and developers.

Under the DD approach to over- and under-recovery correction, if developer services income is higher than the forecast of developer services income used to set the wholesale revenue control, then the company may need to (temporarily) reduce wholesale tariffs or developer charges by a corresponding amount in two years' time. Similarly, if developer services income is lower than the forecast used to set price control, then the company may need to (temporarily) increase wholesale tariffs or developer charges by a corresponding amount in two years' time.

Developer charges are governed by Ofwat's charging rules, which restrict the freedom of companies to apply discretion in setting its charges to developers. In particular, companies are required to set infrastructure charges such that they cover the cost of network reinforcement (on a five-year rolling basis). Competition law acts as a further constraint, limiting the ability of companies to reduce charges below cost to account for past over-recovery.

These constraints on developer charges mean that, in practice, the company could be left with little choice but to correct for past *or predicted* under- or over-recoveries in developer services revenue by adjusting wholesale tariffs on a temporary basis. In some sense, this is the essence of a single till approach, and reflects the much tighter constraints on the level of companies' developer charges than on the levels of wholesale tariffs (within the overall single till).

However, such adjustments and interactions between developer charges and wholesale tariffs do not make sense from the perspective of a fair balance of wholesale charges between current and future customers.

Developer charges are primarily a contribution to the costs of long-lived infrastructure assets. If developers require more mains, companies will spend more and recover more of this cost from developers. For the company, this is neutral. It seems odd for any instances of developer income in a specific year being higher (lower) than forecast at the price control review to lead to one-off reductions (increases) to wholesale charges two years later. Crucially, the DD revenue control build up already recognises the principle that developer income should only partially offset wholesale tariffs in the 2020-25 period (with the rest acting to reduce the RCV and hence wholesale charges in the future).

It does not appear appropriate for current wholesale tariff customers to benefit from a "windfall" as a consequence of additional developer contributions that are intended to cover the cost of long-life assets (in the context of a price control system that seeks to fund long-life investment through the RCV). Similarly, it does not appear appropriate for current wholesale tariff customers to be required to pay extra in the short term to make up the shortfall in the event of developer contributions being less than forecast.

We do not consider that Ofwat's latest proposals allow for a fair balance of charges between current and future customers, and between developer services customers and wholesale tariff customers.

Excessive volatility in charges

The combination of the single till approach and the combined RFI could also lead to excessive volatility in wholesale charges under Ofwat's DD approach.

If developer services income is higher or lower than the forecast used to set the revenue control, the company may have to adjust wholesale charges to correct for the under- or -over-recovery. Developer services activities have tended to show large year-on-year variations in expenditure and income. Connections-related expenditure and income can be lumpy and the timing of recovery can be difficult to predict. This is particularly true for small companies such as Hafren where the timing of a single large development could easily cause a material swing in revenues. Moreover, company forecasts of developer services income made at the time of business plan

submission (and used to set Ofwat's revenue controls) could become out-of-date and be significantly different from out-turn revenues (particularly in later years of the price control period).

This means that wholesale charges can go up or down by significant amounts each year. It seems odd for variations (compared to forecasts) in expenditure (and revenue) that is mainly related to expenditure on long-life infrastructure to be wholly reflected through changes in wholesale tariffs in one year.

We consider that that Ofwat's latest proposals will lead to unnecessary volatility in charges to customers.

A simple remedy – Refining the RFI treatment of developer services

The concerns we have identified would provide support for considering a move away from a "single till" control to "dual till" control. However, we recognise that at this late stage, such a shift in policy would be difficult to implement well, and that Ofwat's PR19 final methodology was built on a clear preference to apply a single till approach.

We have developed an alternative solution that draws upon the primary features of the Draft Determination, including the policy of a single till, but with a small but important amendment to enable some of the RFI adjustments (relating to developer services) to occur through the RCV. We consider that this amendment is entirely logical and natural, given the way that Ofwat takes account of forecast developer services income in its wholesale revenue control build-up. Retaining the existing approach would maintain an unjustified inconsistency in the way that Ofwat's revenue controls work.

Background: treatment of forecast developer services income in revenue control build-up

Ofwat's broad policy is for wholesale tariff income and income from developer services to form part of a single wholesale control: a single till approach. However, Ofwat's build-up of revenue allowances for wholesale controls for the draft determinations has the effect that forecast developer services income acts partly to reduce the RCV and partly to reduce charges in the same year (through the PAYG element). We believe that this has implications for, and helps guide, the appropriate treatment of developer services income as part of revenue control adjustments for over- and under-recovery.

Ofwat's build-up of wholesale revenue allowances has a feature which seems, at first, rather curious. In its slow-track draft determinations, Ofwat deducts each companies' forecast of income from developer services from gross totex to calculate net totex (part of which is to be recovered in the 2020-25 controls with rest added to the RCV) and subsequently adds back the same forecast of income from developer services to calculate the 2020-25 revenue controls (which cover both income from wholesale tariffs and income from developer services). This has an important effect, compared to a hypothetical counterfactual where the build-up of wholesale revenue controls is based on gross totex estimates and does not make any use of forecast developer services income (an approach which is a simpler way to set a single till control). Ofwat's approach has the effect that a large chunk of forecast developer services income over the 2020-25 period acts to reduce the value of the RCV (with the rest acting to reduce PAYG revenue in-year).

Under Ofwat's wholesale revenue control build up, the proportion of the forecast developer services income for the 2020-25 period acts to reduce the RCV is determined by the PAYG ratio. While we are not persuaded that the PAYG is necessarily the most appropriate way to determine this proportion, the general principle that developer services income should act to offset (or partly offset) the RCV seems sound and highly important. This recognises, for instance, that income from developer charges represent contributions to the costs of long-life infrastructure assets. Ofwat's price control framework seeks to finance the efficient costs of long-life infrastructure through additions to the RCV, and it is entirely logical that developer contributions in respect of those costs should act to reduce the RCV (e.g. by offsetting those additions).

Proposed refinement of the RFI for developer services

As explained above, Ofwat's approach to the build-up of wholesale revenue controls establishes the principle that, under PR19, the forecast of developer services income for the 2020-25 period acts partly to reduce the RCV (which in turn reduces wholesale controls from 2025 onwards).

Our view is that this principle should be recognised, and applied, as part of the approach to the RFI and the treatment of under- and over-recovery of the wholesale revenue controls during each year of the 2020-25 period. This is not the case in Ofwat's non-fast track draft determinations and this issue does not seem to have been recognised in the options considered and assessed as part of the draft determination approach to the treatment of developer services in the RFI.

We outline a potential approach below, which recognises and applies the important principle above. It assumes that the wholesale revenue control build-up is as for the non-fast track draft determinations, including the use of forecast income from developer services (which is deducted from gross totex to calculate net totex and then added back to calculate wholesale revenue allowances).

Potential approach to reconciling variances in developer services revenues	
1.	For each year of the control period, the difference between outturn developer services income and the forecast income should be calculated.
2.	Any difference identified should feed into an adjustment to revenue controls in two years' time, under the RFI. But adjustment for over- and under-recovery should not be applied 100% to the wholesale revenue allowance. Instead, in line with the principle above, only part of the adjustment should be made, to the wholesale revenue allowance and the remainder should adjust the RCV. For instance, if a company's developer services income is higher than the forecast used by Ofwat to calculate the wholesale controls, there should be a deduction to the wholesale revenue control in two years' time and also a deduction to the RCV.
3.	The proportion of income for variations in developer services that affects the RCV (rather than the revenue allowance) could be based on the proportion of developer service income underpinning the wholesale revenue control build up – currently the PAYG rate. However, instead of the broader PAYG figure, we also see an argument for a figure that is more tailored to the treatment of developer services income, (e.g. reflecting the proportion of developer services income that, under the developer charges rules, covers capex versus opex, which might suggest a higher proportion of the difference affecting the RCV).
Implementation	It would be pragmatic to first calculate the full value of over- or under-recovery against the wholesale control (which covers wholesale tariff income and developer services income) using the RFI. Then deduct from this, the amount of any variation in developer services income that is intended to feed through the RCV – calculated as the absolute value of the variation identified in step 1 multiplied by the proportion from step 3. The identified RCV component could instead be applied as midnight adjustments as part of the PR24 price control implementation, in line with Ofwat's broader approach to RCV adjustments arising from PR19 reconciliation.

Key benefits

This is an outline approach, but seems entirely feasible and brings several benefits:

- It addresses the inconsistency between the treatment of developer services income in the wholesale control build up and in the RFI.
- It provides for a fairer balance of charges between current and future customers.
- The wholesale control in the 2020-25 period would be less sensitive to variations in developer services income. This should, in turn, reduce scope for volatility in developer charges, wholesale tariffs or both.

This approach concerns the element of the RFI that makes adjustments for over- and under-recovery against revenue controls, leaving aside whether any penalties apply. We briefly comment on penalties further below.

Exemptions from RFI penalties for variations in developer services income

It is not desirable for aspects of developer charges, such as infrastructure charges (and the income offsets applied to these) to be volatile and unpredictable. This is especially so given that individual developers are not necessarily repeat customers buying the same service in the same amount each year – higher charges to a customer in one year will not necessarily be offset by lower charges in subsequent years.

The potential variation in developer charges is largely constrained by developer charging rules but - to the extent that companies have discretion - the price control framework should not encourage volatility in infrastructure charges. However, the position Ofwat sets out in the non-fast track draft determinations could encourage volatility. The refinement of the RFI we suggest above reduces, but does not fully address, this issue.

In these circumstances, we recommend an explicit exemption from any penalty under the RFI if the company can provide assurance that the deviation between allowed wholesale revenue and actual wholesale revenue (covering tariff income and developer charges) was due to measures taken by the company to avoid undue volatility in developer charges. This would add clarity to Ofwat's stated position in the non-fast track draft determinations that: "if there was a significant difference between actual and allowed developer services revenue then, potentially, we could apply discretion in applying a penalty under the RFI".

Impact of developer services revenues on the totex cost-sharing mechanism

Ofwat has not yet specified exactly how the PR19 totex cost-sharing mechanism will be implemented. This is complex, especially due to interactions with the Developer Services volume true-up mechanism.

We are concerned about an approach in which the cost-sharing mechanism will be dependent on the outturn level of developer services income. We see two material problems:

- Differences in developer services income versus FD forecast/assumption would be adjusted for twice as part of the price control framework, once through the RFI and once through the totex cost-sharing mechanism. We see no logical basis for this, and it acts to undermine the intended role of the RFI.
- Risks of perverse financial incentives on companies' charges: if a company under-charges developers it would be expected to recover the full amount through the RFI adjustments and then be entitled to recover c. 50% of this through the totex cost-sharing reconciliation adjustments at PR24. The incentives on companies to under-charge would be especially acute because the company would face a significant financial downside if its outturn developer services income is higher than its forecast. We do not consider these effects reasonable or consistent with Ofwat's intended policy.

These issues apply regardless of whether the amendment we propose to the RFI is implemented. They could be mitigated if the totex cost-sharing mechanism was applied on the basis of gross totex (i.e. outturn gross totex versus FD gross totex assumption), or if the mechanism otherwise excludes the use of outturn developer services income in the calculation.

4.4 Wastewater investment

We are providing more information in response to the DD section on NEP uncertainty. We accept the intervention but some of the assumptions are incorrect. Given this document is likely to form the basis of monitoring throughout AMP7 it is important that it is correct.

4.4.1 Wastewater NEP - investigations

We note that you have included three investigations within the uncertainty mechanism. With reference section 3.3 of Ofwat's Appendix 11 – Cost efficiency FM we question if the investigations should be removed:

"Unless it is relatively trivial (for example, the cost of some investigations), expenditure against unconfirmed requirements will need to be linked to an outcome and a unit cost. "

We consider the £12k per investigation would be classed as trivial and should therefore be removed from the mechanism.

We think there may have been a misunderstanding on the number of investigations. We are doing 8 in total. They are listed below.

Unique ID	Scheme Name/Name of Discharge/Investigation	Status
7CST0114	LADYWELL CULVERT (NEWTOWN - SHORTBRIDGE STREET CSO)	Green
7CST0121	LONG BRIDGE - OUTLET 3 (LLANIDLOES - SHORTBRIDGE STREET CSO)	Green
7CST0128	PENYBONTFAWR (CARNO CSO)	Green
7CST0130	PENYBONTFAWR (LLANFAIR CAEREINION RAILWAY STN (CSO)	Green
7CST0131	PENYBONTFAWR (LLANFYLLIN - FFORDD Y CAIN CSO)	Green
7CST0137	An investigation into scales and types of habitats on DVW/STW owned land, including SSSIs & incorporating an audit of Section 7 priority species on major operational sites.	Amber
7CST0139	EDM Investigations	Amber
7CST0142	INNS surveillance and risks analysis on DVW/STW assets (pathway assessment)	Amber

4.5 Updated expenditure tables

We have provided updated data tables for WS1, WS2, WWS1, WWS2 and R1 and R4.

We have updated for APR 18/19 because it is not a direct overwrite with the APR data for HD. This is because of the timing of the licence change and the APR is made up of Q1 on old licence boundary, which for water means it represents the former DVW boundary and for waste is zero.

In line with the Ofwat guidance we have resubmitted the following expenditure related tables:

Table number	Table description	Required for
WS1	Wholesale water operating and capital expenditure by business unit	All companies
WS2	Wholesale water capital and operating enhancement expenditure by purpose	All companies
WWS1	Wholesale wastewater operating and capital expenditure by business unit	Wastewater companies

WWS2	Wholesale wastewater capital and operating enhancement expenditure by purpose	Wastewater companies
R1	Residential retail	All companies
R4	Business retail ~ Welsh companies	Dŵr Cymru and Hafren Dyfrdwy
APP26*	RoRE Scenarios - As set out in the risk and return actions and interventions tracker we expect all companies to resubmit App26.	All companies

*Commentary for App26 is in chapter 1 risk and return

In all cases the data is largely unchanged from the April 2019 submission. We have provided updates to ensure alignment with the latest reported data from the following submission documents:

- 18/19 APR
- July PR19 reconciliation tables

We note Ofwat's intention to overwrite the 18/19 forecasts with the APR data and view that companies are therefore not required to update the tables. We have updated the tables for two reasons:

1. There are some very large exceptional items in the 18/19 APR that need to be removed when comparing past and future forecasts
2. 18/19 is a transitional year for HDD, which means the APR is based on April- June under the previous licence conditions (and therefore the APR represents the former DVW) and July – March as HDD. For the water service no adjustment has been made as expenditure in Chester broadly equals expenditure in Powys (where this is not the case it is noted by exception below). For waste service it means the expenditure does not represent a full year's operation, therefore we have uplifted to be representative of a full year.

WS1

18/19: We have updated the PR19 forecasts to represent the actual performance, as submitted in table 4J of the APR. It is important to note the large exceptional item which is a one off adjustment relating to the transferred assets as part of the boundary realignment. Actual total expenditure (excluding exception items) is within 1% of the PR19 forecast for 18/19.

At individual line level and between sub-controls there are some notable differences between the PR19 forecast and actual. We have reviewed all differences greater than 10% to understand if there is a need to update the AMP7 forecasts. We set out the key findings below:

Line reference	Reason for variance (between forecast and actual)	Implications for AMP7 forecasts?
L1: Power	At total level <10% variance, but some differences at sub control level. This is partly because of the Q1/ Q2-4 split which does change the mix.	Likely that the sub control forecasts aren't quite right but we haven't updated the splits for two reasons: 1. At Price control level they are in line 2. The lack of history and only a partial years data makes it difficult to update with confidence
L2: Income treated as negative expenditure	The variance is partly due to the Q1 income from the assets in Powys (which represent >50% of the total income)	No updates made

L4: Bulk supply	At total level<10% variance but significant differences at sub control level.	No updates made for two reasons: 1. At price control level they are in line 2. During 19/20 we are installing bulk supply meters to allow accurate reporting, there is limited value in updating with assumed values which are likely to change again once monitors have been installed.
L5-7: Other opex	We have done a slightly different balance of activity compared to the forecast which accounts for the difference between these lines. The combined total is lower than the BP forecasts because the BP is based on a full year as HD.	No change - Given the mains length in Powys is c50% greater than Chester we would expect the expenditure to be greater in AMP7.
L13-L15: capex	At a total level variance is <10%. The individual line variance is because we have done a slightly different mix of activity	
L16: Infrastructure network reinforcement	This is extremely lumpy activity for HD and the BP forecast was based on a 5 year average, equally spread across the AMP. In any one year this is likely to be wrong. In 18/19 there was minimal activity which is why the BP forecast looks higher	No changes made. We don't have any better information to use to improve the profiling across the AMP or to update the forecast.
L23: pension deficit recovery payments	18/19 was an atypical year which is explained in the APR.	We are not expecting the forecast to change from zero in AMP7.

19/20: We provided updates to 19/20 total expenditure in the July reconciliation submission which included some minor changes to the forecasts that were provided in the April resubmission. We have updated lines 10 and 13 to reflect the slight reduction in forecast third party costs and slight increase in maintenance NI. The first reflects better information from which to forecast, the later results from increased investment needs and some cost pressures on capital schemes. Neither of which change the AMP7 forecasts.

WS2

We have made minor updates to ensure consistency with WS1. The key changes are:

Line reference	Reason for variance (between forecast and actual)	Implications for AMP7 forecasts?
L2: NEP eels	The forecast was based on carrying out design and investigations on the AMP7 Eels obligation. This activity is now planned for 19/20 but has been reduced to just cover outline design.	19/20 updated, but no change for AMP7.
L4: low pressure	The BP forecast was based on the estimated number of loggers needed to get sufficient coverage across the network. We needed to increase the number of loggers and have therefore increased cost by £32k.	No impact on AMP7 forecast of zero as all costs to deliver improvement is considered to be part of base expenditure as there is no change in the legislation.

L6: Meeting lead standard	The BP forecast was based on optimisation of the orthophosphoric dosing plant, but the recent study showed this was already optimised, so the only expenditure incurred was in the distribution business unit.	No impact on AMP7 forecast – all of which is forecast in distribution business unit. The 19/20 forecast has been updated to reallocate from water treatment to water distribution as there is unlikely to be any enhancement activity at the works.
L10: SDB (demand side annual average)	The actual is higher than the BP because we hadn't included the increase cost to install meters needed for leakage and PCC reporting	No impact on AMP7 forecasts
L12 new connections	The BP forecast is based on an average therefore we would expect to see variance in any one given year.	No impact on AMP7, we don't have any better information from which to update our forecasts.
L14: Resilience	Actual expenditure is higher than the BP forecast due to the additional activity we have been doing to improve supply interruptions performance.	No impact on AMP7 forecasts.
L15: SEMD	Actual expenditure is higher than the BP forecast as a result of enhancements made to security identified as part of the licence change.	No impact on AMP7 forecasts

AMP7: We haven't made any changes to the forecast costs from the April submission.

WWS1

18/19: As described above the APR represents 9 months expenditure due to the licence change taking effect from 1 July. Therefore overwriting the BP forecasts with the APR data underestimates a full year and creates a discontinuity between historical and forecast data. Therefore, we have updated table WWS1 by prorating the expenditure (stated in APR table 4k) to be equivalent to a full year. It is important to note the large exceptional item which is a one off adjustment relating to the transferred assets as part of the boundary realignment. Assumed actual total expenditure (excluding exception items) is within 10% of the PR19 forecast for 18/19.

At individual line level and between sub-controls there are some notable differences between the PR19 forecast and actual. We have reviewed all differences greater than 10% to understand if there is a need to update the AMP7 forecasts. We set out the key findings below:

Line reference	Reason for variance (between forecast and actual)	Implications for AMP7 forecasts?
L1: Power	Forecasts were based on prorated data from Severn Trent. Actuals likely to be more accurate, but only represent three quarters of a year.	Possible that the forecasts aren't quite right but we haven't updated them for two reasons: 1. At Price control level they are in line 2. The lack of history and only a partial years data makes it difficult to update with confidence
L4: Bulk supply	Forecasts were based on an estimate.	No updates made because we don't have sufficient data - during 19/20 we are installing bulk supply meters to allow accurate reporting, there is limited value in updating with assumed values which are likely to change again once monitors have been installed.

L5-7: Other opex	The combined total has less than 2% variance. We have done a slightly different balance of activity compared to the BP forecast.	No change to AMP7 forecasts
L13-L15: capex	Actual spend is lower than the BP forecast. This is as a result of delays to a large scheme (Manafon)	No change to AMP7 forecasts

19/20: We provided updates to 19/20 total expenditure in the July reconciliation submission which included some minor changes to the forecasts that were provided in the April resubmission. We have updated lines 10 and 13 to reflect the slight increase in forecast third party costs and slight increase in maintenance NI. The first reflects better information from which to forecast, the later results from the delays from a scheme which was planned for 18/19. Neither of which change the AMP7 forecasts.

WWS2

We have made very minor updates to ensure consistency with WS1. We have also added an additional line (31) Pollution control strategy. This relates to activity in Powys that is driven by a wider Severn Trent enhancement programme.

AMP7: We haven't made any changes to the forecast costs from the April submission.

R1

We have updated the PR19 forecasts to represent the actual performance, as submitted in table 4F of the APR. At a total level actual expenditure is 6% higher than the business plan forecast. This is predominantly as a result of increase costs associated with the licence transfer. Both increased opex as a result of the additional activity to deal with issues arising as we carried out the first main billing period and increased depreciation as a result of the IT system upgrades as part of the licence transfer.

There are some material variances (in % terms) between the measured and unmeasured customers and then within the service types (water only/ waste only/ combined). The main reason for the variance is because the business plan was based on top down splits between DVW (England/ Wales) and SVT (England/ Wales) the 18/19 APR is the first year we have captured costs at sufficient granularity to enable reporting at this level.

- The reason for variance on household unmeasured is that the BP forecasts were apportioned based on the DVW APR 17/18 split. We have since updated for the APR19 to reflect HD.
- The most variance can be seen on the waste only costs. This is because the absolute values are lower so any changes are more noticeable (in % terms). At the time of producing the September plan we used an estimate of 7 % of customers are unmeasured, waste only. We have since updated this and the actual proportion is 3%.
- Capital Expenditure (line 15) – the large expenditure in 18/19 relates to the integration cost of migrating all of the customer data into the corporate system. This cost was erroneously omitted from the BP submission. These costs do not affect the forecast costs.

The changes that we have reflected in the 18/19 data will have an impact on the splits between the categories across future years. However we have elected not to update the 19/20 – 24/25 costs. This is because the totals remain the same and therefore don't change our plan at a price control level. We are also concerned that the 18/19 data is not a full year of HD costs (as the licence change took effect from 1st July), therefore the updated values may also need further correction. Given the Ofwat models use historical costs only, we did not think it was necessary to re-profile the totals between the customer categories.

We have also updated Line 16 Household connected with the updated R9 submission

R4

We have updated table R4 in line with the query response IAP_CA_009 and associated commentary. This included updates to pension deficit repair costs and updates to tariff band 1 to 6. We have also updated to align with APR19 reported data for completeness.

No updates have been made to the number of NHH customers

4.6 HDD Developer Services data submission

4.6.1 General principles

Data assumptions and interpretations

A significant amount of the data included in this submission relates to information not previously included in regulatory submissions. It is also not typically collected or used in our day to day management of developer services activity. Therefore, we have had to make interpretations regarding the information actually required. This has been further compounded by the recent provision of further guidance and a reissue of the required submission tables. Together with the limited time period available to collect and validate this new data, we have necessarily had to follow a top down approach which has required the use of a significant number of material assumptions.

We have found that the required data is typically, either: hard to easily extract from our systems, or is not currently collected in the required format. In both cases, this has meant that we have had to calculate rather than extract a significant number of the lines using high level assumptions. We have tested our assumptions and interpretations with Jacobs, our external assurance partner. This was a useful exercise which provides us with confidence in the approach we have taken. However, this review covered our approach rather than acted as a challenge of the actual data submitted – in large part due to the fact that this occurred prior to the release of the updated data request.

Given the current level of data maturity, we have set out our concerns on the use of this data for the purposes of assessing efficient costs in our developer services representation.

Company boundaries

Data tables have been populated on the basis that 2011/2012 to 2017/2018 reflect the previous DVW boundary. Whereas, 2018/2019 to 2024/2025 reflects the current HDD boundary. This means that we have not submitted waste water data for 2011/2012 to 2017/2018. We have followed this approach for two reasons:

- It removes the need to make further high level assumptions that would be necessary in order to move data between company boundaries. We considered that these additional assumptions would further dilute the usefulness of the data.
- The data will show the cost and activity against the company boundaries in which they were incurred. Using hypothetical company performance will not provide robust information on the interaction between cost and cost drivers.

4.6.2 Water table commentary

Water Section A – Diversions expenditure and income

Lines 1 to 8 – Diversions expenditure and revenue by type

Our interpretation of what should be included in these data lines

Diversions expenditure relate to the movement of existing assets due to the activity of a wide range of stakeholders (for example: housing developers, house owners, and rail/road authorities). This is separate to the connection, growth or expansion of the network as a result of new development. Diversions are considered to be base/maintenance rather than enhancement expenditure and reported in WS1, line 5. Therefore, expenditure included in these lines is additional to the developer services enhancement expenditure that was submitted in business plans in WS2. The disaggregation between the three lines relates to the legislative basis for the activity. Whilst diversions expenditure broadly relates to diversions income, it is not likely to perfectly reconcile. Some diversions are subject to partial recovery (to reflect 'betterment' of the assets). Also, the timing of costs and revenues relating to large projects can vary across a number of years.

Approach and assumptions used to collect data

The AMP7 information reported here uses the same logic as set out in our response to query HDD-DD-CE-001. This set out diversions revenue driven by NRSWA and non-NRSWA (i.e. s185) drivers. The division of s185 and NRSWA within our total diversions revenue forecasts uses the ratio identified from historic data – namely that 43% of diversions revenues relate to NRSWA.

The query also set out a change to the categorisation of revenues in APP28 of the 2018 Business plans by removing the erroneous inclusion of revenues relating to HS2. This means that there are no costs and revenues reported in lines 3 and 7.

Associated AMP7 costs for these forecast revenues are also derived from the HDD-DD-CE-001 query response. This top down analysis assumed that 82% of NRSWA costs are recoverable from the relevant third party. This is to reflect betterment and is set out in the relevant legislation. The remaining s185 costs are shown to be fully recovered.

For the 2018-19 and 19-20 costs and revenues in this submission, we have used the same assumptions as for AMP7 in query HDD-DD-CE-001 (described above). This uses the same splits of revenues and cost recovery rates as per the query data.

For the 2011-12 to 2017-18 data, we have not been able to identify appropriate data for DVW given the limited time available and complexity of extracting the specific information historic systems. For line 1, we have derived values submitted here using the average ratio of SVT expenditure to new connections for 2011-12 to 2017-18 then multiplying by DVW new connections. This assumes that new connections are a proxy for development incurred diversions and that the unit costs were analogous between DVW and SVT. For line 2, we have derived values using the average ratio of SVT expenditure to network mains length for 2011-12 to 2017-18 then multiplying by DVW mains length. This assumes that network mains length is a proxy for the occurrence of new national infrastructure incurred diversions and that the unit costs were analogous between DVW and SVT. The associated revenues have then been calculated using the same recovery assumptions for s185 and NRSWA as per AMP7 for HDD.

Water Section B – Connections volume data

Lines 9 and 10 – New connections

Our interpretation of what should be included in these data lines

New connections are the number of separate connections that are made to a requisitioned main or the existing network (where a requisition is not required). New connections and new properties are often considered interchangeably. However, the volumes will vary where several new properties are supplied by one new connection. This would likely be the case for apartments and blocks of flats.

Approach and assumptions used to collect data

Data has been collated from the following previous data submissions:

- 2011/12 to 2016/17: 2017 cost assessment information request line 12 and 13
- 2017/18: 2018 APR 4Q.13 and 14
- 2018/19 to 2024/2025: 2018 Business Plan App28 line 1 and 2

Note that the volumes shown in 2011/2012 to 2017/2018 are not consistent with PR19 table App28. This is a result of the differing company boundaries assumed. The business plan table assumes the current company boundaries (SVE and HDD) forecasted into the past. As noted above, this data submission includes data in accordance with the company boundaries of the relevant year. This is to make sure that costs and activity are compared consistently without adding further unnecessary assumptions.

Line 12 – NAV new connections

Our interpretation of what should be included in these data lines

NAV new connections are the number of separate connections that provides a bulk supply to a NAV site. It is not the number of individual connections which are provided by the NAV.

Approach and assumptions used to collect data

We have no records of historic NAV connections within the DVW region and we are not aware of any enquiries into future connections within the HDD region. Consequently this line has been populated with zero.

In general NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey in profile. It is therefore difficult to populate a forecast. If we were to have connections in this region this data would be reliant on NAVs informing us within a timely manner of properties they have connected.

Lines 14 to 16 – New connections (split by the organisations completing the activity)

Our interpretation of what should be included in these data lines

We interpret these lines as relating to the number of new connections categorised by the organisation that has delivered the contestable new development activity. We have assumed that the contestable new development activity will include all contestable requisitions and new connections activity.

Approach and assumptions used to collect data

In practice, where SLPs deliver the new connections activity, they also deliver the on-site requisitions activity. Without doing both activities, there is not likely to be the necessary economies of scale to make the activity attractive to SLPs. In such cases, incumbent companies are typically only asked to carry out the contestable

offsite requisitions (normally short lengths of main across a road and therefore unattractive for SLPs). Consequently, where SLPs are carrying out activity on sites, it is logical that SLPs will complete 75%+ of the activity in the majority of cases. This means that we have assumed that the three lines will have the following attributes:

- Line 14 (SLPs deliver more than 75% of contestable activity) – SLPs deliver on-site new connections and requisitions activity. Incumbent company either, delivers no activity, or delivers the off-site contestable requisitions that is less than 25% of the total mains laying activity for the new development scheme.
- Line 15 (SLPs deliver between 25% and 75% of contestable activity) – SLPs deliver on-site new connections and requisitions activity. Incumbent company delivers the off-site contestable requisitions which are more than 25% of the total mains laying activity for the new development scheme.
- Line 16 (SLPs deliver less than 25% of contestable activity) – Incumbent companies deliver all new connections and requisitions activity. Therefore, in reality this will also mean that SPL deliver 0% contestable activity.

We have calculated these lines by splitting up the total new connections data (line 11) using two analyses.

Firstly, on a sample basis, we have calculated the proportion of new connections where we deliver all contestable activity. This has been completed using monthly reported connections data for 2017/2018 and 2018/2019. This data is for SVT/SVE connections and not DVW/HDD as the SVT/SVE data better reflects typical or average activity splits between connections made by the incumbent company and those made by self-lay providers. DVW/HDD volumes are so small that the split of activity could swing significantly in either direction depending on just a few schemes within each year therefore a broader average seemed a more appropriate and representative approach. The data shows that the incumbent company typically delivers all new development activity for 53% of new connections. This is used to populate line 16.

Secondly, again on a sample basis, we have separately calculated the proportion schemes with SLP activity where off-site contestable requisitions completed by the company is greater than 25% of the total scheme mains laying activity. For this analysis, activity is considered to be length of main i.e. when the length of off-site contestable main is greater than 25% of total mains length. We have used a dataset of scheme by scheme requisitions data from 2014-15 to present that we use for setting charges. This includes 97 new development schemes (relating to 9749 plots) that included SPL activity. Of these schemes, 9 (relating to 1831 plots) have company incurred offsite contestable requisitions length that are greater than 25% of the total schemes requisition length. Therefore, we infer that 18.7% of new connections with SLP activity are also likely to have more than 25% of activity completed by ourselves. This subsequent split (18.7%/81.3%) is then applied to the remaining 47% of new connections where SLPs provide new development activity to derive values for lines 14 and 15.

Water Section C – Properties volume data

Lines 18 and 19 – New properties

Our interpretation of what should be included in these data lines

New properties are the number new customers (bill payers) that will result from new development. New connections and new properties are often considered interchangeably. However, the volumes will vary where several new properties are supplied by one new connections. This would likely be the case for apartments and blocks of flats i.e. a block of flats would be served by one connection but would have multiple properties.

Approach and assumptions used to collect data

Data has been collated from the following previous data submissions:

- 2011/2012 to 2017/2018. Inferred using the ratio of water properties to water connections (1.19) identified in the May Developer Services query response (HDD-DD-CE-002). The ratio is then applied to new connections volumes
- 2018/2019 to 2024/2025. May Developer Services query response (HDD-DD-CE-002) lines 21 and 22. These, in turn reconcile to the band totals from PR19 table APP28 Section I

Lines 21 and 22 – NAV new properties

Our interpretation of what should be included in these data lines

NAV new properties are the number of individual connected properties which are made and served by the NAV (inconsistent with the approach to line 12).

Approach and assumptions used to collect data

As within line 12 we have no records of historic NAV connected properties within the DVW region and we are not aware of any enquiries into future schemes within the HDD region. Consequently this line has been populated with zero.

In general NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey in profile. It is therefore difficult to populate a forecast. If we were to have connections in this region this data would be reliant on NAVs informing us within a timely manner of properties they have connected.

Lines 25 to 27 – New properties (split by the organisations completing the activity)

Our interpretation of what should be included in these data lines

We assume that these lines are analogous to lines 14, 15 and 16 except that the split of contestable new development activity is spread amongst new development volumes rather than new connections volumes. See above for the logic and assumptions used.

Approach and assumptions used to collect data

The same approach has been used here as for lines 14, 15 and 16. Whereby:

- Line 27 (Contestable new development activity delivered by companies) equates to 53% of line 20 (total new properties).
- Line 25 (More than 75% of contestable new development delivered by SLPs) equates to 81.3% of the remaining properties not included in line 27.
- Line 26 (Between 25% and 75% of contestable new development delivered by SLPs) equates to 18.7% of the remaining properties not included in line 27.

See above for the basis of these calculations.

Water Section D – Total cost of contestable activities

Lines 29 to 31 –Contestable new development expenditure incurred by the company

Our interpretation of what should be included in these data lines

Lines 29 to 31 relate to direct contestable new development expenditure incurred by the company.

These costs are then allocated based on the size of our contestable activity relative to the total contestable activity incurred to deliver each new connection (i.e. contestable activity incurred by both the company and the SLP/developer).

For the avoidance of doubt, we have set out in the table below the costs that we have included (and excluded) in lines 29 to 31.

Included in direct contestable expenditure (lines 29-31)	Not included
• **New connections expenditure.** This includes the communication pipe, the stop tap, the meter and physical connections of the communication pipe to the new requisition main. • **Onsite requisitions expenditure.** The laying of new mains on development sites. • **Off-site requisitions expenditure.** The laying of new mains from the existing network to the development site boundary. • **Administrative costs** incurred by the company when SPLs/developers undertake any of the above activity.	• **Costs incurred by SLPs/developers.** • **Asset value payments.** Payments made to SLPs/developers as a customer contribution towards any requisitions activity that they deliver. These are presented separately in lines 32 to 34. Similarly to direct contestable costs, they are also allocated based on the proportion of total contestable activity delivery by the company. • **The source of water connection.** This is the physical connection of new requisition mains to the existing network. This activity must be carried out by the company and is therefore non-contestable. • **Off-site network reinforcement.** This is the upsizing of existing network assets required to maintain the existing level of service to customers following the additional demand placed by the new development. This activity must be carried out by the company and is therefore non-contestable.

The exclusion of non-contestable network reinforcement and source of water connection expenditure means that line 35 of this submission will not reconcile with total new development expenditure submitted in the business plan (WS2, lines 11 and 12). However, using the two submissions together, each component of cost can be identified.

- New connections expenditure = WS2, line 12
- Requisitions expenditure (excluding non-contestable source of water connection) = this submission, line 35 *minus* WS2, line 12
- Source of water connection = WS2, line 11 *plus* WS2, line 12 *minus* APP28, line 6 *minus* this submission, line 35
- Network reinforcement expenditure = APP28 line 6

Historic network reinforcement, new development and new connections cost data is consistent with the cost assessment information request in May 2017. We have recognised that there are some inconsistencies between the reporting of new development and network reinforcement for DVW such that network reinforcement (a component of new development costs) is larger in some cases than new development. The requisition information between 2011/2012 and 2016/2017 within this submission is consistent with the new development costs within the cost assessment information request in May 2017.

Approach and assumptions used to collect data

Calculating this information is complex and requires a series of sequential calculations with attendant assumptions. For each line, new connections expenditure and contestable requisitions expenditure have been identified separately and then added together.

As set out in the description of our approach to calculating lines 14 to 16, where SLPs undertake contestable activity, they will seek to deliver all of the on-site activity. We are not aware of examples where the SLPs deliver new connections work but not the on-site requisitions work (or vice-versa). Consequently, regarding lines 29 and 30 (i.e. where SLPs are delivering on-site activity), our costs will reflect only: the new connections administrative costs incurred by our self-lay team, and off-site requisitions expenditure. Given the relative sizes of these new connections and requisitions costs, their allocation between lines 29 and 30 is driven entirely by whether or not the off-site requisition is sufficiently large to account for more than 25% of the total mains laying activity for the scheme. This is the case in 18.7% of schemes. The basis for this calculation is set out for lines 15 and 16 above.

Conversely, we assume that line 31 will be equal to the contestable costs we have incurred when we deliver all new development activity. This is the cost of making new connections, on-site requisitions and off-site requisitions.

To identify the cost of administrating SLP new connections, we have used a sample from 2018/19 and 19/20. This sample is for SVT/SVE schemes and not DVW/HDD as we have a larger (and hence more robust) dataset to analyse for SVT/SVE and the SVT/SVE data better reflects typical or average activity. DVW/HDD volumes are so small that the split of activity could swing significantly in either direction depending on just a few schemes within each year therefore a broader average seemed a more appropriate and representative approach This has identified that SLP administration costs are 3.9% of total new connections costs. Consequently, 96.1% of new connections costs are allocated to line 31. Whereas, 3.9% are allocated to lines 29 and 30 – using the above 18.7%:81.3% apportionment.

For requisitions, we have used the SVT/SVE scheme by scheme requisitions data sample (as also used in lines 14-16, above) to remove the non-contestable source of water costs, and then expose the proportion of total requisitions expenditure we incur when the SLP has delivered the on-site requisition. The average cost of a source of water connection has been calculated by filtering the dataset for schemes with less than 2m of mains connection. In these cases we can assume that the costs will relate only to the source of water connection. This gives an average source of water connection cost of £4,086 per scheme. Assuming all source of water connections are equal, when multiplied up across the full dataset, we can infer that 19.8% of the total requisitions costs incurred by the company are non-contestable. Of the remaining 80.2% (contestable activity), 8.9% are incurred on schemes where the SLPs deliver the on-site requisitions and 71.3% on schemes delivered by the company. Therefore, we have apportioned 71.3% of total requisitions expenditure to line 31. Whereas, 8.9% is allocated to lines 29 and 30 – using the above 18.7%:81.3% apportionment.

Line 32 to 34 – Asset Value Payments

Our interpretation of what should be included in this data line

Asset value payments are physical payments made by companies to SLPs/Developers to reflect the requisitions activity that they have undertaken. They were historically calculated based on 12 years of revenue anticipated from the connections that have been made. They effectively drive the contestable market where SLPs can outperform these values. Total asset value payments have then been allocated in accordance with the split of contestable activity as set out above.

The changes to the charging rules[1] in England do not apply to Wales at this stage and therefore HDD will continue to pay asset payments.

Approach and assumptions used to collect data

2018/2019 to 2024/2025 are consistent with the data populated in line 8 of the May Developer Services query response (HDD-DD-CE-002). We have not used 2015/2016 to 2017/2019 data from the same query as this reflected the new boundaries.

We do not have data readily available for 2011/2012 to 2014/2015 therefore these years have been populated using assumptions. We have used the known values for network reinforcement, asset payments and new developments from 2018/2019 onwards to establish the proportion of total spend that asset payments and requisitions account for. These averages have been used against the known new developments costs from 2011/2012 to 2014/2015 to establish the asset payments and requisitions costs.

After the total asset value payments had been identified, they were then allocated based on the proportion of contestable work as set out for lines 14 to 16. As set out above, in practice, there will be no contestable activity delivered by SLPs in line 16. This means that no AVPs should be recorded against line 34. Therefore, we have allocated the total AVPs to lines 32 and 33 based on the ratio of lines 14 and 15.

Water Section E – App28 data

Lines 36 to 38 – Infrastructure and requisitions charges and adjustments

Our interpretation of what should be included in this data line

These lines relate to some of the revenue charges through which we recover developer services expenditure. The final developer services charge not included here is the connections charge as submitted in APP28, line 7.

Income offset is a way making a customer contribution to developer services activity based on future revenues that are likely to be generated as a result of new development. Income offset is applied against the requisition charge and will continue to be applied in this way for Welsh companies until the rules change.

Approach and assumptions used to collect data

For lines 36 and 37, our approach follows the approach shown in APP28 for years 2018/2019 to 2024/2025. We have not used data shown in APP28 prior to 2018/2019 because of the boundary differences.

For lines 36 and 37 for years 2015/2016 to 2017/2018 we used previously submitted data which align to APR table 2E.

For years 2011/2012 to 2014/2015 we used an assumption to populate line 37 based on typical income recovery (after income offset) of 10% of requisition costs. Line 36 was populated using known years as a baseline to derive average infrastructure income and applying a ratio approach to water connection volumes.

For line 38, we have updated the approach followed in APP28. We have historically applied income offset to the requisitions charge to reflect a customer contribution for the requisitions activity that we incurred. This premise remains valid. The value of the income offset was calculated to be 90% of incurred requisition cost (excluding asset payments) based on five years of historic mains scheme information. 90% is an approach used within our charging framework and is published within our Charging Arrangement document. Unlike for English companies the rule changes to income offset and asset payments will not apply from 2020/2021, therefore we will not see a like for like switch from AVPs driving an increased income offset in AMP7.

[1] 'Charges scheme rules issued by WSRA under s143(6a) and 143b of WIA1991', July 2019 – effective April 2020

4.6.3 Wastewater table commentary

General principles

Years 2011/2012 to 2017/2018 have been left blank within the HDD waste table. This is because DVW did not carry out any waste activity. From 2018/2019 the table has been populated with HDD data where part of the region does carry out waste activity.

Waste Section A – Diversions expenditure

Lines 1 to 8 – Diversions expenditure and revenue by type

Our interpretation of what should be included in these data lines

Diversions expenditure relate to the movement of existing assets due to the activity of a wide range of stakeholders (for example: housing developers, house owners, and rail/road authorities). This is separate to the connection, growth or expansion of the network as a result of new development. Diversions are considered to be base/maintenance rather than enhancement expenditure and reported in WWS1, line 5. Therefore, expenditure included in these lines is additional to the developer services enhancement expenditure that was submitted in business plans in WWS2. The disaggregation between the three lines relates to the legislative basis for the activity. Whilst diversions expenditure broadly relates to diversions income, it is not likely to perfectly reconcile. Some diversions are subject to partial recovery (to reflect betterment of the assets).

Approach and assumptions used to collect data

The AMP7 information reported here uses the same logic as set out in our response to query HDD-DD-CE-001. This set out diversions revenue driven by NRSWA and non-NRSWA (i.e. s185) drivers. The division of s185 and NRSWA within our total diversions revenue forecasts uses the ratio identified from historic data – namely that 17% of diversions revenues relate to NRSWA.

The query also set out a change to the categorisation of revenues in APP28 of the 2018 Business plans by removing the erroneous inclusion of revenues relating to HS2. This means that there are no costs and revenues reported in lines 3 and 7.

Associated AMP7 costs for these forecast revenues are also derived from the HDD-DD-CE-001 query response. This top down analysis assumed that 82% of NRSWA costs are recoverable from the relevant third party. This is to reflect betterment and is set out in the relevant legislation. The remaining s185 costs are shown to be fully recovered.

For the 2018-19 and 19-20 costs and revenues in this submission, we have used the same assumptions as for AMP7 in query HDD-DD-CE-001 (described above). This uses the same splits of revenues and cost recovery rates as per the query data.

Waste Section B – Connections volume data

Lines 9 and 10 – New connections

Our interpretation of what should be included in these data lines

New connections are the number of separate connections that are made to a requisitioned sewer or the existing network (where a requisition is not required). New connections and new properties are often considered interchangeably. However, the volumes will vary where several new properties are supplied by one new connection. This would likely be the case for apartments and blocks of flats.

Approach and assumptions used to collect data

Data has been collated from the May Developer Services query response (HDD-DD-CE-002) lines 14 and 15

Note that waste connection volumes featured specifically within the query response HDD-DD-CE-002 but do not feature in other recent tables (including APR and PR19 App28).

Line 12 – NAV new connections

Our interpretation of what should be included in these data lines

NAV new connections are the number of separate connections that provides a bulk supply to a NAV site. It is not the number of individual connections which are provided by the NAV.

Approach and assumptions used to collect data

We are not aware of any enquiries into future schemes within the HDD region. Consequently this line has been populated with zero.

In general NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey in profile. It is therefore difficult to populate a forecast. If we were to have connections in this region this data would be reliant on NAVs informing us within a timely manner of properties they have connected.

Lines 14 to 16 – New connections (split by the organisations completing the activity)

Our interpretation of what should be included in these data lines

We interpret these lines as relating to the number of new connections categorised by the organisation that has delivered the contestable new development activity. We have assumed that the contestable new development activity will include all contestable requisitions (sewers) and new connections (referred to as lateral drains) activity.

Approach and assumptions used to collect data

In practice, in the Hafren Dyfrdwy area developers/SLPs deliver all of the new connections (lateral drains) activity and the on-site requisitions activity. Hafren Dyfrdwy only carry out a small number of S98 sewer requisitions over private land where the developer requires us to connect the new onsite sewers which they have laid to our existing network. In such cases, Hafren Dyfrdwy are typically only asked to carry out the offsite requisitions (normally short lengths of main across a road and therefore unattractive for SLPs). Consequently, it is logical that SLPs will complete 75%+ of the activity. We have assumed that the three lines will have the following attributes:

- Line 14 (SLPs deliver more than 75% of contestable activity) – developers/SLPs deliver on-site new connections and requisitions activity. The incumbent company either, delivers no activity, or delivers off-site S98 requisitions that are less than 25% of the total mains laying activity for the new development scheme. This is the default scenario.
- Line 15 (SLPs deliver between 25% and 75% of contestable activity) – developers/SLPs deliver on-site new connections and requisitions activity. The incumbent company delivers the off-site S98 requisitions which are more than 25% of the total mains laying activity for the new development scheme. Given the limited volume of s98 work, this is highly unlikely to occur.
- Line 16 (SLPs deliver less than 25% of contestable activity) – Incumbent companies deliver all new connections and requisitions activity. Therefore, in reality this will also mean that developer/SPL deliver 0% contestable activity. This is never the case for Hafren Dyfrdwy.

Given the limited nature of S98 requisitions work, we have assumed that line 14 reflects 100% of connections and therefore both line 15 and 16 show as zero.

Waste Section C – Properties volume data

Lines 18 and 19 – New properties

Our interpretation of what should be included in these data lines

New properties are the number new customers (bill payers) that will result from new development. New connections and new properties are often considered interchangeably. However, the volumes will vary where several new properties are supplied by one new connection. This would likely be the case for apartments and blocks of flats i.e. a block of flats would be served by one connection but would have multiple properties.

Approach and assumptions used to collect data

Data has been collated from the following previous data submissions:

- 2018/19 to 2024/2025: 2018 Business Plan App28 line 17 and 18

Lines 21 and 22 – NAV new properties

Our interpretation of what should be included in these data lines

NAV new properties are the number of individual connected properties which are made and served by the NAV (inconsistent with the approach to line 12).

Approach and assumptions used to collect data

We are not aware of any enquiries into future schemes within the HDD region. Consequently this line has been populated with zero.

In general NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey in profile. It is therefore difficult to populate a forecast. If we were to have connections in this region this data would be reliant on NAVs informing us within a timely manner of properties they have connected.

Lines 25 to 27 – New properties (split by the organisations completing the activity)

Our interpretation of what should be included in these data lines

We assume that these lines are analogous to lines 14, 15 and 16 except that the split of contestable new development activity is spread amongst new development volumes rather than new connections volumes. See above for the logic and assumptions used.

Approach and assumptions used to collect data

The same approach has been used here as for lines 10, 11 and 12. Whereby:

- Line 25 (More than 75% of contestable new development delivered by SLPs) equates to 100% of the properties in line 16.
- Line 26 and 27 are zero.

See above for the basis of these calculations.

Waste Section D – Total cost of contestable activities

Lines 29 to 31 – Contestable new development expenditure incurred by the company

Our interpretation of what should be included in these data lines

Lines 29 to 31 relate to direct contestable new development expenditure incurred by the company.

These costs are then allocated based on the size of our contestable activity relative to the total contestable activity incurred to deliver each new connection (i.e. contestable activity incurred by both the company and the SLP/developer).

For the avoidance of doubt, we have set out in the table below the costs that we have included (and excluded) in lines 29 to 31.

Included in direct contestable expenditure (lines 29-31)	Not included
• **New connections expenditure.** This is known as a lateral drain and is a short 'comm' pipe between the new property and the sewer. This is simply our administrative costs of supporting the developer the construct and connect the lateral drains through their own means. We do not carry out lateral drains construction activity. • **Onsite and offsite requisitions expenditure.** The laying of new mains on development sites. Hafren Dyfrdwy do not carry out the construction of many new sewer schemes but this expenditure does include our construction costs where we do. The greater majority of new sewers are laid by the developer and this expenditure includes our administrative costs of supporting the adoption of these sewers.	• **Costs incurred by SLPs/developers.** • **Asset value payments.** No asset payments are made for waste assets. • **Non-contestable costs** – Unlike the source of water connections for water new development activity none of our waste connection and requisition costs are considered to be non-contestable. Sewerage network reinforcement costs are non-contestable, therefore are not included in these lines.

As there is no non-contestable waste connection and requisition costs, total new development expenditure submitted in the business plan (WWS2, line 25) will reconcile with line 35 of this submission plus network reinforcement expenditure shown in (APP28, line 23 which is zero) in AMP7. We have recognised that new development is shown as zero within WWS2 for the remaining AMP6 years and we have not reconciled to this but instead used waste property volumes to pro rate known AMP7 values to reflect some costs in AMP6.

Approach and assumptions used to collect data

In line with the logic explained for lines 14-16 and 25-27 all contestable waste costs for lateral drains and sewer requisitions apply to schemes where the self-lay providers/developers will undertake a significant proportion of contestable activity (more than 75% of contestable activity). When Hafren Dyfrdwy carry out a S98 sewer scheme the proportion of scheme (length of sewer) that we contribute will always be less than 25% of the total sewer length. Therefore line 29 shows all relevant costs and lines 30 and 31 include no costs.

Line 32 to 34 – Asset Value Payments

Our interpretation of what should be included in this data line

There are no asset payments made for waste schemes and therefore lines 32 to 34 are shown as zero.

Waste Section E – App28 data

Lines 36 to 38 – Infrastructure and requisitions charges and adjustments

Our interpretation of what should be included in this data line

These lines relate to some of the revenue charges through which we recover developer services expenditure.

Income offset is a way making a customer contribution to developer services activity based on future revenues that are likely to be generated as a result of new development. Income offset is applied against the requisition charge and will continue to work in this way for Welsh companies.

Approach and assumptions used to collect data

For lines 36 and 37, our approach follows the approach shown in APP28 for years 2018/2019 to 2024/2025.

Income offset is not consistent with APP28 because APP28 asked for income offset against the infrastructure charge and the rule change to apply this does not exist in Wales therefore it was correctly shown as zero in APP28. This table asks only for total income offset so the line will feature values. We have limited data to populate this line and so we have used a pro rata approach to Severn Trent income offset. Our profile here is an average profile but in reality with so few of these schemes and with the schemes occurring infrequently the profile is likely to be spikey rather than a smooth average.