Data Table Commentaries

8 Developer Services

Contents

DS1e DS2e have intentionally been left blank.

1. Introduction

These tables relate to developer services and include:

- DS1e and DS1w – developer services revenue
- DS2e and DS2w – developer services expenditure – water network+
- DS3 – developer services expenditure – wastewater network+
- DS4 – developer services – new connections, properties and mains
- DS5 – network reinforcement costs
- DS6 – network reinforcement drivers – potable mains, sewers, pumping stations and pumping capacity

The tables inform the approach to regulating developer services at PR24, including:

- cost assessment;
- potential revenue reconciliation mechanisms;
- to understand the volume and type of developer services activity water and wastewater companies expect to deliver in the 2025-2030 period, and the state of competition in developer services; and
- to calculate the proportion of allowed revenue to be recovered from water customer bills.

Where Confidence Grades are not detailed against line commentary, all forecasts have been produced from historical data with a confidence grade of B3 or better.

2. DS1w Developer services revenue (Welsh companies)

Confidence grade B3 for whole table

DS1w reports forecasts grants and contribution for developer services and non-developer services activities. Water resources grants and contributions have been included under water network+. Developer services grants and contributions are based on the amount of revenue we expect to recover using 5-year historic cost information from developer services activities with an assumption applied for growth, which is consistent with the draft WRMP. Both developer services revenue forecasts in DS1w and our developer services charges, which are calculated on a bottom-up cost reflective basis, are based on developer services costs. Grants and contributions forecasts between 2022-23 and 2024-25 are higher than those forecast at PR19 due to significant increases in Developer Services costs since the forecast, which was based on 3 years of historic data at the time.

The grants and contributions lines in DS1w, CW1, CWW1, PD8 and RR2 include developer services and non-developer services grants and contributions. A reconciliation has been completed between DS1w and CW1, CWW1, PD8 and RR2. PD5.2 has been completed using the PR19 treatment of price control grants and contributions.

Developer services revenue - water network+

DS1w.1 *Connection charges*

DS1w.1 reports forecast revenue for new connection activities. Forecast new connection volumes are consistent with the draft WRMP forecast, which predicts a recovery in the level of new connections delivered in future years. This results in a step change between 2022-23 and 2023-24, where 2022-23 was a relatively low volume year in comparison. The negative value in 2022-23 is the result of an adjustment to receipts in advance.

DS1w.2 *Requisitioned mains*

DS1w.2 reports forecast revenue for new connections. Gross requisitions income has been reported in this line and the related income offset is reported in line DS1w.9.

DS1w.3 *Diversions - s185*

DS1w.3 reports forecast revenue for s185 diversions. Diversion activity can vary significantly annually so a five-year historic average has been used to calculate a forecast. Although this approach provides a relatively flat profile, activities are expected to vary year-on-year depending on developers' requirements. As there was a high volume of water diversions reported in 2022-23, this gives the appearance of a fall in diversion activity from 2023-24.

DS1w.4 *Diversions - NRSWA*

DS1w.4 reports forecast revenue for NRSWA diversions. Diversion activity can vary significantly annually so a five-year historic average has been used to calculate a forecast. Although this approach provides a relatively flat profile, activities are expected to vary year-on-year depending on developers' requirements. As a high volume of diversions were reported in 2022-23, this results in the appearance of a fall in diversion activity for forecast years calculated using a five-year average. This line is reported net of NRSWA cost sharing discounts.

DS1w.5 *Diversions - other non-section 185 diversions*

No other non-s185 diversion activity has been forecast.

DS1w.6 *Infrastructure charge receipts - new connections*

DS1w.6 reports forecast infrastructure charge revenue based on forecast new connection volumes from the draft WRMP as outlined in DS1w.1. This results in a step change between 2022-23 and 2023-24, where 2022-23 was a relatively low volume year in comparison.

DS1w.7 *Other developer services revenue (price control)*

Non-developer services forecasts have been included in the other price control revenue lines of DS1w. From 2022-23 to 2024-25, non-developer services forecasts are based on grants and contributions for an existing arrangement with NRW and a forecast based on grants and contributions received in the 2022-23 reporting year. From 2025-26 onwards, non-developer services forecasts are based on grants and contributions for an existing arrangement with Natural Resources Wales (NRW) and two new capital schemes funded by Canal & River Trust (CRT) for river regulation between 2026-27 and 2029-30. The names of these schemes are 'CRT water supply support scheme 1 – use of Grwyne Fawr reservoir' and 'CRT water supply support scheme 2 – increase the deployable output of Court Farm WTW'.

The split of non-developer services price control revenue in DS1w.7 is set out below:

Other price control revenue	**22-23**	**23-24**	**24-25**	**25-26**	**26-27**	**27-28**	**28-29**	**29-30**
Water resources								
NRW: Ongoing arrangement	2.061	2.881	3.037	3.207	3.382	3.563	3.753	3.951
CRT scheme 1: Grwyne Fawr reservoir	0.000	0.000	0.000	0.000	3.943	3.943	3.943	0.000
Sub-total	2.061	2.881	3.037	3.207	7.325	7.506	7.696	3.951
Water network+								
Forecast based on 2022/23 receipts	3.029	3.077	2.669	0.000	0.000	0.000	0.000	0.000
CRT scheme 2: Court Farm WTW	0.000	0.000	0.000	0.000	2.507	2.507	2.507	2.507
Sub-total	3.029	3.077	2.669	0.000	2.507	2.507	2.507	2.507
Total	5.091	5.958	5.706	3.207	9.832	10.013	10.203	6.458

DS1w.8 *Price control developer services revenue before deduction of income offset and before environmental incentives are taken into account*

Sum of DS1w.1 to DS1w.7.

DS1w.9 *Income offset*

Income offset relating to requisitions in line DS1w.2.

DS1w.10 *Environmental incentives for more water efficient developments*

These lines are populated as zero for all years. There are no plans at present to offer environmental incentives and therefore no revenue has been forecast.

DS1w.11 *Environmental component of infrastructure charge for water efficient developments*

These lines are populated as zero for all years. There are no plans at present to offer environmental incentives and therefore no revenue has been forecast.

DS1w.12 *Price control developer services revenue after deduction of income offset and after environmental incentives are taken into account*

Sum of DS1w.8, DS1w.10 and DS1w.11 minus DS1w.9.

DS1w.13 *Non-price control developer services revenue*

No non-price control developer services revenue has been forecast from 2023-24 onwards.

DS1w.14 *Total developer services revenue - water network+*

Sum of DS1w.12 and DS1w.13.

Developer services revenue - wastewater network+

DS1w.15 *Diversions – NRSWA*

DS1w.15 reports forecast revenue for NRSWA diversions. A five-year historic average has been calculated providing a relatively flat profile, however diversion activities are expected to vary year-on-year depending on developers' requirements. This line is reported net of NRSWA cost sharing discounts.

DS1w.16 *Diversions - other non-section 185 diversions*

No other non-s185 diversion activity has been forecast.

DS1w.17 *Infrastructure charge receipts - new connections*

DS1w.17 reports forecast infrastructure charge revenue based on forecast new connection volumes from the draft WRMP.

DS1w.18 *Other developer services revenue (price control)*

Non-developer services forecasts have been included in the other price control revenue lines of DS1w along with other price control developer services revenue for sewer adoptions. From 2022-23 to 2024-25, non-developer services forecasts are based on grants and contributions received in the 2022-23 reporting year.

The split of other price control revenue in DS1w.18 is set out below:

Other price control revenue	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30
Developer services revenue								
Wastewater network+								
Sewer adoptions	-0.059	1.407	1.402	1.397	1.369	1.363	1.344	1.324
Sub-total	-0.059	1.407	1.402	1.397	1.369	1.363	1.344	1.324
Non-developer services								
Wastewater network+								
Forecast based on 22/23 receipts	1.230	1.699	1.461	0.000	0.000	0.000	0.000	0.000
Sub-total	1.230	1.699	1.461	0.000	0.000	0.000	0.000	0.000
Total	1.171	3.106	2.863	1.397	1.369	1.363	1.344	1.324

DS1w.19 *Price control developer services revenue before deduction of income offset and before environmental incentives are taken into account*

Sum of DS1w.15 to DS1w.18

DS1w.20 *Income offset*

Income offset relating to requisitions in line DS1w.24.

DS1w.21 *Environmental incentives for more sustainable developments*

These lines are populated as zero for all years. An incentive is offered for surface water removal, however, there has been no uptake to date. There are no plans at present to offer additional environmental incentives and therefore no revenue has been forecast.

DS1w.22 *Environmental incentives for less sustainable developments*

These lines are populated as zero for all years. An incentive is offered for surface water removal, however, there has been no uptake to date. There are no plans at present to offer additional environmental incentives and therefore no revenue has been forecast.

DS1w.23 *Price control developer services revenue after deduction of income offset and after environmental incentives are taken into account*

Sum of DS1w.19, DS1w.21 and DS1w.22 minus DS1w.20.

DS1w.24 *Receipts for on-site work*

DS1w.24 reports forecast revenue for on-site activities including requisitions and sewer connections. Requisition activity can vary significantly annually so a five-year historic average has been used to calculate a forecast. Although this approach provides a relatively flat profile, activities are expected to vary year-on-year depending on developers' requirements. As a high volume of requisition work was reported in 2022-23, this results in the appearance of a fall in on-site work for

forecast years, which have been calculated using a five-year average. Gross requisitions income has been reported in this line and the related income offset is reported in line DS1w.20.

DS1w.25 *Diversions - s185*

DS1w.25 reports forecast revenue for s185 diversions. A five-year historic average has been calculated providing a relatively flat profile, however diversion activities are expected to vary year-on-year depending on developers' requirements.

DS1w.26 *Other developer services revenue (non-price control)*

DS1w.26 reports non-price control other revenue. This line contains revenue for feasibility studies. The negative value in 2022-23 is the result of an adjustment to receipts in advance.

DS1w.27 *Non-price control developer services revenue*

Sum of DS1w.24, DS1w.25 and DS1w.26.

DS1w.28 *Total developer services revenue - wastewater network+*

Sum of DS1w.23 and DS1w.27.

3. DS2w – Developer services expenditure – water (Welsh companies)

Confidence Grade B3 for whole table

The key assumption that underpins the modelling of costs is that the levels of work delivered across the different schemes, will be proportional to the level off total forecast work. The forecasts have been based on the assumed volumes of new connections within the draft water resource management plan (DWRMP). The assumption is that as the overall level of growth increases or decreases, this will have a knock-on effect on the overall profile of Developer Services work delivered. Whilst the amount spent on (e.g.) NRSWA diversions may not directly correlate to the number of connections, it is assumed that more connections increase the pressure on Highway Authorities to improve or adapt their network, and therefore we could reasonably expect to see an increase in our spend in this area. There are several additional factors which then feed into the forecast – Where we are forecasting a NAV to deliver connections within our area, this would then effect elements of our forecast cost, but only in some areas – we would not expect to see a change in the levels of diversions as these are assets that are owned by DCWW and we would expect to undertake the diversion; however we would expect an impact on the levels of expenditure on connections (for example). Equally, where work is delivered by an SLP rather than DCWW, we will see an impact on the cost of delivering that service.

Overall, there is a reasonably high degree of confidence in the methodology that underpins the forecast. We are however looking to forecast across a significant time period, and there are inherent risks in doing this. The DWRMP is a forecast, and actual levels of service delivered may differ from this. We are also assuming that we will see a reasonably unchanged level of NAV activity. The level of self-lay has been baseline at the level seen in financial line 2022/23, and it is assumed that it will not increase from this level. The level of SLP activity will have a particular impact on the Asset payment line as this reflects a forecast of the cost of making asset payments upon the adoption of water mains from SLPs. Both of these assumptions rely on the behaviour of external third parties, over which DCWW does not have any control. We have also assumed that there will be relatively constant levels of expenditure for delivering schemes of each type. Changes to any of these factors could have an impact on the actual costs of delivering each service. The definition on this line refers only to asset payments to developers and SLPs and as such we have made no forecast of payments for adoptions from other parties.

There is also a slight risk in the splits between the levels of new connection expenditure as to whether it relates to a new main or not. This is a new piece of information that has not been previously tracked, as such, there is not such a high degree of confidence in this data. An assessment has been made based on a proportion of the available data, however due to the high volumes of this work, there is a degree of extrapolation to the overall dataset.

Overall, there are few significant year-on-year changes in the data. The forecasts are purely based on averages, with no attempts to forecast exceptional schemes. It is impossible to predict in anything other than the very short term as to if or when a significant scheme will be progressed. Recent experience shows that it is not uncommon for large schemes to be suddenly abandoned by developers, equally it is possible that a very large scheme may suddenly be required with very little warning. As such, the decision has been made to forecast on a flat basis. The reality is that the delivery of all schemes is likely to be far more variable year on year, however this is impossible to forecast accurately.

The exception to this is the non-developer services delivered network reinforcement. This comprises an estimated £10.8M across AMP8 for several schemes to upgrade several SRVs and associated pipework required as a result of growth in the operating area. This is network reinforcement which relates to a number of developments, both historic and planned, is planned to ensure that these developments do not impact existing customers. For further information on this line, see the commentary for table DS5.

Despite there being limited year on year variances, there are several overall trends which should be noted. The DWRMP forecast across the period is between 94-102% of the historic 5-year average for new connections delivered. From this, we would not expect a significant change in the levels of expenditure across the entire forecasting period.

Revenue has been forecast on the based on historic recovery rates of the forecast costs. Please see the commentary associated with table DS1W for more information.

All costs associated with diversions are reported against CW11.

Water developer services expenditure (excluding diversions) -price control; Site-specific costs for developments that do not require new water mains

DS2w.1 *New connections*

Costs associated with delivering new connections. Fire main connections and those with a diameter >63mm are largely considered capex, whilst smaller connections are considered opex. This is in line with the company's reporting as part of the APR. This has been split between requiring a new main or not as per the above. Note that this excludes the cost of administrating new connections.

DS2w.2 *Other site-specific developer services activities*

Costs associated with the provision of plan sales and planning responses.

Water developer services expenditure (excluding diversions) -price control; Site-specific costs for developments that do require new water mains

DS2w.3 *New connections*

Costs associated with delivering new connections. Fire main connections and those with a diameter >63mm are largely considered capex, whilst smaller connections are considered opex. This is in line with the company's reporting as part of the APR. This has been split between requiring a new main or not as per the above. Note that this excludes the cost of administrating new connections.

DS2w.4	*Requisition mains*
	The cost associated with delivering requisitions.
DS2w.5	*Other site-specific developer services activities*
	Costs associated with the provision of plan sales and planning responses. The capex column also includes the asset payments made to SLPs.
	Water developer services expenditure (excluding diversions) -price control; Network reinforcement and asset payments
DS2w.6	*Infrastructure network reinforcement*
	This is the forecast cost of delivering the off-site network reinforcement. Note that the revenue associated with these works (if any) is recovered against the line for that service (the majority of network reinforcement delivered is as a result of a requisition, these costs are recovered in line with the cost of the service it is recovered against).
DS2w.7	*Asset payments*
	Asset payments made out to Self-Lay Providers in adoption of mains that they have laid.
	Developer services expenditure (excluding diversions) - water (Welsh companies); totals
DS2w.8	*Total developer services expenditure - water (price control)*
	Total

4. DS3 Infrastructure charges reconciliation

Confidence Grade B3 for whole table

Please see the above commentary on DS2 in relation to the overall methodology behind the forecasting of costs associated with Developer Services work. The main difference between the forecasting of water and waste schemes is that the overwhelming majority of sewer connections, diversions and new sewers are delivered by the developer customer rather than DCWW. As such, we have not made any allowance for changes in proportions of schemes as a result of developer delivered activity; it is assumed to be operating at its maximum level. We have still made an allowance in the forecast for NAV activity in line with table DS4, however there is no significant change forecast here, so there is little overall change.

Unlike table DS2, there is no forecast for asset payments. We do not currently make any payments for the adoption of sewers and there is no plan to change this stance. Additionally, it has been assumed that the definitions will be the same and only to asset payments to developers and SLPs. As such we have made no forecast of payments for adoptions from other parties.

As with the water forecast, there is a reasonable degree of confidence across the forecast, however the actual expenditure on waste schemes is substantially more volatile than it is for water schemes. Waste schemes, particularly requisitions typically have a 'low volume-high impact', with a small number of schemes each year, which may have a significant effect on the level of spend. The forecasts on some lines – particularly the requisition line may therefore vary significantly from the year-on-year historic data in reflection of this being an average forecast.

All costs associated with diversions and Build Over Sewer Agreements are reported against CWW11.

Wastewater developer services expenditure (excluding diversions) -price control

DS3.1 *Infrastructure network reinforcement - capex*

DS3.2 *Infrastructure network reinforcement - opex*

Line 1 and 2 This is the forecast cost of delivering the off-site network reinforcement. Note that the revenue associated with these works (if any) is recovered against the line for that service (the majority of network reinforcement is delivered as a result of a requisition, these costs are recovered in line with the cost of the service it is recovered against).

DS3.14 *Asset payments - capex*

No costs forecast

DS3.15 *Asset payments - opex*

No costs forecast

Wastewater developer services expenditure (excluding diversions) - non-price control; Site-specific developer services - Capex

DS3.3 *New connections*

The cost of administering S106 connections and the administration and delivery of connections delivered under s107.

DS3.4 *Requisition sewers*

DS3.5 *Other site-specific developer services activities capex*

The cost associated with delivering requisitions.

2022/23 shows a significantly higher spend than other years, this is due to 2022/23 seeing considerably higher than average spends in the year. This gives the impression of the forecast expenditure dropping in future years, as the figures revert to the averages.

DS3.6 *Total site-specific developer services capex*

Subtotal

Wastewater developer services expenditure (excluding diversions) - non-price control; Site-specific developer services - Opex

DS3.7 *New connections*

The cost of administering S106 connections and the administration and delivery of connections delivered under s107.

DS3.8 *Requisition sewers*

The cost associated with delivering requisitions.

DS3.9 *Other site-specific developer services activities opex*

The costs associated with delivering S104 sewer adoptions, planning, and plan sales.

DS3.10 *Total site-specific developer services opex*

Subtotal

Developer services expenditure (excluding diversions) - wastewater; totals

DS3.11 *Developer services expenditure (excluding diversions) - wastewater (price control)*

Subtotal

DS3.12 *Developer services expenditure (excluding diversions) - wastewater (non-price control)*

Subtotal

DS3.13 *Developer services expenditure (excluding diversions) - wastewater (total)*

Total

5. DS4 Developer services non-financial data

Confidence Grades detailed against each line

Connections volume data

DS4.1 *New connections (residential – excluding NAVs) Confidence grade B3*
DS4.2 *New connections (business – excluding NAVs) Confidence grade B3*
DS4.3 *Total new connections served by incumbent Confidence grade B3*
DS4.4 *New connections – SLPs Confidence grade B3*

Line 1 – 4 We have assumed that the total number of connections will be tied to the forecast in the Draft Water Resource Management Plan (DWRMP). We have assumed that the number of connections will maintain a stable relationship to the number of properties to historic data. We have assumed that any new properties served by NAVs will not be replaced by other connections (i.e. both NAVs and DCWW will instead be drawing on a finite pool of connections rather than NAV activity representing an overall increase in the levels of building within the area). We have assumed that there is a 1-2-1 relationship between SLP connections and SLP properties. NAV forecasts have a separate commentary associated with them.

In the context of this section connections represent the physical connections to the network. For water connections this represent the connection delivered either to a single property, installation of a manifold or of an internally metered branch connection. For waste, this is the number of connections delivered under s106 or s107. This means that a connection can be for a single property all the way up to the connection for an entire development. This results in a different ratio between water and waste connections when compared to the number of properties added (see below).

The data is based on the relationships between the historic costs and delivered volumes for these services. As such there is a reasonable degree of confidence in the relationship between the numbers. There are however risks around the underlying DWRMP forecasts, where the underlying total number changes, this could have an effect on all the other lines, as well as impacting the cost and revenue forecasts. The SLP forecast is also dependent on third party companies' activities, should their drivers or abilities change, this will impact the levels of deliver and the associated costs/revenue.

There are no significant fluctuations year on year, in line with the DWRMP forecast. Currently we are forecasting no change in the levels of SLP activity from those seen in 2022/23. Whilst this is an area

that has seen significant growth in the past few years, there is a degree of uncertainty as to whether the available pool of Self-Lay Providers will be able to deliver sustained growth in the manner seen in recent years. As noted above, this is a particularly challenging number to forecast as it is ultimately dependent on the behaviour of third parties.

Properties volume data

DS4.5 *New properties (residential - excluding NAVs) Confidence grade B3*

DS4.6 *New properties (business - excluding NAVs) Confidence grade B3*

DS4.7 *Total new properties served by incumbent Confidence grade B3*

Lines 5-7 We have based the number of properties on the number of connections forecast and the historic relationship between the number of connections and the number of properties across a 5-year period. These relationships differ significantly for water and waste based on the number of properties that relate to each service. See the above commentary under lines 1—4 for information on what is covered by each connection.

DS4.8 *New residential properties served by NAVs Confidence Grade C6*

Since 2020 the new appointee (NAV) enquiries we have received have averaged at a total of 3340 properties per year but the number of properties licence applications have been made for and granted has been significantly lower. We have a high confidence for our 2022/23 data as this is actual connections. We have used the property data available for the NAV licences granted as the basis for our forecasts but we have no insight into what the actual values will be as this is dependent on third parties, we have low confidence in this data.

For the number of residential properties served by a NAV for water services our forecasts comprise of two parts:

- the actual build data provided by a NAV for a site where the licence has been granted but the properties are not yet constructed; and
- this actual data has been used as the basis to forecast the number of additional properties that may be served by new NAVs in the years from 2024/25.

For the number of residential properties served by a NAV for waste water services we have used actual NAV connection data for the current year 2022/23. For our forecast from 2024/25 we have used the total NAV waste connections of 283 from 2022/23 data but applied this number over the years that the water connections for the site were completed. (The waste NAV site was a small part of a large development site and there were significant delays in the construction of the sewer it was connecting to which was being laid by a third party developer. Our forecast used the water connection dates as this would have been the wastewater connection dates if it wasn't for the unusual circumstances on this site.)

DS4.9 *New business properties served by NAVs Confidence Grade DX*

There have been no new connections in our area for non household properties served by NAV in over 10 years so we have no actual data to base a forecast on. We are aware of a likely NAV variation request for one non household property and this is all we have included in our forecast. Our confidence is this data is low.

DS4.10 *Total new properties served by NAVs – totals of DS4.8 and DS4.9.*

Subtotal

DS4.11 *Total new properties*

Calculated cells

DS4.12 *New properties – SLP connections Confidence grade B3*

New water mains data

DS4.13 *Length of new mains (km) – requisitions Confidence Grade B4*

DS4.14 *Length of new mains (km) – SLPs Confidence Grade B4*

Lines 13 and 14 the mains requisition lengths that have been renewed are and are new and their associated diameters for the 2022/23 year have been filled in using the 2022/23 APR data. The total mains requisitions length planned for renewal or new pipes between 2023/24 and 2029/30 are based on a forecast of the delivery programmes for 2023/24 to 2029/30 based on a 5 year rolling average approach of historic data.

To the total value a % forecast to split total length between Requisitions laid by the incumbent or Self lay consistent with the forecast costing data has been applied. It should be noted that the economy and annual fluctuations in delivery will mean that the forecast of total length and the proportion of self-lay may vary year on year.

The same km values were also added to the Requisitions Incumbent and Self Lay lines DS6.1 and DS6.2.

6. DS5 – Network reinforcement costs

Confidence Grade B3 for the whole table

The Network Reinforcement comprises two major elements. DS delivered Network Reinforcement and Network Reinforcement delivered by the wider company.

We are not forecasting material changes across the DS delivered network reinforcement profile. It is based on the historic average spend across our schemes, modulated by the forecast levels of activity. We have not attempted to forecast specific schemes as beyond the very near horizon we have no oversight of them. As such, the total levels of network reinforcement are forecast as a fixed percentage of the total forecast cost. The reality will be that we will expect to see fluctuations year-on-year when the actuals are reported. A significant example of this would be around pumping stations; we have forecast a flat amount in each year; however it is possible to go for several years without undertaking any work on schemes which require us to deliver a pumping station, but we would then experience a spike in the cost allocated against these lines when we were required to deliver one. As there is no way to accurately forecast when one of these might be required to be delivered, we have therefore forecast an average cost in each year.

The forecast for Network Reinforcement delivered by the wider company is based on a programme of works which is forecast to be delivered by the Capital team. The programme comprises work at three service reservoirs and one water pumping station. The total forecast expenditure is c.£10.77M and will be delivered across AMP8. Unlike the DS delivered schemes, this will need to be delivered regardless of the other profile of works. Funding for this scheme is provided through the growth programme.

Please note that the totals for NR on DSw2 and DS3 are equal to the Network reinforcement capex lines only. The On site / site specific capex (memo only) data does not feed through to these lines.

There is no line commentary for DS5.

7. DS6 Network Reinforcement drivers – potable mains, sewers, pumping stations and pumping capacity

Potable mains

DS6.1 *Length of new potable mains laid - proportional allocation*
DS6.2 *Length of new potable mains laid - full allocation*

The total mains lengths associated with new developments, including mains reinforcements, mains requisitions, maintenance, resilience and water quality driven investment for the 2022/23 year have been filled in using historical data.

Network reinforcement / Requisitions

Lines 1 and 2
Using a five-year rolling average of historical Network Reinforcement, Requisition and Self Lay, Developer related lengths the forward programmes of work have been calculated.

Resilience / Maintenance Water Quality

Lines 1 and 2
Using a five-year rolling average of historical Resilience and Maintenance related lengths the forward programmes of work have been calculated. To the network resilience incumbent category, the mains lengths for two strategic growth schemes have been added to these values, 1km in 2028/29 and 0.2km 2029/30.

DS6.3 *Length of potable mains upsized - proportional allocation*
DS6.4 *Length of potable mains upsized - full allocation*
Network reinforcement / Requisitions

There are no forecast mains upsizing as part of Developer Services activities

Resilience / Maintenance Water Quality

There are no forecast mains upsizing as part of our investment programme.

Sewers

DS6.5 *Length of new sewers laid - proportional allocation*
DS6.6 *Length of new sewers laid - full allocation*

We have made the assumption that rising mains are included in these lines.

Network reinforcement / Requisitions

Lines 5 and 6
Using the historical values for sewer requisition and sewer adoptions for New Development between 2017/18 and 2022/23, a five-year rolling average was developed across the period 2023/24 to 2029/30 which provided forecast lengths.

Resilience / Maintenance Water Quality

Line 5 and 6
We have made the following assumptions for these lines; pump away schemes and S101a have been categorised to be maintenance.

The capital enhancement programme of works has been used to populate these lines:

Investment Type	New Sewers	
	Gravity	Pumped
	km	km
S101a - First Time Sewerage	5	4.9
WwTW Abandonment & Pump Away (WINEP/NEP)	0	14.8
Other WINEP/NEP schemes	7.6	2.3
WwTW Abandonment & Pump Away (Not WINEP/NEP)	0	6.7
WwTW Abandonment & Pump Away (Not WINEP/NEP)	0	3.7
Pollution/Flow Compliance	0.6	0

DS6.7 *Length of sewers upsized - proportional allocation*
DS6.8 *Length of sewers upsized - full allocation*
Network reinforcement / Requisitions

Lines 7 and 8
There are no forecast sewer upsizing as part of Developer Services activities.

Resilience / Maintenance Water Quality

Line 7 to 8
There are no forecast sewer upsizing as part of our investment programme.

Pumping stations and capacity (water)
DS6.9 *New potable water pumping stations built - proportional allocation*
DS6.10 *New potable water pumping stations built - full allocation*
DS6.11 *Existing potable water pumping stations upsized - proportional allocation*
DS6.12 *Existing potable water pumping stations upsized - full allocation*
Network reinforcement / Requisitions

Line 9 to 12
A five-year rolling average for historical values for new and upsized pumping station numbers associated with New Development between 2017/18 and 2022/23 were used to calculate the forecast for the period 2023/24 to 2029/30 which provided pumping station numbers per year. These values are less than 1 number per year and so an average frequency value was developed to allow whole numbers of pumping stations to be developed to allow whole numbers to be added into the programme.

Resilience / Maintenance Water Quality

Lines 9 12
A five-year rolling average for historical values for new and upsized pumping station numbers associated with Resilience and Maintenance between 2017/18 and 2022/23 were used to calculate the forecast for the period 2023/24 to 2029/30 which provided pumping station numbers per year. These values are less than 1 number per year and so an average frequency value was developed to

allow whole numbers of pumping stations to be developed to allow whole numbers to be added into the programme.

DS6.13 *Additional potable water pumping capacity installed - proportional allocation*
DS6.14 *Additional potable water pumping capacity installed - full allocation*
Network reinforcement / Requisitions

Lines 13 and 14
Based on the forecast upsizing and new pumpstations in lines 15/16 and 17/18 the associated kW values were added to the appropriate years.

Resilience / Maintenance Water Quality

Lines 13 and 14
Based on the forecast upsizing and new pumpstations in lines 15/16 and 17/18 the associated kW values were added to the appropriate years.

Pumping stations and capacity (wastewater)
DS6.15 *New pumping stations built on sewerage network - proportional allocation*
DS6.16 *New pumping stations built on sewerage network - full allocation*
DS6.17 *Existing stations upsized on sewerage network - proportional allocation*
DS6.18 *Existing stations upsized on sewerage network - full allocation*
Network reinforcement / Requisitions

Line 15 to 18
A five-year rolling average for historical new and upsized pump station numbers associated with New Development between 2017/18 and 2022/23 were used to calculate the forecast for the period 2023/24 to 2029/30 which provided pumping station numbers per year. These values are less than 1 number per year and so an average frequency value was developed to allow whole numbers of pumping stations to be developed to allow whole numbers to be added into the programme.

Resilience / Maintenance Water Quality

Lines 15 to 18
We have made the following assumptions for these lines; pump away schemes and S101a have been categorised to be maintenance.

The capital enhancement programme of works has been used to populate these lines.

Investment Type	New SPS Nr	Upsized SPS Nr	Additional SPS Capacity KW
S101a - First Time Sewerage	4	0	53
WwTW Abandonment & Pump Away (WINEP/NEP)	5	0	91
Other WINEP/NEP schemes	0	0	0
WwTW Abandonment & Pump Away (Not WINEP/NEP)	1	0	180
WwTW Abandonment & Pump Away (Not WINEP/NEP)	1	0	37
Pollution/Flow Compliance	1	1	75

DS6.19 *New pumping capacity installed on sewerage network - proportional allocation*
DS6.20 *New pumping capacity installed on sewerage network - full allocation*
Network reinforcement / Requisitions

Lines 19 and 20
Based on the forecast upsizing and new pumpstations in lines 15/16 and 17/18 the associated kW values were added to the appropriate years.

Resilience / Maintenance Water Quality

Lines 19 and 20
Based on the forecast upsizing and new pumpstations in lines 15/16 and 17/18 the associated kW values were added to the appropriate years.

The capital enhancement programme of works has been used to populate these lines.

Investment Type	New SPS Nr	Upsized SPS Nr	Additional SPS Capacity KW
S101a - First Time Sewerage	4	0	53
WwTW Abandonment & Pump Away (WINEP/NEP)	5	0	91
Other WINEP/NEP schemes	0	0	0
WwTW Abandonment & Pump Away (Not WINEP/NEP)	1	0	180
WwTW Abandonment & Pump Away (Not WINEP/NEP)	1	0	37
Pollution/Flow Compliance	1	1	75