1. SVE Developer Services data submission

1.1 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.

Where possible we have remained consistent with previous PR19 submissions and therefore we have not updated 2018/2019 data to reflect the APR 2018/2019 reporting which has occurred since the original submissions. This is relevant for water connections, waste connected properties and infrastructure income data.

Company boundaries

Data tables have been populated on the basis that 2011/2012 to 2017/2018 reflect the previous SVT boundary. Whereas, 2018/2019 to 2024/2025 reflects the current SVE boundary. 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.
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1.2 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 (either: opex – renewals expensed in year (WS1, line 5), or capex MNI (WS1 line 13)). 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 SVE-DD-CE-004. This set out diversions revenue driven by NRSWA, non-NRSWA (ie s185) and HS2 - split into IRE and MNI (ie other non-s185). 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. This clarified that all revenues associated with HS2 driven expenditure (both IRE and MNI) and NRSWA related revenues were moved to the 'Other contributions (non-price control)' table line. This meant that the revenue remaining in the 'Diversions' line related only to s185 activity. This interpretation has been retained here in lines 5 to 8.

Associated AMP7 costs for these forecast revenues are also derived from the SVE-DD-CE-004 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. When the anticipated NRSWA costs are removed, the remaining s185 costs show a higher forecasted recovery rate. The HS2 (IRE and MNI) costs show a more variable recovery rate. This reflects the timing of this complex project and the inclusion of components where different levels of recovery are assumed.

For the 2017-18 to 19-20 costs and revenues in this submission, we have used the same assumptions as for AMP7 in query SVE-DD-CE-004 (described above). This uses the same splits of revenues and cost recovery rates as per the query data. This is consistent with APP28 as can be seen by the reconciliation of line 8 from this submission with lines 11 and 12 of APP28.

For the 2011-12 to 2016-17 data, given the limited time available and complexity of extracting the specific information from our systems, we have identified expenditure incurred for s185, NRSWA and other diversions based on a query of project by project information on our corporate database. These values include both direct costs and associated capital burdening for overheads. The revenues have then been calculated using the same recovery assumptions for s185 and NRSWA, and 100% recovery for the other diversions expenditure.

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

Data has been collated from the following:

- 2011/12 to 2019/20: data provided to us by NAVs
- 2020/2021 to 2024/2025: no data available and therefore populated as zero.

We have this data for years 2011/2012 to 2018/2019 however we do not have forecast data for 2019/2020 onwards as we do not have live NAV schemes which are due to connect in these years. 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. Consequently, we have populated future years as zero. For years 2011/2012 to 2018/2019 this data is 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 shows that Severn Trent delivered 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 (1.186) identified in the May Developer Services query response (SVE-DD-CE-008). The ratio is then applied to new connections volumes
- 2018/2019 to 2024/2025. May Developer Services query response (SVE-DD-CE-008) 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

Data has been collated from the following:

- 2011/12 to 2019/20: data provided to us by NAVs
- 2020/2021 to 2024/2025: no data available and therefore populated as zero.

We have this data for years 2011/2012 to 2019/2020 however we do not have forecast data for 2020/2021 onwards as we do not have live NAV schemes which are due to connect in these years. NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey. It is therefore difficult to populate a forecast so we have therefore populated future years as zero. For years 2011/2012 to 2019/2020 this data is reliant on NAVs informing us within a timely manner of properties they have connected. All properties connected are understood to be for residential usage therefore line 22 is populated as zero.

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

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 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 scheme by scheme requisitions data from 2014-15 to present (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.

Following changes to the charging rules[1], asset value payments will no longer be payable in England in AMP7. They will be replaced by a commensurate income offset to the infrastructure charge. This ensures that there is no net impact to SLPs/developers but means that they are no longer shown as an incurred cost. Asset value payments shown in AMP7 relate solely to schemes started in AMP6 and therefore incurring AVPs but concluding in AMP7. This explains the tail off through the AMP.

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

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 (SVE-DD-CE-008). 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 up to 2019/2020, from 2020/2021 the income offset is applied against the infrastructure charge.

Approach and assumptions used to collect data

For line 37, our approach follows the approach shown in APP28 for years 2018/2019 to 2024/2025. The basis for these charges changes over time in response to regulatory charging rules. We have not used data shown in APP28 prior to 2018/2019 because of the boundary

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

For years 2011/2012 to 2014/2015 we used an internal report of annual capital income for both infrastructure and requisitions income.

For lines 36 and 38 (in AMP7 only), 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. From 2020/2021, income offset will also be used as the method for providing a customer contribution for assets that are delivered by SLPs/developers. These were previously accounted for through Asset Value Payments. The removal AVPs in AMP7 for English companies means that we should see a like for like switch from AVPs in increased income offset. However our assumptions in APP28 applied 90% to total requisitions costs and AVPs which was incorrect as the calculation should have applied 90% to total requisitions costs and simply added on total AVPs (as AVPs are the equivalent of the income offset). In addition, we used a forecast of AVPs which

declined to zero in AMP7 to reflect our need to honour existing AVP agreements from AMP6 where schemes run into AMP7. We should have used a forecast (in our offset calculations) based on AVPs continuing at a similar level to AMP6 to reflect the full proportion of SLP work in the market. Consequently these values are higher in this submission compared to APP28.

As a result we have had to also update our infrastructure income forecast for AMP7 which will have the income offset applied to it (ie total income to be received from infrastructure charges minus total income offset).

1.3 Wastewater table commentary

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 (either: opex – renewals expensed in year (WWS1, line 5), or capex MNI (WWS1 line 13)). 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). 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 SVE-DD-CE-004. This set out diversions revenue driven by NRSWA, non-NRSWA (i.e. s185) and HS2 - split into IRE and MNI (i.e. other non-s185). 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. This clarified that all revenues associated with HS2 driven expenditure (both IRE and MNI) and NRSWA related revenues were moved to the 'Other contributions (non-price control)' table line. This meant that the revenue remaining in the 'Diversions' line related only to s185 activity. This interpretation has been retained here in lines 5 to 8. The query also identified sewer adoption inspection and supervision fees as being non price control. These are not related to diversions and therefore not included here.

Associated AMP7 costs for these forecast revenues are also derived from the SVE-DD-CE-004 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. When the anticipated NRSWA costs are removed, the remaining s185 costs show a higher forecasted recovery rate. The HS2 (IRE and MNI) costs show a more variable recovery rate. This reflects the timing of this complex project and the inclusion of components where different levels of recovery are assumed.

For the 2017-18 to 19-20 costs and revenues in this submission, we have used the same assumptions as for AMP7 in query SVE-DD-CE-004 (described above). This uses the same splits of revenues and cost recovery rates as per the query data. This is consistent with APP28 as can be seen by the reconciliation of line 8 from this submission with lines 11 and 12 of APP28.

For the 2011-12 to 2016-17 data, given the limited time available and complexity of extracting the specific information from our systems, we have identified expenditure incurred for s185, NRSWA and other diversions based on a query of project by project information on our corporate database. These values include both direct costs and associated capital burdening for overheads. The revenues have then been calculated using the same recovery assumptions for s185 and NRSWA, and 100% recovery for the other diversions expenditure.

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 following previous data submissions:

- 2011/12 to 2017/18: Inferred using the ratio of waste properties to waste connections (0.829) identified in the May Developer Services query response (SVE-DD-CE-008). The ratio is then applied to new connections volumes
- 2018/19 to 2024/2025: May Developer Services query response (SVE-DD-CE-008) lines 14 and 15

Note that waste connection volumes featured specifically within the query response SVE-DD-CE-008 but do not feature in other recent tables (including APR and PR19 App28). Note that the volumes shown in 2015/2016 to 2017/2018 are not consistent with the recent query. 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

Data has been collated from the following:

- 2011/12 to 2018/19: data provided to us by NAVs
- 2018/2019 to 2024/2025: no data available and therefore populated as zero.

We have this data for years 2011/2012 to 2018/2019 however we do not have forecast data for 2019/2020 onwards as we do not have live NAV schemes which are due to connect in these years. 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. Consequently we have populated future years as zero. For years 2011/2012 to 2018/2019 this data is 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 Severn Trent area developers/SLPs deliver all of the new connections (lateral drains) activity and the on-site requisitions activity. Severn Trent 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, Severn Trent 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 Severn Trent.

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:

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

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 assume 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.

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

Data has been collated from:

- 2011/12 to 2018/19: data provided to us by NAVs
- 2018/2019 to 2024/2025: no data available and therefore populated as zero.

We have this data for years 2011/2012 to 2019/2020 however we do not have forecast data for 2020/2021 onwards as we do not have live NAV schemes which are due to connect in these years. NAV connection and property volumes are solely and sensitively driven by the number of NAV schemes which are low in volume and spikey. It is therefore difficult to populate a forecast so we have therefore populated future years as zero. For years 2011/2012 to 2019/2020 this data is reliant on NAVs informing us within a timely manner of properties they have connected. All properties connected are understood to be for residential usage therefore line 22 is populated as zero.

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. Severn Trent 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).

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 Severn Trent 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 up to 2019/2020, from 2020/2021 the income offset is applied against the infrastructure charge.

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. The basis for these charges changes over time in response to regulatory charging rules.

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

For years 2011/2012 to 2014/2015 we used an internal report of annual capital income for both infrastructure and requisitions income.

Income offset has been populated by first using line 30 of APP28 for years 2020/2021 to 2024/2025. The number of sewer requisition schemes that Severn Trent carry out each year is spikey in profile (between 1 and 10) and given the low volume of these schemes the variance each year could be high if one significant scheme does or does not go ahead. For this reason a broadly flat average has been used however this is susceptible to significant swings for the aforementioned reasons. We do not record this information centrally and so an assumption has been made in line with property volumes. The year we have been able to collate information for; 2017/2018 has the exact amount we offset in that year within that particular cell. This year saw 10 schemes which is why the amount in this year is higher than the others. The others are based on an average number of schemes between 1 and 10 a year.