

Meeting note

Thursday 7 April 2022
1:00 pm to 3:00 pm

Cost assessment working group (CAWG)

Attendees

Anglian Water	Ian Amis Richard Goodwin
Dŵr Cymru	Charlotte Beale James Holman
Hafren Dyfrdwy	Kristinn Mason
Northumbrian Water	Geoffrey Randall Crawford Winton
Severn Trent Water	Robert Holdway Nathaniel Sear
South West Water	Judith Corbyn Ben Ward
Southern Water	Dylan Freeman Michael Kearns
Thames Water	Carlos Pineda Bermudez Uzoamaka Nduka
United Utilities	Sam Crook Emma Dennet
Wessex Water	Harriet Cutts
Yorkshire Water	Daniel Chubb
Affinity Water	Martin Hall
Bristol Water	George Clarke Tamsin Kashap
Portsmouth Water	Caroline Jemphrey
SES Water	Van Dang
South East Water	Tim Charlesworth
South Staffs Water	Daniel Haire

Ofwat	Tim Griffiths, Daniel Mitchell, Gilda Romano, Asen Velyov, Paul Martin, Simon Harrow, Lauren Brannon, David Watson, Eugenia Vela.
Arup	Justin Abbott, Sonia Sousa, Thomas Sagris, Alice Campo, Melissa Bahloul.

Introduction

Ofwat opened the meeting, introduced the team and set out the agenda:

- Assessment of growth-related costs at PR24, Arup
- Additional data collection for PR24, Ofwat
- Closing remarks

Ofwat noted that site-specific expenditure was not part of the scope of the session, which focussed on the assessment of wider growth-related expenditure.

Assessment of growth-related costs at PR24, Arup

Arup introduced the scope, timeline and structure of the work it was commissioned to carry out by Ofwat. The work involved considering whether an assessment separate from base costs using readily available data was feasible for the following four growth-related cost lines at PR24:

- water network reinforcement;
- wastewater network reinforcement;
- growth at sewage treatment works; and
- reducing risk of sewer flooding to properties.

The objective of the work was to produce recommendations on proportionate and feasible methods for cost assessment.

Arup discussed the approach taken, which involved:

- considering suitability of the cost line for separate assessment;
- identifying potential key cost drivers, driven by technical insights;
- identifying readily available data to measure the potential cost drivers;
- testing benchmarking models using the drivers identified to explain costs;
- assessing and selecting the models tested;
- recommending assessment options based on model robustness and, where relevant, root cause analysis of why models are insufficiently robust.

Arup reviewed cost drivers of potential major and minor importance identified for each cost line. These were based on causal narratives for five key areas:

- assets;
- demographical;
- behaviours;
- geographical; and
- economies of scale.

For each cost driver, Arup reviewed the relevant variables identified based on data availability. Arup discussed the results of its model testing process, and its recommendations.

For network reinforcement, econometric models based on historical data were insufficiently robust. Arup recommended to continue exploring benchmarking approaches supported by improved data collection and testing of business plan data, to better reflect localised features of growth and mitigate changes in historical reporting allocations/practices. Should this not lead to improved comparative assessment, Arup recommended keeping the expenditure as part of Ofwat's base econometric models, and considering a driver in the models to capture growth.

For growth at sewage treatment works, Arup suggested adopting a standalone model explaining cumulative costs as a function of the change in population equivalent (PE) and intensity of treatment. Arup suggested supplementing the benchmarking approach with a cost adjustment claim process.

For reducing risk of sewer flooding to properties, Arup recommended keeping the line as part of the base cost models given the substantial linkages with base expenditure, and considering a driver for drainage in the models. If a suitable variable for quantifying the number of properties at risk could be developed (eg through the Drainage and Wastewater Management Plan (DWMP) process), Arup suggested this may support exploring separate assessment approaches, alongside testing a drainage variable in the base models.

Additional data collection for PR24, Ofwat

Ofwat reviewed the suggestions received to its 'Assessing base costs at PR24' consultation for additional data collection in relation to growth expenditure. The suggestions related to:

- network reinforcement data; and
- growth at sewage treatment works data.

In addition, Ofwat discussed additional data collection in relation to site-specific developer services data, where there is currently only one year of data available (2020–21).

Additional data collection for reducing risk of sewer flooding to properties was discussed at the 16th March CAWG session.

Ofwat said it would follow up after the CAWG session with a feedback form, to collect companies' feedback on areas for additional collection.

Breakout questions

Questions for the breakout groups covered the two presentations:

1. Arup presentation. We welcome any comments on Arup's findings. In particular, what do you think are the material challenges in assessing these expenditure lines? Are the allocation issues and synergies with base too material to allow for a standalone assessment for lines (1) and (3)?
 - network reinforcement;
 - growth at sewage treatment works; and
 - risk of sewer flooding.
2. Data collection. Which items should we prioritise for data collection to support:
 - network reinforcement;
 - growth at sewage treatment works;
 - site-specific growth.

Can you please provide an indication of your top 3 areas? Do you have any initial comments on your ability to back cast this data to 2011/12? Do you have any concerns about the quality of company information available to support this process?

Feedback from the discussion groups

Q1) Arup presentation

Companies said it was helpful to see the process Arup went through and the results they got.

On **network reinforcement**, companies noted that the drivers Arup suggested appeared to be sensible, but said it was not surprising to find that models were insufficiently robust. They suggested this may be due to:

- localised factors, including available headroom;
- large intra-company variations; and

- cost allocation issues.

Some companies suggested that Ofwat should keep exploring separate benchmarking approaches with improved data collection. They noted that, whilst headroom appears to be an important driver, headroom data may be difficult to collect. They said data related to length of mains may be easier and more robust to collect. One company said it has done some modelling on network reinforcement, and that a driver for the number of developments over a certain number of connections appeared to be a potential variable for modelling.

Other companies suggested network reinforcement expenditure may lend itself better to a deep dive approach, which may better reflect localised circumstances. They said this may be complemented with unit cost comparisons. However, they acknowledged that companies do not have knowledge of unit costs at industry level, unlike in energy where unit costs for network reinforcement are more standard.

Ofwat also noted that it may not be appropriate or proportionate to deep dive costs, and questioned whether a more proportionate approach would be to include network reinforcement expenditure in base cost models given cost allocation issues with a separate cost adjustment claims process for material schemes.

Companies agreed that the cost allocation issues could be important, as the data issues Arup found suggest that companies are likely to be allocating network reinforcement expenditure differently.

One company noted that the assessment of network reinforcement expenditure by activity could lead to endogeneity issues, as companies may be incentivised to choose the solution that gives them the highest allowance.

One company suggested that the use of a reconciliation mechanism for outturn growth may help mitigate cost modelling issues. Another said that the assessment of costs may not matter, if there was confidence in the assessment of grants and contributions, given that network reinforcement costs are offset by developer charges. Ofwat noted that network reinforcement is a non-contestable activity and ensuring cost efficiency would still need to be ensured.

On **growth at wastewater treatment works**, companies generally found the model Arup presented to be intuitively sensible. Some commented that the cumulative approach leads to a small sample size, and other techniques such as smoothing could have been considered to retain a larger sample. Ofwat noted that the cumulative approach was widely adopted at PR19 for modelling of enhancement expenditure, where year on year panel models lack robustness due to the lumpiness of expenditure.

One company noted that it may be more appropriate to use 'gross' PE as a driver (accounting for movement in PE between treatment works) rather than 'net' PE (accounting for net change at company level), because the former would still drive investment. Arup noted that the driver is based on the definition of PE collected in companies' Annual Performance Report (APR), and that 'gross' PE is not reported and would require additional data collection.

On **reducing risk of sewer flooding to properties**, companies supported the distinction of sewer flooding from other growth-related expenditure. They acknowledged the cross-over with base expenditure and said the materiality of this will depend on the approach each company takes to reporting these costs. One company noted that hydraulic sewer flooding may have less synergies with base activities. One company suggested that a variable related to climate change may be interesting to investigate (eg extreme rainfall, raised temperatures, etc). Another considered finding a 'properties at risk' driver through the DWMPs will be useful but recognised that this will be challenging.

Companies noted that a cost adjustment claim process may be needed to complement any areas where a modelling approach is adopted.

Q2) Data collection

On **network reinforcement**, companies generally agreed that assets related data (mains, sewers, pumping stations and capacity) could be helpful to collect. One company noted the bulk of network reinforcement work is related to laying mains, while installing a new pumping station is more infrequent.

However, some companies said assets data may not capture scheme-specific factors, such as whether the asset is placed in brown or green fields. They also expressed concerns around back-casting of data for long periods of time, and the allocation of assets where the asset has multiple benefits (growth, resilience, or capital maintenance). Companies said it may be challenging to allocate assets in such cases, and this may require tightening of APR definitions. Companies' assumptions to allocate assets may reduce quality of the data.

Companies noted that headroom could be an important driver to look into. However, they said it may be difficult to collect due to the presence of different levels of headroom at regional and sub-regional levels. They also said that headroom figures may be unreliable as a company's view of headroom could change over time – one company gave the example that their view of headroom in an area had changed following extensive surveying of the water network. One company said it has been looking at service reservoirs capacity of water in mains per customer as capacity measures, but that these are very complex to collect.

On **growth at wastewater treatment works**, one company suggested that capturing the available capacity at sewage treatment works may be needed to understand growth requirements. Ofwat noted the comments on headroom above.

On **reducing risk of sewer flooding to properties**, there was some support for using DWMP information to develop a risk-based metric.

Closing remarks

Ofwat said it is currently preparing a data request covering the base cost data discussed at the 16th March CAWG session, to be issued in April or May 2022. It said the data request could also include some of the areas discussed today.

Ofwat said it would follow up on the discussion on additional growth data with a pro-forma to collect feedback from companies, akin to the pro-forma submitted after the 16th March CAWG session. This was to ensure feedback from each company could be appropriately captured.

Ofwat said that no further CAWG sessions have been planned. Ofwat asked companies to come forward if there are any areas they would like to present on at future sessions.