



South Staffs Water



Cambridge Water

Response to draft determination of in-period outcome delivery incentives for 2020/21

October 2021

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Introduction

For the period 2020-2025 we have a number of financially incentivised regulatory performance commitments, which measure important aspects of our service delivery.

Each year, we report on our performance in these measures and Ofwat determines what adjustments we make to our revenue recovery in the following charging year to account for our performance incentives.

In October 2021 Ofwat published its draft determination of our 2020/21 performance commitments¹. This document is our response to Ofwat's draft determination.

In 2020/21 we met or exceeded our targets in 19 out of 30 performance commitments, which includes meeting or exceeding our targets in 13 out of 17 financially incentivised performance commitments.

A number of performance commitments were materially impacted by the onset of the Covid-19 pandemic at the very start of the 2020/21 financial year. The national restrictions caused significant shifts in normal water use patterns and on the whole increased demand for water in our area. The national restrictions put in place in various forms across the year, which of course were necessary to mitigate the spread of Covid, have also had an impact on some of our operations, especially where we interact with customers or the community. Over the year, we have sought to ensure that water supply remained reliable and we also added substantially to the vulnerability support packages we offer to customers.

In response to the impacts of Covid, Ofwat has already made some policy decisions. For example, the performance commitment which measures customer water use and efficiency initiatives has been adjusted to be an end-of-period incentive, reflecting the significant impact that Covid has had on customer water use patterns. However, despite clear impacts from Covid, Ofwat has not allowed adjustments to some other sector performance commitments.

In particular, education has been impacted significantly by Covid over the past year. Ofwat's draft decision is to apply a penalty incentive to our education performance commitment primarily because we have had to deviate from our original definition in order to continue to deliver an education service under the various restrictions that Covid presented to us. We disagree with this decision and provide further reasoning and evidence in this response.

A second intervention has been on leakage. In its draft determination, Ofwat has sought to defer the outperformance payment for leakage outperformance on the basis of the level of compliance with the common methodology. We disagree with this decision and have provided more information to support this in this response.

¹ <https://www.ofwat.gov.uk/consultation/draft-determination-of-south-staffs-waters-in-period-outcome-delivery-incentives-for-2020-21/>

Education

Introduction

We offer a range of educational support services to schools within our supply areas in the Midlands, and in and around Cambridge. To incentivise us to deliver this, we have a performance commitment with an attached outcome delivery incentive. Our target is to deliver quality educational engagement with at least 6,000 pupils per year over this five year price control period.

Further information about our education programme can be found on our website², including how to book educational activities, and an extensive supply of free resources³.

Education programme

We believe in 'making education count' by visiting schools and spreading the word about the wonderful world of water. Find out more about our education programme.



Within our PR19 final determination, Ofwat defined 'quality engagement' as delivery of at least 60 minutes of material to group sizes of a maximum of 30. Our intended programme, before Covid, was designed as a face-to-face initiative, using extensive hands-on, practical activities aimed primarily at primary-school-aged children.

In its draft determination, Ofwat has applied a penalty incentive to our education performance commitment because our activity in 2020/21 has not met the requirements for 'quality' as originally defined at PR19. Ofwat states that "we have also considered whether the performance commitment could still be met under Covid-19 conditions and consider that moving to online delivery would have still allowed the scope to deliver educational activities to groups of no greater than 30 for a minimum of 60 minutes."

We do not agree with this statement. Under the conditions, it was not possible to simply switch our complete programme to virtual delivery and expect to deliver the same target and duration standard, as we will now explain.

Our track record on education delivery

Since the appointment of our Education and Community Outreach Co-ordinator in 2017, we have developed our education programme to offer a range of assemblies and workshops for Early Years Foundation Stage to Key Stage 3. From water efficiency, to the water cycle, our activities have been designed to be engaging, 'hands-on' and cross-curricular and can be tailored to suit a range of ages and abilities.

These activities have proved popular with schools as it offers something different for both pupils and teachers, as it is free from the constraints of Ofsted. This is why the majority of our bookings, year on year, are repeat visits; evidencing the good working relationship we have built up with schools in our catchment area. With the added extra of a comprehensive 'Teacher's Guide'; which includes aims, objectives, curriculum links, key attainment targets and differentiation, we have also aimed to make life a little easier for teachers when it comes to lesson planning around our workshops.

We had been steadily increasing our engagement numbers and we were confident on a strong start to our 2020/21 target, set at PR19, for 6,000 pupils per year, as shown in the below table.

² <https://www.south-staffs-water.co.uk/community/education>

³ <https://www.south-staffs-water.co.uk/community/education/learning-resources>

	Nr of unique schools	Total pupil count
2018/19	24	3284
2019/20	36	5081

We have also received positive feedback from schools on the quality of our programme:

From Holy Rosary Catholic Voluntary Academy in Burton-on-Trent, Staffordshire:

Fantastically delivered-love the characters! The workshop was so cleverly thought out and an excellent way to spread the message to all about saving water. Maybe children can educate their parents.

From Chadsmead Primary Academy in Lichfield, Staffordshire:

The children really learned lots and were keen to carry on the conversation outside of the sessions too! Thank you-this was really fun and lovely to see the children doing different activities.

From Watling Street Primary School in Brownhills, Walsall, West Midlands:

Thank you for today. The children really enjoy the learning activities and I know that they will be thinking more carefully about water.

Impacts from Covid-19

In 2020/21, the impacts of Covid-19 have made delivery of our intended education programme extremely difficult. The Covid pandemic has resulted in new barriers to delivery that we understandably did not foresee or consider during the original development of our programme.

These barriers have been entirely outside of ours, and schools', control:

- School closures for non-key workers for extended periods of time, including:
 - April and May 2020, and extending into June depending on year group
 - January and February 2021, extending into March depending on year group
- National and regional restrictions on movement and social contact throughout the period.
- Extensively increased welfare considerations and highly conservative risk management for employees and the public, as required by the events unfolding nationally.
- Frequent short duration whole-class or whole-year isolations when a pupil or teacher had a positive Covid test.

These constraints put significant logistical and resourcing pressures on schools, who were having to deal with:

- Making premises Covid-safe
- Restricting non-essential access
- Managing their own teaching resources, when teachers and other staff were also dealing with their own personal Covid management issues, such as their own children's schooling, movement and social restrictions, family care, testing and Covid detections.
- Facilitating a mix between school learning and home learning for children to deliver the core curriculum.

These constraints meant that we were, understandably and sensibly, not able to enter schools to deliver our face-to-face programme. We understand that Ofwat does not dispute this fact.

When the first lockdown occurred at the end of March 2020, we had at that time secured bookings for our face-to-face delivery, for the spring and summer term 2020, across 13 schools and for a total of 1,897 pupils. This is a loss of approximately 63 separate educational delivery sessions.

Responding to the challenge

The impact on our education programme was abrupt and unforeseen, as the events leading up to the first national lockdown at the end of March 2020 escalated quickly.

However we acted quickly to communicate with schools on our education services and to begin to adapt our existing programme of face-to-face workshops and assemblies for virtual delivery. During the first lockdown, from April through to approximately June 2020, we were in the process of creating this new educational material which included:

- Key stage 1 workbook and answer book
- Key stage 2 workbook and answer book
- Shorter worksheets for different age groups and educational themes
- A range of resources covering water safety
- Educational messaging for our social media presence
- Pre-recorded videos

As schools began to return following the first lockdown, we communicated extensively with schools to promote our educational material and secure bookings for virtual delivery sessions. Over the course of the school year we contacted over 400 schools at least three times each to promote our resources and to try and secure bookings for our virtual sessions. We also continued to develop our educational content.

It is important to recognise that the success of our programme depends on schools having a high level of trust and confidence in us as an organisation, and relies on a good working relationship with schools and the teachers.

Due to the pressures on schools, their teachers, and of course on the children themselves, we had to be extremely sensitive to the situation and needs of the schools to ensure our long term relationships were not damaged, and that we can continue to offer the service that schools want to receive to support their learning goals. Put simply, we could not force our programme on schools and dictate to them that they should receive virtual delivery for a minimum of 60 minutes per group.

Virtual delivery in the circumstances present in 2020/21 has particular challenges:

- It requires reliable IT infrastructure, i.e a screen or computer and a good internet connection, in the class. Many primary schools do not have extensive IT infrastructure available.
- For much of the year, classes were a mix of children in school and those at home. Logistically it was therefore difficult to coordinate simultaneous delivery of the material to both groups.
- For children who were home schooling, access to the required materials for the practical elements of the programme would have been difficult (our programme has children making water filters, amongst other activities).
- Primary-school-aged children cannot be attentive to a screen for 60 minutes.
- For the intended face-to-face delivery of the programme, we would have been in-school leading the practical element of the programme, with the teacher free to manage the overall class and behaviour of the children. In virtual terms we could not do this and so running the practical session would have entirely fallen on the teacher.

- Virtual delivery does not allow the presenter to pick up easily on the mood of the children in the class and to judge live if the material is being successfully delivered or whether we need to slow down, take a step back, and give the participants extra support. This is particularly the case with younger children.
- Online delivery also brings about its own safeguarding issues. For virtual workshops to a school with keyworker/vulnerable children and children being home schooled, we weren't allowed to have the camera facing those children in school as they were considered vulnerable. This makes two-way interaction and live feedback very difficult.

From Whitehall School in Cambridge:

As a school, we did not offer live workshops/online teaching in non-core subjects, rather we provided pre-recorded videos which could be accessed at a convenient time for families with limited access to devices and supervision while parents also worked from home. We accessed the pre-recorded workshop and materials from Cambridge Water and most of the students were able to engage with the activities. It would have been logistically far more difficult to offer a live link to both pupils at home and those working in school - we often experienced connection problems with other lessons and this would have been detrimental to the learning the children were able to achieve by being pre-recorded.

From Henry Chadwick Primary School in Rugeley, Staffordshire:

We don't have the best internet connection in school and [virtual delivery sessions] were therefore often fraught with problems - lack of sound, Zoom / Teams crashing in and out etc. As time went on, things did indeed improve but the situation was challenging.

This is why we do not agree with Ofwat that there was scope to still deliver our target using 60 minute sessions virtually, and this is supported by the evidence we have presented above.

Conclusion

In its draft determination, Ofwat seems to recognise the impacts that Covid has had on education provision. However this recognition is at odds with its conclusion that we could simply switch our programme to virtual delivery and meet the at least 60 minutes duration threshold.

Our evidence has shown:

- That a high proportion of the school year (at least five months) was out of commission due to national restrictions.
- The constraints schools were having to deal with during the year and why this led to cancelled bookings and difficulty in securing bookings.
- The difficulties involved with delivering our content virtually.
- How we adapted, communicated with schools, and ensured that we were delivering a service that they wanted, and could work with alongside all of the other logistical constraints, over the year.

Our recognition of the definition issue was why we elected to abate any outperformance payment in the annual performance report, and we stand by that choice. However on the basis of these exceptional extenuating circumstances, it is also not appropriate to apply an underperformance penalty.

We have still achieved the high level outcome that the performance commitment is meant to incentivise – that is, delivering a comprehensive education service to schools to support long term water efficiency objectives – albeit with deviation from the original definition. We have still covered the same content, and we have still met the expectations of schools in the quality of our material and the learning objectives for children. We do not believe that it is intended for the performance commitment definition to act as a disincentive to doing the right thing, which if the 60 minutes constraint is rigidly applied, it is at risk of acting in this way. We are

immensely proud that we have been able to adapt and continue to offer education services to schools in our areas during the pandemic and it is right that this is reflected in this assessment.

From Holy Rosary Catholic Voluntary Academy in Burton-on-Trent, Staffordshire:

On behalf of the staff and pupils at Holy Rosary, I would like to thank Rachel at South Staffs water for the continued efforts to support school in offering a programme of activities to promote water efficiency and water awareness during the period of the national lockdown. The team were proactive in communicating with the school and in providing materials to support the continuation of the programme that would ordinarily be delivered in school. The resources, packs and guidance for teacher sent by the team enabled the sessions to be completed by staff working with those children in school. Packs were sent home and feedback from parents who completed the tasks with their children was positive.

On the basis of this evidence we ask Ofwat to reconsider its decision and remove the underperformance penalty it has applied to our education performance commitment.

Leakage

Ofwat's Draft Determination has deferred the outperformance payment for SST region leakage performance on the basis of the materiality of one remaining component of definition compliance.

We disagree with Ofwat that the issue is material, and will take this opportunity to restate and clarify our points.

The decision is rooted in the query that was sent to companies, which we responded to on 3rd September, where Ofwat queried the materiality of our non-compliance with the convergent leakage methodology. We note that in Ofwat's ODI Draft Determination they conclude that the majority of the sector still have challenges with regards to compliance; however, 10 other companies have achieved an in-year reward for their leakage performance. We are the only company to have its leakage reward deferred – we believe this is because of the way Ofwat have interpreted our query response, rather than a material impact of non-compliance. In this response we will evidence our reasons for disagreeing with Ofwat's draft position, however fundamentally we agree with the incentivised approach to PCs, which drive the sector to perform better in areas that are important to our customers and the environment. We set ourselves a stretching PR19 target of 25% reduction in leakage levels in our South Staffs region – this was reflective of our comparative sector performance. Even though Ofwat have reduced that commitment to 15%, we are still aiming to outperform our regulatory contract and have committed to expend additional totex on the basis of partial recovery from this ODI. We have increased the levels of independent assurance throughout our convergence process, recognising the complexity of the water balance, and to assure ourselves and our customers that our reported data is accurate and reflective of actual performance. Both us and our independent auditors Jacobs consider our reported leakage performance to be accurate, and therefore should be recognised through the in-year incentive.

The one area of non-compliance, in our SST region is one which is about gathering additional data to validate and supplement existing models on non-household night use. The objective was to install more logged meters to improve the models we already had. Unfortunately due to the impacts of Covid-19, the installation programme was delayed and so our sample size was smaller than intended. The data that we did collect from the reduced number of meters was showing some unusual variance from expected ranges, and so we need to do more work to inspect this data and increase the sample size to ensure it is statistically significant before it can be used. We therefore used an updated version of our previous non-household model. The absence of new data does not mean that we have nothing, and we do not believe Ofwat have taken this into consideration in their Draft Determination. We still have an independently audited non-household night use model, that whilst not fully meeting the requirements of the common definitions is very close (closer than our CAM region which we chose to defer for this reason), is still consistent historically and contains a significant amount of robust data.

In Ofwat's query, they did not set out a method for assessing materiality – in fact, on reflection, if there was a robust method for assessing materiality we would have needed a complete data set – which not having was the instigator of the query itself!

In our query response we addressed the materiality of utilising the new (incomplete, non-statistically significant and unused) model and gave a value of 6.7%. This is due to the limited data available. Artesia, who we commissioned to produce the new NHH model, considered it impossible to provide accurate coefficients in 2020/21. So they provided the modelling report and updated coefficients based on a proof of concept style analysis to show that this method could work pending the resolution of these issues – i.e., once more data is

available – in terms of the number of sites and the length that the data has been collected, the model will be robust and effective.

The proof of concept modelling report provided (on which the 6.7% figure is based) concluded that the reliability of the model suffered due to a number of factors, including the fact that the fraction of sites available was not found to be fully representative with respect to ADC distribution and the number of sites was deemed too small for a representative sample to be extracted post-QA. The model was also built on sites that contained, in general, 3-4 months of data, rather than the intended 12-months of data. This data predominantly covered the winter period, and, during much of this time the UK was subject to a national lockdown. Artesia stated that their non-household analysis for other companies during the COVID period found that total consumption had dropped by 25-30%, whereas night consumption had only dropped by 0-10% – a far lower proportion. This would imply that NHH NU models based on day use or ADC may be underestimating NU for this period.

Regarding the incomplete model Artesia commented that, “what cannot be proven yet is if the sample values are anywhere near the population, because we simply don’t have enough data, and the time period of the data is extremely biased. I would say that the night use values we’re seeing are a lot lower than other companies we’ve done analysis for (normally these are somewhere in the region of 20-40 l/prop/hr), but are very large regional variations.” SST’s reported NHH NU value of 18.68 l/prop/hr is in line with previous company estimates and slightly lower than the range of values seen by Artesia for other water companies. Other than the limited proof of concept model by Artesia, we have found no reason to suspect that the NHH NU value for 2020/21 is 49% lower than the values seen by other companies. The NHH NU value of 9.83 l/prop/hr from the incomplete model is considered to be highly improbable to be correct and likely an underestimation (thereby overestimating leakage) based on the issues with the model, the values seen elsewhere, and previous company values.

However, to clarify our position within the water balance analysis – **we did not use this data**. Our query response was articulating why we did not utilise the new Artesia model, rather than quantifying any uncertainty that was included in our reported leakage value – we apologise if we misunderstood the intention of Ofwat’s query. We believe that the model we did use (which is an updated version of our previous NHH model – with new data and a COVID-19 correction factor applied – peer reviewed by Artesia and audited by Jacobs) had a representative level of NHH consumption and this was validated by Artesia. Artesia themselves stated that, “Due to the COVID-19 pandemic, many water companies have been unable to progress the set up and installation of their planned commercial monitors. For this reason, using previously audited non-household night use models is the only option for 2020/21 reporting. These 2019/20 models have been used to produce initial NHHNU estimates in 2020/21 by applying the coefficients to the 2020/21 average billed volume (ABV) data to compute the night use value for this financial year”.

In summary – we used a value of 18.68 l/p/h for our NHH night use based on our old model (updated and adjusted for COVID). The model (not used due to statistical insignificance and timeframe of dataset which isn’t representative of a whole year) gave a value of 9.83 l/p/h. Artesia, through their sector work of understanding the impacts of COVID on consumption, have confirmed an industry range of 20–40 l/p/h – this obviously supports our view that further work is needed on the new model, but also, and perhaps more importantly shows the number we did use was on the lower side of industry data and therefore means we have almost certainly understated non-household consumption and therefore probably overstated reported leakage.

In addition, it is important to recognise the contribution of the water balance process. Within the water balance, uncertainty factors are already applied to each input component, and any gap between distribution input and the sub-components is spread back across all inputs based on these factors.

As we explained in our query response, we covered all of this process with our technical auditor, Jacobs. We clearly communicated to them that this was an area of compliance remaining outstanding; however, Jacobs were satisfied that the use of historic model was the most appropriate solution and that the data uncertainties were correctly represented within the water balance confidence factors. Jacobs did not consider this a material issue in either their verbal or written report to our Board. We included Jacobs's written report in our APR submission.

We consider the remaining compliance area to not be material in practice as when the new model is implemented the teething problems with the new, reduced sample, data, will have been resolved. However, we will of course, rebase our leakage positions should the new model cause there be a material impact.

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