South Staffs Water

Cambridge Water

Supplementary information to the annual performance report for sections 3, 4R, 5A and 6

July 2021

Introduction

This document provides supplementary commentary for section 3 of the APR (outcomes performance) and for reporting tables 4R, 5A, 6A, 6B, 6C and 6D, which are not presented in the main annual performance report.

This document also contains three appendices covering the following areas:

- Leakage and PCC compliance with common definitions;
- Early data on impacts of Covid-19 on household PCC and overall demand; and
- Impacts of Covid-19 on our education activity.

Annual performance report section 3 – outcomes performance

Table 3A

Figures for previous reporting year (column F): We have populated these where they are available and are consistent with our PR19 performance commitment definitions. We have put "n/a" in the cell where it is not available or not consistent with PR19 definitions as follows:

- For leakage and PCC, the presentation of the values is as a percentage reduction from the 2019/20 baseline therefore we cannot include last year's value in this format. Tables 3F.1 (SST) and 3F.2 (CAM) show the leakage and PCC values for the previous three years in their native units.
- Extra Care assistance is a new initiative starting in the 2020/21 financial year and so the performance commitment was not applicable in the previous year.
- Education activity has occurred in previous years however the definition at PR19 materially changed requiring additional data collection alongside delivery of our programme. Therefore we cannot state the previous year value in a consistent format with the PR19 definition.
- Visible leak repair time is a new measure for PR19 that required additional data collection to be established, and so this is not available in a consistent format for previous years.
- Water treatment works delivery programme is a specific ODI for our Hampton Loade and Seedy Mill enhancement projects funded in PR19 and starting in 2020/21, therefore a previous year value is not applicable.
- Residential void properties and gap sites is a new initiative starting in 2020/21 and requiring additional data collection to demonstrate compliance, therefore it is not available for the previous reporting year.

Outperformance or Underperformance payment (column I): These are all automatically populated however we need to note some points with this data:

- Our Leakage Cambridge Region performance commitment is showing an outperformance payment of £0.042m based on the data input in table 3F.2 and carried over automatically into table 3A. However we are electing to defer this reward due to remaining uncertainty over the Cambridge leakage value this year. This is because we are not fully compliant with the common definition and our Cambridge leakage value is sensitive to the remaining item of compliance. The remaining item of compliance has also meant we were not able to revise the values for the previous three years which are used to calculate the three year average baseline from which the PR19 leakage reduction targets are measured. In APR2022 we will

need to restate the baseline years and also 2020/21 to take account of the achievement of full compliance and therefore this is likely to influence the reward value currently shown for the year. On this basis we do not consider it appropriate to claim the outperformance payment for this measure at this time. See table 3F.2 commentary and appendix 1 of this document for more detail.

- Note that PCC was intended to be an in period incentive at PR19 however it has been significantly impacted by the changes in residential consumption in 2020/21 due to the Covid19 pandemic and resultant actions and behavioural changes. The penalties generated by the events of 2020 are significant and outside of management control and foresight. Ofwat has moved PCC to be an end of AMP performance commitment. Appendix 2 of this document sets out more detail on the early data we have on how PCC has been impacted by Covid19 in our supply regions.
- Our Education Activity performance commitment has also been materially impacted by Covid19 in 2020/21. The national and local restrictions in place for multiple time periods over the reporting year has meant that our original plans for educational content delivery were significantly curtailed. Appendix 3 explains in detail the constraints we have faced and the changes we have made to try and adapt to the very difficult situation our education team has faced. The additional activity we have undertaken is not fully aligned with the PR19 definition and so we believe it is appropriate to abate the outperformance payment on this performance commitment this year.
- Our Environmentally Sensitive Water Abstraction performance commitment initially was calculating incorrectly. We raised this with Ofwat in query SSC-009 on 16th June 2021 and as instructed have made an amendment to the "direction of improved performance" variable in the input data sheet to correct the issue.

Visible leak repair time additional reporting

When defining our business plan our customers told us we should repair bursts quicker, to do our bit to minimise the wastage of water from our network. We agreed and set ourselves targets to significantly improve our performance in this area. During the business plan process we realised that the definition of the measure had been taken to include reinstatement time, which was not intended. We attempted to correct this with Ofwat post draft determination and post final determination. In a letter post final determination, Ofwat acknowledged that the definition should be amended however asked us to report the measure both with and without reinstatement time for the duration of the price control.

We have reported the value without reinstatement time, as originally intended, in table 3A. This is 90% of visible leaks repaired within 6 days, which meets our performance commitment. Including reinstatement, 90% of jobs are completed within 12 days.

Table 3D

The validation sheet in the section 3 tables spreadsheet is showing table 3D as having validation errors however none are shown in the table itself.

We have included all of the components that apply to us in the DMEX quantitative section however a number of these were not applicable in the 2020/21 year as we either had no activity of that type;

or it was one of the measures introduced at the half year and so the first half year is not applicable. We have therefore entered some "n/a" values into the sheet which may be what is triggering the validation warnings. However we have checked the calculation of overall quantitative scores and the overall DMEX score and these values are correct.

Table 3E

Figures for previous reporting year (column F): As with table 3A we have populated these where they are available. We have put "n/a" in the cell where it is not available, as follows:

- Retailer Measure of Experience is a new initiative starting in 2020/21 and so previous year values are not available.
- Employee Engagement is a new initiative starting in 2020/21 and measuring from a baseline value, so a previous year value is not applicable.
- Treating Our Suppliers Fairly is a new initiative starting in 2020/21 and requiring additional data collection in our procurement systems, and so we do not have data in a consistent format for previous years.
- Trust is a measure we have recorded historically however the question we ask customers has materially changed in 2020/21 so it would not be a consistent comparison with the PR19 performance commitment.
- WINEP delivery is a new performance commitment for AMP7 based on the schemes in the latest WINEP tracker, so a previous year value is not applicable.

Table 3F

Note that as we have regional commitments for leakage and PCC, we complete tables 3F.1 and 3F.2 instead of table 3F for these performance commitments. Due to blank cells in 3F, there are residual validation warnings showing on the validation sheet.

Table 3F.1

This is the leakage and PCC table for the South Staffs region.

Note that **we have** restated the 2017/18, 2018/19 and 2019/20 values for leakage and PCC in the South Staffs region based on our current level of compliance with the common definition. There is an outstanding area of non-compliance, non-household night use, however we have examined the sensitivity of this component and it is not material to the output values derived from the water balance calculation. Appendix 1 to this document explains the progress we have made towards common definition compliance this year, the impacts on the previous year values and the baseline, and our plans for achieving full compliance next year.

Table 3F.2

This is the leakage and PCC table for the Cambridge region.

Note that **we have not** restated the 2017/18, 2018/19 and 2019/20 values for leakage and PCC for the Cambridge region. This is due to an outstanding area of compliance, non-household night use, which contrary to the SST region, is showing a material impact on the water balance in the CAM region.

Therefore the leakage and PCC values from 2017/18, 2018/19 and 2019/20 shown in table 3F.2 are those reported in APR2020 from shadow table 3S. However the 2020/21 value shown is based on our latest level of compliance with the common definition. We acknowledge that this means that the baseline used to set AMP7 targets is inconsistent with the leakage and PCC values we are reporting for 2020/21, and this is why we have elected to defer the outperformance payment for CAM leakage until we become fully convergent and can restate the previous values on a consistent footing.

Appendix 1 to this document explains the progress we have made towards common definition compliance this year, the impacts on the previous year values and the baseline, and our plans for achieving full compliance next year.

Annual performance report sections 4R, 5A, and 6 – "cost assessment"

Table 4R - population

For line 4R.26 (resident population) we have updated our population estimates based on work undertaken in partnership with other companies on the Water Resources West and Water Resources East groups. This work assessed population for the base year 2019/20 and we have then applied adjustments to take account of the in-year growth for 2020/21.

Table 4R/6D - metering

Properties data and classification is primarily derived from our billing systems however to complete the split between smart and basic meters required by lines 17 to 25 we used supplemental information as our billing system does not store all of this information. Note that Ofwat's definition of a smart meter is one that can be read remotely without accessing the meter installation, however this is not what might be considered truly 'smart' by customers in the same way as the latest energy meters are, i.e being able to access real time consumption information. We have included meters that are remote read capable in our reporting of smart meters as per the definition in RAG4.09. A small proportion of unmeasured customers have a meter fitted, due to optant reversions and a previous 'meter my street' programme; and a small proportion of metered (as billed) customers do not have a meter fitted, due to assessed charge tariffs.

For new meter installations we have now switched to a different meter type (Diehl Meters). Every new meter we install is AMR technology. More specifically, the AMR technology is one way – as the meters do not need to be woken up to be read so bin lorries (and any other vehicles) can drive past and collect readings automatically. We aim to roll these meters out across multiple towns and villages every year, increasing our frequency of reading meters. We are also trialling NB-IoT reading technology.

The metering activity we have carried out in 2020/21 is lower than our business plan and water resources plan assumptions. All new properties are metered, although due to the impacts of Covid, new development has been slightly lower than expected in the year. For meter optants, activity is also reduced compared to our original forecasts, again primarily due to the restrictions and disruption to activity caused by Covid over the year.

Tables 5A, 6A, 6B, 6C

These tables contain broadly the same information as previously reported in tables 4P and 4Q of the APR in 2019/20, however restructured into a new format and with some additional lines added and a small number of lines removed from previous year.

We have been able to complete all of the cost assessment data consistently with the reporting guidance and last year's data and we note no material changes over previous years in terms of our asset base and utilisation metrics. Some lines naturally vary year to year (such as treated water volumes) however we have been able to reconcile all these movements across our assets.

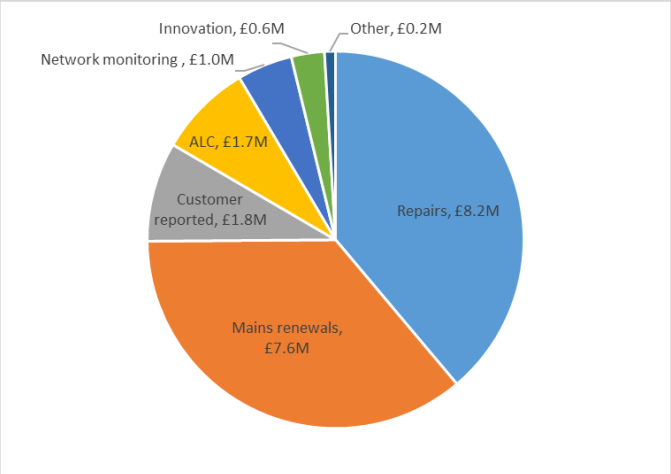
Table 6D – leakage activity

Line 16 requires an estimate of the split between leakage maintenance and leakage enhancement. We note that under Ofwat's instruction, none of our leakage enhancement expenditure is formally classed as enhancement in table 4L, due to the policies implemented at PR19.

We have participated in the recent Ofwat-led working group (23rd June) where leakage enhancement costs and activity were discussed and we note that there is difficulty across the sector in how to separate enhancement from maintenance activity for leakage. We will continue to engage with Ofwat and other companies via these working groups and fully support any additional work to improve consistency of reporting on this data.

In the absence of detailed guidance on what to include, we have chosen to constrain the boundary of what we examine – for example we have not applied a proportion of back office, administrational, IT or facilities costs etc.

This chart shows an overview of the expenditure included.



APPENDIX 1

Leakage and PCC compliance with common definitions

We have made significant progress towards full compliance with the common definitions for leakage and PCC over the last three years but particularly in 2020/21 when many of our more complex work programmes came to fruition.

Improvements have been made over the last three years in ensuring all our data points are aligned with the night flow period to ensure consistency. We have built and implemented a Household night use Small Area Monitor for Household Night Use Allowances in our Cambridge region, which has never had its own monitor. We have updated the South Staffs Small Area Monitor as well. We have established a daily calculation of the Hour to Day Factor (HDF) for pressure correction within our leakage management so it is available at all times.

We have made significant progress towards best practice in our Cambridge region to account of leakage in mains outside District Meter Areas (Trunk mains and Service Reservoirs). We have established Trunk Main Areas (TMAs) and set up daily balancing through metering where possible to capture the actual leakage taking place rather than relying on industry default methods.

We have set up an 'Unmeasured Household Consumption Monitor' in the Cambridge region, as well as calculated a company specific in year Supply Pipe Leakage allowance. Unmeasured non-household allowances have been reviewed and updated for both regions. We also commissioned a Meter Under Registration study and updated MUR allowance for both regions for both Metered Households and Metered Non-households. We've also done work to confirm the leakage and burst allowances, plumbing losses and updated the population estimates.

In the water balance, we have reviewed and updated the MLE Confidence Intervals for both regions.

However for leakage we have one outstanding area of non-compliance, non-household night use, which is applicable in both regions.

This component required the installation of a statistically significant number of loggable meters on non-household premises within our monitor areas. We then needed time for those newly logged meters to generate data. We began this programme in March 2020 however it has been held back by the restrictions that resulted from the Covid19 pandemic.

For safety of our employees, following government guidance, during the three lockdown periods in AR22 we scaled back our metering works. Most notably in the first lockdown where all metering work was suspended until it was felt that it could recommence safely. This meant we were unable to carry out work on the project until September 2020. At that point it was felt we could still achieve the objective, however, the resultant two additional lockdowns meant that works had to be scaled back again each time. Also due to the pandemic a number of our target Non-households were closed and so we could not arrange to install the meter/logger and subsequently we have had issues with data collection with customers refusing access to the meter/logger for COVID safety reasons.

By March 2021 we had installed 726 out of 1703 proposed loggable meters and been able to retrieve data from 539 loggers.

We commissioned Artesia to analyse the data produced and they concluded that whilst the approach we have taken was robust, the quantity of data we have at this point was insufficient for a robust and representative model. We ran analysis of the data we do have but it causes significant swings in our

historic water balances in the Cambridge region, particularly in the baseline years (this is likely to be because we have seen a greater impact in overall Non-household consumption as a result of the Pandemic in the Cambridge region and as the data has been collected in a COVID affected year it is not representative of previous years). It is less sensitive in SST as we have seen less of an overall impact on consumption in the region and the installed and gathered data sample size was larger by proportion.

Unfortunately this means that we have been unable to utilise this data this year and we remain non-compliant for this component of the common definition in both regions. Due to the sensitivity of this component in Cambridge, we are not able to restate our previous three years values this year for this region. Our meter installation programme is continuing, and we will continue to collect more data from the meters we have installed up to now and the new ones being installed this year as we continue the project. Following the phased releasing from lockdown 3 we have recommenced on this project and subject to no further interruptions due to the COVID19 pandemic we expect to be fully compliant by the end of 2021/22.

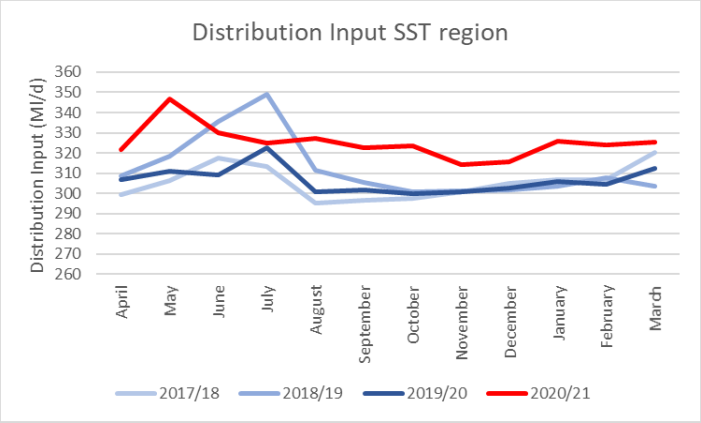
APPENDIX 2

Early data on impacts of Covid-19 on household PCC and overall demand

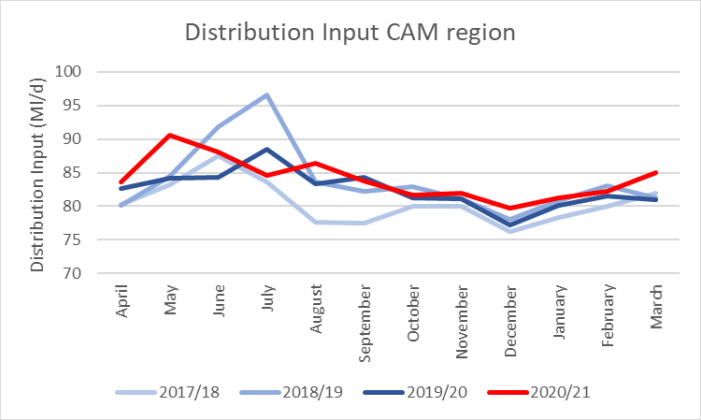
In the 2020/21 year we have experienced an 18% increase in annual PCC in 2020/21, compared to 2019/20, in both our South Staffs and Cambridge supply regions.

The start of this increase was abrupt, starting at the end of March 2020 when the first national lockdown came into effect.

The chart below shows the monthly distribution input for the South Staffs region. In a normal year between May and August we would usually experience a period of higher demand, coinciding and correlated with the weather and the timing of school holidays or weekends. For example in 2018/19 our demand was high in both June and July before dropping back in August, reflecting the good summer in that year. However looking at the overall demand for 2020/21 it is clear how significant the impact of Covid19 lockdown was across April and May 2020, and also then how demand has remained high throughout the whole of the year, not falling back to the level we would expect outside of peak demand periods. Overall, SST's average distribution input for the year is 6% higher than the previous three year's average.



Our Cambridge region experienced a different profile, shown in the chart below. We saw the same increase in April and May 2020 at the onset of the first lockdown, however demand then fell back to still slightly elevated but broadly more similar to levels seen in previous years. Overall average distribution input in Cambridge is up by about 2% compared to the previous three year's average.



Despite the different profiles seen in distribution input, overall PCC increase is almost the same in both regions, at an 18% increase over previous years. This may reflect the different demographics of

our two regions. In SST, which is more industrial, the proportion of people working from home may be lower than in the CAM region as it is our understanding that a lot of manufacturing activity did not shut down in our region during lockdown. However of those that do work from home or on furlough, it is likely that a proportion of these people would normally work out of our supply area in either Birmingham or Wolverhampton, and so we may be seeing an effect where demand that would normally be part of Severn Trent's area in the working day has transferred into our region as domestic use.

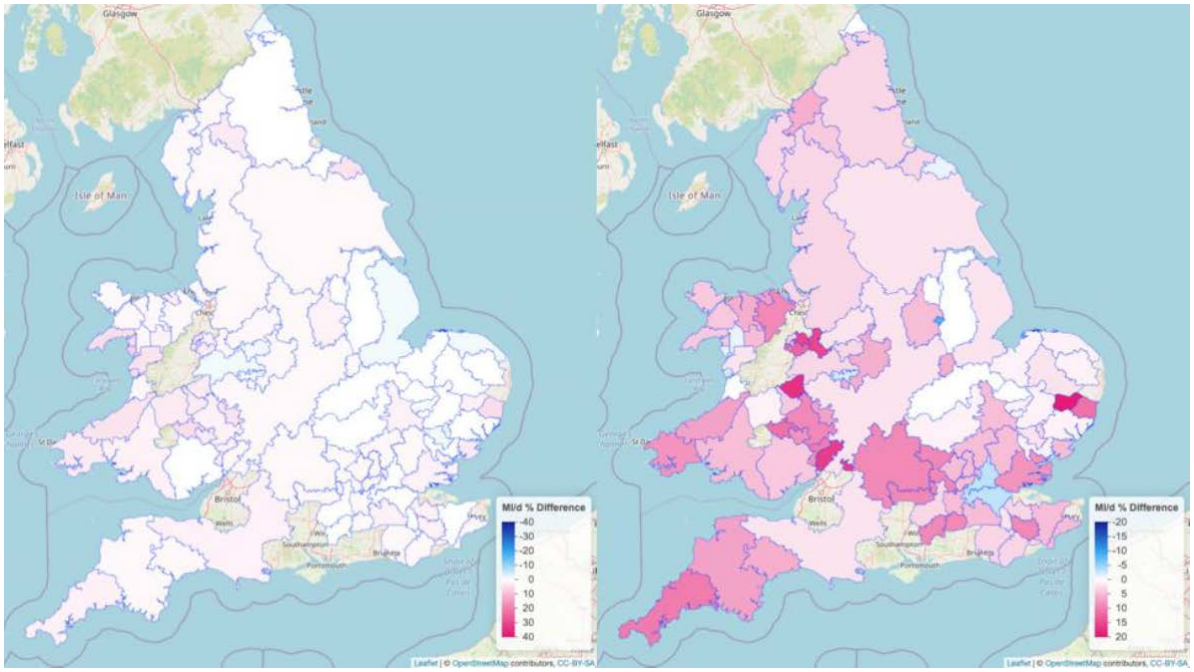
In Cambridge, which is less industrial and more office, tourism and service industry centred, it is likely that more businesses were closed during lockdown with people working from home or on furlough, and so we may be seeing a more direct transfer of demand from business to domestic consumption directly within the region, hence why overall demand has increased by a smaller amount.

Whilst the two regions do have different levels of metering penetration also, our data at the moment does not suggest a significant difference between metered and unmetered customers in terms of their PCC increase in either region.

Artesia study

We have participated in a national study, led by Artesia, in order to pool our data with that of other companies and to help develop a national picture of consumption change due to Covid19.

The findings show that the national impact has been an increase in overall demand of around 2.6% with an increase in domestic consumption of between 9 and 13%, and a decrease in business consumption of around 25%. This does of course vary across the country. These figures and the chart below are weather normalised:



Artesia finds that the biggest increases are in the South (but not London), the Midlands and the West. The demand in London has fallen, explained by the reduction in commuting, hence it is also likely that the same effect might occur in Birmingham and Wolverhampton, two cities adjacent to

our South Staffs supply area, but being smaller cities the graphic above does not separate these from their wider water resource zone as it does with London.

Artesia references a social science study carried out with the University of Manchester, suggesting that the increasing interest in gardening during the lockdown has contributed to the increase in consumption. Artesia also finds that the daily pattern has changed, with an increase in water usage through the day and with the morning peak being less prominent.

Artesia has also examined which business sectors have contributed most to the changes in demand for example finding that the hotel and restaurant sector had an upto 70% reduction and sports and recreational services upto a 60% reduction. The education sector was also impacted. The findings suggest that other sectors were less impacted, such as food production, utilities, health and social work.

Artesia's work used data upto October 2020, but as we now know, impacts on demand and national lockdowns and school closures also persisted into the winter and now into 2021. Early indications of 2021/22 data show demand and domestic consumption is still elevated.

We hope to continue the work with Artesia adding more data post October 2020 to understand the ongoing impacts and to determine whether, and how quickly, consumption patterns return to normal as restrictions start to ease.

The impact on the performance commitment

We welcome that Ofwat has deferred the financial incentives to end of period with a view to understand the impacts further during PR24.

Whilst we recognise the duty of the water sector to promote water efficiency, clearly the step change we have witnessed is unprecedented and outside of management control. Furthermore, the design of the ODI, being based on a three year average, means that the impact of 2020 and 2021 PCC increases will linger in the performance commitment until at least the end of the AMP, and this assumes no lingering behavioural change which there may be.

It is our view that it is clear at this early stage that PCC incentives should be fully abated for the entire period and we would welcome early dialogue with Ofwat on this topic before PR24 to agree the position, primarily because as it stands at the moment the significant penalties that the PCC performance commitment is generating in its current form, will out of necessity be a focal point of our PR24 plan. We would rather address the lingering impacts of Covid in a positive way, rather than the focus be on us arguing for penalty abatement and this detracting from the important long term objectives in water efficiency.

APPENDIX 3

Impacts of Covid-19 on our education activity

Impacts on our original programme over the reporting year

Our performance commitment for Education Activity was designed as a high quality programme of face to face education and practical activities for school children primarily in the key stage 1 and 2 age groups, although it also included assemblies of wider age groups within schools.

We first began to feel the impacts of Covid19 on our education activity in March 2020, when on 20th March 2020 the Government closed schools to all but vulnerable children and children of key workers. As well as the closure, schools themselves were now facing considerable uncertainty, pressure on their own teaching and wider resources, and had an obligation (as other businesses and wider society did) to minimise contact and take additional hygiene precautions. At this point, before the 2020/21 reporting year had even begun, we had secured bookings across 12 schools in our supply regions covering an expected 1,897 pupils. All of these bookings were cancelled.

As the reporting year began, we maintained contact with the schools in our region in an attempt to ensure the door remained open for us to secure bookings when the situation improved. At this point there was no indication of how long this situation might last. Through the contacts we had with schools we were aware of the considerable pressure they were under in managing their own teaching resources and pupil logistics. When the new school year started in September 2020 it was within a complex set of local and national requirements including frequent Covid19 testing, self-isolation of entire classes or year groups, and a need to maintain hygiene requirements and minimise outside contact. There were also Government requirements on our own business to work from home where possible and with increased hygiene and also self-isolation and shielding requirements applying to our own workforce. This continued throughout the autumn and into the winter as another Covid19 wave was taking hold nationally. In January 2021 further national school closures and lockdown restrictions again came into effect.

It is for these reasons that we have found it necessary to work beyond the scope of the original PR19 definition for education, as we have been restricted from undertaking face to face practical activities with our target children as originally intended. As at June 2021, with the end of another school year approaching, we have still not been able to conduct any face to face delivery of our education programme.

Adapting to the situation and development of additional extensive resources

We have done a great deal of work since March 2020 on expanding the scope of our offering and developing extensive set of resources that can be used for educational purposes in schools, aligned to the requirements of the National Curriculum Framework, which have been made freely available on our website and proactively communicated directly to schools, such as:

- A range of learning resources that can be used either within schools or for home learning including activity books, worksheets and games: https://www.south-staffs-water.co.uk/community/education/learning-resources
- A wide range of teaching support resources including activity books, worksheets and games: https://www.south-staffs-water.co.uk/community/education/teaching-resources
- A range of quizzes and videos: https://www.south-staffs-water.co.uk/community/education/quizzes

We extensively promoted these resources via our websites, social media, internal communications, press releases to local media and via direct communications with schools, and generated over 4,000 page views on our websites.

To ensure our educational resources were helpful we sought feedback during design from parents and teachers on our customer panel, as well as our H2Online customer insight portal, with a total of five participants in our South Staffs region and four participants in our Cambridge region. We received some excellent feedback on our activity books, with one customer saying about her Reception-aged son: "*The tasks helped him with his reading and writing and he was much more willing to do these than usual. It is just because of the fact he was so interested in the story and different ways to use and save water that he didn't realise he still learned. It is always a big struggle to make him do reading or writing but this time he wanted to do it because of the story.*"

Setting up virtual delivery

As we considered our options for continued programme delivery we chose to move forward and develop our original face to face programme content into a series of virtual delivery workshops to be delivered via Microsoft Teams or Zoom, or via pre-recorded video with a bookable Q&A session or follow-up quiz.

We piloted this in July 2020 with a school in our South Staffs region, before being rolled out across both regions in September 2020 at the start of the new school year.

To help staff across the business, who found themselves home schooling at the beginning of January 2021, we offered our programme of virtual assemblies for Early Years Foundation Stage, Key Stage 1 and Key Stage 2, as well as additional digital resources. They were well-received across the business, with positive feedback: "*I just wanted to message to say I'm really impressed with this comms. Although I don't have children, I think it's fantastic what you are offering. Not many companies would offer anything like this. Plus your time and effort.*"

To promote virtual delivery and to encourage more bookings, we emailed all schools in both of our regions showcasing our virtual delivery launch. This content and our active attempts to secure bookings and utilisation within schools led to 19 bookings across both regions covering 1,484 pupils. We believe we were the first company to introduce virtual delivery of our content to schools.

We used our website and social media extensively as a tool to promote our activity and over YouTube, Facebook and Twitter over 5,000 video views were recorded across the period from October 2020 to February 2021. We also trialled paid-for video and text-based Facebook advertising in the Cambridge region, which generated a further 4,000 video views and created direct enquiries and one booking.

In July 2020, we launched a water-saving poster competition. From encouraging people to turn off taps, take four-minute showers, and not flush rubbish down the toilet, our young designers covered a whole host of water-saving messages. A representative from our Customer Panel helped to pick the winning entries, and also gave the children some great feedback on their work. Emails received from parents expressed how grateful they were to us for making their children happy during lockdown, one participant saying "*Thanks so much again for making a little girl in lockdown very happy.*"

As part of a water-industry-wide education event, we participated in a week of water activities for schools, concluding with an online event to celebrate 'World Toilet Day', from 16 to 19 November 2020. In total, across all water companies, 987 pupils participated in the activities, with 980 joining the online event. And as part of World Water Day on 22 March 2021, we participated in two water-industry-wide, live online events and water footprint activities aimed at primary and secondary schools. In total, 1006 primary school pupils and 108 secondary school pupils from across the country attended. 7 of our schools, across both supply regions, registered for the event.

Future plans for continued adaptation to the Covid19 situation and development of our programme

We have developed a programme of work for Key Stage 3 pupils, which covers water efficiency and the network supply challenge. Although we are unable to deliver the latter due to current restrictions, we are aiming to pilot our water-efficiency workshop virtually. Currently, 20 secondary schools within our South Staffs region have been contacted about the pilot.

We have updated our school database, ensuring that any additional schools identified have been contacted with details of our virtual offering.

To expand on our offer to Key Stage 3 and 4 pupils, we are developing resources for virtual careers talks in the form of videos. Together with Aspire to HE, a programme which encourages secondary school pupils to consider their journey into higher education, we are looking at developing a virtual careers event for local schools in our South Staffs region.

We have developed a water-efficiency award scheme for schools, where they will be invited to sign up after an education visit and will need to meet certain water-efficiency targets to progress to the next stage.

As part of our community outreach programme, we started working on a pilot scheme with the Girl Guides at the beginning of 2020, after we had difficulty getting it underway with schools. However, this also had to be put on hold due to Covid-19, so we are currently offering the scheme virtually, via a pre-recorded video on water efficiency and a quiz, to accompany the award scheme workbook. This offer will also be expanded to the Rainbows, Brownies, Cubs, Beavers and Scouts. Currently, 12 Girl guides have participated in our pre-record and quiz activities. In addition to this, we are developing an activity book for the Girl Guiding and Scouting associations, which can be used in conjunction with their badges.

Of course, we also hope to resume our face to face workshops and assemblies as soon as it is safe to do so within the wider set of national guidance.

Conclusion

Unfortunately this year we find ourselves, as many others are, operating under exceptional circumstances. From speaking to a wide range of education professionals, teachers, head teachers, governors, and other organisations that work with schools, it is apparent that due to current circumstances, schools are having to be reactive and cannot operate a long-term plan, as is usually the case, due to the uncertainty around remaining open, pupil attendance and staffing levels. As schools have been having to either isolate an entire class or year-group bubble, or completely close the school due to Covid19 infections, plans can change frequently and suddenly. For that reason, it has been increasingly challenging to book in external learning support, such as the workshops and assemblies we offer, during 2020/21.

If we compare to our education activity pre-Covid19, in December 2020, our pupil engagement figure stood at 476, whereas, in December 2019, this stood at 4,314. The 2019 figure was achieved by email campaigns at the start of each term and through repeat bookings.

The Water Education Forum has prepared a joint statement on The Impact of Coronavirus on Education. This demonstrates the wide ranging impacts on education delivery nationally, and mirrors our own experiences as set out in this appendix. We have enclosed this report alongside this document as appendix 3A.

We have made every effort to continue to provide schools with education material (including virtual delivery), guidance and support. Overall this has led to a far greater count of engagement than originally proposed in our PR19 target of 6,000 pupils however the activity has not always met the original requirement for a minimum duration and class size which is to be expected under these circumstances. To reflect this deviation from original scope we propose to **fully abate the ODI reward** of £8k shown in table 3A for our education activity ODI in 2020/21.

We are currently taking bookings for the summer and autumn terms of the 2021 academic year; a total of 822 pupils so far, which shows that schools are eager to book workshops and assemblies with us, once a sense of normality resumes. Clearly however the national pandemic, whilst improving, is not over yet and we may find our education programme still hampered by Covid19 in the new school term starting in September 2021 as it has been in the first quarter of the year to date. We expect that we will continue to need to expand the delivery mechanisms and material for our programme which will move beyond the scope of the original definition as it has done in 2020/21 and we welcome dialogue with Ofwat on whether we need to formally amend our PR19 definition to take this into account.

APPENDIX 3A

The Impact of Coronavirus on Education

COVID-19 has had a significant impact on the Education sector. All teaching establishments have been affected at some point, and the long-term consequences to our young people of the economic, social and personal (mental health) impacts are unknown.

Challenges have included the change to teaching practices using remote learning, adaptation to delivering & engaging virtually, changes to face to face teaching to comply with social distancing requirements and attempting to maintain staff and pupil cohorts when schools were, once again, fully occupied. This has been further impacted by digital poverty resulting in a significant proportion of students being unable to access educational tools.

Introduction

In response to the emerging COVID-19 pandemic, by 20 March 2020, schools in the UK had closed for all in-person teaching, except for children of key workers and children considered vulnerable. With children at home, teaching moved to online platforms, arguably a situation where many schools did not have (a) the infrastructure or (b) the training & resources, to implement with immediate effect (where possible).

During 2020, the education sector flexed as different scenarios presented themselves, with some students being back in the classroom during the Autumn term. However, the emergence of a new variant of COVID-19 in December 2020 led, once again, to the cancellation of face-to-face teaching across England, Northern Ireland, Scotland, and Wales the following month.

This closure has continued throughout the Spring 2021 term, with planned re-openings during March.

Education in the United Kingdom is delegated to the four nations: education in Scotland, Wales and Northern Ireland is devolved to the Scottish Government, the Welsh Government, and the Northern Ireland Executive, respectively, whilst the UK Government is responsible for England.

Timeline

Primary Schools

Detailed below is a timeline showing the impact on primary education during the financial year 2020/21:

- 20th March - Schools across the United Kingdom close (initially thought to be for 1 month) to all students except for children of key workers and children considered vulnerable.
- All examinations (SATs, phonics screening) for Summer 2020 cancelled.
- The Coronavirus Act 2020, which came into force on 25 March, gave the relevant ministers and departments across the UK powers to shut educational institutions and childcare premises.
- 16th April - In the UK, lockdown is extended for a further 3 weeks and schools for unspecified length of time but hoped to be after Spring Bank holiday (May 2020).

- 11th May – Announcement of 3-phase recovery. From no earlier than 1st June, schools could have phased re-opening. Children in Reception, Year 1 and Year 6 to return first.
- 1st June - Pupils in Reception, Year 1 and Year 6 return to school. All schools have taken measures to keep students socially distanced. Many parents chose not to send their children back to school.
- 9th June - Education Secretary tells M.P.'s that not all primary school students will return to school before the summer, going against government hopes.
- 29th of June – A staggered approach for schools to keep in touch with pupils begins in Wales, with approximately a third of pupils on school-site at any one given time, until the 17th of July
- 11 August - Schools re-open in Scotland using a "blended model". This involved part-time study in school combined with some learning at home with transition support given, where possible, to children going into Primary 1 or moving from primary to secondary schools.
- 1st September - Schools in England and Wales re-open and introduced hygiene and social distancing measures in line with recently updated government guidance, including wearing of face coverings by staff in communal areas and staggering of break times for different year groups.
- Schools in all the UK nations remain open for those children considered vulnerable. England, Wales and Scotland have also committed to maintain face-to-face teaching for children of key workers.
- 10th December – partial school closures in Wales, with decisions taken on a local authority basis.
- 28 December – announcements made that English primary schools would return to normal in January, Scottish schools would start term on 11th January with learning taking place online until at least 18 January, Welsh schools starting the term with online learning, but the majority of pupils are expected to resume face-to-face lessons by 11 January. A full return to the classroom is expected to be complete by 18 January, and Northern Ireland schools initially reopen for face-to-face teaching at the start of term
- 4th January 2021 – some primary schools re-opened for 1 day; all schools remained shut in Wales.
- 4th January 2021 – announcement made that all schools will close until at least February half-term except for children of key workers and those children considered vulnerable. Nursery settings to remain open.
- Schools officially re-opened from Monday 8th March, albeit with social distancing requirements and testing procedures in place. In Wales, 3-7 year old pupils returned to school on the 22nd of February, with 7 – 11 year old pupils on the 15th of March

Secondary Schools

Below is a timeline showing the impact on secondary education during the financial year 2020/21:

- 20th March - Schools across the United Kingdom close for an unspecified length of time to all students except for children of key workers and vulnerable children.
- The Coronavirus Act 2020, which came into force on 25 March, gave the relevant ministers and departments across the UK powers to shut educational institutions and childcare premises.
- All examinations for Summer 2020 were cancelled.
- 15th June - Secondary schools in England reopened for year groups 10 (aged 14–15) and 12 (aged 16–17) although schools were instructed to continue to primarily educate young people in these age groups at home, and to keep face-to-face lessons to a minimum.
- School attendance was not compulsory for pupils in England, regardless of whether they had a place available or not, until the start of the 2020–21 academic year.
- 29th June - Schools in Wales: although all year groups returned, until the summer holidays attendance was non-compulsory and part-time.
- Scottish schools reopened between the 11 and 18 August.
- Schools in Northern Ireland reopened for "key cohorts" (students studying for exams or transitioning between schools) in August, and for others in September.
- September 2020 - Schools in England and Wales re-opened for all students.
- 23rd October – 'Firebreak' lockdown in Wales. Half-term break extended for pupils Year 9 and above, with a classroom return on the 9th of November

- November 2020 - The Welsh government cancelled GCSEs and A-levels for 2021 with grades decided based on classroom assessment.
- December 2020 - The Scottish government cancelled higher exams for 2021, with teachers deciding on final grade.
- January 2021 - Schools close to all students except for children of key workers and children considered vulnerable until at least February half term in England, Northern Ireland and Wales and 1st February in Scotland.
- January 2021 - The governments for England and Northern Ireland cancelled summer 2021 GCSEs, A-levels and BTEC examinations.
- Schools officially re-opened from Monday 8th March, albeit with social distancing requirements and testing procedures in place. In Wales, The 15th of March marked the return to school date for secondary pupils.

The impact on Education

During this time, students were encouraged to keep on studying at home with many parents becoming responsible for their children's education. The following points should be noted:

- All teachers continued to set work for and interact with pupils online. This was not always possible for children to access due to digital poverty - identifying a significant social gap in access to technology. In the UK, an estimated one million children and their families still do not have adequate access to a device or connectivity at home. Statistics indicated that 11% of young people accessing the internet at home cannot do so with a computer on a broadband connection. A further 6% connect to the internet via dial-up modems – a technology which is now two decades old – and 12% of young people cannot use these devices at home at all.

- Many primary schools were giving out 'paper packs' of work so children without access to online learning could continue their education and for some students this met their learning style more appropriately.

- In primary settings, the children of key workers and those children considered vulnerable who were still in school, were 'educated' as a whole group, EYFS-Yr6, possibly being carried out by one member of staff (on rota system) in an area of the school which could then be deep-cleaned each day.

- Research conducted by the Office of National Statistics suggested that school aged children in Great Britain completed on average 11 hours of study at home per week, this was roughly the same regardless of how many children or adults were in the household, however, children tended to do less schoolwork if they were younger or when there was a child under five-years-old in the household. Other studies suggested that many students had completed little or no academic work during the lockdown.

- On return to school, students were in class or year group bubbles. If cases arose within these bubbles, then 'the bubble burst' leading to self-isolation at home and a return to home-learning.

- January 2021, increasing numbers of children in some primary settings – in some cases whole classes are in school as the definition of key worker/vulnerable children is not clear.

- Throughout the period, all settings were affected by impacts on staff who were 'shielding'. During the majority of the year, visitors into schools were not permitted by individual Governing Bodies or Trusts.

The impact of Covid 19 on education programmes delivered by water companies

Following the national lockdown in March 2020, the education programmes of the individual water companies were affected.

Impacts included:

- Significant reduction in numbers of children and adults reached.
- Closure of visitors' centres.
- Cancellation of existing bookings.
- Reduction in new bookings.
- Loss of face-to-face engagement.
- Challenges relating to transferring content onto a digital platform.
- Travel & Tier restrictions impacting on delivery across water company regions.
- Changing government guidance in relation to schools and workplace restrictions.
- Unable to meet Company and OFWAT targets

Water companies addressed the issue of no direct contact with schools in a variety of ways:

- Virtual delivery of outreach sessions using a variety of platforms, google meet, zoom, teams – taking place to individual classes or larger groups via assemblies.
- Pre-recorded content with a Q&A session/quiz & virtual classrooms.
- Updating and creating new content for company websites.
- Development of online activities and resources for parents/carers undertaking home schooling.
- Competitions.
- Social media films on a variety of subjects.
- On-line lessons.
- Family workshops delivered in 'bubbles' using outdoor spaces.
- Supporting other customer groups including adults, scouts and guides with virtual presentations.
- Virtual work experience based on company challenges and the search for innovative solutions, incorporating employability skills.
- Insight days - single challenge days incorporating employability skills.
- Live and pre-recorded online events with Q&A sessions – including Big Bang/Stemtastic/Buildtastic/Regional STEM festivals, Science Week, Apprenticeship Week.

In addition, water companies worked collaboratively to deliver live events for World Toilet Day (November 19) and World Water Day (March 22).

The Covid-19 crisis has given the Education Sector of Water Companies time to evaluate and consider best practise to develop and improve their resources and the delivery of their programmes, ensuring they meet the schools and students needs and the industry requirements for the future.

The long term implications on the economy, social and mental health is unknown and combined with the challenges of climate change and the digital revolution, it is vital that we as educators and businesses are ready and able to support students, schools and the wider community.

In responding to Covid-19, we have adapted our delivery mechanisms becoming confident users of IT platforms and methods of digital engagement. This is a first step on the road to the future, allowing us to deliver more sustainably, by reducing travel and increasing access for all students in our regions. Moving forward, we believe, a blended approach of face to face and digital delivery, will allow us to reach more young people and customers with our educational messages.