Yorkshire Water

In-Period ODI Report 2020/2021

July 2021

YorkshireWater

Contents

Introduction

Our performance commitments for 2020 to 2025 were set as part of the Periodic Review 2019 (PR19) process. As part of our customer research, we conduct willingness-to-pay surveys, alongside other cost-benefit assessments, to work out how much customers are willing to pay per unit of improvement in each measure. This helps us understand our customer priorities and the appropriate incentive or penalty that should be attached to each unit of outperformance or underperformance against each target. The reward or penalty incurred is determined by how many units the company is over or under the measured target.

In Asset Management Period 7 (AMP7), Yorkshire Water has 44 performance commitments. The majority of these performance commitments have associated outcome delivery incentives (ODIs), which attract a reward or penalty based on our performance to target.

There are 25 ODIs that are taken in-period, (annually), through adjustments to our allowed revenues for the next charging year. Such adjustments can be spread over more than one year to reduce bill volatility if this is in customer's best interests and agreed with our regulator, Ofwat.

There are four ODIs (working with others, land conserved and enhanced, length of river improved and living with water) that are measured over the course of the whole AMP (2020 to 2025) and the net reward or penalty position is reflected at that point through the next Price review in 2024 (PR24). Our remaining 15 performance commitments are reputational measures and do not have a financial incentive attached to them. These end of AMP ODIs and the reputational performance commitments are not included within this report. For more information on our performance on these measures, please see the Annual Performance Report (APR) for 2020/2021.

This report provides supporting information for the reward and penalty that has been obtained throughout 2020/2021 for those 25 ODIs that are in-period. This report also provides information on areas where we have requested an intervention to the automatic operation of the in-period ODIs as set out in the PR19 Final Determination, any corrigenda or as detailed within the redetermination provided by the Competition and Markets Authority (CMA).

Of the 25 in-period ODIs, 12 of these are common performance commitments with a revenue incentive. In Table 3S within the 2019/2020 APR we reported that we were still to be fully compliant with the new reporting methodologies for leakage,

per capita consumption (PCC) and sewer collapses. We can confirm that all of our reported information for each of the common performance commitments complies with the common, converged methods for reporting for 2020/2021, with the exception of some elements of internal sewer flooding and sewer collapses. More information on these can be found later in the report. As a result of the move to compliance against the new reporting methodology for AMP7, we have restated our baseline performance for both leakage and PCC. These new baselines are provided within this report.

Table 1 summarises the in-period ODIs, performance obtained in 2020/2021, the resulting penalty or reward and whether any intervention is being requested. There are three ODIs where an intervention to the automatic operation of the in-period ODIs is being requested, this includes PCC, which Yorkshire Water agree with Ofwat that this should be deferred until the end of the AMP.

This submission report should be read alongside:

- Annual Performance Report (APR) for 2020/2021
- APR Tables for Tables 3A to 3I with the ODI performance model
- In-period adjustments model

The ODI performance model and the in-period adjustment model contain all the latest information available on ODIs, including any changes to the PR19 Final Determination through corrigenda updates and through the determination provided by the Competition and Markets Authority as, released in March 2020.

Table 1. *Summary of in-period ODIs, 2020/2021 performance and whether intervention is requested within this report. Note: these are presented in the order that they appear within the Final Determination.*

ODI	2020/21 Performance	Reward/ Penalty £m	Intervention requested
Common ODIs			
PR19YKY_20 Water quality compliance (CRI)	2.46	-0.564	No
PR19YKY_21 Water supply interruptions	00:07:14	-0.909	No
PR19YKY_22 Leakage	3.5%	0.056	No
PR19YKY_25 Per capita consumption	-3.4%	-1.643	Yes
PR19YKY_24 Mains repairs	215	-3.156	No
PR19YKY_23 Unplanned outage	3.87%	0	No
PR19YKY_31 Internal sewer flooding	3.34	-9.025	No
PR19YKY_30 Pollution incidents	24	0.222	No
PR19YKY_33 Sewer collapses	15.1	0	No
PR19YKY_32 Treatment works compliance	99.04	0	No
PR19YKY_19 C-Mex[1]	82.78	0.445	No
PR19YKY_10 D-Mex	62.25	-2.755	No
Bespoke ODIs			
PR19YKY_6a Operational carbon	5.2	0.614	No
PR19YKY_7 Education	7,067 hours	-0.026	Yes
PR19YKY_9 Water recycling	0	TBC	No
PR19YKY_17 Gap sites	19%	-1.122	No
PR19YKY_18 Managing void properties	4.73%	-0.832	No
PR19YKY_26 Drinking water contacts	10.5	0.922	No
PR19YKY_27 Significant water supply events	19	-1.325	No
PR19YKY_28 Low pressure	12	0	No
PR19YKY_28 Repairing or replacing customer owned pipes	3,850	-1.361	No
PR19YKY_35 External sewer flooding	5,038	16.985	No
PR19YKY_36 Bathing water quality	N/A	0	Yes
PR19YKY_37 Surface water management	1	0	No
PR19YKY_40 Quality agricultural products	100	0	No
TOTAL (without requested intervention)		**-3.474**	
PR19YKY_7 Education		0.026	
TOTAL (with requested intervention)		**-3.448**	

[1] Yorkshire Water net penalty position includes, for completeness, all revenue-based incentives including a forecast of the C-Mex reward and D-Mex penalty positions, even though these are not reflected in the APR Table 1F. Two versions of the PR19 in-period adjustments model have been provided: one version contains C-Mex and D-Mex and the other excludes these.

Mitigating Factors in 2020/2021

The challenges of the last 12 months – responding to COVID-19, the referral of our Final Determination (FD) to the Competition and Markets Authority (CMA) and continued climate volatility – have had an impact on the way we work, how we serve our customers and our relationship with Yorkshire. The largest mitigating factor to our performance in 2020/2021 has been COVID-19.

COVID-19

Our response to COVID-19 was driven by two simple priorities: protecting our customers and protecting our colleagues. Our core service delivery was quickly adapted, with visits into customer properties suspended for all but the most urgent reasons. The introduction of new safe working practices meant that we were able to maintain all essential work on the networks, keeping water flowing and toilets flushing at all times.

We adapted to the closure of our offices quickly, having previously trialled mass home working and improved our IT infrastructure. Mindful that not all our colleagues had a home environment suitable for working we kept safe office space available for those whose personal circumstances made this a necessity.

Our financial support to customers facing difficulty with their bills was promoted widely and we offered flexible payment terms and delayed payments where necessary. Our customers have contacted us more during the last year partly because people working at home used more water which fed through to higher bills for metered customers. Interruptions to supply have a bigger impact on people whose lifestyles are impacted by lockdown and we've received more customer contact during incidents for understandable reasons.

Throughout the changes in levels of lockdown which we have all experienced through the pandemic we have largely maintained the processes established in the early months. We have not sought to bring colleagues back into the office prematurely as our people told us that consistency was important and they didn't want to be brought back in only to have to revert to home working again shortly afterwards.

In terms of financial impact, domestic consumption has increased due to home working and lockdown, although this has been partially offset by a decrease in non-household consumption caused by business shutdowns. Costs have increased and we have incurred exceptional costs of £11.7m for the year. Cost

drivers include provision of personal protective equipment (PPE), requirement for more vehicles due to single person operation and increased contractor costs.

Our shared values have really come to the fore during COVID-19. We've shared PPE stocks with the NHS at critical points of shortage, we've worked alongside local authorities to deliver services to the public and we have been invited to play our part in the planning of Yorkshire's economic and social recovery.

The impact of government restrictions and legislation in place to manage the COVID-19 pandemic has had an impact on our ability to meet our performance commitments in 2020/2021. This has been considered within this report and, where necessary, interventions to the normal running of the ODIs in line with the FD have been requested. The impact of COVID-19 on our performance has been considered in the round, alongside overall financial performance. Engagement with our customers has also been considered where intervention as a result of COVID-19 has been requested.

Weather conditions

Weather conditions throughout 2020/2021 have been volatile and challenging. There was a significant period of dry weather in the summer of 2020, and the winter weather conditions in 2021 were challenging due to several very cold snaps in January and February which impacted operational activities for a prolonged period. These events added significant cost pressure in the year. Dry weather in summer 2020 brought higher water distribution and abstraction costs whereas the weather conditions in winter 2020 led to increased costs in leakage detection and mains repair to maintain service to customers.

The impact of weather on reported performance has not been used as a mitigating factor for any of the in-period ODIs. However, in line with the letter from Ofwat dated 22 March 2021, it is noted that there are uncertainties seen on the per capita consumption (PCC) ODI with regards to the relative influence of long hot spells of weather at the same time as the impacts of COVID-19. As a result, Yorkshire Water will not be requesting an in-period determination for performance in PCC in 2020/2021, as per Ofwat's expectation as detailed in Information Notice IN 21/01. Instead, Yorkshire Water will manage this performance commitment as an end of period ODI.

Common ODIs

PR19YKY_20 Water quality compliance (CRI)

The performance commitment incentivises the company to fully comply with statutory obligations and to mitigate any issues affecting performance. The definition for this performance commitment is set by the Drinking Water Inspectorate (DWI). It is a common performance commitment and is measured over the calendar year. 100% of this performance commitment is allocated to water network plus.

The performance commitment level for 2020 was 0.00 with an underperformance deadband of 2.00. Yorkshire Water obtained a CRI score of 2.46, resulting in a penalty payment of -£0.564m.

The regulatory sample programme comprises collection and analysis of samples at water treatment works, designated supply points, service reservoirs, and at randomly selected customer taps. In mid-March 2020, it was agreed with the Drinking Water Inspectorate (DWI) that random visits to customer premises was not consistent with the protection of public health during the pandemic. Instead, the Company continued to fulfil every sampling occurrence at surrogate locations such as company fixed assets and Sampling Officer properties. In addition, plumbing metals parameters (copper, lead, nickel) were not analysed where these were collected at company fixed assets as these locations were not considered to be representative. Towards the end of August, the DWI instructed companies to reduce the reliance on company fixed assets for sampling. Consequently, between September and December, the Company collected a greater proportion (in excess of 75%) of samples from true distribution locations, albeit not a full randomised approach. Plumbing metals analysis was reinstated from September. Sampling has therefore been a challenge due to the COVID-19 pandemic, but we have ensured that we identified sampling points to maintain our sampling targets. The risk of DWI rejecting the approach has been mitigated through continual communication with the DWI.

It is possible to postulate benefits to CRI compliance due to the altered sampling programme, it does also seem that there were negative impacts. The interruption to the analysis of plumbing metals samples during April to August led to a reduction in the overall number of samples collected, and therefore reduced risk of failures. However, as with the aesthetic metals, the limitations on sample locations in September to December created higher risks of failure because these sample points are not regularly used, and these sample types are collected without flushing the tap. The analysis suggests that the restriction on the sample

locations did result in a more controlled group of sample points, and this did remove the impact of local contamination tap failures. However, these failures do not significantly contribute to CRI. Overall, it is concluded that it is not possible to confirm a positive or negative impact on CRI due to the COVID-19 pandemic in 2020. Restrictions on sampling locations continue to apply in 2021. Indeed, the lockdown initiated in January 2021 further restricted access to many locations and the DWI has advised that no samples should be collected at company assets. At no point has sampling ceased at retail distribution properties and the negative impact of visits to large business premises could be relatively greater than the positive impact of controlled sample locations.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of the CRI in-period ODI.

PR19YKY_21 Water supply interruptions

The performance commitment is designed to incentivise companies to minimise the number and duration of supply interruptions. It is a common performance commitment that is calculated as the average number of minutes lost per customer for the whole customer base for interruptions, that lasted three hours or more. 100% of this performance commitment is allocated to water network plus.

The performance commitment level for 2020/2021 was 6 minutes and 30 seconds. Yorkshire Water achieved an average of 7 minutes and 14 seconds, resulting in a penalty payment of -£0.909m.

As a result of government restrictions put in place and the need for social distancing, there was a minor impact on our ability to respond to interruptions in the first two months of the year as we developed new COVID-19 safe working procedures for activities involving two people, for example when operating valves on the network. We also had difficulties procuring personal protective equipment for Field Operatives due to the nationwide shortages.

We are always at an increased risk of future adverse weather conditions impacting on levels of network failure. In 2020/2021, we have seen weather impact our performance during the long-dry period in April to June 2020 and then in January and February 2021 with the cold winter period. Projects to increase our resilience against the impact of extreme weather, such as our water supply

system assessments and associated PowerBI dashboard, may help to mitigate future risks.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of the water supply interruptions in-period ODI.

PR19YKY_22 Leakage

This performance commitment is designed to incentivise companies to reduce leakage. It is presented as the percentage reduction of three-year average leakage in megalitres per day (Ml/d) from the 2019/2020 baseline. It is a common performance commitment and 100% of this performance commitment is allocated to water network plus.

Baseline total leakage is calculated as a three-year average of annual values for 2017/2018, 2018/2019 and 2019/2020 and expressed in megalitres per day (Ml/d). The 2019/2020 baseline total leakage level was reported in the 2019/2020 Annual Performance Report as 313.4 Ml/d. The move to convergence has had an impact on our leakage baseline. The baseline that will be used to measure our AMP7 performance from is 315.3 Ml/d. This change in the baseline does not represent a deterioration in our performance or a change in the amount of leakage reported for the previous three-year period. This revised baseline has changed primarily due to improvements in our water balance calculations, including improving trunk main leakage reporting, backdating a new approach for estimating population and improving household night use estimates, as well as a Netbase software upgrade that was delivered in June 2020 to allow for compliant reporting with the new AMP7 methodology.

The performance commitment level for 2020/2021 was a 3.4% reduction in leakage. In 2020/2021, Yorkshire Water had leakage of 289.8 Ml/d. Our three-year rolling average is 304.2 Ml/d or a 3.5% reduction on the baseline, resulting in a reward payment of £0.056m.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of the leakage in-period ODI. However, the government restrictions put in place as a result of the COVID-19 pandemic is likely to have had a negative impact on our leakage performance this year, although it has been too difficult to evidence and

quantify the total impact. For example, Yorkshire Water paused all non-essential customer related work in response to the government restrictions in place during the first lockdown in late March 2020, which involved pausing the investigation of leakage and repairing of customer owned pipes. We believe this has resulted in 1,000 less repairs completed than we would have predicted this year and we estimate that this could have impacted leakage by 1.33Ml/d on our year-end outturn. We also paused recruitment of customers onto our Domestic Consumption Monitor (DCM), from which we calculate our household night use and unmeasured PCC. There were ambitious plans to recruit on to the DCM as the 2019/2020 sample was insufficient to represent the demographic of Yorkshire. Although recovery is in flight, and the sample has increased throughout the year; investigations, and studies into alternative options of capturing this data are underway. Finally, although difficult to evidence, leakage detection became more difficult during daytime hours with increased working from home or furlough and the changes in consumption behaviours.

PR19YKY_25 Per capita consumption

This performance commitment is designed to incentivise companies to help customers reduce their consumption. Per capita consumption (PCC) is defined as the sum of measured household consumption and unmeasured household consumption divided by the total household population. It is presented as the percentage reduction of three-year average PCC expressed as litres per person per day (l/p/d) from the 2019/2020 baseline. It is a common performance commitment and 100% of this performance commitment is allocated to water network plus.

Baseline PCC is calculated as a three-year average of annual values for 2017/2018, 2018/2019 and 2019/2020 and expressed in litres per person per day (l/p/d). The 2019/2020 baseline PCC level was reported in the 2019/2020 Annual Performance Report as 130.1 l/p/d. The move to convergence has had an impact on our PCC baseline. The baseline that will be used to measure our AMP7 performance from is 128.2 l/p/d. This change in the baseline does not represent an improvement in our performance or a change in PCC reported for the previous three-year period. This revised baseline has changed primarily due to improvements in our water balance calculations, including improving trunk main leakage reporting, backdating a new approach for estimating population and improving household night use estimates.

The performance commitment level for 2020/2021 was a 2.4% reduction in PCC. In 2020/2021, Yorkshire Water had an actual PCC of 141.2 l/p/d. Our three-year rolling

average is 132.5 l/p/d which returned a 3.4% increase on the baseline (128.5 l/p/d), resulting in a penalty payment of -£1.643m

Household water usage was significantly higher in 2020/2021 compared with previous years. During the first national lockdown people were ordered to stay home, permitted to leave for essential purposes only. This was during a period of hot, sunny and dry weather. Both of these reasons have resulted in a change in customer behaviour. The weather turned in late June into July, when it became cooler and wetter and household usage dropped. This also coincided with the lifting of some of the national lockdown restrictions on 4 July 2020, meaning some of the population returned to work and others spent more time outside of their homes, although Yorkshire did continue to be under various local lockdowns at this point. There were also further national lockdowns throughout 2020/2021. The continued impact of COVID-19 on PCC will depend on multiple factors but is expected to reduce in impact with factors such as increased international travel, staff returning to offices, retail and hospitality opening further, and schools remaining open. It is difficult to forecast PCC given the changing landscape of COVID-19 restrictions, and the unknown long-term impact on home-working arrangements. While we anticipate that the impact of COVID-19 will continue to challenge our ability to meet this PC, we expect that there will be some reductions in water usage achieved through the following:

- increased metering of household properties, with the associated reduction in water use (new builds, and meter optants),
- water efficiency messages and campaigns from our Brand team,
- installation of water saving devices provided to customers.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is requesting an intervention to the automatic operation of the PCC in-period ODI. We have continued to report our performance as required, but ask that the in-period adjustment is deferred until a later date. The sector-wide work with Frontier Economics has identified that a shift in consumption from non-household to household customers during this year has had an impact across the sector on the PCC performance commitment. With the uncertainties that remain about the impact COVID-19 has had on this measure, and to what extent impacts might persist in the medium and long term, Ofwat advised that any decision on incentive payments for companies with in-period ODIs for PCC would be delayed until PR24. Ofwat's decision at this point would take account of how well companies have risen to the challenges of promoting water efficiency and considering any implications for long-term planning. We agree with Ofwat that in-period determinations in November 2021 should not include an adjustment for the PCC measure at this time.

Throughout 2020/2021, Yorkshire Water undertook various activities under its water conservation campaign. We created over 76million opportunities for customers to see and hear our messages and generated over 73,000 clicks to our water saving pages, although the impact of lockdown made it difficult for us to utilise usual out of home advertising means. With lockdown and a focus on hygiene in mind we focused on the majority of our water saving tips on water saving tips for the garden. This focus led us to introduce a "Garden Getaways" campaign in July 2020 in which we worked with social media influencers to share water saving tips for the garden. We know that consumers were spending more time in their gardens during lockdown and aimed to showcase the most spectacular transformations, giving special attention to those that have done the job in the most water saving savvy way. The competition generated lots of discussion on social media channels and a high engagement rate of 10.2%.

In August 2020, we launched a water saving promise for non-household customers, a commitment from businesses to use less water. The promotion of this campaign was hindered by local lockdowns and the restrictions on different industries. This meant that communication around the Water Saving Promise was sporadic. However, we plan to continue the promotion of this campaign over the next year to increase sign ups.

PR19YKY_24 Mains repairs

This performance commitment is designed to incentivise the company to appropriately maintain and improve the asset health of the infrastructure and belowground water mains network and demonstrate its commitment to its asset stewardship responsibility. It is reported as the number of mains repairs per thousand kilometres of the entire water main network. It is a common performance commitment and 100% of this performance commitment is allocated to water network plus.

The performance commitment level for 2020/2021 was 186.1 mains repairs per thousand kilometres. Yorkshire Water completed 215.0 mains repairs per thousand kilometres of the water main network in 2020/2021, resulting in a penalty payment of -£3.156m. For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of the mains repairs in-period ODI.

PR19YKY_23 Unplanned outage

This performance commitment is designed to incentivise the company to appropriately maintain and improve the asset health of the non-infrastructure or above-ground water assets and demonstrate its commitment to its asset stewardship responsibility. This measure is reported as the temporary loss of peak week production capacity (PWPC) in the reporting year weighted by the duration of the loss (in days). Unplanned outage for each water production site is calculated separately and then summed over the reporting year to give a total actual unplanned outage for the water resource zone. The company water resource zone weighted outage should then be summed (Ml/d) and normalised based on overall company peak week production capacity to be reported as a percentage. It is a common performance commitment and 100% of this performance commitment is allocated to water network plus.

The performance commitment level for 2020/2021 was 5.12%. Yorkshire Water achieved 3.87%. This is an underperformance incentive only and so no reward is due for outperformance. For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

Whilst our operations and maintenance of sites were impacted during the early phase of the first COVID-19 lockdown, safe working practices were quickly re-established, with a prioritised approach to site visits and reactive repairs, which ensured that any impact on unplanned outage was minimised. We put these measures in place to protect our key workers and ensure the reliability, resilience and compliance of our water treatment works.

PR19YKY_31 Internal sewer flooding

This performance commitment is designed to incentivise companies to reduce the number of internal sewer flooding incidents. The measure is calculated as the number of internal sewer flooding incidents normalised per 10,000 sewer connections including sewer flooding due to severe weather events. It is a common performance commitment and 100% of this performance commitment is allocated to wastewater network plus.

The performance commitment level for 2020/2021 was 1.68 internal sewer flooding events per 10,000 sewer connections. Yorkshire Water had 3.34 events per 10,000 connections in 2020/2021, resulting in a penalty payment of -£9.025m. For more information on our performance, please see the APR for 2020/2021.

As we responded to the government laws of the first national lockdown, we stopped entering customer properties for a short period. It is unclear at this stage whether this could have had a meaningful impact on our reportable position. We quickly put in place safe working procedures to ensure customer impact from changes to our ways of working were minimal, whilst sustaining great customer service and providing thorough investigation and resolution of incidents.

Yorkshire Water is not requesting any intervention to the automatic operation of the internal sewer flooding in-period ODI.

Through our assurance process this year it was recognised that improvements could be made to the consistency applied when identifying neighbouring properties that have potentially been affected by a sewer flooding incident. Our external auditors, Atkins, found that in some instances, from the evidence presented, assurance could not be given that reasonable efforts were made to identify the extent of flooding by contacting an appropriate number of neighbouring properties. Overall, Atkins' have assessed this issue as amber, meaning incomplete data set or minor errors identified that do not alter the performance reported relative to targets and threshold values. Yorkshire Water does have a process in place which identifies these properties, however we are implementing further process improvements to ensure consistency of site activities undertaken and their subsequent documentation.

PR19YKY_30 Pollution incidents

This performance commitment is designed to incentivise companies to reduce the number of pollution incidents that impact the environment. This measure will be reported as both the absolute number of pollution incidents and a normalised value of pollution incidents per 10,000km of sewer. It is a common performance commitment and 100% of this performance commitment is allocated to wastewater network plus.

The performance commitment level for 2020 was 24.51 pollution incidents per 10,000km of sewer length for which the company is responsible for. Yorkshire Water had 24.00 incidents per 10,000km of sewer in 2020. This was made up of three Category 2 pollution incidents and 122 Category 3 incidents. In our 2020 reporting, we have continued to exclude consented storm spill events. The reason these have not been included in 2019 and 2020 reporting is due to revised guidance from the Environment Agency. Consented storm spill events have been deemed by the Environment Agency to be compliant combined sewer overflow

(CSO) discharges and are deemed not to be having an unacceptable impact on the environment. The updated guidance was confirmed by the Environment Agency in March 2020. The Yorkshire Forum for Water Customers and the Yorkshire Water Board have been made aware of, and approved, this position. This performance results in a reward payment of £0.222m.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of the pollution in-period ODI.

This is a performance commitment, where enhanced outperformance or underperformance payments can be made. One of the conditions on enhanced ODIs is that where these are earned, we should share the learning on what has worked and what has not, consistent with the knowledge-sharing plans set out in the PR19 business plan. It is also expected that the success of knowledge-sharing is assessed. Performance in 2020/2021 does not meet the enhanced ODI outperformance or underperformance level and therefore detail on knowledge sharing is not required in this publication. However, for information, at the end of August 2020, we held a two-day knowledge sharing with United Utilities and Northumbrian Water focusing on pollution and sewer flooding. It covered topics such as operational practices, business processes, improvements projects and innovation activity. Network visibility and low cost monitors was a key area of discussion at this event and it was followed up with a separate knowledge share session between Yorkshire Water, United Utilities, Northumbrian Water and Thames Water where we offered to share some of our devices as part of our Intrepid Minds innovation project with them. The Intrepid Minds project is looking at developing a low-cost monitor to predict sewer flooding that can go into the gully of a property or goes within the soil stack of property. All parties agreed that these two sessions were useful and a similar event is being considered for this year.

PR19YKY_33 Sewer collapses

This performance commitment is designed to incentivise the company to appropriately maintain and improve the asset health of the infrastructure or belowground wastewater assets and demonstrate its commitment to its asset stewardship responsibility. This performance commitment is measured as the number of sewer collapses per 1000 kilometres of all sewers causing an impact on service to customers or the environment. It is a common performance

commitment and 100% of this performance commitment is allocated to wastewater network plus.

The performance commitment level for 2020/2021 was 18.26 sewer collapses per 1,000km of sewer. Yorkshire Water had 15.1 collapses per 1,000km in 2020/21. This is an underperformance incentive only and so no reward is due for outperformance. For more information on our performance, please see the APR for 2020/21. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

Our external auditors, Atkins, have made suggestions where the methodology can be improved. Reporting Guidance states that 'this measure should include all public sewer and lateral collapses recorded by the company inclusive of those incidents that have been reported as flooding or pollution failures, if the primary cause of the flooding or pollution was a sewer collapse'. Overall, Atkins' have assessed this as amber, meaning an incomplete data set or minor errors identified that do not alter the performance reported relative to targets and threshold values. As a result, Yorkshire Water is undertaking a process improvement activity to address the issues raised and ensure a cross checking to flooding and pollution incidents can be evidenced in future reporting.

PR19YKY_32 Treatment works compliance

This performance commitment is designed to incentivise the company to appropriately maintain and improve the asset health of the non-infrastructure or above-ground wastewater assets and demonstrate its commitment to its asset stewardship responsibility. The discharge permit compliance metric is reported as the number of failing sites (as a percentage of the total number of discharges) and not the number of failing discharges. It is a common performance commitment. 95% of this performance commitment is allocated to wastewater network plus and 5% of this performance commitment is allocated to water network plus.

The performance commitment level for 2020 was 100%. Yorkshire Water achieved 99.04%, this is made up of three fails. Our performance means we have not met our target. There is an underperformance deadband of 99.00% for this performance commitment, and as a result, there is no penalty payment.

Whilst our operations and maintenance of sites were impacted during the early phase of the first COVID-19 lockdown, safe working practices were quickly re-established, with a prioritised approach to site visits and reactive repairs. We have

not attributed any of the failing works to be as an impact of the effects from COVID-19.

For more information on our performance, please see the APR for 2020/2021.

Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_19 C-MeX (customer measure of experience)

This performance commitment is designed to incentivise companies to improve the experience they provide to residential customers. The customer measure of experience (C-MeX) is a measure of customer satisfaction. A company's C-MeX score is calculated as the weighted average of customer satisfaction scores from customer service and customer experience surveys. Standard and higher performance payments under C-MeX depend on a company's performance relative to those of other companies. It is a common performance commitment with 100% of this performance commitment allocated to residential retail.

There is no specific performance commitment level as performance is measured relative to the other companies in the industry. Yorkshire Water achieved a C-MeX score of 82.78 out of 100. This ranks Yorkshire Water as eighth out of 17 companies, and results in a provisional outperformance payment of £0.445m.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_10 D-MeX (developers measure of experience)

This performance commitment is designed to incentivise companies to improve the experience they provide to developer services (new connections) customers, including property developers, self-lay providers and those with new appointments and variations (NAVs). It is calculated from a qualitative and quantitative score and is reported out of a score of 100. The company's D-MeX incentive rate depends on its D-MeX score relative to those of other companies. It is a common performance commitment allocated to water network plus and wastewater network plus.

There is no specific performance commitment level as performance is measured relative to the other companies in the industry. Yorkshire Water achieved a D-MeX score of 62.25 out of 100. This ranks Yorkshire Water as sixteenth out of 17 companies, and results in an estimated underperformance penalty payment of -£2.755m.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

Bespoke ODIs

PR19YKY_6a Operational carbon

This performance commitment incentivises the company to reduce greenhouse gas emissions arising from its operational activities. It is measured as the percentage reduction in real terms of net operational carbon equivalent emissions from a 2019/2020 baseline (98,777 tCO2e). This is a bespoke performance commitment. It is allocated 9% to water resources price control, 12% to water network plus, 24% to wastewater network plus and 55% to bioresources.

Yorkshire Water has reported 93,623 tCO2e for 2020/2021. The performance commitment level for 2020/2021 was 2.4%. Yorkshire Water achieved 5.2%, resulting in an overpayment reward of £0.614m.

COVID-19 has had a positive impact on emissions such as those arising from company cars claims, where we have seen emissions fall from the baseline year by 1,014 tCO2e.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_7 Education

This performance commitment is designed to incentivise the company to raise understanding of the value of water and proper use of the wastewater system. It is reported as the number of learning hours that Yorkshire Water provides to raise understanding of the value of water. It is measured as the total number of hours delivered through face-to-face educational visits and programmes. The total

number of hours of education will be calculated from the total number of people directly engaged with, multiplied by the hours of engagement, for each visit or programme. This will be measured to the nearest hour. In order to count towards learning hours achieved, each individual will provide feedback to the company where they are encouraged to provide information on how useful the session was and how likely they are to change their behaviour as a result. This is a bespoke performance commitment. It is allocated 36% to water resources price control, 26% to water network plus, 24% to wastewater network plus and 14% to bioresources.

The performance commitment level for 2020/2021 was to deliver 20,000 hours. During the year, Yorkshire Water delivered over 30,000 hours of education through a mixture of face to face learning, virtual teaching and over our social media channels. However, only 7,067 hours meet the definition within the Final Determination. This would result in an underpayment penalty of -£0.026m. Yorkshire Water would like to seek an intervention to the automatic operation of this in-period ODI on the basis that the activity completed during the year was significantly altered as result of the impact of the COVID-19 pandemic.

Prior to the start of this year, Yorkshire Water's education services were nearly fully booked for the Summer 2020 academic term and we would have expected this to continue with bookings throughout the year. The majority of our education provision is getting school children into our education centres, which are based in Headingley (covers Leeds and North Yorkshire), Ewden (covers South and West Yorkshire) and Tophill Low (covers Hull and East Yorkshire), and alternatively by providing lessons in the schools.

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 the infrastructure or the training and 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.

On 17 March 2020, in response to the emerging COVID-19 pandemic, we cancelled the sessions that had been booked with us for the summer term. We know that a total of 12,326 learning hours have been lost in 2020/2021 due to cancellations directly attributed to the pandemic. This number does not include the many bookings which would normally have come in throughout the year but were not

even attempted due to the restrictions schools and businesses were operating under.

Although, we cancelled the sessions that had been booked, we considered how we could innovate, adapt and evoke our education delivery. At times, this meant reacting to changes at very short notice. The following programmes were created and implemented throughout the year:

- Home learning resources created
- Social Media 'shorts' on key themes
- Online lessons created, including teacher notes and student worksheets
- Family workshops held in the August and October school holidays
- Outreach visits to schools during the Autumn 2020 term, delivering our usual workshops and presentations but in a COVID-19 secure manner.
- New virtual outreach to primary classes, delivering our educational workshops over Microsoft Teams, Zoom, Webex or GoToMeet.
- New careers talks created in November
- Awareness sessions for potential graduates held in January
- Awareness sessions for National Apprenticeship week
- After School Club created for colleagues' children
- Joint water industry education events
- Live events for British Science Week

Throughout 2020/2021, we delivered 7,067 hours of education through educational bookings, although the delivery of education remotely with individual and teacher feedback that has met the definition within the Final Determination.

We made more use of social media for education provision in 2020/2021. We delivered 23,421 hours through social media films that were developed through the year. It was not possible to obtain individual and teacher feedback for the hours delivered through social media.

As previously mentioned, we know that a total of 12,326 learning hours have been lost in 2020/2021 due to cancellations directly attributed to the pandemic and this number does not include the many bookings which would normally have come in throughout the year.

Due to the unique circumstances that arose as a result of the COVID-19 pandemic and the impact this had on the education sector, the fact that a lot of this was outside of management control but Yorkshire Water continued to consider how it could innovatively deliver this performance commitment within all the constraints it faced during the year and still deliver quality education, Yorkshire Water would like to request that an intervention is made to remove the penalty of -£0.026m

calculated through the normal automatic operation of this in-period ODI. We have therefore adjusted our in-period adjustments model to £0 in the assumption that this request would be accepted by Ofwat.

Given the level of the penalty payment resulting from this automatic operation of the ODI, and based on the knowledge we already have from previous engagement with our customers, we have not specifically undertaken any further engagement with customers on this intervention request. For more information on this, please see the section of this report titled 'Customer Engagement'. Although we have not undertaken wider customer engagement on this matter, we have ensured to have engaged with the Yorkshire Forum for Water Customers (the Customer Forum).

The Customer Forum is an independent group of customer and stakeholder representatives brought together under its Independent Chair, Andrea Cook OBE, to work with Yorkshire Water to develop their business plans for Price Reviews, consistent with Ofwat's methodology. In particular the Forum challenges Yorkshire Water to make sure their business plans accurately reflect their customers' views (gained from high-quality research with customers), provide good-quality services, and meet their performance commitments (PCs). Forum members come from Citizens Advice, the Consumer Council for Water, the Environment Agency, the National Farmers Union, Natural England, Pennine Prospects and The Rivers Trust. They also include independent experts on the environment, local government, and affordability and vulnerability issues. Yorkshire Water has attended the Customer Forum to discuss its performance with the education performance commitment and the challenges faced as a result of the impact of COVID-19 on education provision. The Customer Forum support Yorkshire Water in their engagement to seek an intervention on this performance commitment as they believe this is in the best interest of customers. If required, the Customer Forum would be willing to write a letter of support to Ofwat stating this.

As we look to the future, we know the impact of COVID-19 does continue to impact delivery of this performance commitment and we do not expect our previous programme to return until all of our education centres are back open and restrictions are fully lifted. We have now opened our Tophill Low Education Centre and this is taking bookings for the Summer 2021 term. We hope that our education centres in Headingley and Ewden will re-open in September 2021. We learnt a lot through 2020/2021 and now offer more variety of education provision. The new programme of activity that was created in 2020/2021 will continue to be utilised where possible, although we continue to face the challenge of obtaining individual feedback when delivery is held virtually.

PR19YKY_9 Water recycling

This performance commitment is designed to incentive the company to make more use of the resources it already has through recycling. It measures the volume of water recycled in the company's clean and wastewater treatment sites, reducing the volume of water abstracted from the environment. It is a bespoke ODDI and is allocated 32% to water network plus and 68% to wastewater network plus.

The performance commitment level for 2020/2021 was 0.00.

Following Ofwat's Final Determination, Yorkshire Water reviewed its delivery plan in line with the service commitments and allowed costs. As a result of this, and aligned with the priorities of our customers, difficult decisions were taken on the prioritisation of investment. As a result, we have put on hold three specific water recycling schemes that were identified in our business plan to deliver our water recycling performance commitment. This performance commitment was developed to engender a culture of water conservation and to reduce water wastage. We remain committed to these principles, but in line with our customers priorities, over the next year we are focussing our resources on achieving this through leakage reduction. We will ensure that where opportunities arise to reduce water wastage as a result of our interventions to achieve other service commitments, we will pursue these.

PR19YKY_17 Gap sites

This performance commitment is designed to decrease the amount of time from household gap sites being identified and being billed to less than 12 months. It is measured as the number of gap sites identified and added to the billing system within 12 months of identification, as a percent of the total number of gap sites identified and added to the billing system, plus the number of gap sites that have been identified, and not billed within 12 months. It is a bespoke performance commitment and is allocated 100% to the residential retail price control.

The performance commitment level for 2020/2021 was 80%. Yorkshire Water achieved 19%, resulting in an underperformance penalty of £1.122m.

After receiving guidance from our technical auditors, to comply fully with the written definition (specifically exclusions) within our final determination, we have used a methodology which only includes gap sites that are illegal connections, validated by our Developer Services Team.

Our intention, when developing this performance commitment, was to address the efficiency of our processes to add missing properties to our billing system. This would include accounts waiting to be added to our billing system from different methods of identification, including properties originating from our new connections process. Using this methodology, we would have reported 58% against our target. We believe that our intended methodology brings greater customer benefit as missing properties, are added to our billing file more quickly. This shares revenue collection over a greater number of billed properties, reducing subsidisation by existing bill paying customers.

After publication of the APR we will consider if this matter requires engagement with Ofwat to ensure clarity in future years.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_18 Managing void properties

This performance commitment is designed to incentivise the company to reduce the number of household void properties. It is expressed as the number of household properties classified as void as a percentage of the total number of household properties served by the company. It is a bespoke performance commitment and 100% is allocated to the residential retail price control.

The performance commitment level for 2020/2021 was 4.50%. Yorkshire Water achieved 4.73%, resulting in an underperformance penalty of £0.832m.

As a result of the government restrictions in place, all processes relating to the management of void properties, apart from automated on-line change of address processes, were inactive through the first quarter of 2020/2021. A recovery plan was implemented throughout the second half of the year, but unfortunately it was not quite sufficient to meet the Year 1 target of 4.50%.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_26 Drinking water contacts

The purpose of this performance commitment is to reduce water quality contacts relating to appearance, taste and odour. It is calculated as number of times the company is contacted by consumers due to the taste and odour of drinking water, or due to drinking water not being clear, reported per 10,000 population and is a measure that is also reported to the DWI. It is a bespoke performance commitment that is 100% allocated to water network plus.

The performance commitment level for 2020/2021 was 11.4 contacts per 10,000 population. Yorkshire Water achieved 10.5 contacts per 10,000 population, resulting in an outperformance reward of £0.922m.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_27 Significant water supply events

This performance commitment is designed to incentivise the company to reduce the number of long duration water supply interruption events. It reports the number of supply interruption events lasting for a duration of 12 hours or longer, irrespective of whether they are planned, unplanned or caused by a third party. It is a bespoke performance commitment that is allocated 100% to the water network plus price control.

The performance commitment level for 2020/2021 was for 14 events. In 2020/2021, Yorkshire Water had 19 events, resulting in an underperformance penalty of £1.325m.

Through our assurance process this year it was recognised that there could be some ambiguity in the definition of this in-period ODI.

Significant water supply events is a bespoke performance commitment created for AMP7; introduced to measure the number of events in a financial year where one or more properties experience an interruption to supply lasting 12 hours or more. The performance commitment was intended to assess both the resilience of our assets and the operational response to prolonged supply interruption incidents.

It is a modification of the previous interruptions measure that was one of six asset health indicators within the stability and reliability performance commitment in AMP6. By creating a bespoke Performance Commitment for these long running interruptions, Yorkshire Water acknowledges the impact of prolonged water supply interruption events to customers. The modification of the previous measure included amending the reporting method of counting the number of properties interrupted for greater than 12 hours to counting the number of events where one of more properties is interrupted for 12 hours or more. This was to prevent duplicating a performance commitment as these properties are already included in the water supply interruptions common performance commitment. In addition to moving from the numbers of properties to the number of events, amendments to the criteria of events were made to include interruptions defined as planned and those caused by a third party, which were previously excluded from the AMP6 measure. Another change to reporting criteria is the inclusion of events that are exactly 12 hours in duration.

Within the Final Determination, the interruption duration is defined as: '*the time taken between the initial notification of the interruption to the restoration of supply*'. The Final Determination also says:
'The notification of an event is determined by the time that:

- *logged data showing a discernible difference in pressure or flow;*
- *the time of the first customer call notifying us of a supply interruption where this is a result of our asset; and/or*
- *time works starts, as recorded.'*

For this performance commitment, the initial notification is taken as the time we are first made aware of the interruption, utilising the earliest of any of the above data, and the calculation of the duration of the event is taken as starting from this time and ends when we are satisfied that water supplies have been restored to affected properties.

This is different to the common water supply interruptions performance commitment reporting methodology, where the start time is confirmed using retrospective information in the hydraulic review process that may not have been available on the day. Therefore, an event could have a common water supply interruptions performance commitment duration of 12 hours but not be classed as a significant event as we were not notified of the event until 2 hours into the interruption duration.

We have undertaken assurance over our interpretation of the Final Determination definition. Level 1 data providers involved during the development of this new performance commitment during the 2019 Periodic Review and the new data

providers for this information in AMP7 have come together to review their understanding and all the evidence available. The information, evidence and the text within the Final Determination and the various 2019 periodic review submissions has been reviewed by Level 2 assurance reviewers in Regulation. It was noted that the Final Determination and the 2019 Price Review submissions were not explicitly clear and therefore there was ambiguity in the definition. It was also noted that there are lots of small changes in the definition from AMP6. We transparently raised this with the external auditors, Atkins, who note that there remains a risk that the approach taken by Yorkshire Water may not be consistent with the Ofwat interpretation of the definition but they also note that the definition has not been explicit in explaining the start time or conversely, not being explicit that the definition should align or differ to the common performance measure.

If Yorkshire Water were to report based on a methodology aligned to the common performance commitment on water supply interruptions, this would increase the number of events from 19 to 35 with a material impact on the ODI penalty incurred.

The Yorkshire Forum for Water Customers have been made aware of this ambiguity in the reporting definition. The details of the ambiguity were also included in the Atkins assurance report that was presented to the Audit and Risk Committee; but not discussed. The Board has approved this approach for AMP7.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_28 Low pressure

This performance commitment is designed to incentivise the company to reduce the number of properties that are at risk of experiencing or experience their water supply having a low pressure. This measure is calculated as the total number of properties receiving pressure below standard, minus the number of those properties that are covered by the predetermined allowable exclusion categories as detailed in the reporting guidance. It is a bespoke performance commitment that is 100% allocated to water network plus.

The performance commitment level for 2020/2021 was for 14 properties. In 2020/21, Yorkshire Water had 12 properties, which is within the performance commitment deadband and therefore there is no outperformance reward payment due.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_28 Repairing or replacing customer owned pipes

This performance commitment is designed to reduce leakage or water quality issues arising from customer owned pipes. This measure reports the number of residential supply pipe repairs and renewals carried out by the company each year for no charge. It is a bespoke performance commitment and is 100% allocated to water network plus.

The performance commitment level for 2020/2021 was for 6,882 repairs. Yorkshire Water completed 3,850 repairs, which results in a penalty of £1.361m.

As we responded to the government restrictions and legislation in the first national lockdown, we stopped entering customer properties for a short period and non-essential customer related work was paused. It has been estimated, based on previous year's performance and promotion rates, that 1,000 customer repairs were not completed in April, May and June 2020 as a result of this, which would be equivalent of a reduction in the underperformance penalty payment by £0.449m. The impacts on working arrangements as a result of the government restrictions in response to the COVID-19 pandemic had an impact on this performance commitment but it was not the only reason for not meeting the target level within the Final Determination.

Yorkshire Water is not requesting any intervention to the automatic operation of the internal sewer flooding in-period ODI.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_35 External sewer flooding

This performance commitment is designed to incentivise companies to reduce the number of external sewer flooding events. The performance commitment will be reported as the absolute number of external sewer flooding incidents per year including incidents caused by severe weather. It is a bespoke performance commitment with 100% allocation to the wastewater network plus price control.

The performance commitment level for 2020/2021 was 7,188 events. Yorkshire Water has reported 5,038 events, which results in outperformance of £16.985m.

As with our internal sewer flooding performance commitment, it was recognised that improvements could be made to the consistency applied when identifying neighbouring properties that have potentially been affected by a sewer flooding incident. Our external auditors, Atkins, found that in some instances, from the evidence presented, assurance could not be given that reasonable efforts were made to identify the extent of flooding by contacting an appropriate number of neighbouring properties. Overall, Atkins' have assessed this issue as amber, meaning incomplete data set or minor errors identified that do not alter the performance reported relative to targets and threshold values. Yorkshire Water does have a process in place which identifies these properties, however we are implementing further process improvements to ensure consistency of site activities undertaken and their subsequent documentation.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_36 Bathing water quality

The purpose of this performance commitment is to incentivise the company to improve water quality at the beaches designated for swimming within its region. The performance commitment is to measure the number of designated bathing waters which exceed the European Union Bathing Water Directive requirements in the 2020-25 period, as reported by Defra. There are 19 designated coastal bathing water's in the Yorkshire Water region. This is a bespoke performance commitment for the coastal bathing waters in the Yorkshire Water region and is allocated 100% to wastewater network plus.

The performance commitment level for 2020 was to achieve 18 of the 19 designated bathing waters at 'good' or 'excellent' status as reported by DEFRA under the Revised Bathing Water Directive. These classifications are based on regulatory sampling carried out by the Environment Agency during the bathing water season (15 May to 30 September). Under the Directive, a monitoring calendar for each bathing water should be established before the start of the bathing season. One water quality sample should be taken before the start of each season, and full water quality monitoring should then take place no later

than four days after the specified start date. Over the course of the season, a minimum of four water quality samples are required for a formal classification to be made. Sample results from the previous four years are statistically analysed and a classification of the bathing water quality is generally announced in November each year.

Due to government restrictions imposed to mitigate the spread of COVID-19 across England in 2020, the Environment Agency's routine bathing water quality monitoring programme was impacted. The Environment Agency suspended their sampling programme initially with a reduced bathing water quality sampling programme commencing from 20 July 2020. For Yorkshire's designated bathing waters this meant the Environment Agency's 'Priority Bathing Waters' (Scarborough South Bay, Bridlington South Beach and Sandsend) were sampled weekly from the week commencing 20 July (10 samples), and all other bathing waters were sampled monthly from the week commencing 20 July (3 samples). Tunstall remained an exception to the sampling programme as it remains 'Closed' due to significant coastal erosion and is not sampled. As a result of the reduced monitoring, DEFRA announced that no classifications would be issued for bathing water quality in 2020.

With no classification data available from DEFRA for 2020, Yorkshire Water is unable to report against this performance commitment as expected. We are therefore reporting 'Not Applicable' for the bathing water performance commitment in 2020.

To protect the health and safety of our colleagues, we did not carry out any routine bathing water sampling at our designated bathing waters unless it formed part of our capital investment programme. Therefore, there is no information within Yorkshire Water that we could use as a surrogate for this missing information from DEFRA.

We carried out all our bathing water pre-season checks on our coastal assets in advance of the bathing water season. We instructed our contactors to begin these checks on 19 February 2020 and these were completed prior to the start of the bathing water season in 2020.

After thorough risk assessments, we continued our planned investment on the coast in Year 1. We carried out an intensive modelling programme at Scarborough South and Bridlington South working with our specialist bathing water partners CREH, the Environment Agency and our partner local authorities, Scarborough Borough Council and East Riding of Yorkshire Council. This project was slightly delayed due to the impacts of COVID-19, however, this did not cause delays to the

overall programme. This has led to the development of two detailed prediction models for Scarborough and Bridlington. Working with the Environment Agency, the outputs of the Scarborough model have led to an update to the Pollution Risk Forecast model at Scarborough South, and we are continuing to liaise closely over the Bridlington model.

Throughout 2020, we also further invested in our UV infrastructure at our coastal treatment works to improve their performance and enhance the assets resilience. This should help protect bathing water quality into the future.

The unique set of circumstances that arose due to the COVID-19 pandemic had a significant impact on the monitoring regime for bathing waters resulting in no classifications being issued for 2020. As a result of this impact, and the fact these factors being outside of management control, Yorkshire Water would like to request that an intervention is made to the normal automatic operation of this in-period ODI. There is no data for 2020 and so we have reported N/A and therefore there is no penalty or reward payment to be calculated.

Yorkshire Water is currently engaging with Ofwat regarding this performance commitment and has an outstanding Annex 2 change request for this. There is no provision within our performance commitment definition for bathing waters that are closed. Tunstall is one of our designated coastal bathing beaches, where the coastline is subject to significant coastal erosion where it is formed of soft glacial till (clay, pebbles and sand). Since 2019, there has not been any safe access from Tunstall onto the beach due to the significant erosion, and the Environment Agency has been unable to carry out its regulatory sampling. The change request asks that for beaches that are closed that the previous known designation is reported, until de-designation is completed. Yorkshire Water believes this change control is separate from the COVID-19 situation faced in 2020. In 2020, all bathing waters, with the exception of Tunstall, could continue to be accessed by the public whereas, Tunstall is inaccessible and is signed as a closed beach.

We have not specifically undertaken any further engagement with customers on this intervention request. For more information on this, please see the section of this report titled ‘Customer Engagement’. Although we have not undertaken wider customer engagement on this matter, we have ensured to have engaged with the Yorkshire Forum for Water Customers (the Customer Forum).

The Customer Forum is an independent group of customer and stakeholder representatives brought together under its Independent Chair, Andrea Cook OBE, to work with Yorkshire Water to develop their business plans for Price Reviews, consistent with Ofwat’s methodology. In particular the Forum challenges Yorkshire

Water to make sure their business plans accurately reflect their customers' views (gained from high-quality research with customers), provide good-quality services, and meet their performance commitments. Forum members come from Citizens Advice, the Consumer Council for Water, the Environment Agency, the National Farmers Union, Natural England, Pennine Prospects and The Rivers Trust. They also include independent experts on the environment, local government, and affordability and vulnerability issues. Yorkshire Water has attended the Customer Forum to discuss its performance with the bathing water performance commitment and the challenges faced as a result of the impact of COVID-19 on available data. The Customer Forum support Yorkshire Water in their engagement to seek an intervention on this performance commitment as no data is available.

As we look to the future, we know the impact of COVID-19 could continue to impact delivery of this performance commitment. As bathing water classifications are calculated using four years of bathing water quality monitoring data, the impact of COVID-19 and the resulting data gap could continue to impact on classifications into the future. DEFRA will be communicating how the data gap will be accounted for in future years classifications later on in 2021. At this point, we will be able to further understand the potential impact this has on our performance commitment in future years.

PR19YKY_37 Surface water management

This performance commitment is designed to incentivise the company to remove or attenuate the amount of surface water that enters the public sewer network. This will be measured as the area of impermeable surface (in hectares (Ha)), removed or attenuated from the public sewer network, using blue-green infrastructure solutions or surface water disconnection over the 2020-25 period. It is a bespoke performance commitment that is allocated 16% to water network plus and 84% to wastewater network plus.

Yorkshire Water achieved the performance commitment level for 1 Ha to be removed or attenuated in 2020/2021. Performance meets the target level so there is no outperformance or underperformance payments.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

PR19YKY_40 Quality agricultural products

This performance commitment incentivises the company to treat its sewage sludge to a high standard so it can be recycled to land as a quality agricultural product reducing the need for farmers to apply commercial fertilisers. It is reported as the percentage of overall biosolids sent to land that meets the Biosolids Assurance Scheme (BAS) accreditation. It is a bespoke performance commitment and is allocated 100% to the bioresources price control.

Yorkshire Water achieved the performance commitment level of 100% in 2020/2021. This has an underperformance incentive only. As the performance commitment was met, there is no underperformance payment.

For more information on our performance, please see the APR for 2020/2021. Yorkshire Water is not requesting any intervention to the automatic operation of this in-period ODI.

Assurance

We have assurance processes in place to make sure that our regulatory publications comply with the relevant guidance and that the company has appropriate systems and processes in place to make sure the information contained within the publications is accurate and complete.

These assurance processes have been applied to both our Annual Performance Report and this in-period ODI submission.

For more information on our assurance processes, please see the framework detailed within our published Assurance Plan which can be found here: **www.yorkshirewater.com/about-us/reports**. The assurance applied to this submission is part of the APR assurance process. Please see further information in the APR report, including the Board statement on accuracy and completes of information as well as the external auditor reports from Atkins, our external technical assurance providers on the APR.

To deliver improvements to our APR for next year, we have documented a detailed set of plans where we have received an amber score, from our external auditor, which is related to either the data or methodology behind our reported outcomes.

They have been presented in detail in Section 4 of our APR.

Our financial performance

Within the Information Notice IN 21/01: Expectations for monopoly company annual performance reporting 2020-21, Ofwat comment that they will consider any need for an adjustment in the round as part of their normal reconciliation processes. This section of Yorkshire Water's in-period ODI report is to provide a summary of the key financial performance through the year to provide an overview in the round, rather than just a view on the in-period ODI outcomes.

Wholesale revenue has been over-recovered by c£8m due to a variety of reasons. The net impact has been caused by reduced consumption in non-household, offset by increased consumption in household and the impact of the dry summer. The majority of the over-recovery is within the price controls where this will be trued up and reconciled through the revenue forecasting incentive mechanism.

We have incurred exceptional costs of £11.7m directly associated with the COVID-19 pandemic. These reflect specific one-off COVID-19 costs, incurred through challenging circumstances to ensure that both operational service was maintained, given the criticality of delivering our regulatory obligations, and that colleagues and customers remained safe throughout and post lockdowns. These costs include personal protective equipment, increased contractor costs, and rental of additional vehicles to maintain social distancing.

Our cost and performance estimates align with the lower end of the estimated impacts made in the initial Frontier Economics report. The exceptional cost impact of COVID-19 on Yorkshire Water is £11.7m, which, although doesn't include missed opportunity costs and other marginal costs, is slightly below the impact predicted by Frontier's report. This could be due to the mitigating actions Yorkshire Water has taken to minimise the impact of COVID-19. Similar conclusions can be made across our ODI's such as void properties, where a proactive approach to COVID-19 has limited the impact on our performance, which we still managed to achieve our target. There has been an impact on Yorkshire Water's PCC outcome, which has a reported 3% increase from the previous year, which is in line with the Frontier forecast of 1% to 16%[2].

[2] "The Impact of COVID-19 on the Water Sector" Internal workshop presentation delivered by Frontier Economics.

In-Period Determination Request Overall Claim

Yorkshire Water requests that consideration is given to two areas of intervention to the automatic operation of the in-period ODIs.

These two areas have occurred due to the unique circumstances that arose as a result of the COVID-19 pandemic and were outside of management control.

The two interventions requested are for the following performance commitments:

- Education (as a result of schools being closed the target was missed but Yorkshire Water continued to innovate and deliver other educational material, although this didn't meet the definition in the Final Determination)
- Bathing water (no classifications were made by Defra in 2020, which was outside of management control, and therefore there is no data to report).

In addition to these two areas of intervention, a deferral of PCC is requested until the end of the AMP, in line with the guidance provided from Ofwat. More information on our reasoning for these requests is provided earlier in this report.

The in-period determination request claim from the 2020/2021 arising from the net penalty position is summarised as adjustments to the price controls in **Table 2**. The 'in-period' revenue adjustments will be applied using the 'in-period adjustments model' which deals with taxation, time value of money, inflation and any voluntary deferrals. End of period adjustments will be applied at the end of the 2020-25 period in the relevant PR24 revenue and RCV models.

Table 2. *Summary of revenue adjustments by price control arising from the 2020/2021 net ODI penalty position (all adjustments stated at 2017/2018 prices). This data is drawn from the ODI performance model and therefore does not include the draft assessment for C-Mex and D-Mex included in Table 1.*

Price Control	Unit	2020/2021
Revenue Adjustments - net ODI payments (to be applied in period)		
Water resources	£m	0.046
Water network plus	£m	-7.914
Wastewater network plus	£m	8.323
Bioresources (sludge)	£m	0.334
Residential retail	£m	-1.954
Revenue Adjustments - net ODI payments (to be applied at end of period)		
Water resources	£m	0.029
Wastewater network plus	£m	0.012

Impact on Bills & Bill Smoothing

Overall, Yorkshire Water is in a penalty position of -£3.448m. This equates to a reduction in bills of circa £1.00 per household. As a result, it is not considered that there is a need for bill smoothing and this can be accounted for in the 2022/2023 charges. **Table 3** shows the impact of this by price control.

Table 3. *Impact of penalty claim on customers' bills for each relevant price control. The table results include C-Mex and D-Mex ODI outturns (Table 1) which have been adjusted for tax and deflated to the 2017-18 price base.*

Price Control	2017/2018 (£)	%
Water resources	0.02	0.09
Water network plus	-3.84	-2.46
Water	**-3.81**	**-2.13**
Wastewater network plus	2.67	1.49
Bioresources (sludge)	0.14	0.56
Wastewater	**2.81**	**1.38**
Average Bill Impact	**-1.01**	**-0.26**

Customer Engagement

Our ongoing engagement with customers allows us to understand and act on the things they consider important to them, from understanding the service experience they expect through to affordability of bills. Our focus on lifestyles provides us with a much better understanding of how they interact with water in their day-to-day lives, what they want, need and expect from us. These conversations ensure we know what their priorities are now and in the future.

As part of our PR19 engagement with customers we explored several different ways in which customers' bills could be phased up until the year 2035. Feedback from customers showed a preference for the profiles which remained consistent for the longest period, particularly our more vulnerable customers. Customers in support of this profile felt more reassured by seeing a bill that would not fluctuate. It would help them to manage their household bills more easily as they were used to so many other bills (such as energy) fluctuating which made it hard to keep on top of things. If the water bill remained consistent it would be one less bill to have to worry about. This was consistent with similar research undertaken to support the PR14 process. During PR19, customers told us they were not motivated by any

potential refund on their bills; what they most wanted was YW to deliver on their targets, rather than under-deliver, and have a stable bill.

Given the non-materiality of the impact Yorkshire Water's penalty position will have on the average household bill, and based on the knowledge we already have from previous engagement with our customers, we have not specifically undertaken any further engagement with customers on the impact of the 2020/2021 in-period ODIs on bills.

However, based on knowledge obtained from our ongoing engagement with customers, we have implemented a framework internally with the following materiality criteria to support any additional future engagement with customers on bill profiling and smoothing:

- Research to support our PR14 submission showed customers would prefer any penalties incurred to be reinvested - up to the value of between £12 to £15 per annum - rather than be compensated in their bill. Therefore, we have taken the decision to consider and discuss bill smoothing with customers if there is a difference to the average household bill of plus or minus £5 per household.

Conclusion

The current YW in period net penalty position is estimated at -£3.448m. Out of the current estimated net penalty -£1.805m of the penalty will be realised in year 3 revenues and -£1.643m, for the PCC ODI, will be carried forward to the end of AMP reconciliation in line with Ofwat guidance.