

Yorkshire Water

PR19 blind year reconciliation of PR14 incentive mechanisms

15/07/2020

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Background and Purpose

At the 2014 price review (PR14), Ofwat introduced a number of incentive mechanisms that had the potential to reward or penalise companies where they out or under-performed against agreed targets for improving performance for customers. Ofwat also introduced mechanisms that shared with customers benefits from efficiencies achieved or legitimate additional costs in the delivery of services.

Reconciling performance is a regulatory tool for making companies accountable for their performance against their PR14 final determination. A key part of the 2019 price review (PR19) is the assessment and calculation of adjustments to take account of Yorkshire Water's performance over the period 2015 to 2020.

In December 2019, Ofwat published their Final Determination for 2019 price review (PR19). The reconciliation for performance over the 2015-20 period included in the PR19 final determinations was based on 2019-20 forecasts, because outturn data was not available at that time. The information for 2019-20 is treated as the 'PR19 blind year'. In order to make the appropriate adjustments now that 2019-20 actual performance is known, this submission provides Ofwat with an update of our reconciliation, replacing the 2019-20 forecasts with the 2019-20 actual performance data, as also reported within our Annual Performance Report (APR) for 2019-20.

The PR14 reconciliation mechanisms are set out below:

- Outcome delivery incentives – outperformance payments for companies that exceed their stretching performance commitment levels, and underperformance penalties if performance is below their performance commitment levels.
- Wholesale total expenditure (totex) sharing – where a company's out or under-performance on totex is shared with customers.
- Wholesale revenue forecasting incentive mechanism (WRFIM) – financial incentives for companies to make accurate forecasts for wholesale revenue, ensuring under and over-recovery is reconciled.
- Water trading incentive – incentive payments for new water trades.
- Land disposals – adjusting the regulatory capital value (RCV) to share any proceeds from disposals of interest in land equally with customers.
- Residential retail – the total revenue allowance is adjusted for actual customer numbers.

This PR19 blind year reconciliation of PR14 incentive mechanisms submission to Ofwat consists of:

- a suite of completed and audited data tables,
- a supporting commentary document (this document) providing an overview of the adjustments, key movements compared to the PR19 final determinations and data commentaries for the data tables.
- three PR14 reconciliations models and two feeder models.

The PR19 blind year reconciliation of PR14 incentive mechanisms submission is published on the Yorkshire Water website for customers and other stakeholders to access. All of the elements that make up this submission can be found at: <https://www.yorkshirewater.com/reports/>

With the exception of WRFIM, this PR19 blind year reconciliation of PR14 incentive mechanisms submission has been written and submitted based on the latest current known information within the PR19 Final Determination and with 2019-20 actual performance. Table WS13 (WRFIM) model has been submitted as per the Final Determination but also as a separate version, which reflects the same adjustment as submitted previously in Yorkshire Water's PR19 Business Plan from September 2018 (and is currently part of the Competition and Markets Authority (CMA) referral).

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. These assurance processes have been applied to both our Annual Performance Report and the PR19 Blind Year Reconciliation of PR14 Incentive Mechanisms. For more information on our assurance processes, please see the framework detailed within the published Assurance Plan. Some more information on assurance applied to this submission, along with an assurance statement from Deloitte, our external independent assurance provider, is contained in Appendix A.

We can confirm that we have not made changes to historic 2015-19 data in the models or to the main calculation and output sheets of the models. We can confirm that there is consistency between the tables and the models. Table WS13 (WRFIM) model has been submitted as per the Final Determination but also as a separate version, which reflects the same adjustment as submitted previously in Yorkshire Water's PR19 Business Plan from September 2018 (and is currently part of the Competition and Markets Authority (CMA) referral).

We can confirm that the data for 2019-20 performance as contained within the PR19 Blind Year Reconciliation of PR14 Incentive Mechanisms is identical to that as published within the APR.

Executive Summary

PR19 Blind Year Reconciliation

Executive Summary

The tables below provide a high-level summary of the PR14 incentive mechanisms, comparing the Final Determination to the outputs of the blind year reconciliation. The largest variance has been seen on the wholesale revenue forecasting incentive mechanism. The movements have been due to under recovery of wholesale revenues and under forecasting of capital grants and contributions. More information is provided on this within the Data Table Commentary section of this report.

Incentive Mechanisms	Data Table	Revenue Adjustment		
		Final Determination	Blind Year Reconciliation	Variance
		£m 2017-18 FYA (CPIH deflated)		
Outcome delivery incentives	App27	88.858	89.656	0.798
Wholesale total expenditure (totex) reconciliation	WS15 & WWS15	2.493	(0.620)	(3.113)
Wholesale revenue forecasting incentive mechanism (WRFIM) (without WRFIM adjustment)	WS13 & WWS13	(49.521)	(27.452)	22.070
Water trading incentive	WS17	0	0	0
Land disposals	App9	N/A	N/A	N/A

Incentive Mechanisms	Data Table	RCV Adjustment		
		Final Determination	Blind Year Reconciliation	Variance
		£m 2017-18 FYA (CPIH deflated)		
Outcome delivery incentives	App27	(19.796)	(16.581)	3.215
Wholesale total expenditure (totex) reconciliation	WS15 & WWS15	(12.020)	(2.008)	10.012
Wholesale revenue forecasting incentive mechanism (WRFIM) (without WRFIM adjustment)	WS13 & WWS13	N/A	N/A	N/A
Water trading incentive	WS17	N/A	N/A	N/A
Land disposals	App9	(1.063)	(1.263)	0.201

Incentive Mechanisms	Data Table	Revenue Adjustment		
		Final Determination	Blind Year Reconciliation	Variance
		£m 2017-18 FYA (CPIH deflated)		
Household Retail	R9	(3.787)	(4.196)	(0.408)

As per Information Notice 20/06 'Approach to PR19 Blind year adjustments for 2019-20 performance', we recognise that the wholesale revenue adjustments will be applied over one or more of the last four years of the 2020-25 period through the revenue forecasting incentive (RFI), and we will use this to manage customer bill volatility over the AMP.



Outcome Delivery Incentive Mechanism

Outcome Delivery Incentive Mechanism

This section of the report updates the actual performance for 2019-20 against the forecast levels included in the PR19 Final Determination. As part of the last PR19 submission our forecast for the 2019-20 report year was that we would meet or exceed 21 out of our 26 performance commitments, with 6 performance commitments resulting in financial outperformance totalling £28.9m and 1 performance commitment resulting in an under-performance payment of £4.6m giving an overall net Outcome Delivery Incentive (ODI) position of £24.3m in year and £60.3m in total for the AMP period. The table below identifies the actual summary outturn position:

Performance Summary (duplicate measures removed)	Actual	Actual	Actual	Actual	Actual	Total
	2015-16	2016-17	2017-18	2018-19	2019-20	
PCs achieved / outperformance payment earned	15	15	13	13	23*	
PCs failed (within deadband)	1	1	2	1	0	
PCs failed and underperformance payment accrued (outside deadband)	0	0	1	1	2	
PCs failed (reputational only)	1	1	1	2	1	
PCs not applicable in year	9	9	9	9	0	
Outperformance Payment (£m) 2012-13 price basis	5.74	8.78	19.23	14.96	29.42	78.13
Underperformance Payment (£m) * 2012-13 price basis	0.00	0.00	(6.57)	(6.12)	(1.75)	(14.45)
Overall net position (£m) 2012-13 price basis	5.74	8.78	12.66	8.84	27.67	63.68
Forecast Overall net position (£m) 2012-13 price basis	5.74	8.78	12.66	8.84	24.33	60.34
Variance on Overall net position (£m) 2012-13 price basis					3.34	3.34

* The pollution performance commitment is made up of two measures: a measure of the number of serious (Category 1 and 2) pollution incidents within the year and a measure of the number of minor (Category 3) pollution incidents within the year, but they are considered as one performance commitment. The serious pollution incidents measure is a reputational measure. The minor pollution incidents measure has a financial incentive. In both 2018-19 and 2019-20 we did not meet our target for serious pollution incidents, but we met our target for minor pollution incidents. Within the APR for these two years, we have stated that we have failed the pollution performance commitment overall. Therefore, in the 2019-20 APR, we report 22 out of 26 performance commitments being met. The table above shows 23, because it counts the part of the measure that has provided a financial incentive.



As can be seen from the table above, the continuation of the upper quartile programme into the 2019-20 report year has allowed us to achieve a better overall ODI outturn position than forecast with us meeting or exceeding 23 out of our 26 performance commitments giving an overall net ODI position of £24.3m in year and £60.3m in total for the AMP period. This is an increase of £3.3m from our PR19 Final Determination forecast. Actual performance in 2019-20 resulted in six performance commitments attracting out-performance payments totalling £29.4m and two performance commitments resulting in small underperformance payments totalling £1.8m. Further detail on the performance commitments that have resulted in financial ODI incentive have been identified below with a brief summary on changes to PR19 Final Determination forecast.

The performance commitments where we have out-performed our targets that result in a financial outcome delivery incentive payment are:

- **Leakage (WB1):** We forecast to continue to make improvements in the final year of the period, planning to achieve a performance of 269.0 MI/d water lost from our network compared with a target of 287.1 MI/d. Actual performance of 270.8 MI/d was marginally higher than forecast, leading to a slight decrease in the outperformance payment of £0.091m but still delivered a 10% leakage performance improvement over the last two years of AMP6. This performance is better than deadband of 274.0 MI/d and therefore will attract a financial outperformance payment of £0.16m.
- **Water supply interruptions (WB2):** Our actual performance in 2019-20 of 7 minutes 34 seconds was worse than our forecast position of 4:00 minutes. However, this was against a target of 12:00 minutes and is still better than the Outperformance Payment Cap, earning us the maximum possible outperformance payment of £10.2m and no change in comparison to our forecast reward position in the PR19 Final Determination.

One of the main factors in this change in performance from the original forecast has been associated with the introduction of the company health and safety improvement plan. Enhancements to improve our approach to working in the highway, including excavation and repair and colleague working times, have all reduced the speed of our operational response. We are working to control these risks whilst maintaining colleague safety. In the future this will be improved by the introduction of additional supply restoration plant and equipment, enhancing our approach to the provision of traffic management equipment, and by reviewing and amending colleague working patterns.

- **Internal sewer flooding incidents (SA1):** Our actual performance in 2019-20 of 1,602 incidents was worse than our forecast position of 1,463 incidents. However, this was against a target of 1,919 incidents and still better than the Outperformance Payment Cap, earning us the maximum possible outperformance payment of £9.0m and no change in comparison to our forecast reward position in the PR19 Final Determination.

Although actual performance has continued to improve from 2018-19, we did not achieve our original forecast of 1,463. A number of factors influenced this, we saw more overloaded sewers as an impact from the Storms Dennis and Ciara. Initiatives put in place to support internal sewer flooding to meet our AMP7 aspirations did deliver improvements but the program for improvement took longer to embed alongside organisational changes in customer field services.

- **Pollution incidents (SA3b):** The ODI relates to Category 3s only, Category 1 & 2s are recorded as a reputational measure. Our actual 2019-20 performance of 159 incidents was slightly better than our original forecast of 162 incidents, earning an increased outperformance payment of £9.6m.

Category 1 & 2 pollution incidents are recorded only as a reputational measure, but for information our original forecast for 2019-20 was for no more than three incidents which reflected the number of incidents that had occurred up to the submission date. We did



not anticipate any more occurring in 2020, however, this was not the case. This performance is disappointing and has resulted in us refocusing our future monitoring and investment programme to ensure our assets are compliant with the technical elements of its permit conditions.

- **Length of river improved (WC1 and SB4):** Actual performance in total for both water and wastewater of 459km was marginally lower than our original forecast of 463km but better than our target of 440km. This performance is better than the outperformance payment deadband of 446km and would earn an overall outperformance payment of £1.0m. This overall outperformance payment is split £0.3m for WC1 and £0.7m for SB4.

Actual performance of 107km on WC1 is slightly better than our original forecast of 106km leading to an increased outperformance payment of £0.3m. This increase is due to a remeasure of the Kepwick scheme when the work was completed and it was confirmed that more of the watercourse length was improved than originally forecast. This was all agreed with and signed off by the Environment Agency.

Actual performance of 352km on SB4 is 5km less than our original PR19 Final Determination forecast, due to the Environment Agency not supporting the output completion at Leeming Bar. This would result in a reduced out-performance payment of £0.7m in comparison to the £1.0m previously forecast. However as identified in previous submissions, an error was identified with our target for SB4 after the PR14 final determination had been published. Further to our correspondence with Ofwat on this issue, it was advised that the original target would not be changed but a business decision was made to only claim an outperformance payment greater than the revised, internal target. As such, no outperformance payment is expected on SB4. More information on this can be found within our IAP action response YKY.PD.A3.

- **Solutions delivered by working with others (WC2 and SB3):** We have delivered a further 11 solutions in 2019-20 by working with others against the original forecast of 10. Although the number of schemes delivered in 2019-20 has increased by one against target and the list of projects has changed slightly, with some projects being delayed and others completing early, we have seen a reduction in the Outperformance Payment earned. This is not due to a dip in performance but is due to the fact that the schemes we delivered outturned at a lower average cost than previously forecast. This performance will generate a small outperformance payment of £0.10m, which is to be reinvested in future working with others solutions for the 2020-25 period.
- **Amount of land conserved and enhanced (WC3/SB5):** We have improved a total of 11,806ha, in comparison to a performance target of 11,736ha. We previously forecast an underperformance of 47ha, due to an area of SSSI land at Newton Dale that was sold just before the start of the AMP, which we had included when proposing our target for this measure and which had been agreed by Ofwat. As this change was marginal a business decision was taken that we would not request a formal change of target from Ofwat for this measure and would instead accept that we would not be able to meet the original target, although we still expected to meet our revised internal target of 11,689ha. This decision was agreed with the Yorkshire Forum for Water Customers and our auditors.

Since we set this revised internal target of 11,689ha, we achieved a better than forecast performance on invasive species removal and the enhancement and restoration of ancient woodland, taking our final performance achieved to 11,806ha. Our performance is within the Outperformance Deadband and so no outperformance payment was earned.



The performance commitments where we have failed to meet our targets that result in a financial outcome delivery incentive under performance payment are:

- Drinking water quality compliance (WA1):** Actual performance of 99.949% in 2019-20 was marginally worse than our original forecast position of 99.962%, against a target of 100%. Although we had forecast to fail this target, this minor change in the outturn position has taken us just above the deadband of 99.950%, which has incurred an underperformance payment of £0.9m not previously forecast. The change in predicted performance is associated with an increase in Mean Zonal Compliance (MZC) impacting regulatory fails (47 in 2019 compared with 32 in 2018). There were no individual pesticide fails in 2019, but there were small increases in lead and nickel; with both increasing from two to three. There was an increase in iron fails (23 in 2018 compared with 15 in 2018). There was also an increased number of taste and odour positive samples from customers' taps (14 in 2019 compared with 9 in 2018).
- Drinking water contacts (WA3):** Actual performance of 6,368 in 2019-20 was much better than original PR19 Final Determination forecast of 7,500 against the 6,108 target, leading to a significant reduction in the underperformance payment previously forecast of £3.736m. The improved performance was largely due to weather conditions remaining favourable and the fact that we managed to flush over 1000 district metered areas (DMAs), which is approximately one third of the network, leading to benefits of reduced discolouration contacts. Actual performance of 6,368 against the target of 6,108 with no deadband results in a financial underperformance payment of £0.9m. The underperformance penalty value will not be returned to customers via a revenue or RCV adjustment, instead it will be invested to make service improvements. At PR14 customers determined that they would prefer to see reinvestment to drive material improvements in failing services, rather than receive a small rebate and continue to suffer service failures or performance that is not at targeted levels. We have ensured that the reinvested funds within this AMP and for the 2020-25 period are not included in totex out- or under-performance sharing mechanisms.
- Service incentive mechanism (RA1):** We marginally failed to achieve our SIM target for 2019-20 as we outturned at 83.2, against a 2018-19 outturn of 84.0. As of the 1 April 2019, the SIM measure has been replaced with a new measure called the customer measure of experience (C-Mex) in 2020. C-Mex is a mechanism to incentivise water companies to provide an excellent customer experience for residential customers, across both the retail and wholesale parts of the value chain. However, for those companies that have a performance commitment linked to SIM, Ofwat has provided a proxy calculation. For our original PR19 Final Determination forecast performance in 2019-20 we used the Customer Service C-Mex pilot score as the qualitative element. For the quantitative element we have used the actual unwanted call numbers and written complaints numbers as reported in 2018-19 as a base measure of our performance, the aim being to improve on this in 2019-20. Our forecast for 2019-20 was a SIM score of 81.5 out of 100.

Appendix B provides information on factors affecting past performance. In Appendix C, we have produced tables explaining the calculation steps we have followed for each of our financial ODIs. We have shown both our revised PR19 forecasts and the 2019-20 actuals, as well as any variances. We have provided explanation of any material variances from our forecasts.



Data Table Commentary

Data Table Commentary

App9: Adjustments to RCV from disposals of interest in land

We have updated the forecast 2019-20 land disposal value with the actuals that we have reported in table 2E of our 2019-20 APR submission.

The impact of the update is shown below:

	Price base	Units	Water	Waste	Total
FD 2019-20 forecast	Nominal	£000's	138	138	275
2019-20 actuals	Nominal	£000's	64	648	713
Variance	Nominal	£000's	73	(511)	(438)
FD RCV adjustment	2017-18 FYA CPIH	£m	(1.519)	0.456	(1.063)
Blind year RCV adjustment	2017-18 FYA CPIH	£m	(1.489)	0.226	(1.263)
Variance	2017-18 FYA CPIH	£m	(0.029)	0.230	0.201

App23: Inflation Measures

We have updated the Retail Price Index (RPI) and Consumer Prices Index including owner occupiers' housing costs (CPIH) values for February and March 2020. The values have been taken from the Office for National Statistics website.

App25: PR14 reconciliation adjustments summary

These values have been updated from the RCV and Revenue adjustment models; the only update is due to the updated RPI and CPIH values for 2019-20.

App27: Financial Outcome Delivery Incentives Summary

	Price base	Units	FD Revenue adjustment	2019-20 Revenue adjustment	Variance
Water Resources	2017-18 FYA CPIH	£m	0.456	0.507	0.051
Water Networks	2017-18 FYA CPIH	£m	34.936	34.916	(0.020)
Wastewater network	2017-18 FYA CPIH	£m	53.466	54.233	0.767
Bioresources	2017-18 FYA CPIH	£m	-	-	-
Total	2017-18 FYA CPIH	£m	88.858	89.656	0.798

	Price base	Units	FD RCV adjustment	2019-20 RCV adjustment	Variance
Water Resources	2017-18 FYA CPIH	£m	-	-	-
Water Networks	2017-18 FYA CPIH	£m	(19.796)	(16.581)	3.215
Wastewater network	2017-18 FYA CPIH	£m	-	-	-
Bioresources	2017-18 FYA CPIH	£m	-	-	-
Total	2017-18 FYA CPIH	£m	(19.796)	(16.581)	3.215

App27 now includes all underperformance payments earned as RCV adjustments, as agreed as part of the Final Determination. We have chosen to input the claimed reward, not the earned reward (please see the section for Length of River Improved Waste).

We have updated the years 1 to 3 data for section E to match the update made by Ofwat in the Initial Assessment Models, which was confirmed as correct in the query response YKY_6.



WS13: PR14 wholesale revenue forecast incentive mechanism for the water service

As stated within our table 21 commentary, within our published 2019-20 APR document, we continue to report in line with the guidance we received from Ofwat in 2015-16. This guidance related to an adjustment to remove the actual s45 connection charges from our reported grants and contributions within table 21. The aim of this adjustment was to recognise the data input error we made in our PR14 submission which led to our Wholesale Water price control not correctly reflecting the forecast income from s45 connection charges.

As Ofwat's Final Determination (FD19) did not recognise this adjustment and as this matter remains unresolved we have taken this step to maintain consistency in reporting across the price control period 2015-20, this appears to be the best approach to take at this time.

We note that this matter is within the scope of the redetermination of the CMA and we will take the appropriate steps in line with the redetermination when it is received.

To show the impact of the two methodologies we have included separate models, one with the adjustment and the second that follows the decisions to not recognise the adjustment.

The table below shows the movement from the FD19 position:

	Price base	Units	Water
FD19 - 2019-20 forecast	2017-18 FYA CPIH	£m	(36.375)
Inflation	2017-18 FYA CPIH	£m	(0.093)
Under recovery in Main charges	2017-18 FYA CPIH	£m	10.231
2019-20 Capital vs forecast	2017-18 FYA CPIH	£m	(6.799)
S45 income 2019-20	2017-18 FYA CPIH	£m	(5.531)
2019-20 actuals	2017-18 FYA CPIH	£m	(38.567)
S45 income excluded	2017-18 FYA CPIH	£m	41.124
2019-20 actuals	2017-18 FYA CPIH	£m	2.557
Impact of FD decision	2017-18 FYA CPIH	£m	41.124

The movements are due to:

- a large under recovery of our wholesale revenues, this was due to our forecast assumptions not being in line with the actuals that we have observed. We have further developed our forecasting approach to address this within our 2020-2021 tariff setting process.
- Under forecasting of capital grants and contributions (excluding s45 income)
- We did not include a forecast for s45 income in the July 2019 submission of the WRFIM as we were reporting in line with the agreed guidance from Ofwat and therefore excluded it. We did forecast a value within our submitted PR19 APP28 table, however this forecast was not subsequently updated by Ofwat in the FD model when they removed the s45 adjustment.



WS15: PR14 wholesale total expenditure outperformance sharing for the water service

Total Expenditure

We have updated the 2019-20 forecast with the actuals that we have reported in table 4B of the published APR 2019-20 document.

The impact is shown below:

	Price base	Units	Water
FD Revenue adjustment	2017-18 FYA CPIH	£m	8.541
2019-20 Revenue adjustment	2017-18 FYA CPIH	£m	6.984
Variance	2017-18 FYA CPIH	£m	(1.556)
FD RCV adjustment	2017-18 FYA CPIH	£m	59.139
2019-20 RCV adjustment	2017-18 FYA CPIH	£m	51.622
Variance	2017-18 FYA CPIH	£m	(7.518)

Operating Expenditure

Net regulated operating expenditure associated with the wholesale water programme in the 2019-20 reporting year was £208.7m (2012-13 price base), £3.5m less than the forecast within PR19 for 2020. The main reason for the slight decrease in expenditure were the mild and wet conditions experienced during the year which resulted in decreased breakout to the water network, which reduced reactive repair expenditure on the water network. Notwithstanding this, the significant planned proactive leakage investment was invested largely to PR19 plan on both opex and capex.

Actual expenditure includes £1.3m of exceptional costs related to support function severance and legal costs and £0.5m of advisory related costs associated to the ongoing CMA redetermination.

We have adjusted the totex outperformance model to exclude the £0.5m of CMA costs on the cost sharing mechanism. The method we have followed is to include these costs on Line 14 disallowables.

	Nominal Prices	12/13 Price Base
Water – Actuals	247.9	208.7
Water - Forecast	252	212.2
Variance	4.1	3.5

Capital Expenditure

Gross regulated capital expenditure associated with the wholesale water (WW) programme in the 2019-20 reporting year was £180.4m (2012-13 price base). With the associated capital contributions totalling £13.6m the net expenditure in the reporting year was £166.8m. This is £15.4m less than our PR19 forecast and has lowered our overall underperformance across the AMP, versus the Final Determination (FD), to £35.5m. This is summarised in the table below.

Gross regulated capital expenditure totalling £180.4m (2012-13 price base) in the current year is higher than the £141.2m allowed in the FD. Gross regulated capital expenditure across this AMP totalling £824.4 is higher than the £765.9m allowed in the FD.



Capital contributions totalling £13.6m (2012-13 price base) in the current year are higher than the £12.7m allowed in the FD. Capital contributions across this AMP totalling £75.2m are higher than that allowed in the FD of £52.2m.

As per the guidance received in 'IN 20/03', published in April 2020, we have deviated from RAG 4.08 in our preparation of the APR by including £0.9m (2012-13 price base) expenditure related to our AMP7 transition programme. The investment this year has allowed early design work to be undertaken by our Strategic Planning Partner on reservoir safety improvements at Rivelin IRE and on three of our Drinking Water Inspectorate (DWI) AMP7 quality outputs at Tophill Low, Oldfield and Sladen Valley. This has been adjusted for in the table below when establishing our AMP6 regulatory capital expenditure for comparison to the FD.

Also as part of the Annual Performance Report (APR), in line with FRS102, an accounting adjustment is made to the total regulated capital expenditure each year to ensure any costs associated with activities to maintain the operating capability of existing assets, such as repairs to existing structures, re-pointing, cleaning, flushing, jetting, and clearing major obstacles, is transferred to our operating costs. As a result, these costs are not included in the above gross expenditure and across the AMP have totalled £49.6m (2012-13 price base). This has been adjusted for in the table below when establishing our AMP6 regulatory capital expenditure for comparison to the FD.

Wholesale Water Programme (£m) 2012-13 price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Annual Performance Report (Table 2B)	9.7	94.1	132.7	151.2	156.1	158.4	702.1
Less: Flood Recovery	0.0	(0.0)	(0.1)	(0.4)	0.0	(0.0)	(0.5)
Less: Other Financial Accounting adjustments	0.0	(0.7)	(0.3)	0.0	0.0	0.0	(1.0)
Less: 2020-25 Transition Expenditure	0.0	0.0	0.0	0.0	0.0	(0.9)	(0.9)
Add: Capital transfer to Operating expenditure (IAS16)	0.0	9.8	9.7	10.8	9.9	9.4	49.6
Regulatory Capital expenditure	9.7	103.1	142.0	161.6	165.9	166.8	749.2
Final Determination	0.0	187.4	151.5	123.2	123.2	128.4	713.7
Outperformance and (Underperformance)	(9.7)	84.3	9.5	(38.4)	(42.8)	(38.4)	(35.5)

Outperformance and (Underperformance) (PR19 forecast)	(9.7)	84.3	9.5	(38.4)	(42.8)	(53.8)	(50.9)
Outperformance and (Underperformance) movement	0.0	0.0	0.0	0.0	0.0	15.4	15.4

2019-20

Gross capital expenditure (aligned to the APR (table 2B) before any adjustments) totalled £172.0m (2012-13 price base) on the water programme in the current year. With the associated capital contributions totalling £13.6m the net expenditure in the reporting year was £158.4m. This is £13.5m less than our PR19 forecast.



In 2019-20 a total of £94.4m (2012-13 price base) of gross capital expenditure has been invested to maintain our infrastructure and non-infrastructure asset base which, despite the extreme weather events we have experienced throughout this AMP period, has resulted in both S&R baskets remaining stable.

This includes a total of £31.0m (2012-13 price base) of gross capital expenditure to maintain the long-term capability of the infrastructure water assets. The majority of expenditure driving this investment is split over the raw water abstraction (£6.6m) and treated water distribution (£24.7m) price controls.

The raw water abstraction investment of £6.6m (2012-13 price base) targets statutory, as well as health and safety, improvements on our reservoir assets. Most of the investment within the current the reporting year has been at our impounding reservoirs (IRE) at Lindley Wood (Otley) and More Hall (Sheffield) (£3.3m). At Lindley Wood we are constructing a new spillway to increase the capacity of the existing one and grouting the masonry joints within the stilling basin. At More Hall we are increasing drawdown capacity by replacing the existing pipework as well as grouting between the spillway invert masonry blocks and raising the spillway. At Warley Moor in Halifax we have invested £1.1m in the year refurbishing and increasing the drawdown of the IRE. There has also been further investment at Redmires and Ten Acres in Sheffield (£0.8m) and Blackmoorfoot in Huddersfield (£0.5m).

Treated water distribution investment of £24.7m (2012-13 price base) is comprised of £9.7m relating to annual reactive block allocations to support our leakage improvement plan, by replacing or increasing the number of distribution network assets like communication pipes, stop taps, distribution pipework fittings or pressure reduction or pressure logging devices, to ensure we can better manage our wider water network and grid.

There are numerous other delivery batches to continue our renewal and refurbishment of the water network. Key areas of investment within the period are in Pontefract (£0.7m) to divert three water mains where Wakefield Metropolitan District Council intend to locate a leisure complex. At Fixby we have capitalised £0.7m of expenditure relating to the emergency repair of a burst distribution main and replacement pipework. In Castleford we have spent £0.7m renewing the service pipes for 429 properties to reduce leakage in the DMA. Across numerous locations we have invested £0.5m reducing the size of DMAs as part of our efforts to improve leakage performance.

Overall investment in our long-term clean water non-infrastructure assets in the report year is £63.4m (2012-13 price base). The majority of expenditure driving this investment is split over the raw water transport (£1.9m), water treatment (£35.5) and treated water distribution (£24.5m) price controls.

Within raw water transport investment of £1.9m (2012-13 price base) there has been investment of £1.0m within the year on the raw water main between Watersheddles IRE and Oldfield water treatment works (WTW) to replace air valves and install a 350mm gate valve.

The water treatment investment of £35.5m (2012-13 price base) is made up of the annual block (£2.4m) that replaces all Mechanical, Electrical, Instrumentation, Control and Automation (MEICA) failed assets on a rolling programme. At Elvington WTW significant works are ongoing to improve key components of the site (lime storage and dosing, poly plant, sodium hydroxide plant, aluminium plant and MSP plant) and in the year we have spent £6.9m. At Chellow WTW £2.1m has been spent as part of a scheme to install a new 'run-to waste' solution which will continue into AMP7. Our gas replacement programme has progressed throughout the year and £1.7m has been invested removing chlorine and sulphur dioxide gas dosing systems at WTWs and replacing them with liquid dosing systems.

Treated water distribution expenditure of £24.5m (2012-13 price base) includes annual block schemes (£4.4m) to replace asset life expired and damaged domestic and commercial meters and DMA meters. At our service reservoirs we have spent £1.6m addressing issues at those which are out of service for cleaning, inspection and improvement and, as part of our water quality improvement plan, installing new roofing membranes. At Hoover CRE we have invested £0.5m installing an adhered sheet membrane to the roof of the North Compartment.

Our management and general (M&G) support programme continues to be proportionately allocated to the water and wastewater programmes in line with our FD with 48% of the overall £253.5m programme being allocated over the reporting period to the WW programme. This is then apportioned across the accounting separation categories by the full time equivalent (FTE) allocation supporting each area.

M&G expenditure was across numerous schemes and included £6.2m related to continued work migrating to a new SAP platform which went live in July 2019 and is now in phase 2. Our project to provide enhanced system data is ongoing and has spent £1.4m in year along with a further £1.1m relating to a scheme to deliver improved IT infrastructure at our data centres providing workplace and application services to users, telephony services and a data network to remote workers. We have also invested £1.3m in replacing life expired Toughbooks for operational colleagues. Finally, our Land & Property team have invested £0.5m in the year to provide structural and refurbishment works to buildings and structures on Yorkshire Water estates.

In 2019-20 a total of £77.6m (2012-13 price base) gross capital expenditure has enabled us to finalise the deliver our AMP6 DWI water quality programme improvement outputs, continue to drive improvements on two of our water Performance Commitments to drive upper quartile performance in AMP7 (Leakage and Interruptions to Supply) as well as funding any statutory requests for new assets as part of our supply demand programme supporting development across the region. The majority of expenditure driving this investment is split over the raw water abstraction (£3.4m), water treatment (£7.2m) and treated water distribution (£67.0m) price controls.

The raw water abstraction investment (£3.4m) (2012-13 price base) relates mainly to several NEP schemes to ensure legal compliance with the Water Framework Directive. These include fish pass schemes at Lobwood (£0.3m), Tophill Low (£0.3m) and Eastwood (£0.5m). We've also had an ongoing programme of work with Fountains Forestry to restore and enhance areas of ancient woodland.

Within water treatment investment £7.2m (2012-13 price base) relates to investment of £4.1m at Langsett WTW we are delivering a DWI solution to upgrade the existing plant to address total trihalomethanes, raw water colour and disinfection by-products to secure compliance with Regulation 26(1A). We also spent £0.9m on our MEICA block as part of upper quartile programme improving water quality.

Within treated water distribution (£67.0m) the majority of investment in 2019-20 relates to our upper quartile performance drive in Leakage and Interruptions to Supply and £42.4m has been spent in the year. The remainder of the expenditure relates to the provision of statutory mains (£6.8m), £6.1m providing new water connections under section 45 of the Water Industry Act, £7.1m of investment to ensure that any customer that requests to change to a measured supply through our domestic meter optant programme have a meter fitted at no cost to them and £3.7m of infrastructure network reinforcement costs within the region.

Capital contributions totalling £13.6m (2012-13 price base) on the water programme in the current year are higher than that allowed in the Final Determination (FD) of £12.7m. Capital contributions across this AMP totalling £75.2m are higher than that allowed in the FD of £52.2m.

Of this total £4.4m (2012-13 price base) relates to income received from developers for new connections which has reduced in 2019-20 from the average seen over the AMP period of £6.2m.



No investment and income associated with section 45 new connections was allowed for in the FD both in-year and for the AMP period leading to additional income of £31.2m in total being received in comparison to the original plan.

Water infrastructure charge receipts totalling £2.6m (2012-13 price base) have been received in 2019-20. Again, this a reduction against the average seen over the AMP period of £4.4m but is in line with the new charging arrangements, agreed at the start of the previous report year, which reduced the water charge in comparison to that allowed in the FD. The agreed change in our charging arrangements part-way through the AMP period has resulted in a reduction in income of £11.2m against our original plan of £33.4m for the AMP period.

As part of the new charging arrangements we have also seen an increase in income on requisitioned water mains with £4.2m (2012-13 price base) of contributions being received in 2019-20 against the FD allowance of £2.1m. Although these charging arrangement changes were agreed in the previous reporting year, we have only seen the real impact of these changes in the current year resulting in us receiving £2.2m more income across the AMP period than allowed for in our original plan of £8.4m.

In the current report year there has been a small amount of income received as contributions in other areas of the programme totalling £0.3m, again no allowance was made for these in the original plan.

The remaining income on the water programme relates to income received due to requests to divert our water main assets which totals £2.1m in the current report year which is in line with the FD allowance in our original plan. Overall across the AMP period we have received capital contributions totalling £8.7m in comparison to the FD plan of £10.4m a reduction of £1.7m which is reflective of the lower level of diversion activity requested than that allowed for in the original plan; which is offset with a reduction in the gross expenditure on mains diversions.

Comparison to PR19 forecast

In our most recent PR19 submission we forecast outturn numbers for the final year of AMP6. In 2019-20 we have invested £158.4m (2012-13 price base) of net capital expenditure within wholesale water. Compared to our previous forecast, submitted for PR19, this is £13.5m (8%) less, as during the year we reprioritised investment to support wholesale wastewater. The mix of investment within wholesale water has also changed since our PR19 submission. This will be covered further below and is driven by a combination of reduced capital expenditure, within the year, and higher income received through grants & contributions.

Gross capital expenditure in 2019-20 was £172.0m (2012-13 price base) which is £7.7m less than our PR19 forecast.

Base infrastructure expenditure (£31.0m) (2012-13 price base) is £4.3m less than our PR19 forecast and is driven largely within treated water distribution. Our Upper Quartile (UQ) programme has continued to mature throughout the year and as a result there was an additional £2.1m of infrastructure investment related to improving leakage performance in 2019-20. This has been offset by numerous other reductions across base expenditure including £2.5m at Headingley WPS to reduce interruptions to supply which has moved in to AMP7. A further £1.7m of investment addressing interruptions to supply, which was forecast though not programmed to a specific scheme at PR19, has not taken place in 2019-20. There have been cost reductions of ~£0.6m across several structural mains scheme. Planned investment of £0.7m to address low pressure at Mowbray Lodge and Hoyle House did not take place in 2019-20 and a further £0.9m was returned to programme on several schemes addressing DOMs performance.

Base non-infrastructure expenditure in 2019-20 was £63.2m (2012-13 price base) which is £3.8m less than our PR19 forecast. Within raw water distribution we invested an additional £1.4m though have spent £3.2m less on water treatment and £1.8m less on treated water distribution.



Our M&G programme of expenditure is split across all accounting separation categories according to FTE allocation. In 2019-20 an additional £2.1m (2012-13 price base) has been invested versus our PR19 forecast.

Within raw water distribution (£1.4m) the variance to our PR19 forecast is driven mainly by increased expenditure on three raw water pumping schemes at Watersheddles, Chelker and Lobwood (£1.6m) offset by the reduced M&G allocation of £0.2m.

Within water treatment we have invested £3.2m (2012-13 price base) less than our PR19 forecast. Increased investment of £1.6m supporting our health & safety programme was offset by £4.2m of expenditure that has since been reprioritised to support other higher priority solutions and a reduced M&G allocation of £0.6m.

Within treated water distribution we have invested £1.8m (2012-13 price base) less than our PR19 forecast. There was £1.3m less investment at our service reservoirs offset by £0.8m increased costs on various other base non-infrastructure schemes. Finally, the M&G allocation has reduced by £1.3m versus our PR19 forecast.

Within other capital expenditure – infrastructure we invested £34.7m (2012-13 price base) in 2019-20 which is £10.7m less than our PR19 forecast and is mainly within treated water distribution (£10.6m). This is mainly the result of the lower level of network breakout we have experienced this year as we plan for an average year when managing the programme. This infrastructure investment was subsequently re-allocated to non-infrastructure areas of the UQ programme to drive water quality improvements.

Within other capital expenditure – non-infrastructure we invested £38.4m (2012-13 price base) in 2019-20 which is £8.4m greater than our PR19 forecast. This is driven mainly by water treatment (£1.6m) and treated water distribution (£7.1m). Within water treatment (£1.6m) the additional investment relates primarily to £0.8m to uplift the annual MEICA budget and £0.5m at Irton WTW where we are addressing raw water deterioration. Within treated water distribution (£7.1m) the additional investment is driven by £0.7m relating to increased investment on our domestic meter optant programme. Within our leakage reduction UQ programme investment was increased ~£6m including telemetry (£1.8m), facilities for leakage technicians (£2.0m), improved pressure management (£0.8m) in addition to various other schemes (£1.4m) not included within our PR19 forecast. Finally, within our reduction in interruptions to supply UQ programme £0.8m of planned investment in our PR19 forecast did not progress and was subsequently reprioritised to support other higher priority solutions in 2019-20.

Infrastructure network reinforcement investment in 2019-20 was £3.7m (2012-13 price base) within treated water distribution and is £1.8m greater than our PR19 forecast. This is driven by capital projects in Harrogate where we have invested a further £1.4m and Boston Park & Sneaton Castle (£0.3m).

Income received in 2019-20 by way of grants & contributions (£13.6) (2012-13 price base) was £5.8m greater than our PR19 forecast. This is mainly within treated water distribution (£5.6m) and is driven by a £1.4m reduction in forecast income on section 45 connection charges. Income relating to infrastructure charge receipts is £1.9m greater than originally forecast and income relating to requisitioned mains is £4.1m greater than forecast at PR19. Finally, diversion income has increased £1.0m versus our PR19 forecast. There are number of new schemes in 2019-20 not included in our PR19 forecast which have contributed £0.7m, whilst the remainder is additional investment on existing schemes.



WS17: PR14 water trading incentive reconciliation

There have been no new water trade agreements in 2019-20. This aligns with previous information presented to Ofwat. This table is a nil return.

This table contains the water service inputs used for populating the water trading incentive reconciliation model and the incentive payments arising as calculated by the water trading incentive reconciliation model. The water trading incentive reconciliation model calculates in 2012-13 prices and is converted to 2017-18 prices in the revenue adjustments feeder model.

WS17 is a retrospective view of any new trades that we have put in place during AMP6. During the period, Yorkshire Water has not identified any new trades either as part of its Water Resources Management Plan (WRMP) 2014 option appraisal or subsequent market reviews, including the WRMP 2019 options appraisal. No neighbouring water companies or other abstractors are requesting new trades and, therefore, there is strong WR justification for not planning any new trades at this stage. Although no new trades are currently planned, Yorkshire Water is committed to developing its processes for assessing trades to ensure they are fully considered in future water resource strategies. We are complying with regulatory requirements and both our Trading and Procurement Code and Bid Assessment Framework have been approved by Ofwat. To help support the Bid Assessment Framework and invite third party bids for both water resource trades and demand management services, including leakage reduction, we have created a dedicated webpage on the Yorkshire Water website. We will engage with other sectors through the Water Resources North regional group to understand risks and growth across our region and the potential to develop new trading options for the next round of planning.

Please note, the correct response for lines 37, 24 and 47 should be 'False' however, the WS17 table does not present the option in the drop-down cell menu.



WWS13: PR14 wholesale revenue forecast incentive mechanism for the wastewater service

WWS13 has been updated using with the 2019-20 actuals from table 2I of the published APR 2019-20.

	Price base	Units	Waste
FD19 - 2019-20 forecast	2017-18 FYA CPIH	£m	(13.146)
Inflation	2017-18 FYA CPIH	£m	2.314
Under recovery in Main charges	2017-18 FYA CPIH	£m	20.882
2019-20 Capital vs forecast	2017-18 FYA CPIH	£m	1.066
S45 income 2019-20	2017-18 FYA CPIH	£m	-
2019-20 actuals	2017-18 FYA CPIH	£m	11.115
Movement from FD	2017-18 FYA CPIH	£m	24.261

The main movement is due to a large under recovery of our wholesale revenues, this was due to our forecast assumptions not being in line with the actuals that we have observed.

We have further developed our forecasting approach to address this within our 2020-2021 tariff setting process.

WWS15: PR14 wholesale total expenditure outperformance sharing for the wastewater service

Total Expenditure

We have updated the 2019-20 forecast with the actuals that we have reported in table 4B of the published APR 2019-20 document.

The impact is shown below:

	Price base	Units	Waste
FD Revenue adjustment	2017-18 FYA CPIH	£m	(6.048)
2019-20 Revenue adjustment	2017-18 FYA CPIH	£m	(7.604)
Variance	2017-18 FYA CPIH	£m	(1.556)
FD RCV adjustment	2017-18 FYA CPIH	£m	(71.159)
2019-20 RCV adjustment	2017-18 FYA CPIH	£m	(53.630)
Variance	2017-18 FYA CPIH	£m	17.529

Operating Expenditure

Net regulated operating expenditure associated with the wholesale wastewater (WWW) programme in the 2019-20 reporting year was £179.8m (2012-13 price base), £9.6m more than forecast for the year within PR19. The main reason for the increase in expenditure is the inclusion of £7.9m (2012-13 price base) exceptional costs, of which the majority relates to climate change and flooding incidents:

- £8.0m is associated with extreme weather events relating to climate change
- £0.9m support function severance and legal costs
- £0.5m of advisory related costs associated to the ongoing CMA redetermination.

We have adjusted the totex outperformance model to exclude the £0.5m of CMA costs on the cost sharing mechanism. The method we have followed is to include these costs on Line 14 disallowables.

	Nominal Prices	12/13 Price Base
Waste – Actuals	213.5	179.8
Waste - Forecast	202.1	170.2
Variance	11.4	9.6
Exceptional Costs	9.4	7.9
Remaining variance	2.0	1.7

Capital Expenditure

Gross regulated capital expenditure associated with the WWW programme in the 2019-20 reporting year was £264.2m (2012-13 price base). With the associated capital contributions totalling £8.9m the net expenditure in the reporting year was £255.3m. This is £19.1m greater than our PR19 forecast and has lowered our overall outperformance across the AMP, versus the Final Determination (FD), to £71.6m. This is summarised in the table below.

Gross regulated capital expenditure totalling £264.2m (2012-13 price base) in the current year is higher than the £240.8m allowed in the FD. Gross regulated capital expenditure across this AMP totalling £1,117.2m is lower than the £1,195.6m allowed in the FD.



Capital contributions totalling £8.9m (2012-13 price base) in the current year are less than the £12.1m allowed in the FD. Capital contributions across this AMP totalling £44.7m are lower than that allowed in the FD of £51.6m.

As per the guidance received in 'IN 20/03', published in April 2020, we have deviated from RAG 4.08 in our preparation of the APR by including £4.2m (2012-13 price base) expenditure related to our AMP7 transition programme. This investment relates to our AMP7 chemical investigation and WINEP programmes. This has been adjusted for in the table below when establishing our AMP6 regulatory capital expenditure for comparison to the FD.

Also as part of the Annual Performance Report (APR), in line with FRS102, an accounting adjustment is made to the total regulated capital expenditure each year to ensure any costs associated with activities to maintain the operating capability of existing assets, such as repairs to existing structures, re-pointing, cleaning, flushing, jetting, and clearing major obstacles, is transferred to operating costs. As a result, these costs are not included in the above gross expenditure and across the AMP have totalled £39.0m (2012-13 price base). This has been adjusted for in the table below when establishing our AMP6 regulatory capital expenditure for comparison to the FD.

Wholesale Wastewater Programme (£m) 2012-13 price base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Annual Performance Report (Table 2B)	4.8	128.7	195.3	215.0	281.2	253.1	1,078.1
Less: Flood Recovery	0.0	(5.5)	(7.3)	(16.0)	(10.8)	(1.4)	(40.9)
Less: Other Financial Accounting adjustments	0.0	(3.2)	3.7	0.0	0.0	0.0	0.5
Less: 2020-25 Transition Expenditure	0.0	0.0	0.0	0.0	0.0	(4.2)	(4.2)
Add: Capital transfer to Operating expenditure (IAS16)	0.0	7.6	7.7	6.5	9.4	7.8	39.0
Regulatory Capital expenditure	4.8	127.6	199.4	205.6	279.8	255.3	1,072.5
Final Determination	0.0	229.0	228.8	228.8	228.8	228.8	1,144.0
Outperformance and (Underperformance)	(4.8)	101.4	29.4	23.2	(51.1)	(26.5)	71.6

Outperformance and (Underperformance) (PR19 forecast)	(4.8)	101.4	29.4	23.2	(51.1)	(7.3)	90.7
Outperformance and (Underperformance) movement	0.0	0.0	0.0	0.0	0.0	(19.1)	(19.1)

2019-20

Gross capital expenditure (aligned to the APR (table 2B) before any adjustments) totalled £262.0m (2012-13 price base) on the wastewater programme in the current year. With the associated capital contributions totalling £8.9m the net expenditure in the reporting year was £253.1m. This is £26.3m greater than our PR19 forecast.



In 2019-20 a total of £166.5m (2012-13 price base) of gross capital expenditure has been invested to maintain our infrastructure and non-infrastructure asset base which, despite the extreme weather events we have experienced throughout this AMP period, has resulted in both S&R baskets remaining stable.

This includes a total £28.9m (2012-13 price base) of gross capital expenditure to maintain the long-term capability of the infrastructure wastewater assets. The majority of expenditure driving this investment is split over the network+ sewage collection (£25.9m) and sewage treatment and disposal (£3.0m) price controls.

As in previous returns, the total investment on our wastewater base infrastructure assets in network+ sewage collection has been apportioned across the three categories by the asset registry allocations supporting each area. Investment within the year is £25.9m (2012-13 price base). Expenditure within the report year includes several annual block schemes (£11.7m) to address ironworks, capital maintenance works on the sewer network and CCTV survey and repairs to reduce internal sewer flooding and pollution incidents. A further £1.4m has been spent at Hookstone Road CSO (Harrogate) where an additional 228m³ of storage to address repeat pollution incidents. In Brompton we have spent £1.2m in the report year to address several sink holes that appeared in the gardens of five customers.

Expenditure within sewage treatment and disposal this year (£3.0m) (2012-13 price base) is mainly comprised of a single scheme at Withernsea on the east coast (£2.5m). Work commenced this year and will replace the existing Long Sea Outfall (LSO). This has been impacted by coastal erosion and as part of the scheme will connect to a new aero-fac wastewater treatment facility to be built locally.

Overall investment in our long-term wastewater non-infrastructure assets in the report year is £137.6m (2012-13 price base). The majority of expenditure driving this investment is split over the network+ sewage collection (£21.3m), sewage treatment and disposal (£49.2m) and sludge treatment (£66.4m) price controls.

Our M&G support programme continues to be proportionately allocated to the water and wastewater programmes in line with our FD with 52% of the overall £253.5m programme being allocated over the reporting period to the WWW programme. This is then apportioned across the accounting separation categories by the full time equivalent (FTE) allocation supporting each area.

Expenditure relating to our M&G programme and allocated to our water service was £28.8m (2012-13 price base). This is then apportioned across the accounting separation categories by the FTE allocation supporting each area.

M&G expenditure was across numerous schemes and included continued work migrating to a new SAP platform which went live in July 2019 and is now in phase 2 (£8.6m). Our project to provide enhanced system data is ongoing (£1.9m) and £1.5m has been allocated to our wastewater service in relation to a scheme to deliver improved IT infrastructure at our data centres providing workplace and application services to users, telephony services and a data network to remote workers. We have also invested £1.8m this year replacing life expired Toughbooks for operational colleagues.

Expenditure within the network+ sewage collection price control includes £1.5m (2012-13 price base) on our annual block rolling programme that replaces all MEICA failed assets. As part of our Health & Safety programme our annual block scheme to ensure compliance with EaWR and DSEAR regulations has invested £3.3m.

Expenditure within network+ sewage treatment price control includes the annual MEICA block investment of £4.4m (2012-13 price base). Further investment is across numerous wastewater treatment works to ensure that we maintain our assets to ensure treatment and safe disposal of



all sewerage with significant investment at Beverley WwTW (£5.4m), Hull WwTW (£7.3m), Malton (£0.9m), Eastwood (£0.9m) and Worsborough £0.7m. Three failing works in 2019 were as a result of UV consent failures and so we have invested £1.0m on 10 UV assets within the year.

Expenditure within the sludge treatment price control includes the annual MEICA block investment of £0.6m (2012-13 price base). Further investment at our sludge treatment facilities (STFs), to ensure that we maintain our assets to ensure treatment and safe disposal of all sludges created by our treatment processes, has seen significant investment in Huddersfield (£29.2m), Hull (£12.9m), Knostrop (£3.9m), Dewsbury (£3.2m) Blackburn Meadows (£1.7m) and Esholt (£1.6m). We have invested £1.0m on the purchase of new centrifuges at South Elmsall, Goole and Keighley Marley and spent £2.1m in the report year on numerous other minor upgrades at STFs within the region.

In 2019-20 a total of £95.5m (2012-13 price base) has enabled us to finalise the deliver our NEP wastewater quality programme improvement outputs, continue to drive improvements on our wastewater performance commitments to drive upper quartile performance in AMP7 (Internal Flooding and Pollution), as well as funding any statutory requests for new assets as part of our supply demand programme supporting development across the region. The majority of expenditure driving this investment is split over the network+ sewage collection (£63.5m), sewage treatment and disposal (£30.0m) and sludge treatment (£1.9m) price controls.

The network+ sewage collection investment of £63.5m (2012-13 price base) relates primarily to our upper quartile performance drive in Internal Flooding (£21.5m) and Pollution (£22.4m).

We have invested £2.7m on NEP storage schemes to reduce spill frequency at CSOs, storm tanks, etc. Specifically, this relates to the completion of a River Don scheme at Blackburn Meadows WwTW to improve the 6x overflow.

We have invested £2.8m (2012-13 price base) to ensure we are compliant under Section 98 of the Water Industry Act 1991 to provide a public sewer to be used for the drainage (for domestic purposes) of premises.

A further £4.6m (2012-13 price base) has been spent resolving internal flooding issues at various sites with the main expenditure in the report year associated with six locations at Goole Fire Station (£0.8m), Hazelwood Street CSO (£0.4m), Joseph Fletcher Drive (£0.4m), St Dunstons Way, Bradford (£0.4m), Illsley Road, Barnsley (£0.3m), and Bell Lane, Pontefract (£0.3m) as well as £0.4m associated with the annual regional block to provide low cost sewer flooding mitigation solutions to customers where the long term solution is not yet known or affordable at present.

Expenditure relating to the improvements required to bring private sewers adopted in the last AMP period to our asset standard totalled £5.2m (2012-13 price base) in the current report year across many different sites. We also invested £1.2m improving transferred private pumping stations to bring these assets up to a safe and serviceable asset standard.

Network reinforcement expenditure was £2.3m (2012-13 price base) in 2019-20 related to ongoing activity in Waverley (South Yorkshire) relating to the construction of two rising mains and a gravity sewer.

The investment of £30.0m (2012-13 price base) in sewage treatment and disposal relates mainly to our NEP programme activity. At three of our activated sludge WwTWs we have invested £2.3m on phosphorus removal. These are Otley (£1.4m), Earby (£0.7m) Whetherby (£0.4m).

There was further expenditure of £13.0m (2012-13 price base) relating to NEP phosphorus removal schemes at filter bed WwTWs including Easingwold (£0.2m), Skipton (£0.5m), Crayke (£0.3m), Leeming Bar (£0.4m), Borrowby (£0.5m), Bedale (£0.6m), Thirsk (£1.3m), Gargrave & Middleton Tyas (£2.6m), Bagby (£0.7m), Thorp Arch (£1.4m), Wilberfoss (£1.6m), and Foulridge (£1.5m).



There has also been £8.0m (2012-13 price base) invested on reduction of sanitary parameters at locations in Bolton on Dearne (£1.3m), Stocksbridge (£0.4m), Tankersley (£0.1m), Dronfield (£3.1m), Lundwood (£1.9m), Leven (£0.5m), Cherry Burton (£0.3m), West Bretton (£0.4m) and Hillam (£0.6m).

The sludge treatment investment of £1.9m within the year relates mainly to the reduction of sanitary parameters at Dronfield where we invested £1.8m.

Capital contributions totalling £8.9m (2012-13 price base) on the wastewater programme in the current year are lower than that allowed in the FD of £12.1m. Capital contributions in total across this AMP totalling £44.7m are again lower than that allowed in the FD of £51.6m

Wastewater infrastructure charge receipts totalling £4.7m (2012-13 price base) have been received in-year which is in line with average seen over the AMP period of £4.9m but is lower than the £8.3m FD allowance. This, as with the water infrastructure charge, is reflective of the new charging arrangements agreed at the start of the previous report year which reduced the wastewater charge in comparison to that allowed in the FD. The agreed change in our charging arrangements part way through the AMP period has resulted in a reduction in income of £8.0m against our original plan of £32.4m for the AMP period.

Also, as part of the new charging arrangements we have seen an increase in the current report year with regards to income on requisitioned sewers with a total of £1.1m (2012-13 price base) in contributions being received against the FD in-year allowance of £0.5m. We have received a higher contribution rate across the AMP period on sewer requisitions to that allowed for in the original plan which, along with the changes to the charging arrangements, has increased the amount of income we have received across the overall AMP period which by £3.8m to £6.4m in total.

In the current report year there has been £1.1m (2012-13 price base) of income received as contributions in other areas of the programme with no allowance made for these in the original plan. Most of this is associated with income received from developers wanting to utilise our existing WwTW site at Stocksbridge for further new development. This is a site where we have a new quality obligation, so this income has been allocated against sewage treatment base and other drivers to reflect the solution being delivered.

The remaining income on the wastewater programme relates to income received due to requests to divert our sewer assets which totals £2.0m (2012-13 price base) in the current report year, which is lower than the FD allowance in our original plan of £3.3m. Overall across the AMP period we have received capital contributions totalling £7.3m in comparison to the final determination plan of £16.5m a reduction of £9.2m which is reflective of the lower level of diversion activity requested than that allowed for in the original plan which is offset with a reduction in the gross expenditure on sewer diversions.

Comparison to PR19 forecast.

In our most recent PR19 submission we forecast outturn numbers for the final year of AMP6. In 2019-20 we have invested £253.1m (2012-13 price base) of capital expenditure within wholesale wastewater. Compared to the forecast submitted for PR19 (WWS1) this is £26.1m (10%) greater as during the year we reprioritised investment from wholesale water. The mix of investment within wholesale wastewater has also changed since our PR19 submission as non-infrastructure expenditure (base and enhancement) was reprioritised within the year.

Gross capital expenditure in 2019-20 was £262.0m (2012-13 price base) which is £25.7m greater than our PR19 forecast.



Base infrastructure expenditure of £28.9m (2012-13 price base) is £1.7m less than our PR19 forecast. We invested a further £3.1m in sewage treatment within the year though this was offset by £4.8m reduced capital expenditure in sewage collection.

Within sewage treatment the additional investment of £3.1m (2012-13 price base) versus our PR19 forecast relates to the work we're undertaking in Withernsea to replace the long sea outfall (LSO).

Within sewage collection (£4.8m) the material movements are for increased reactive sewer investment of £2.0m for an emergency scheme at Fernwood Close (North Allerton) (£0.9m) and our annual capital maintenance block scheme (£1.1m). We also increased investment on our annual ironworks block scheme (£1.0m). These increases were offset by £0.4m reduced investment in area flooding and £6.2m less expenditure relating to proactive sewer investment. This includes £3.8m of unprogrammed expenditure at PR19 which did not materialise in 2019-20. A scheme at Colton SPS reduced expenditure by a further £1.5m and £0.9m of our annual pollution block scheme was re-allocated elsewhere within the programme.

Base non-infrastructure expenditure in 2019-20 was £137.6m (2012-13 price base) which is £18.9m greater than our PR19 forecast. We invested an additional £5.8m within sewage collection and £12.0m was also invested within sludge treatment. These were offset by a small reduction within sludge transport which was driven by a reduction in the allocation of our Management & General (M&G) programme of work.

Our M&G programme of expenditure is split across all accounting separation categories by the FTE allocation supporting each area.

Within the wastewater programme in 2019-20 the sewage collection allocation of investment has increased versus prior years and our PR19 forecast as a result of organisational changes increasing resources to the upstream service. In 2019-20 an additional £5.4m (2012-13 price base) has been invested versus our PR19 forecast.

Within sewage collection additional investment of £5.8m (2012-13 price base) relates mainly to our M&G programme allocation (£5.4m). Investment increased £1.1m for training facilities not considered in our PR19 forecast. Investment reduced £1.1m at Scalby Mills where work has been ongoing to comply with the DSEAR regulations 2002. There is also an additional £0.4m relating to flood recovery costs most of which relate to the flooding incident in November 2019.

Within sludge treatment additional investment of £12.0m (2012-13 price base) comprises £12.3m increased expenditure offset by a £0.3m reduction in the allocation of our M&G programme. Compared to our PR19 forecast there have been increases in expenditure in 2019-20 on schemes at Knostrop (£2.7m) and Hull (£2.0m) and £2.1m on minor upgrades at STFs within the region which was not in our PR19 forecast. There is £1.6m of investment at Blackburn Meadows that in our PR19 forecast had been allocated as supporting enhancement infrastructure assets for intermittent discharges. Sludge treatment maintenance investment increased £1.5m. This was across numerous schemes though the majority (£1.0m) was on the purchase of new centrifuges at South Elmsall, Goole and Keighley Marley.

Within other capital expenditure—infrastructure we invested £37.4m (2012-13 price base) within sewage collection in 2019-20 which is £6.1m less than our PR19 forecast. There is £1.7m of investment at Blackburn Meadows that in our PR19 forecast had been allocated here supporting assets for intermittent discharges. This expenditure has subsequently been re-allocated to sludge treatment base non-infrastructure. Within the UQ Pollution programme there was £6.6m of infrastructure investment which was still to be programmed when submitting our PR19 forecast, which was subsequently re-allocated to other areas of the UQ programme. Also, within our UQ Internal Flooding programme investment in our infrastructure assets in 2019-20 was £1.7m greater than our PR19 forecast across several schemes.



Within other capital expenditure—non-infrastructure we invested £52.4m (2012-13 price base) in 2019-20 which is £10.8m greater than our PR19 forecast. This is driven mainly by sewage collection (£8.6m), sewage treatment (£1.7m) and sludge treatment (£0.5m) price controls.

Within sewage collection the additional investment of £8.6m (2012-13 price base) was within our UQ Pollution programme with an uplift to our MEICA budget (£1.7m) and increased telemetry investment (£2.5m) to improve pollution performance. We also increased the UQ Internal Flooding programme expenditure by a further £4.1m versus our PR19 forecast. This was to support the transformation of our Customer Field Services teams and includes the purchase of vehicles and supporting equipment (£2.3m) and expenditure associated with upgrading facilities, health & safety equipment and tools (£1.8m).

Within sewage treatment the increased expenditure of £2.0m (2012-13 price base) versus our PR19 forecast is driven by £3.1m of forecast savings on phosphorus removal schemes of which only £1.4m was realised in 2019-20.

Within sludge treatment the additional £0.6m (2012-13 price base) investment comprises mainly £0.4m invested at Dronfield where we are delivering NEP enhancements.

Infrastructure network reinforcement investment in 2019-20 was £2.3m which is £0.7m greater than our PR19 forecast as a result of increased costs at our Waverley (south Yorkshire) scheme where we are constructing two rising mains and a gravity sewer.

R9: PR14 Reconciliation of household retail revenue

We have updated the 2019-20 forecast from tables 2F and 2I from the published APR 2019-20 document.

The impact is shown in the table below:

	Price base	Units	HHR
FD Revenue adjustment	2017-18 FYA CPIH	£m	(3.787)
2019-20 Revenue adjustment	2017-18 FYA CPIH	£m	(4.196)
Variance	2017-18 FYA CPIH	£m	(0.408)



Appendices

Appendix A: 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. These assurance processes have been applied to both our Annual Performance Report and the PR19 Blind Year Reconciliation of PR14 Incentive Mechanisms.

Good assurance needs to be provided at the right time, proportionate to the level of risk identified, ask the right questions and produce good evidence to support the information provided. The assurance for this submission has followed the three levels of assurance model which is best practice and in line with our assurance plan.

Level 1 assurance: We have named data providers and data managers who are responsible for providing accurate information in line with any guidance provided.

Level 2 assurance: We have named senior managers and directors who review, check, challenge and approve the information provided. They have signed an assurance statement to confirm the data and overall submission are correct. In addition, oversight is provided by colleagues within Regulation.

Level 3 assurance: Deloitte has provided an assurance statement from the activity they have completed on the PR19 Blind Year Reconciliation of PR14 Incentive Mechanisms. Please also see the assurance statement from Jacobs, which is published in Appendix 2 of the 2019-20 Annual performance Report and covers the 2019-20 actual performance commitment outturns.

There have been no material issues outstanding on the PR19 Blind Year Reconciliation of PR14 Incentive Mechanisms, and all actions have been closed before submission by the 15 July 2019.

Assurance statement from Deloitte

In the role as PR19 Assurance Partner, Deloitte provided the following statement on 10 July 2020 on conclusion of its assessment of Yorkshire Water's PR19 blind year reconciliation submission models and data tables.

"Yorkshire Water engaged Deloitte to perform defined procedures over specific changes made to PR14 reconciliations. Yorkshire Water requested Deloitte examine ten specific data tables and outputs from six regulatory models. This included agreeing data table updates to one preceding level of supporting documentation, recalculating totals and confirming that outputs from the six regulatory models had been updated accurately within the in-scope data tables. Our work did not cover any of the pre-populated elements provided by Ofwat.

Based on our assessment procedures, we raised twelve exceptions to Yorkshire Water. The exceptions raised were mainly due to data input errors from model outputs and rounding or decimal place errors when updating cells. The exceptions identified represent individual and isolated points and do not indicate any wider systematic or pervasive issues. These exceptions were provided to Yorkshire Water to be reviewed and actioned prior to submission. At the time of reporting, Yorkshire Water confirmed that those exceptions have now been completed. We have not undertaken any re-assessment of the data tables or model outputs where data may have been updated subsequent to our assessment.

The scope of work was limited to these defined procedures and other findings may have been raised if additional or alternative procedures were performed."



Appendix B: Factors affecting past performance

Although we have shown strong overall performance across the 2015 to 2020 period, we have faced some challenging circumstances during which we have worked hard to mitigate the most significant impacts to our operations.

2015-16 floods

We, and many of our customers, were impacted by some of the worst flooding ever experienced in parts of Leeds, Bradford, York and the Calder Valley over the Christmas and New Year period in 2015-16. Water services were maintained to all customers, despite flooding of more than 100 works and pumping stations.

We experienced unexpected totex to recover the performance and condition of assets damaged during the floods on 26 December 2015. We received £51.9m (at 2012-13 prices) of insurance reflecting the fair value of estimated exceptional costs to restore the assets, and within our statutory accounts recorded exceptional opex costs of £25.15m (at 2012-13 prices) during the period of construction to rectify the damage incurred. Given that these costs were covered by insurance we have excluded them from the actual totex so that none of these costs will be recovered from our customers via the PR14 reconciliation adjustments.

2018 freeze / thaw event

Extreme winter weather hit our region (commonly referred to as the Beast from the East) in early 2018. Freeze-thaw then impacted us through March and April 2018. We performed well due to our advance preparedness and comprehensive response to events. Our annual preparations for a potential cold weather event commenced back in November 2017, with the provision of additional equipment and resource and contingency plans prepared. We actively recruited more leakage inspectors and obtained increased repair resource from our contract partners.

Our executive team considered long-range weather forecasts and took the decision to deploy resources to prepare for a predicted increase in both leakage and water demand. Both the operational company incident management team (CIMT) and the executive led crisis management team (CMT) were formed to manage the response during the event. Whilst the significant freeze then thaw situation did have an impact on some of our performance commitment service levels in the short-term, we managed to maintain supplies and services to all but a small number of customers. Ofwat acknowledged in its June investigation report that Yorkshire Water had performed well and communicated with customers throughout the event.

Most issues reported by customers during the period were caused by frozen private supplies or isolated bursts on our network. Our earlier decisions to source and mobilise significant additional resource enabled us to minimise the impact on our customers by responding rapidly to any supply interruptions.

Prolonged warm summer of 2018

In the summer of 2018, we experienced a period of prolonged hot, dry weather. Dry weather persisted until the late autumn when sustained rainfall provided rapid reservoir and groundwater replenishment.

Prolonged dry weather from June onwards saw customer demand for water increase by almost 20%, resulting in rapid water loss (depletion) from reservoirs as a result of very little rain to refill them. Depletion rates of up to 7% a week of water made it essential that we managed water resources carefully. We crossed our 'control lines' in our Drought Plan in 2018. These are trigger



points which, once reached, result in escalated levels of action to maintain resilient water supplies. We applied for, and were granted, two drought permits to temporarily increase river abstractions limits, however these permit applications were a precautionary measure and we did not need to use them in practice. We learn from each drought and update our Drought Plan accordingly. Our planning enables us to act quickly because options have been assessed for their potential environmental impact and mitigation strategies developed.

The prolonged hot, dry weather resulted in a significantly reduced soil moisture level in our region leading to ground movement and therefore increased burst rate. The effects of this weather caused additional 'reactive' leakage to occur that under an 'average year' would not normally be observed, meaning whilst additional volumes of leakage have been saved (compared to an average year), this was offset through the weather-related impacts. This relationship has created difficulty for the company in achieving our stretching current outperformance targets. Although, we did not meet the stretching outperformance targets we set ourselves in 2018-19, we have rephased our proposed target levels for the next six years and we are still committed to reducing leakage by 40%.

We increased our energy consumption in the dry winter and warm summer of 2018, from 598GWh in 2017-18 to 620GWh in 2018-19. To ensure resilient water supplies during extreme weather, we increase the amount of pumping we undertake through our water grid network to ensure water is available when and where it is needed. This impacted on our energy generation performance commitment. Utilising our grid network to transfer water across the region in order to ensure continuous supply to all customers can sometimes lead to a change in source water type for some supply areas, which we know some customers can identify as a change in taste. There was therefore an impact on drinking water contacts.

2019-20 Floods

In the course of the year, we have dealt with three major storms and consequent flooding events, which have had a significant impact on the lives of our customers and the communities we serve. Over 40 of our assets, ranging from pumping stations through to major wastewater treatment works such as Blackburn Meadows, were affected by the widespread flooding in the Don Valley in November 2019. Although many continued to operate despite the inundation, damage was extensive and there are unexpected costs associated with the reinstatement. More information on the flooding events is provided in the CEO Statement in the Annual Report and Financial Statements (ARFS) and in section 4 of the Annual Performance Report (APR).

Covid-19 Programme impacts

The rapid onset of the Covid-19 pandemic in the last months of the financial year meant that we needed to make major and rapid changes to the company's operations to ensure that we could continue to provide an essential service whilst protecting the health and safety of our colleagues and customers.

We have already experienced disruption to the way we work and, in some cases, there were activities, such as construction, operational and monitoring activities, that our colleagues or service partners had to delay or stop where we were not able to work safely and within Government guidelines. We have had increases in costs due to additional equipment needs to support safe working. This means that our company response is impacting on our ability to undertake some routine activity. This in turn will affect our ability to meet in the short term some of our regulatory compliance dates in AMP6 and early AMP7. Whilst the impact on the completion of the AMP6 programme is minimal as the required on site activity has been completed, there have been a handful of minor outputs such as the final sign off of the NEP Humber Estuary study and the last remaining outputs required to complete our EDM2 programme (Event Duration Monitoring) which targeted improvements at over 600 sites in total, that we have been unable to claim in the last month of the AMP period directly due to the impacts of Covid-19. The



Environment Agency has been made aware of these outputs and we are working closely to complete and sign off these obligations as safely and timely as possible.

The impacts on the AMP7 regulatory programme are less known as yet, with the length of the current lockdown still uncertain and future working guidance still under review. What we do know is that we are already seeing increased costs on the totex programme due to additional equipment and activity required to undertake our daily routine tasks due to the implementation of safe working procedures to meet social distancing requirements.

We are already experiencing and tracking a significant reduction in work promotion of our service partners particularly on the Water network in all areas but primarily on customer facing work such as the metering programmes and private side leakage improvements. This is being monitored daily and forecasted weeks in advance to ensure the resource currently employed is matched to the work being promoted.

Work is also currently ongoing to closely monitor the impacts on the capital programme in terms of both time delays to planned schemes as well as any additional costs claims due to the initial changes in site logistics and facilities and then the ongoing costs of hire and labour to allow these planned works to be delivered whilst continuing to implement safe working procedures until all restrictions are lifted.

The above delays and additional costs in addition to support service resources being diverted and/ or working from home coupled with changes to customer behaviour during this pandemic will make it difficult for us to meet some of the service and investment targets set out in our final determination which in turn will lead to increased penalties if no action is taken by Ofwat.

As an example the 15% leakage reduction required in AMP7 under the new convergency methodology uses a three year rolling average so any impacts in year one will also impact on our ability to meet future years ever tightening targets. This measure is also being impacted by our ability to resolve customer side leakage repairs which account for a third of leakage volume repairs as we are currently not completing these unless identified as an emergency.

Changes in our customers behaviour is also very likely to be impacting on our ability to meet our service level improvements on Per Capita Consumption and although we have a communications campaign agreed and in place this may not correct in full this upward trend in water use.

We are currently recording all material decisions and gathering data to ensure that we are well placed to identify with confidence any impacts Covid-19 is having on our AMP7 programme. This will include robust evidence to identify the overall net impact on the delivery of our Performance Commitments and ODIs, our Totex investment programmes as well as any increase we may see bad debt again in terms of both the short-run and the long-run. This final step is important because the net effect in the short-term might be neutral (or close to neutral) but the longer-term impacts may be more severe.

Appendix C: 2019-20 performance

We have produced tables explaining the calculation steps we have followed for each of our financial ODIs. We have shown both our revised PR19 forecasts and the 2019-20 actuals, as well as any variances. We have provided explanation of any material variances from our forecasts.

WA1: Drinking water quality

Unit	Percentage		
Period	Calendar Year Measure		
Definition	The mean zonal percentage compliance from the regulatory sampling programme, as calculated by the DWI.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	100.00%	100.00%	
Actual/Forecast Performance Level	99.962%	99.949%	-0.013%
Performance Commitment Level Met?	No	No	
Underperformance Payment Deadband	99.950%	99.950%	
Underperformance Within Deadband	Yes	No	
Underperformance Payment Incentive Rate	£892.0m per 1% additional failure	£892.0m per 1% additional failure	
Underperformance Payment	£0.000	= 99.949% (Actual Performance) – 99.950% (Deadband) = 0.001% * 892.0m (Incentive Rate) =£0.892m	£0.892m

- We outturned 0.013% lower than forecast, which has incurred an underperformance payment of £0.892m.
- The reason for the change in predicted performance is associated with an increase in MZC impacting regulatory fails (47 in 2019 cf 32 in 2018). There were no individual pesticide fails in 2019, but there were small increases in lead and nickel; fails from 2 to 3 for both parameters. However, there was significant increase in iron fails (23 in 2018 cf 15 in 2018). There was also an increased number of taste and odour positive samples from customers' taps (14 in 2019 cf 9 in 2018). None of these T&O detections could be directly ascribed to T&O from a Company asset.

WA3: Drinking water contacts

Unit	Number		
Period	Financial Year Measure		
Definition	The number of times customers contact Yorkshire Water about discolouration, taste and odour and illness each year, in line with DWI reporting.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	6,108	6,108	
Actual/Forecast Performance Level	7,500	6,368	-1,132
Performance Commitment Level Met?	No	No	
Underperformance Payment Deadband	6,108	6,108	
Underperformance Within Deadband	No	No	
Underperformance Payment Incentive Rate	£0.0033m per contact	£0.0033m per contact	
Underperformance Payment	$= 7,500 \text{ (Forecast Performance)} - 6,108 \text{ (Deadband)}$ $= 1,392 * 0.0033 \text{ (Incentive Rate)}$ $=£4.594\text{m}$	$= 6,368 \text{ (Actual Performance)} - 6,108 \text{ (Deadband)}$ $= 260 * 0.0033 \text{ (Incentive Rate)}$ $=£0.858\text{m}$	-£3.736m
Outperformance Payment Deadband	6,108	6,108	
Outperformance Within Deadband	N/A	N/A	
Outperformance Payment Incentive Rate	£0.0030m per contact	£0.0030m per contact	
Outperformance Payment	N/A	N/A	

- Actual performance in 2019-20 was much better than forecast, with 1,132 fewer contacts than expected, leading to a reduction in the underperformance payment of £3.736m.
- The improved performance was largely due to weather conditions remaining favourable and the fact that we managed to flush over 1000 DMAs which is approximately one third of the network and the benefits of this are reduced discolouration contacts.

WA4: Water quality stability and reliability factor

Unit	Assessment			
Period	Financial year measure (some sub-measures are calendar year measures)			
Definition	An overall assessment of long-term stability and reliability for water quality, based on a basket of indicators. Assessment is based on the recent historical trend of the indicators. Assessment will give a classification of Improving, Stable or Deteriorating.			
Year	2019-20 Forecast		2019-20 Actual Performance	
Performance Commitment Level	Stable		Stable	
Forecast Performance Level	Stable		Stable	
Performance Commitment Level Met?	Yes		Yes	
Underperformance Payment	£0.000m		£0.000m	
Sub-Measure Performance				
		2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
WTW coliform non-compliance	Upper Reference Level	0.07%	0.07%	
	Reference Level	0.04%	0.04%	
	Forecast/Actual Performance	0.02%	0.03%	0.01%
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
SRE coliform non-compliance	Upper Reference Level	0.24%	0.24%	
	Reference Level	0.00%	0.00%	
	Forecast/Actual Performance	0.00%	0.00%	0.00%
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
Turbidity	Upper Reference Level	4	4	
	Reference Level	0	0	
	Forecast/Actual Performance	0	0	0

Enforcements	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
	Upper Reference Level	1	1	
	Reference Level	0	0	
	Forecast/Actual Performance	0	0	0
	Performance Level Met?	Yes	Yes	
Reactive equipment failures	Sub-Measure Assessment	Stable	Stable	
	Upper Reference Level	8,380	8,380	
	Reference Level	6,771	6,771	
	Forecast/Actual Performance	4,200	3,410	-790
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

- As agreed at PR14 our AMP6 S&R performance has been assessed in Year 5 by our external auditor Jacobs. All sub-measures have been assessed as stable and the S&R factor has been assessed as stable overall, therefore there is no payment to be applied.
- There were a couple of minor variances from forecast across all the sub-measures and these were for Reactive Equipment Failures, which outturned lower at 3,410 against a target of 4,200 for Year 5 and Water Treatment Works coliform non-compliance which outturned slightly higher than forecast but which is still under the reference level.

WB1: Leakage

Unit	Megalitres per day (Ml/d)		
Period	Financial Year Measure		
Definition	<p>The sum of distribution losses and supply pipe losses.</p> <p>This includes any uncontrolled losses between the treatment works and the customer's stop tap. It does not include internal plumbing losses.</p>		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	287.1	287.1	
Actual/Forecast Performance Level	269.0	270.8	1.8
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	292.1	292.1	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£0.101m per megalitre a day	£0.101m per megalitre a day	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	274.0	274.0	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£0.051m per megalitre a day	£0.051m per megalitre a day	
Outperformance Payment	$= 274.0 \text{ (Deadband)} - 269.0 \text{ (Forecast Performance)}$ $= 5.0 * 0.051 \text{ (Incentive Rate)}$ $=£0.253\text{m}$	$= 274.0 \text{ (Deadband)} - 270.8 \text{ (Actual Performance)}$ $= 3.2 * 0.051 \text{ (Incentive Rate)}$ $=£0.162\text{m}$	-£0.091m

- Actual performance in 2019-20 was marginally higher than forecast, leading to a slight decrease in the outperformance payment of £0.091m.

WB2: Water supply interruptions

Unit	Minute		
Period	Financial Year Measure		
Definition	Number of minutes lost per property served in the year with supply interruptions of three hours or longer (irrespective of whether it was planned, unplanned or caused by a third party).		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	12.00	12.00	
Actual/Forecast Performance Level	4.00	7.56	3.56
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	12.00	12.00	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£2.610m per minute	£2.610m per minute	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	12.00	12.00	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£2.610m per minute	£2.610m per minute	
Outperformance Payment Cap	8.08	8.08	
Outperformance Payment	$= 12.00 \text{ (Deadband)} - 8.08 \text{ (Payment Cap)}$ $= 3.92 * 2.610 \text{ (Incentive Rate)}$ $=£10.227\text{m}$	$= 12.00 \text{ (Deadband)} - 8.08 \text{ (Payment Cap)}$ $= 3.92 * 2.610 \text{ (Incentive Rate)}$ $=£10.227\text{m}$	£0.000m

- While our actual performance in 2019-20 was worse than our forecast position it was still better than the Outperformance Payment Cap earning us the maximum possible outperformance payment, so there is no change in this against our forecast, and was better than the previous year.

- Some key factors have been identified that contributed in the decline in performance against forecast. These are associated with the introduction of the company health and safety improvement plan. Enhancements to improve our approach to working in the highway; excavation and repair and colleague working times have all reduced the speed of our operational response. We are working to control these risks whilst maintaining colleague safety. This will be improved by the introduction of additional supply restoration plant and equipment.; enhancing our approach to the provision of traffic management equipment, and by reviewing and amending colleague working patterns.

WB4: Water network stability and reliability factor

Unit	Assessment			
Period	Financial year measure (some sub-measures are calendar year measures)			
Definition	An overall assessment of long-term stability and reliability for the water network, based on a basket of indicators. Assessment is based on the recent historical trend of the indicators. Assessment will give a classification of Improving, Stable or Deteriorating.			
Year	2019-20 Forecast		2019-20 Actual Performance	
Performance Commitment Level	Stable		Stable	
Forecast Performance Level	Stable		Stable	
Performance Commitment Level Met?	Yes		Yes	
Underperformance Payment	£0.000m		£0.000m	
Sub-Measure Performance				
	2019-20 Revised Forecast		2019-20 Actual Performance	2019-20 Variance
Total bursts	Upper Reference Level	7,710	7,710	
	Reference Level	6,000	6,000	
	Forecast/Actual Performance	8,455	6,203	-2252
	Performance Level Met?	No	No	
	Sub-Measure Assessment	Stable	Stable	
Interruptions >12 hours	Upper Reference Level	659	659	
	Reference Level	220	220	
	Forecast/Actual Performance	220	963	743
	Performance Level Met?	Yes	No	
	Sub-Measure Assessment	Stable	Deteriorating	
DG2 low pressure	Upper Reference Level	67	67	
	Reference Level	15	15	

	Forecast/Actual Performance	9	14	5
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
	Upper Reference Level	1.570	1.570	
	Reference Level	1.180	1.180	
Customer contacts for discolouration	Forecast/Actual Performance	0.700	0.548	-0.152
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
	Upper Reference Level	0.340%	0.340%	
	Reference Level	0.200%	0.200%	
Distribution index TIM (100 - mean zonal compliance)	Forecast/Actual Performance	0.200%	0.216%	0.016%
	Performance Level Met?	Yes	No	
	Sub-Measure Assessment	Stable	Stable	
	Upper Reference Level	2,261	2,261	
	Reference Level	1,825	1,825	
Reactive equipment failures	Forecast/Actual Performance	1,100	928	-172
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

- As agreed at PR14 our AMP6 S&R performance has been assessed in Year 5 by our external auditor Jacobs. The majority of sub-measures have been assessed as stable and the S&R factor has been assessed as stable overall, therefore there is no underperformance payment to be applied.
- Three of the sub-measures are above the reference level: Total Burst, Interruptions to Supply Over 12 Hours and Distribution Index TIM.
- While Total Bursts is above the Reference Level our performance in 2019-20 is significantly better than forecast and is now below the upper reference level. Mains bursts have decreased this year to 6,203. This is above the reference level of 6,000 however below the high level of 7,710. The 2019-20 performance is the third lowest performance of AMP6. We believe that the weather conditions in year contributed to the number of mains repairs being much lower than the previous year (2018-19 was 8,254). The summer was one of the wettest, and the winter

was wet but not as cold, when compared to previous years. It is usually the winter months (December to February) that have the biggest impact on Mains Repair performance. However, the winter months of 2019-20 are lower than the monthly average for the last 20 years.

- Our Interruptions to Supply Over 12 Hours performance in 2019-20 shows a large variance to forecast. There were 963 properties that had an interruption to supply of greater than 12 hours. This is above both the reference level of 220 and the high reference level of 659. This is an increase from last year where we outturned at 414. The 963 were from 37 separate incidents. From reviewing these incidents some key factors have been identified that contributed in the decline in performance. These are associated with the introduction of the company health and safety improvement plan. Enhancements to improve our approach to working in the highway; excavation and repair and colleague working times have all reduced the speed of our operational response. We are working to control these risks whilst maintaining colleague safety. This will be improved by the introduction of additional supply restoration plant and equipment.; enhancing our approach to the provision of traffic management equipment, and by reviewing and amending colleague working patterns.
- Distribution Index TIM outturned slightly above the Reference Level. The total number of iron failures for 2019 was 23, 2 manganese failures and also 2 turbidity failures. We are continuing with the DMA flushing programme which we believe has had a positive impact on this measure and we are going to focus more on trunk main conditioning which should reduce the amount of sediment mobilised from trunk mains and settling in the distribution network.
- A few of the other sub-measures had small variances to forecast.

WC1: Length of river improved

Unit	Kilometres (Km)		
Period	Financial Year Measure		
Definition	The length of river in the Yorkshire Water region improved during 2015-2020 against Water Framework Directive component measures.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	100	100	
Actual/Forecast Performance Level	106	107	1
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	97	97	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£0.146m per km	£0.146m per km	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	103	103	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£0.077m per km	£0.077m per km	
	= 106.05 (Forecast Performance) – 103.00 (Deadband)	= 107.00 (Forecast Performance) – 103.00 (Deadband)	
Outperformance Payment	= 3.05 * 0.077 (Incentive Rate) =£0.234m	= 4.00 * 0.077 (Incentive Rate) =£0.308m	0.074

- Our performance on this measure is slightly better than forecast leading to an increased outperformance payment due to a remeasure of the Kepwick scheme. When the work was completed it was confirmed that more of the watercourse length was improved than originally forecast. This was all agreed with and signed off by the Environment Agency.

WC2: Solutions delivered by working with others

Unit	Number		
Period	Financial year measure		
Definition	<p>The number of intervention solutions delivered through working with multi-agencies, organisations or individuals.</p> <p>The performance commitment is a total commitment, held at appointee level. It spans water and waste water controls and specific targets have not been allocated to the individual controls.</p>		
Forecast Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	4 (16 Cumulative)	4 (16 Cumulative)	
Forecast Performance Level	10 (42 Cumulative)	11 (43 Cumulative)	1
Performance Commitment Level Met?	Yes	Yes	
Outperformance Payment Deadband	16 (Cumulative number of Interventions Delivered in AMP)	16 (Cumulative number of Interventions Delivered in AMP)	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	5% of totex cost of Yorkshire Water cost for each eligible intervention.	5% of totex cost of Yorkshire Water cost for each eligible intervention.	
	= £0.338m (average cost of interventions in year) * 5%	= £0.207m (average cost of interventions in year) * 5%	
	=£0.017m (Reward per intervention above target)	=£0.010m (Reward per intervention above target)	
	=10 (Forecast Interventions) – 4(Target) = 6 * £0.017m	=11 (Actual Interventions) – 4(Target) = 7 * £0.010m	
Outperformance Payment	=£0.101m total outperformance payment	=£0.073m total outperformance payment	-£0.028m
	=£0.101m * 100% (% of total cost of interventions that relate to clean water schemes)	=£0.073m * 100% (% of total cost of interventions that relate to clean water schemes)	
	= £0.101m water only outperformance payment	= £0.073m water only outperformance payment	

- There was originally some ambiguity about how the reward for this measure was calculated and how it should be distributed between water and waste water, specifically around what we classed as an eligible intervention. This has now been resolved and agreed with our auditors and via our internal assurance processes, and we are now calculating our outperformance payment by calculating 5% of the average cost of all interventions in the report year and then multiplying this by the number of interventions greater than our target for that year. We have used this methodology for the last few years.
- We have further refined how we split the outperformance payment between the water (WC2) and waste water (SB3) Performance Commitments. Previously this was done using a percentage split based on the relative size of the two parts of the business. To ensure a more accurate split we are now assigning the outperformance payment based on the percentage of total cost of the interventions completed within the report year that relate to either water or waste water.
- The number of schemes delivered in 2019-20 has increased by one against target and the list of projects has changed slightly, with some projects being delayed and others completing early.
- We have seen a reduction in the Outperformance Payment earned but this is not due to dip in performance but is due to the fact that the schemes we delivered outturned at a lower average cost than previously forecast.

WC3: Amount of land conserved and enhanced

Unit	Hectares (Ha)		
Period	Financial Year Measure		
Definition	<p>The amount of land that the company conserves and enhances, for example Biodiversity 2020, Ancient Woodlands and Sites of Special Scientific Interest (SSSIs). This includes land within the region and includes both Yorkshire Water and non-Yorkshire Water land.</p> <p>The performance commitment is a total commitment, held at appointee level. It spans water and wastewater controls and specific targets have not been allocated to the individual controls.</p>		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	11,736	11,736	
Actual/Forecast Performance Level	11,689	11,806	117
Performance Commitment Level Met?	No	Yes	
Underperformance Payment Deadband	11,501	11,501	
Underperformance Within Deadband	Yes	N/A	
Underperformance Payment Incentive Rate	£0.020m per hectare	£0.020m per hectare	
Underperformance Payment	£0.000m	N/A	£0.000m
Outperformance Payment Deadband	11,971	11,971	
Outperformance Within Deadband	N/A	Yes	
Outperformance Payment Incentive Rate	£0.013m per hectare	£0.013m per hectare	
Outperformance Payment	N/A	£0.000m	

- We have now achieved this PC, although our performance is within the Outperformance Deadband and so no outperformance payment was earned.

- We previously forecast an underperformance of 47 Ha, due to an area of SSSI land at Newton Dale that was sold just before the start of the AMP, which we had included when proposing our target for this measure and which had been agreed by Ofwat.
- As this change was marginal a business decision was taken that we would not request a formal change of target from Ofwat for this measure and would instead accept that we would not be able to meet the original target, although we still expected to meet our revised internal target of 11,689. This decision was agreed with the Yorkshire Forum for Water Customers and our auditors.

Since we set this revised internal target of 11,689 Ha, we achieved a better than forecast performance on invasive species removal and the enhancement and restoration of ancient woodland, taking our final performance achieved to 11,806 Ha.

SA1: Internal sewer flooding

Unit	Number		
Period	Financial Year Measure		
Definition	Total number of incidents of internal sewer flooding of homes and businesses in the year. The measure includes incidents due to other causes, including blocked and defective gullies and overloaded sewers in rainfall events up to and including 1 in 30-year return period. Incidents in exceptional rainfall events are excluded. The measure includes incidents arising from assets transferred to Yorkshire Water in October 2011.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	1,919	1,919	
Actual/Forecast Performance Level	1,463	1,602	139
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	2,029	2,029	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£0.220m per incident	£0.220m per incident	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	1,808	1,808	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£0.057m per incident	£0.057m per incident	
Outperformance Payment Cap	1,651	1,651	
Outperformance Payment	$= 1,808 \text{ (Deadband)} - 1,651 \text{ (Payment Cap)}$ $= 157 * £0.057 \text{ (Incentive Rate)}$ $=£9.027\text{m}$	$= 1,808 \text{ (Deadband)} - 1,651 \text{ (Payment Cap)}$ $= 157 * £0.057 \text{ (Incentive Rate)}$ $=£9.027\text{m}$	£0.000m

- While our actual performance in 2019-20 was worse than our forecast position it was still better than the Outperformance Payment Cap earning us the maximum possible outperformance payment and so there is no change in this against our forecast.

- Performance continued to improve from 2018-19, however we did not achieve our 2019-20 forecast of 1,463. A number of factors influenced this, we saw an increased performance on overloaded sewers as an impact from the Storms Dennis and Ciara. Initiatives put in place to support internal sewer flooding to meet our AMP7 aspirations did deliver improvements but the program for improvement took longer to embed alongside organisational changes in customer field services resulting in a shortfall in improvement against target.

SA3: Pollution

Unit	Number		
Period	Calendar year measure		
Definition	Total number of Category 1-3 pollution incidents caused by a discharge or escape from any Yorkshire Water waste water asset each year (this covers all consented and non-consented intermittent events but not continuous discharges).		
	This measure includes all waste water assets, that is, surface water assets are included and excludes impacts from private pumping stations that will transfer to Yorkshire Water in 2016 ¹ .		
Forecast Year	2019-20 Revised Forecast	2019-20 Actual	2019-20 Variance
Performance Commitment Level (Cat 3s Only)	211	211	
Forecast Performance Level (Cat 3s Only)	162	159	-3
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	211	211	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£0.185m per incident	£0.185m per incident	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	147	147	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£0.185m per incident	£0.185m per incident	
	= 211 (Deadband) – 162 (Forecast Performance)	= 211 (Deadband) – 159 (Actual Performance)	
Outperformance Payment	= 49 * £0.185 (Incentive Rate) = £9.072m	= 52 * £0.185 (Incentive Rate) = £9.627m	£0.550m

- The ODI relates to Category 3s only, Category 1 & 2s are recorded as a reputational measure.
- Our 2019-20 performance was slightly better than forecast, earning an increased outperformance payment.

¹ Final Determination stated transfer would occur in 2015 but official date for transfer of pumping stations is 1 October 2016

- The outturn figure does not include 9 events which were assessed and categorised as 'Storm consented' and removed from the final tracker position by the Environment Agency.
- These 'Storm spill' events were assessed to be within the operating permit of the assets. This is in line with national guidance from the Environment Agency as per letter dated 5th March 2020 (Ref: - EA/02/2020). This is a revision of the EPA definition for 2019 and forwards.

SA4: Sewer network stability and reliability factor

Unit	Assessment			
Period	Financial year measure (some sub-measures are calendar year measures)			
Definition	An overall assessment of long-term stability and reliability for the sewer network, based on a basket of indicators. Assessment is based on the recent historical trend of the indicators. Assessment will give a classification of Improving, Stable or Deteriorating			
Year	2019-20 Forecast	2019-20 Actual Performance		
Performance Commitment Level	Stable	Stable		
Forecast Performance Level	Stable	Stable		
Performance Commitment Level Met?	Yes	Yes		
Underperformance Payment	£0.000m	£0.000m		
Sub-Measure Performance				
	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance	
Sewer collapses	Upper Reference Level	369	369	
	Reference Level	255	255	
	Forecast/Actual Performance	238	279	41
	Performance Level Met?	Yes	No	
	Sub-Measure Assessment	Stable	Stable	
Pollution incidents (CSO, RM, FS and SPS)	Upper Reference Level	251	251	
	Reference Level	203	203	
	Forecast/Actual Performance	170	137	-33
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

Properties flooded due to other causes	Upper Reference Level	379	379	
	Reference Level	302	302	
	Forecast/Actual Performance	330	345	15
	Performance Level Met?	No	No	
	Sub-Measure Assessment	Stable	Stable	
Properties flooded overloaded sewers, excluding severe weather	Upper Reference Level	110	110	
	Reference Level	72	72	
	Forecast/Actual Performance	72	53	-19
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
Sewer blockages	Upper Reference Level	22,936	22,936	
	Reference Level	20,695	20,695	
	Forecast/Actual Performance	17,075	16,960	-115
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	
Reactive equipment failures	Upper Reference Level	238	238	
	Reference Level	5,869	5,869	
	Forecast/Actual Performance	3,510	4,191	681
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

- As agreed at PR14 our AMP6 S&R performance has been assessed in Year 5 by our external auditor Jacobs. All sub-measures have been assessed as stable and the S&R factor has been assessed as stable overall, therefore there is no payment to be applied.
- In 2019-20 Sewer Collapses has exceeded the reference level but this is not an indication of deterioration. Whilst we did see an increase in performance from the previous year, it was reported in 2017-18 that performance was low in comparison to historic performance and when compared to 2016-17, the percentage change is 9.4%. Our more recent proactive approach to repairs has identified additional collapses, which have since been resolved, taking average performance for AMP6 to 251 which is below reference level of 255.
- Properties flooded due to Other Causes has dropped below the Upper Reference Level for the first time in three years. A combination of factors led to this improved performance including proactive activity on the sewer network to reduce escapes, implementation of initiatives for AMP7 Improvements that have benefited the AMP6 Performance and organisational changes in Customer Field Services which began to deliver benefits in the second half of the year.
- There are no other significant changes to the other sub-measures.

SB2: Waste water quality stability and reliability factor

Unit	Assessment			
Period	Financial year measure (some sub-measures are calendar year measures)			
Definition	An overall assessment of long-term stability and reliability for waste water quality, based on a basket of indicators. Assessment is based on the recent historical trend of the indicators. Assessment will give a classification of Improving, Stable or Deteriorating.			
Year	2019-20 Forecast	2019-20 Actual Performance		
Performance Commitment Level	Stable	Stable		
Forecast Performance Level	Stable	Stable		
Performance Commitment Level Met?	Yes	Yes		
Underperformance Payment	£0.000m	£0.000m		
Sub-Measure Performance				
	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance	
Sewage Treatment Works non-compliance	Upper Reference Level	8	8	
	Reference Level	0	0	
	Forecast/Actual Performance	5	2	-3
	Performance Level Met?	No	No	
	Sub-Measure Assessment	Stable	Stable	
Population equivalent non-compliance	Upper Reference Level	0.60%	0.60%	
	Reference Level	0.00%	0.00%	
	Forecast/Actual Performance	0.00%	0.00%	0.00%
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

Reactive equipment failures	Upper Reference Level	20,848	20,848	
	Reference Level	15,651	15,651	
	Forecast/Actual Performance	11,000	10,059	-941
	Performance Level Met?	Yes	Yes	
	Sub-Measure Assessment	Stable	Stable	

- As agreed at PR14 our AMP6 S&R performance has been assessed in Year 5 by our external auditor Jacobs. All sub-measures have been assessed as stable and the S&R factor has been assessed as stable overall, therefore there is no payment to be applied.
- We have achieved performance against target for both Reactive Equipment Failures (which shows a continuation of the trend for AMP6) and Sewage Treatment Works Non-Compliance and improved performance on Sewage Treatment Works Non-Compliance.

SB3: Solutions delivered by working with others

Unit	Number		
Period	Financial year measure		
Definition	The number of intervention solutions delivered through working with multi-agencies, organisations or individuals.		
	The performance commitment is a total commitment, held at appointee level. It spans water and waste water controls and specific targets have not been allocated to the individual controls.		
Forecast Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	4 (16 Cumulative)	4 (16 Cumulative)	
Forecast Performance Level	10 (42 Cumulative)	11 (43 Cumulative)	1
Performance Commitment Level Met?	Yes	Yes	
Outperformance Payment Deadband	16 (Cumulative number of Interventions Delivered in AMP)	16 (Cumulative number of Interventions Delivered in AMP)	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	5% of totex cost of Yorkshire Water cost for each eligible intervention.	5% of totex cost of Yorkshire Water cost for each eligible intervention.	
	= £0.338m (average cost of interventions in year) * 5%	= £0.207m (average cost of interventions in year) * 5%	
	=£0.017m (Reward per intervention above target)	=£0.010m (Reward per intervention above target)	
	=10 (Forecast Interventions) – 4(Target) = 6 * £0.017m	=11 (Actual Interventions) – 4(Target) = 7 * £0.010m	
Outperformance Payment	=£0.101m total outperformance payment	=£0.073m total outperformance payment	£0.000m
	=£0.101m * 0% (% of total cost of interventions that relate to wastewater schemes)	=£0.073m * 0% (% of total cost of interventions that relate to wastewater schemes)	
	= £0.000m wastewater only outperformance payment	= £0.000m wastewater only outperformance payment	

- There was originally some ambiguity about how the reward for this measure was calculated and how it should be distributed between water and waste water, specifically around what we classed as an eligible intervention. This has now been resolved and agreed with our auditors and via our internal assurance processes, and we are now calculating our outperformance payment by calculating 5% of the average cost of all interventions in the report year and then multiplying this by the number of interventions greater than our target for that year. We have used this methodology for the last few years.
- We have further refined how we split the outperformance payment between the water (WC2) and waste water (SB3) Performance Commitments. Previously this was done using a percentage split based on the relative size of the two parts of the business. To ensure a more accurate split we are now assigning the outperformance payment based on the percentage of total cost of the interventions completed within the report year that relate to either water or waste water.
- The number of schemes delivered in 2019-20 has increased by one against target and the list of projects has changed slightly, with some projects being delayed and others completing early.
- We have seen a reduction in the Outperformance Payment earned but this is not due to dip in performance but is due to the fact that the schemes we delivered outturned at a lower average cost than previously forecast.

SB4: Length of river improved

Unit	Kilometres (Km)		
Period	Financial Year Measure		
Definition	The length of river in the Yorkshire Water region improved during 2015-2020 against Water Framework Directive component measures.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	340.00	340.00	
Actual/Forecast Performance Level	356.96	352.00	-4.96
Performance Commitment Level Met?	Yes	Yes	
Underperformance Payment Deadband	337.00	337.00	
Underperformance Within Deadband	N/A	N/A	
Underperformance Payment Incentive Rate	£0.146m per km	£0.146m per km	
Underperformance Payment	N/A	N/A	
Outperformance Payment Deadband	343	343	
Outperformance Within Deadband	No	No	
Outperformance Payment Incentive Rate	£0.077m per km	£0.077m per km	
Outperformance Payment	$= 356.96 \text{ (Forecast Performance)} - 343.00 \text{ (Deadband)}$ $= 13.96 * £0.077 \text{ (Incentive Rate)}$ $= £1.071\text{m}$	$= 352.00 \text{ (Actual Performance)} - 343.00 \text{ (Deadband)}$ $= 9 * £0.077 \text{ (Incentive Rate)}$ $= £0.693\text{m}$	-£0.378m
Outperformance Payment being Claimed	$= 356.96 \text{ (Forecast Performance)} - 356.96 \text{ (Internally Agreed Target)}$ $= 0.00 * £0.077 \text{ (Incentive Rate)}$ $= £0.000\text{m}$	$= 352.00 \text{ (Actual Performance)} - 352.00 \text{ (Revised Internal Target)}$ $= 0.00 * £0.077 \text{ (Incentive Rate)}$ $= £0.000\text{m}$	£0.000m

- Our 2019-20 outturn is 5km less than forecast, due to the Environment Agency not supporting the output completion at Leeming Bar.

- The reward we have claimed for length of river improved is less than that 'earned' based on forecast performance. This is due to an error in setting the original target which was identified after the Final Determination had been published.
- Our correspondence with Ofwat on this issue confirmed that the original target would not be changed but a business decision was made to only claim the outperformance payment greater than the internal target of 357km, which now, excluding Leeming Bar, is 352km.
- This being the case we are not claiming any outperformance compared to £0.693m which we would have earned against our original target of 340km.
- Please note, in a previous submission we had stated that we expected to claim £0.077m of reward for this measure. Following further analysis of our forecast performance and the schemes which will deliver this outcome, we are no longer wanting to claim any reward associated with this measure.

SB5: Amount of land conserved and enhanced

Unit	Hectares (Ha)		
Period	Financial Year Measure		
Definition	<p>The amount of land that the company conserves and enhances, for example Biodiversity 2020, Ancient Woodlands and Sites of Special Scientific Interest (SSSIs). This includes land within the region and includes both Yorkshire Water and non-Yorkshire Water land.</p> <p>The performance commitment is a total commitment, held at appointee level. It spans water and wastewater controls and specific targets have not been allocated to the individual controls.</p>		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	11,736	11,736	
Actual/Forecast Performance Level	11,689	11,731	42
Performance Commitment Level Met?	No	No	
Underperformance Payment Deadband	11,501	11,501	
Underperformance Within Deadband	Yes	Yes	
Underperformance Payment Incentive Rate	£0.020m per hectare	£0.020m per hectare	
Underperformance Payment	£0.000m	£0.000m	£0.000m
Outperformance Payment Deadband	11,971	11,971	
Outperformance Within Deadband	N/A	N/A	
Outperformance Payment Incentive Rate	£0.013m per hectare	£0.013m per hectare	
Outperformance Payment	N/A	N/A	

- As previously forecast we have failed this measure, although this failure remains within the Deadband, and our actual performance is better than forecast.
- We previously forecast an underperformance of 47 Ha, due to an area of SSSI land at Newton Dale that was sold just before the start of the AMP, which we had included when proposing our target for this measure and which had been agreed by Ofwat.

- As this change was marginal a business decision was taken that we would not request a formal change of target from Ofwat for this measure and would instead accept that we would not be able to meet the original target, although we still expected to meet our revised internal target of 11,689. This decision was agreed with the Yorkshire Forum for Water Customers and our auditors.

Since we set this revised internal target of 11,689 Ha, we achieved a better than forecast performance on invasive species removal and the enhancement and restoration of ancient woodland, taking our final performance achieved to 11,806 Ha.

Reputational Performance Commitments

WA2: Significant Drinking Water Events

Unit	Numbers		
Period	Calendar year measure		
Definition	The number of potentially significant events notified to the DWI under the Water Industry (Suppliers' Information) Direction 2009, that have the potential for negative impact on public confidence in the water supply, for which the DWI has subsequently required the company to take corrective action to maintain compliance or protect public health.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	6	6	
Actual/Forecast Performance Level	5	1	-4
Performance Commitment Level Met?	Yes	Yes	
<ul style="list-style-type: none"> We always strive to have zero Significant Drinking Water Events however we have had one in 2019-20. This is our best in-year performance of the AMP and significantly below the maximum allowed level of 6. 			

WB3: Water Use

Unit	Litres per household per day (l/hd/d)		
Period	Financial year measure		
Definition	The average daily water consumption per head of population (per capita consumption or PCC) in measure and unmeasured households in a dry year. This is only for household consumption.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	138.3	138.3	
Actual/Forecast Performance Level	138.3	135.0	-3.3
Performance Commitment Level Met?	Yes	Yes	

- Small improvement on our actual performance compared to our forecast for 2019-20.

WC4: Recreational visitor satisfaction

Unit	Qualitative assessment		
Period	Financial year measure		
Definition	An assessment of customer satisfaction with the current facilities, access and use of recreational sites and the recreational offer.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	Published	Published	
Actual/Forecast Performance Level	Published	Published	-
Performance Commitment Level Met?	Yes	Yes	
<ul style="list-style-type: none"> No change to outturn for 2019-20 			

WD1, SC1 & RC1: Proportion of energy use generated by renewable technology

Unit	Percentage (%)		
Period	Financial year measure		
Definition	<p>The amount of energy Yorkshire Water generates through its renewable technology expressed as a percentage of total energy consumption.</p> <p>The performance commitment is a total commitment, held at appointee level. It spans water, waste water controls and retail controls and specific targets have not been allocated to the individual controls.</p>		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	12%	12%	
Actual/Forecast Performance Level	17%	15%	-2%
Performance Commitment Level Met?	Yes	Yes	

- The forecast target of 17% was not achieved despite Yorkshire Water registering a record year for self-generation. The planned delivery of new electricity generating assets at Knostrop and Dewsbury, installing new Anaerobic Digestion (AD) with biogas-fuelled Combined Heat and Power (CHP) units, was delayed and followed by reliability issues with the 2 CHP engines at Knostrop, leading to a reduced power output being set. This has now been remedied with the installation of gas cleaning equipment at Knostrop and Dewsbury's AD scheme is due to generate electricity in Autumn 2020.

WD2, SC2 & RC1: Proportion of waste diverted from landfill

Unit	Percentage (%)		
Period	Financial year measure		
Definition	The amount of waste from all Yorkshire Water activities (office, operational or construction) that is recycled or re-used as a percentage of total waste produced. The performance commitment is a total commitment, held at appointee level. It spans water, waste water controls and retail controls and specific targets have not been allocated to the individual controls.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	95%	95%	
Actual/Forecast Performance Level	99%	100%	1%
Performance Commitment Level Met?	Yes	Yes	

- We outturned slightly higher than forecast for year 5, this has been reported as 100% in the table due to rounding.

SA2: External sewer flooding incidents

Unit	Number		
Period	Financial year measure		
Definition	Total number of incidents of areas affected by external flooding in the year. The measure includes incidents arising from assets transferred to Yorkshire Water in October 2011.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	10,487	10,487	
Actual/Forecast Performance Level	10,487	9,139	-1,348
Performance Commitment Level Met?	Yes	Yes	

- Performance continued to be below the reference level of 10,487 and in line with previous years in AMP6. There was an increase in incidents with impact of overloaded sewer both on the legacy and transferred network as an impact of the Storms Dennis and Ciara. There were no specific initiatives put in place to target improved external sewer flooding performance but those for internal sewer flooding were expected to deliver

improvements for external sewer flooding. Although the initiatives delivered improvements the program for improvement took longer to embed alongside organisational changes in customer field services.

SA3: Pollution – Cat 1 & 2

Unit	Number		
Period	Calendar year measure		
Definition	Total number of Category 1-3 pollution incidents caused by a discharge or escape from any Yorkshire Water waste water asset each year (this covers all consented and non-consented intermittent events but not continuous discharges). This measure includes all waste water assets, that is, surface water assets are included and excludes impacts from private pumping stations that will transfer to Yorkshire Water in 2016 ²		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	0	0	
Actual/Forecast Performance Level	3	7	4
Performance Commitment Level Met?	No	No	

- Our forecast for 2019-20 was revised to 3 which reflected the number of incidents that had occurred up to the submission date. We did not anticipate any more occurring in 2020, however, this was not the case.
- Of the 7 Category 2 incidents, 5 were 'Sewer' related. Due to the remote nature of these assets, they are very difficult to telemeter. One related to an asset which Yorkshire Water deemed to have a Category 3 impact and was a 'technical breach' as oppose to an asset deficiency - as a result, we are investing heavily in the asset to ensure it is compliant with the technical elements of its permit conditions. Finally, one of the incidents was related to a cumulative effect of a number of 'compliant' events into a very low flowing watercourse with low self-cleansing velocities.

² Final Determination stated transfer would occur in 2015 but official date for transfer of pumping stations is 1 October 2016

SB1: Number of designated bathing waters that exceed the required quality standard

Unit	Number		
Period	Per Bathing Season		
Definition	The number of designated bathing waters where the requirements of the EU Bathing Water Directive are exceeded, based on Environment Agency bathing water samples taken at designated bathing beaches; that is, the number of bathing water which are good or excellent (better than sufficient).		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	15	15	
Actual/Forecast Performance Level	16	16	0
Performance Commitment Level Met?	Yes	Yes	

- We achieved our revised forecast for this measure.

RA1: Service incentive mechanism - overall score

Unit	Score		
Period	Financial year measure		
Definition	A full definition of this measure is in 'Service incentive mechanism (SIM) for 2015 onwards – conclusions', as published on Ofwat's website in April 2014. http://www.ofwat.gov.uk/wp-content/uploads/2013/10/Service-incentive-mechanism-SIM-for-2015-onwards---conclusions.pdf		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	>2018-19	>2018-19	
Actual/Forecast Performance Level	81.5	83.2	1.7
Performance Commitment Level Met?	N/A	No	

- We marginally failed to achieve our SIM target for 2019-20 as we outturned at 83.2, against a 2018-19 outturn of 84.0.

RA2: Service commitment failures

Unit	Number		
Period	Financial year measure		
Definition	The total number of GSS (Guaranteed Standards of Service) events, including enhanced GSS events, each year.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level			
Actual/Forecast Performance Level	12,000	15,140	3,140
Performance Commitment Level Met?	Yes	Yes	
<ul style="list-style-type: none"> Our 2019-20 outturn was higher than originally forecast, however, given that the measure is calculated across the AMP, we have met the PC, with an average for AMP6 of 11,538 against a target of 12,522. 			

RA3: Overall customer satisfaction

Unit	Percentage		
Period	Financial year measure		
Definition	The reported value for overall customer satisfaction determined by the annual CCWater tracking survey.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level			
Actual/Forecast Performance Level	95%	92%	-3%
Performance Commitment Level Met?	Yes	Yes	
<ul style="list-style-type: none"> While our 2019-20 outturn was lower than originally forecast given that the measure is calculated across the AMP we have still met the PC, with an outturn average for AMP6 of 92% against a target of 92%. 			

RB1: Cost of bad debt to customers expressed as proportion of bill

Unit	Percentage		
Period	Financial year measure		
Definition	The cost to bill paying customers to cover the cost of interest on revenue that is not collected, debt written off and debt management costs, expressed as a percentage of the average annual bill. This includes the collection and revenue activities for managing the debt.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level	3.16	3.16	
Actual/Forecast Performance Level	3.16	3.06	-0.10
Performance Commitment Level Met?	Yes	Yes	

- We achieved a slightly better outturn than forecast for this measure.

RB2: Number of people who we help to pay their bill

Unit	Number		
Period	Financial year measure		
Definition	The number of customers who are assisted to pay their bill. This includes, but is not limited to WaterSure, Resolve and the Community Trust, plus the number of those who take up a water meter as a result of targeted advice following identification of an affordability issue (customers should not be double counted).		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level			
Actual/Forecast Performance Level	40,000	35,939	-4,061
Performance Commitment Level Met?	Yes	Yes	

Our 2019-20 outturn was lower than forecast, as customer demand did not match our revised forecast of 40,000, however, there has been a significant increase in the number of households supported financially well in excess of our performance commitment.

RB3: Value for money

Unit	Percentage		
Period	Financial year measure		
Definition	The reported value for money determined by the annual CCWater tracking survey.		
Year	2019-20 Revised Forecast	2019-20 Actual Performance	2019-20 Variance
Performance Commitment Level			
Actual/Forecast Performance Level	80%	80%	0%
Performance Commitment Level Met?	Yes	Yes	

- We have achieved out 2019-20 forecast and met this PC across the AMP.

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