MOODY'S INVESTORS SERVICE

CREDIT OPINION

30 January 2023

New Issue

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RATINGS

Yorkshire Water Services Finance Limited

Domicile	United Kingdom
Long Term Rating	Baa2
Type	Senior Secured - Underlying - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Yorkshire Water Services Finance Limited / Yorkshire Water Finance plc

Update to credit analysis

Summary

Yorkshire Water Services Finance Limited and Yorkshire Water Finance plc are the financing subsidiaries of Yorkshire Water Services Limited (Yorkshire Water), which guarantees all issuance. Yorkshire Water's credit quality is supported by (1) the company's low business risk as a monopoly provider of essential water and sewerage services; (2) its relatively stable cash flow generated under a well-established and transparent regulatory regime; and (3) creditor protections incorporated within the company's financing structure.

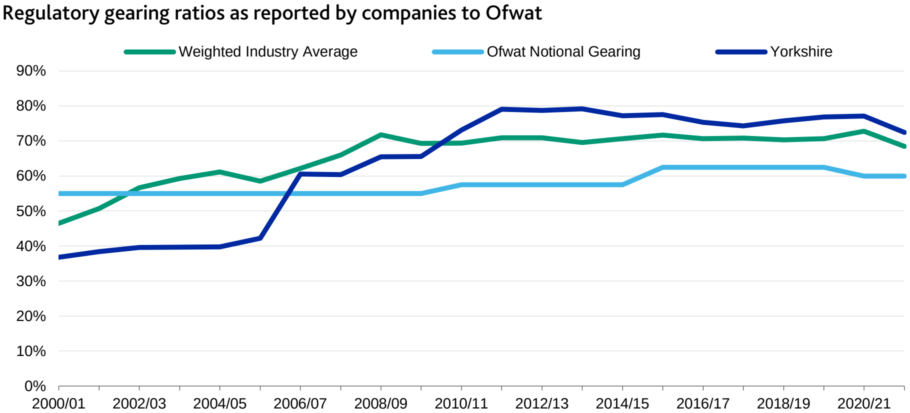
Credit quality is constrained by high borrowing costs under the company's long-dated derivatives portfolio, resulting in interest coverage that is likely to remain weak for the assigned rating and mark-to-market losses (MTM) that would rank ahead of principal and interest on senior debt in a default scenario, if creditors demand payment acceleration. Recent increases in market interest rates, however, have reduced the derivative MTM to £1.8 billion (24% of RCV) in September 2022 from a high of £3.0 billion (39%) in March 2022.

In October 2022, Yorkshire Water announced that one of its holding companies would repay £941 million of intercompany loans to the operating company. Although part of this will be reinvested reduce pollution from storm overflows, the company has committed to start AMP8 with leverage no higher than 72%, subject to certain caveats, compared to 78% based on management's previous plans.

Exhibit 1

Yorkshire Water's regulatory gearing has fallen toward the industry average

Regulatory gearing ratios as reported by companies to Ofwat



Gearing reflects regulatory measure, which excludes Moody's standard adjustments for pension obligations or operating leases

Sources: Companies' performance reports, Ofwat, Moody's Investors Service

Credit strengths

- Stable cash flow generated from the provision of monopoly water and wastewater services
- Well-established, transparent and predictable regulatory regime
- Debt structural features, including distribution lock-up covenants, dedicated liquidity, intercreditor agreement and security arrangements, which reduce event risk and enhance resilience in downside scenarios

Credit challenges

- Increasingly challenging regulatory targets, leading to operating performance that has been below our expectations in AMP7
- High borrowing costs under long-dated embedded debt and derivatives portfolios
- Large mark-to-market derivatives liability that would rank ahead of senior creditors in an event of default, if creditors demand payment acceleration
- Rising costs, particularly for energy, not immediately offset by higher revenue
- Use of derivatives means interest cover covenant protects a weaker Moody's Adjusted Interest Coverage Ratio (AICR)
- Ofwat and Environment Agency investigations into pollution incidents could result in material fines, if Yorkshire Water is found to have not complied with its permits

Rating outlook

Although Yokrshire Water's AICR will fall below our guidance for the current rating over the remainder of AMP7, the stable outlook reflects our expectation that AICR will recover in AMP8 as a result of regulatory true-up mechanisms and updated cost allowances. The stable outlook also reflects Moody's expectation that Yorkshire Water will maintain net debt comfortably below 80% of Regulatory Capital Value (RCV), supported by the recently-announced repayment of intercompany borrowings.

Factors that could lead to an upgrade

The rating is unlikely to be upgraded because we expect metrics to remain weakly positioned for the assigned rating.

Factors that could lead to a downgrade

The rating could be downgraded if Yorkshire Water appears unlikely to achieve an AICR of around 1.3x in the medium term, while maintaining gearing, measured by net debt to RCV, not materially above 80%.

In addition, downward rating pressure could result from (1) material increases in mark-to-mark valuation of Yorkshire Water's swaps, (2) the adoption of a more aggressive financial policy, (3) a significant increase in business risk for the sector as a result of legal and/or regulatory changes leading to a reduction in the stability and predictability of regulatory earnings, which in each case are not offset by other credit-strengthening measures or (4) unforeseen funding difficulties.

Key indicators

Exhibit 2
Yorkshire Water Services Limited

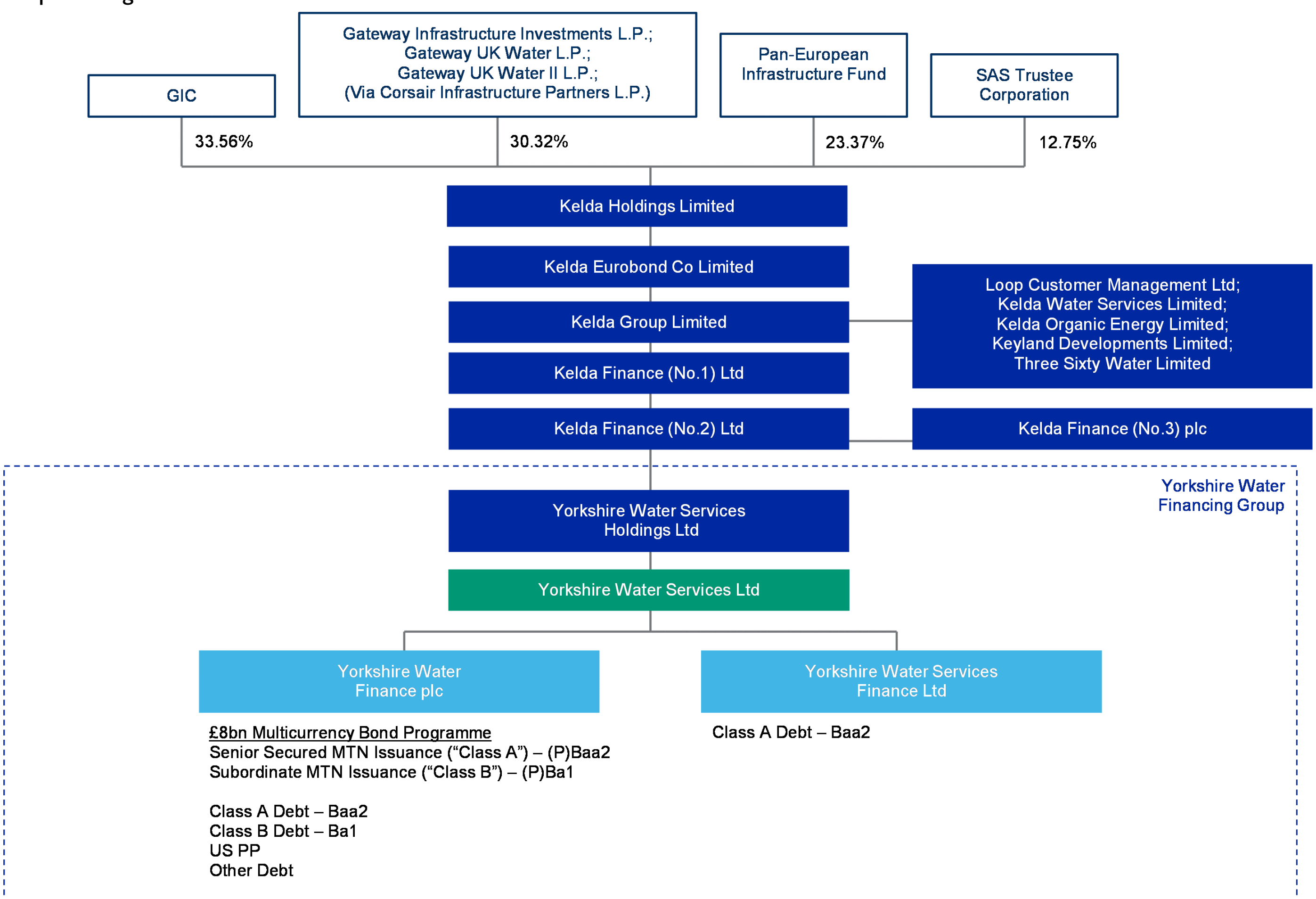
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	2023-proj.	2024-proj.
Adjusted Interest Coverage Ratio	1.4x	1.5x	1.3x	0.9x	0.9x	1.1x	1.2x
Net Debt / Regulated Asset Base	75.6%	76.7%	77.8%	78.7%	73.7%	73.6%	72.6%
FFO / Net Debt	7.8%	6.8%	5.8%	6.2%	6.3%	6.0%	6.2%
RCF / Net Debt	7.3%	6.1%	4.6%	6.2%	6.1%	5.6%	5.8%

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. For definitions of Moody's most common ratio terms, please see the accompanying User's Guide
Note: Although the CMA's redetermination will affect cash flow starting only in the 2022-23 financial year, the AICR reflects the benefit of the redetermination starting in the 2020-21 financial year.
Source: Moody's Financial Metrics™

Profile

With an RCV of £7.7 billion as of March 2022, Yorkshire Water is the fifth largest of the 10 water and sewerage companies in England and Wales. Yorkshire Water provides drinking water to over 5.1 million people and 141,000 local businesses over an area of around 14,294 square kilometres encompassing the former county of Yorkshire and part of North Derbyshire in Northern England.

Exhibit 3
Simplified organisational structure



Source: Company reports, Moody's Investors Service

» Kelda Group Limited, the parent company of the Yorkshire Water group, is ultimately owned by GIC Special Investments Pte Limited, the private equity investment arm of the Government of Singapore; Corsair Infrastructure Partners, as a custodian for a number of infrastructure investment funds; Deutsche Asset Management's infrastructure investment arm; and SAS Trustee Corporation, the trustee of certain New South Wales public-sector superannuation schemes.

Detailed credit considerations

Transparent regulatory regime

The UK water sector benefits from a transparent, stable and predictable regulatory regime, which is based on clearly defined risk allocation principles and their consistent application in setting water tariffs by an independent regulatory body, the Water Services Regulation Authority (Ofwat).

Ofwat published its final determination for the current 2020-25 period, known as AMP7, in December 2019. The determination included a significant cut in allowed returns to ca. 2.92% for the wholesale activities at the start of the new period. In February 2021, Yorkshire Water and three other companies rejected Ofwat's settlement and appealed their determinations. The CMA's redetermination in March 2021 increased Yorkshire Water's allowed wholesale return to 3.12%, 20 bps above Ofwat's determination.

Exhibit 4

The CMA increased Yorkshire Water's allowed return, but it remains well below the AMP6 level

	Ofwat PR14 final determination	Ofwat PR19 final determination	CMA PR19 final decision
	RPI-stripped	CPIH-stripped	CPIH-stripped
Notional gearing	62.5%	60.0%	60.0%
Existing debt	2.65%	2.42%	2.47%
New debt	2.00%	0.53%	0.19%
Existing: new debt ratio	75%	80%	83%
Explicit debt issuance cost	0.10%	0.10%	0.10%
Cost of debt (pre-tax)	**2.59%**	**2.14%**	**2.18%**
Risk-free rate	1.25%	-1.39%	-1.34%
Equity risk premium	5.50%	7.89%	8.15%
Total market return	6.75%	6.50%	6.81%
Equity beta	0.80	0.71	0.71
Point estimate above mid-point			0.25%
Cost of equity (post-tax)	**5.65%**	**4.19%**	**4.73%**
Vanilla WACC	**3.74%**	**2.96%**	**3.20%**
Retail Margin	0.14%	0.04%	0.08%
Wholesale WACC	**3.60%**	**2.92%**	**3.12%**
Change from Ofwat FD			*+0.20%*
Appointee allowed return restated in alternative price bases:			
CPIH	4.74%	2.96%	3.20%
RPI-CPIH blend	4.24%	**2.46%**	**2.74%**
RPI	**3.74%**	1.96%	2.28%
Nominal	6.74%	4.96%	5.26%

Source: Ofwat, CMA, Moody's Investors Service

Half of the company's regulated assets as of March 2020 will continue to be inflated by the Retail Prices Index (RPI), with the remainder and all new additions being inflated by the Consumer Prices Index adjusted for housing costs (CPIH). As a result, Yorkshire Water's wholesale cash return is around 2.7% over the period.

The CMA's allowance for wholesale total expenditure was £158 million higher than Ofwat's allowance, with the increase equally split between operational and capital expenditure. As a result of the higher allowed return and totex allowances, the CMA determination increased Yorkshire's allowed revenue by £148 million over the five-year period, compared to Ofwat's determination. The increase in allowed revenue will be recovered from customers over the three years starting in April 2022. However, the published regulatory model gives the higher allowed return for the full five-year period, with a "revenue profiling" adjustment used to shift these cash flows to the final three years. Because Moody's excludes revenue profiling adjustments in its calculation of the AICR, this metric will reflect the benefit of the higher allowed return in each year of the period. Yorkshire Water follows a similar approach in its calculation of financial covenants.

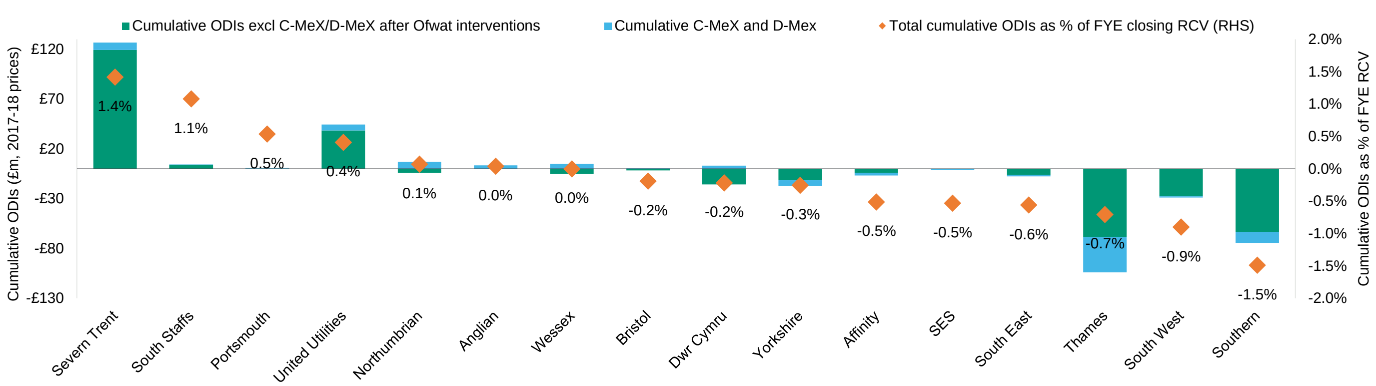
Ofwat published its final methodology for the 2025-30 period (AMP8) in December 2022, outlining its approach to setting allowed returns, incentivising operational performance and establishing cost targets for the five-year regulatory period commencing on 1 April 2025 (see Regulated Water Utilities – United Kingdom: PR24 methodology increases risk for weak performers, 16 December 2022). The regulator's early view of the cost of capital, based on average market conditions during September 2022, is 3.29% at the appointee level, an increase from the current period. Ofwat also confirmed that it will transition to full CPIH indexation of companies' RCV in PR24; because CPIH is structurally lower than RPI, the "early view" of the cost of capital implies an approximately 30% higher return in cash terms, compared to the current period. The best performers will enjoy higher incentive payments, but others will face greater penalties where they fall short of Ofwat's targets.

In July 2022, Ofwat also published a consultation on proposed licence changes to "strengthen the regulatory ring-fencing provisions". These include a change in the rating trigger for a cash lock-up under companies' licences to Baa2/BBB negative from Baa3/BBB negative, based on the lowest "issuer credit rating" assigned by any Credit Rating Agency. This includes Moody's Class A rating.[1] We would regard this licence change as credit positive for operating companies, if implemented (see Regulated Water Utilities – United Kingdom: Ofwat's strengthening of ring-fence positive for OpCos, but negative for HoldCos, 29 July 2022).

Operational performance has been below our expectations in AMP7

Yorkshire Water has historically been a relatively strong operating performer, earning material ODI rewards in AMP6. In AMP7, however, Yorkshire Water's operational performance has fallen increasingly short of regulatory expectations, which have become more demanding. In the first two years of the period, it reported ODI net penalties of £11.5 million, excluding customer service measures, discussed separately, and any reward or penalty for per capita consumption, which will be determined at the end of the period. In 2021-22, the largest failures were for water supply interruptions (including events over 12 hours), internal sewer flooding, and water quality compliance. The supply interruptions were caused by a "large number of highly impacting events", as well as the impact of Storm Arwen in November 2021. Partly offsetting these penalties, the company earned rewards for reducing the number of external sewer flooding incidents. Yorkshire Water continues to target a neutral ODI position over the five years of AMP7.

Exhibit 5
Yorkshire's in-period ODI position was modestly negative in the first two years of AMP7



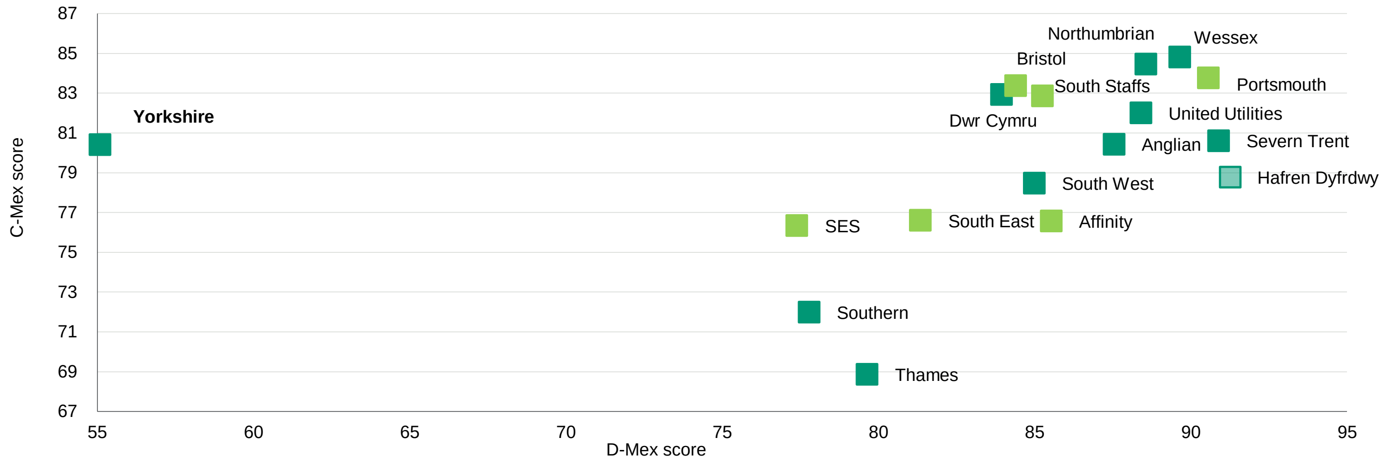
Source: Companies' Annual Performance Reports for 2020/21

New customer service performance measures for AMP7 distinguish between customer (C-MeX) and developer experience (D-MeX), and Yorkshire Water has incurred penalties on both. Yorkshire Water was ranked 10th out of 17 water companies on C-MeX, a deterioration from 8th in the previous year, which it attributed to significant severe storms, difficulty recruiting staff in certain roles, COVID-related staff absences and dissatisfaction with bill increases. On D-MeX, Yorkshire Water was the lowest-ranked company, with a score far below peers, because of a "backlog" of work as resources were redirected to fixing leaks. In the first two years of AMP7, Yorkshire incurred penalties for customer service of £5.8 million (in 2017-18 prices), mostly related to D-MeX.

Exhibit 6

Yorkshire Water's customer service performance

Companies' C-Mex and D-Mex scores, 2021-22



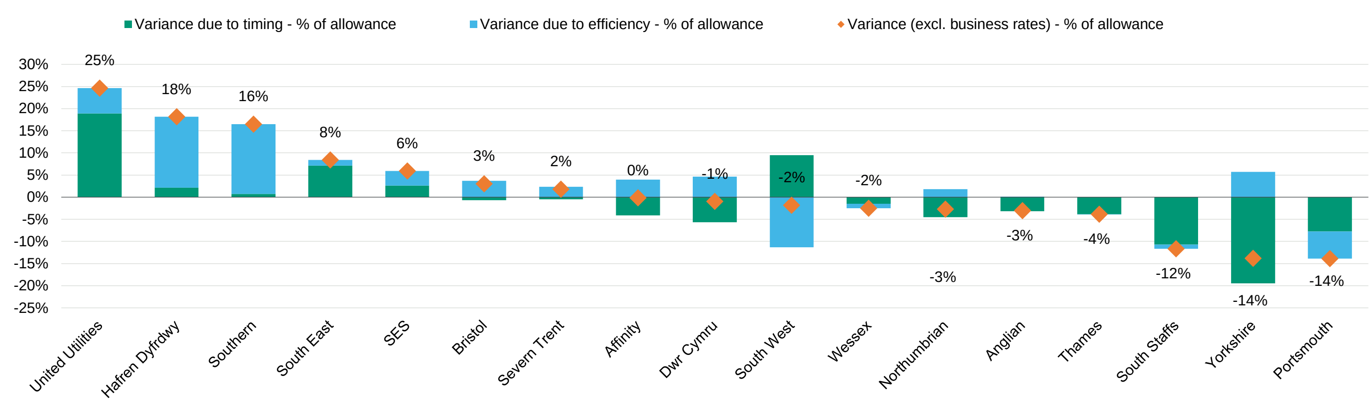
Source: Companies' annual performance reports

Yorkshire Water believes its D-MeX position has improved during the course of 2022-23.

Yorkshire Water's environmental performance also deteriorated in 2021. The company received a two-star rating in the Environment Agency's 2021 environmental performance report on the water companies, down from four stars in the previous year, although we note that this may reflect a tightening of thresholds rather than a decline in absolute performance; several other companies also saw lower scores in 2021.[2] The company performed "significantly below target" for serious pollution incidents.

Exhibit 7

Yorkshire Water has spent significantly less than its regulatory allowances in the first two years of AMP7



Source: Companies' annual performance reports

Yorkshire Water has invested significantly less than its totex allowance in the first two years of the period, largely because wastewater network investment has been deferred until later in the period. Yorkshire Water is unique in his respect, with most other companies spending at or ahead of schedule. The company attributes this to the time required to plan and implement its relatively large investment programme under the Water Industry National Environment Plan (WINEP), which includes the requirement to remove phosphorous from wastewater. Ofwat's final determination included a £772 million allowance for WINEP, significantly less than the company's request of £941 million, and more time has been required to mitigate this cost exposure.

Deleveraging under regulatory pressure

The phasing of spending contributed to a reduction in leverage from 77.8% in March 2020 to 73.7% in March 2022. We had previously expected that leverage would rise again toward 78% by the end of the period as investment accelerated. However, in October 2022, Yorkshire Water announced that one of its holding companies, Kelda Eurobond Co Limited, would downstream £941 million to Yorkshire Water in repayment of intercompany loans dating from the group's acquisition in 2008. This resolved a previously undisclosed investigation by Ofwat into whether the loans were in breach of Yorkshire Water's licence conditions (see Yorkshire Water Services Limited – Deleveraging under regulatory pressure, 14 October 2022).

Alongside the loan repayment, Yorkshire Water also committed to invest £180 million, in addition to the company's existing investment plan, to reduce pollution from storm overflows. Under existing cost-sharing mechanisms, 45% of this expenditure will be recovered from customers over time, with around £100 million ultimately absorbed by Yorkshire Water. The company is required to update Ofwat on steps taken by April 2023, with further updates annually during AMP7.[3]

Under "undertakings" given by Yorkshire Water to Ofwat, £300 million of the intercompany loans must be repaid by June 2023, a further £200 million by March 2025 and the remainder, approximately £440 million, by March 2027.

Taking into account these measures, Yorkshire Water must reduce is net debt/RCV, calculated on a regulatory basis, to no higher than 72% by April 2025, subject to certain caveats. Specifically, Yorkshire has undertaken to

"Achieve a gearing level on the regulatory basis of no higher than 72% by 1 April 2025 (subject to external factors beyond the control of YWS and beyond the existing regulatory expectation that all water companies manage their financial resilience to ensure they can withstand economic and cost shocks, excluding any agreed early start investment for AMP8 and also to exclude any accelerated investment in AMP7 as a result of the request by the Secretary of State and Defra in October 2022)."

Yorkshire Water has also undertaken to complete a financial structure review by April 2025, at which point it must provide Ofwat with an update on findings and recommendations and "an update on the gearing level and an overview of likely gearing post 2025."

Swaps could reduce recovery for senior creditors, but MTM has recently fallen

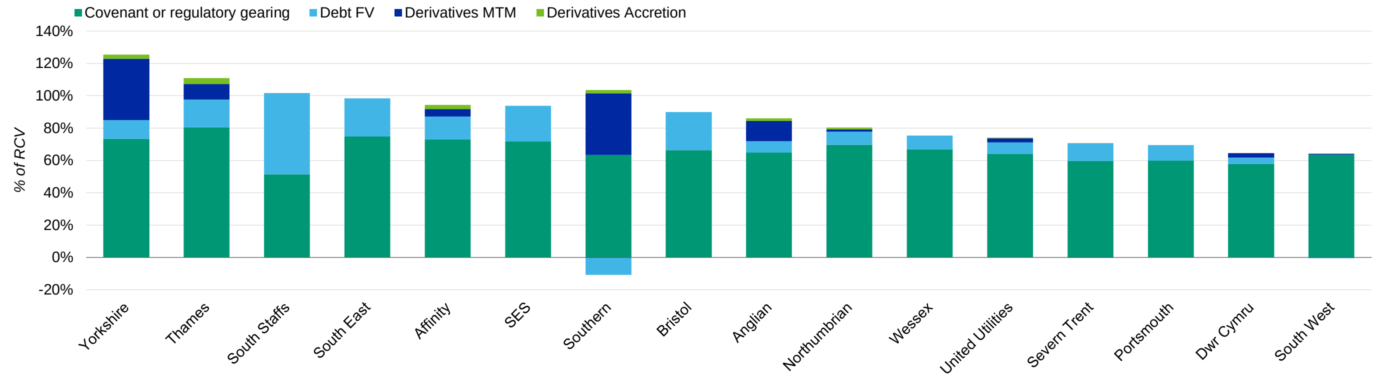
Yorkshire Water's borrowing costs are relatively high because of inflation swaps entered into at the time of the acquisition, many of which extend to the mid-2040s or beyond. Under these swaps, Yorkshire Water receives an amount linked to SONIA and pays a fixed coupon, while accruing an amount linked to RPI that must be paid to the counterparty at fixed intervals or at maturity of the swap, depending on the instrument.

As interest rates fell from 2008 to 2022, receipts under these swaps declined while payments remained constant. As a result, net financing costs rose and the discounted value of expected future cash flow became increasingly negative. As of March 2022 the MTM on these swaps had reached approximately £3.0 billion, 39% of RCV. This is important to the credit quality of the company's senior debt because, in a default scenario, if creditors demand payment acceleration, Yorkshire Water would be required to make a termination payment based on swap counterparties' assessment of their total losses, which is likely to be close to the MTM at that time. This payment would rank ahead of principal and interest on senior debt and would materially reduce senior debt recovery.[4]

However, recent rises in market interest rates have reduced the MTM by around 40%, to £1.8 billion (around 24% of RCV) as of September 2022. Although it remains material, the reduction in the MTM is positive for senior creditors.

Taking into account the fair value of existing borrowings as well as derivatives, we estimate that Yorkshire Water had gearing of over 130% of RCV as of March 2022, the highest of any water and sewerage company in the UK. We expect the fair value leverage, as well as the gap to peers, to diminish as a result of the intercompany loan repayment and declining swap MTM.

Exhibit 8
Including the fair value of debt and swaps, Yorkshire Water's leverage was the highest in the industry in March 2022, but is likely to fall

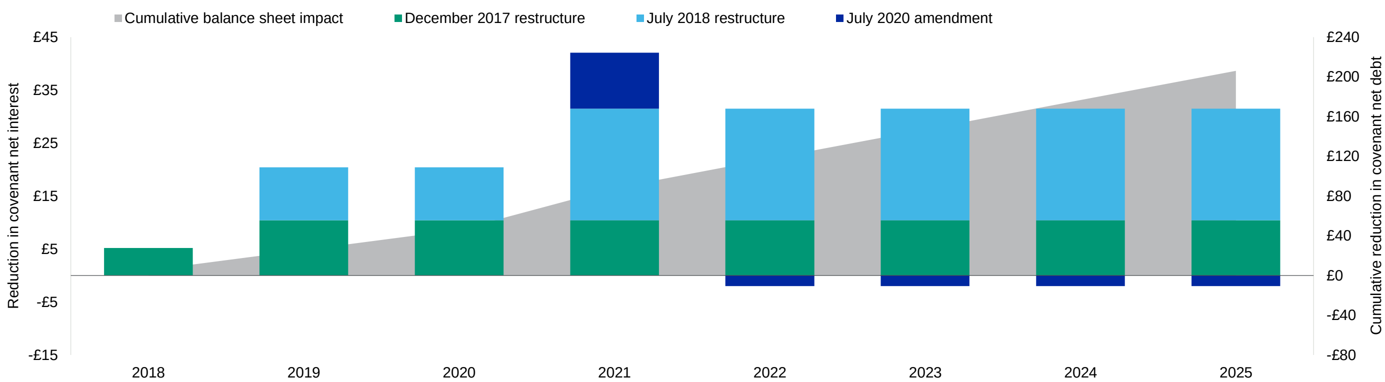


Source: Companies' annual performance reports, Moody's Investors Service

Swap restructurings create persistent difference between Moody's and covenant AICRs

Between 2017 and 2020, Yorkshire Water executed several swap amendments and restructurings through which will increase its swap receipts by £160 million over AMP7 and £127 million over AMP8. In exchange, the maturity of these out-of-the-money swaps was extended so that Yorkshire will make additional cash payments in the 2030s and 2040s equivalent to the amount received plus an implied funding cost. £11.6 million received in August 2020, as part of a package to mitigate the effect of COVID-19 on Yorkshire Water's financial covenants, will be effectively repaid over the following seven years.

Exhibit 9
The swap amendments and previous restructurings reduce covenant net interest and net debt by treating advances from banks as a reduction in net interest and the obligation to repay them as a derivative financial liability (£ millions)



Note: Excludes a June 2017 restructuring that was fully funded by an upfront cash payment
Source: Yorkshire Water, Moody's Investors Service

Under Yorkshire Water's financing structure, trigger events and events of default occur if measures of interest coverage (the Re-profiled Senior Adjusted ICR or Re-profiled Class A Adjusted ICR) fall below specified thresholds. The denominator of these ratios is interest payable, or due but unpaid, "after taking account of the impact on interest rates of all related Hedging Agreements." Because Yorkshire Water takes the swap re-profiling into account in calculating its interest rate, the amendments and restructurings improved the ratios by 0.33x in 2020-21 and 0.25x on average over AMP7.

We regarded the decisions to change swap contracts and accelerate receipts to maintain covenant headroom in a highly-covenanted financing structure as credit negative, because it continues to undermine creditor protections. Financial ratio trigger events and events of default are intended to protect the position of creditors, including when the company's financial profile weakens for reasons outside of its control. Bringing forward cash flow using swaps does not improve the credit quality of the company, but by bolstering covenant financial metrics may prevent a trigger event when one might otherwise have occurred. Without the benefit of the restructurings and amendments, Yorkshire Water would have had very limited headroom to its trigger event threshold during AMP7.

The amendments and restructurings also reduce net debt, because cash is received and the corresponding liability is not included in common definitions of debt. We estimate that Yorkshire Water will have received a cumulative £205 million from swap restructurings by the end of AMP7, equivalent to around 2.5% of RCV, with a corresponding increase in the mark-to-market loss on the swaps, assuming no change in discount rates.

Moody's AICR excludes cash flow associated with the swap restructurings and amendments. Although we regard the probable future payments resulting from swap restructurings as debtlike, we do not include them in Moody's-adjusted net debt because the company does not disclose them separately from the contingent mark-to-market liabilities on its other swaps.

Higher inflation will lead to weaker and more volatile credit metrics in AMP7

Inflation in the UK has risen sharply since the start of 2021, reaching 9.2% under the CPIH measure and 13.4% under the RPI measure in December 2022. Prolonged high inflation tends to be positive for UK water companies, but timing issues can affect cash flow generation and index-linked debt also grows with inflation.

Under the UK regulatory model, regulatory assets and revenue grow with inflation but are subject to a lag. For example, customer bills for 2022-23 were based on CPIH inflation in November 2021, which was just 4.6%, whereas elements of Yorkshire Water's cost base, particularly on energy, materials and chemicals reflect the significantly higher rate of inflation experienced since then. In particular, energy is a major cost for water companies, representing around 16% of Yorkshire Water's operating costs in 2021-22, even after taking account of energy generated by the company's bioresources segment (equivalent to around 23% of the company's total energy consumption). Customer bills for 2023-24 will rise based on November 2022 CPIH of 9.6%, which will alleviate margin pressure, and 45% of any totex overspend, including as a result of higher energy costs, will be recovered from customers in future regulatory periods.

However, a period of high inflation will tend to reduce water companies' leverage, because their RCVs will increase in line with inflation while most of their debt will not. Index-linked debt is equivalent to around 36% of Yorkshire Water's RCV, close to the sector average.

Rising interest rates will increase borrowing costs for all water companies over time. However, Yorkshire has a weighted average maturity of 14 years compared to the industry average of 12.4 years. In addition, although Yorkshire Water will refinance £560 million of fixed-rate debt maturing over the remainder of AMP7, the company's plan to reduce leverage means total debt will rise only modestly. The maturing debt also includes £210 million of relatively expensive notes with a coupon of 6.59%. As a result, we expect Yorkshire Water's borrowing costs to rise only gradually. In addition, we expect all companies – and particularly the five that appealed their determinations – to receive a positive adjustment for rising interest rates at the next price review, because the cost of new debt assumed to be raised within the current period had been linked to the average A/BBB IBoxx indices.

Liquidity analysis

Yorkshire Water has an adequate liquidity profile, underpinned (1) undrawn revolving credit facilities totalling £480 million maturing October 2026, with an option to upsize by £180 million; and (2) £15 million of unrestricted cash and cash equivalents as of September 2022. These are sufficient to cover £210 million of maturities in February 2022.

Liquidity is further supported by a £170 million rolling five-year evergreen debt service reserve guarantee issued by Assured Guaranty UK Limited (A1 stable) and £90 million O&M reserve). These would be available to the company to service debt in the event of a standstill being declared following a breach of covenants.

Structural considerations

Debt structural features provide rating uplift for additional creditor protection

Yorkshire Water creditors benefit from a covenant and security package that is designed to insulate the company's creditworthiness from that of its shareholders and improve creditors' protection in a default scenario. The overall covenant and security package is similar to that of comparable highly leveraged financing transactions.

Additional event risk protection provided by the bond covenant and security package includes, inter alia, restrictions on acquisitions and disposals (subject to limited defined exceptions), a dividend lock-up coming into effect if senior gearing increases above 85% of

RCV or senior adjusted interest coverage falls persistently below 1.2x (both calculated under the company's covenant definitions), and limitations on non-core activities. In addition, we consider creditor step-in rights if certain trigger events occur.

In 2015, the highly leveraged UK water companies, including Yorkshire Water, introduced a new supplementary interest cover covenant, designed to reflect regulatory changes in the revenue building block approach for tariff-setting purposes. The definition of Yorkshire Water's supplementary covenant is slightly different from that of its highly leveraged peers. Whereas Anglian Water's or Thames Water's supplementary covenant replaces the previous regulatory capital charges (infrastructure renewals charge and current cost depreciation) with the new RCV depreciation under Ofwat's totex approach, Yorkshire Water also deducts the funded portion of infrastructure renewal expenditure not included in operating expenditures in its statutory financial statements, as well as a “fast/slow adjustment” that would reverse excess revenue allowances compared with expected cost assumptions at the final determination. We believe that Yorkshire Water's supplementary covenant most closely resembles the creditor protection that was intended with the original interest cover covenant.

Recovery prospects in a default scenario can be improved by (1) a first-ranking fixed charge over the shares in the company, plus first-ranking fixed and floating charges over all the assets, rights and undertakings of Yorkshire Water; and (2) the agreement by financial creditors to give up their individual rights to petition for insolvency proceedings. We recognise that the benefit of the security provided to bondholders is limited because of the regulated and essential nature of the services provided by Yorkshire Water as governed by its licence and the Water Industry Act 1991.

The senior secured bonds and subordinated debt are rated at Baa2 and Ba1 respectively

The Baa2 rating of the senior secured (Class A) bonds reflects the strength of the debt protection measures for this class of debt and other pari passu indebtedness, and their senior position relative to the Class B bonds in the cash waterfall and post any enforcement of security.

The Ba1 rating of the subordinated (Class B) bonds of Yorkshire Water Finance plc reflect the same default probability in addition to Moody's expectation of a heightened loss severity for the Class B debt following any default, given its subordinated position within the financing structure.

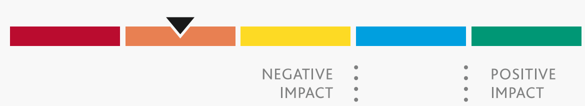
However, in a default scenario, if creditors demand payment acceleration, Yorkshire Water would be required to make a termination payment based on swap counterparties' assessment of their total losses, which is likely to be close to the MTM at that time. This payment would rank ahead of principal and interest on senior debt and would reduce Class A and Class B debt recovery.

ESG considerations

Yorkshire Water Services Finance Limited's ESG Credit Impact Score is Highly Negative CIS-4

Exhibit 10
ESG Credit Impact Score

CIS-4
Highly Negative



For an issuer scored CIS-4 (Highly Negative), its ESG attributes are overall considered as having a discernible negative impact on the current rating. The negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-3.

Source: Moody's Investors Service

The ESG Credit Impact Score for Yorkshire Water is highly negative (**CIS-4**), reflecting moderate environmental and social and high governance risks. The overall credit impact score also recognises mitigating factors, in particular the regulated nature of water companies' activities and their investment requirements, including a forward-looking allowance for efficient cost. However, as investment needs grow to tackle climate change and population growth, the resulting increase in regulated assets and their remuneration will have to continue to be supported by the regulatory tariff framework to avoid negative credit implications in the future.

Exhibit 11
ESG Issuer Profile Scores

ENVIRONMENTAL	SOCIAL	GOVERNANCE
E-3	S-3	G-4
Moderately Negative	Moderately Negative	Highly Negative

Source: Moody's Investors Service

Environmental

Moderate environmental risk (**E-3** issuer profile score) is largely associated with the company's sewerage operations. Treatment of sewage carries environmental risk, and failures can result in fines and reputational damage. In particular, discharges from combined sewers can affect beaches and bathing waters. In November 2021, Ofwat and the Environment Agency announced a "major investigation" into sewage treatment works, and beginning in March 2022 enforcement cases were opened against Yorkshire Water and five other companies. Companies found to have made illegal discharges could face material fines and penalties. Yorkshire Water's performance on environmental measures has also weakened, leading to a two-star rating in the Environment Agency's 2021 environmental performance report on the water companies. Water shortages are likely to grow more acute with climate change, increasing investment needs for UK water companies. However, these pressures are likely to be lower in the north of England than in other regions.

Social

Moderately negative social risk (**S-3**) reflects the risk, common to all regulated utilities, that public concern over environmental, social or affordability issues could lead to adverse regulatory or political intervention. While water companies and regulators have sought to address criticism over operational performance, bills and dividend payments, the opposition UK Labour Party has previously argued for nationalisation.

Governance

Yorkshire Water has high governance risk (**G-4**) as a result of its highly leveraged financial structure and extensive use of derivatives, including recent restructurings and amendments, which reflects a greater tolerance for financial risk than many investment-grade utilities. The Kelda Holdings group that owns Yorkshire Water has additional debt, equivalent to around 7% of Yorkshire Water's RCV, which must be serviced by distributions from Yorkshire Water. Financial covenants do, however, limit the ability of the holding company to extract cash in downside scenarios, although these protections have been somewhat eroded by the use of derivatives. Yorkshire Water's credit quality is also protected by regulatory mechanisms designed to preserve the independence of the operating companies, including the requirement that independent directors represent the largest single group on the board. In addition, the company's licence prescribes maintenance of a minimum credit profile. The ongoing Ofwat and EA investigation into sewage treatment works raises moderate risks associated with compliance and reporting.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

Yorkshire Water's Baa2 rating reflects our rating methodology for Regulated Water Utilities, published in June 2018. The methodology grid results in a scorecard-indicated outcome of Baa2.

Rating factors

Yorkshire Water Services Limited

Regulated Water Utilities Industry [1][2]	Current FY 3/31/2022		Moody's 12-18 Month Forward View As of 1/17/2023 [3]	
Factor 1 : Business Profile(50%)	**Measure**	**Score**	**Measure**	**Score**
a) Stability and Predictability of Regulatory Environment	Aa	Aa	Aa	Aa
b) Asset Ownership Model	Aa	Aa	Aa	Aa
c) Cost and Investment Recovery (Sufficiency & Timeliness)	A	A	A	A
d) Revenue Risk	Aa	Aa	Aa	Aa
e) Scale and Complexity of Capital Programme & Asset Condition Risk	Aa	Aa	Aa	Aa
Factor 2 : Financial Policy (10%)				
a) Financial Policy	B	B	B	B
Factor 3 : Leverage and Coverage (40%)				
a) Adjusted Interest Coverage Ratio (3 Year Avg)	1.0x	Caa	1.1x - 1.4x	Ba
b) Net Debt / Regulated Asset Base (3 Year Avg)	76.6%	Ba	72% - 74%	Ba
c) FFO / Net Debt (3 Year Avg)	6.0%	Ba	6% - 7%	Ba
d) RCF / Net Debt (3 Year Avg)	5.5%	Ba	5.5% - 6.5%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notch Lift		Ba2		Baa3
Notch Lift	1	1	1	1
a) Scorecard-Indicated Outcome		Ba1		Baa2
b) Actual Rating Assigned				Baa2

(1) All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. (2) As at 31/03/2021. (3) This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate any significant acquisitions or divestitures.
Source: Moody's Financial Metrics™

Appendix

Exhibit 13
Yorkshire Water Services Limited
Selected peer comparison

	Yorkshire Water Services Limited Baa2 Stable			Northumbrian Water Ltd. Baa1 Stable			United Utilities Water Limited A3 Stable			Severn Trent Water Limited Baa1 Stable		
(in GBP million)	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-20	FYE Mar-21	FYE Mar-22
Revenue	1,063	1,101	1,119	900	758	780	1,850	1,798	1,845	1,715	1,700	1,809
EBITDA	564	568	335	507	330	313	1,259	1,012	1,003	1,118	1,047	1,134
Regulated Asset Base (RAB)	6,960	7,024	7,746	4,224	4,252	4,613	11,791	11,681	12,336	9,412	9,514	10,261
Total Debt	5,665	5,727	5,738	3,073	3,095	3,233	8,411	8,309	8,371	6,447	6,647	6,536
Net Debt	5,416	5,529	5,709	3,011	3,067	3,173	7,910	7,660	8,189	6,432	6,634	6,458
Adjusted Interest Coverage Ratio	1.3x	0.9x	0.9x	1.8x	1.3x	1.2x	2.5x	2.0x	2.8x	1.8x	1.2x	1.7x
FFO / Net Debt	5.8%	6.2%	6.3%	11.7%	7.3%	7.3%	12.9%	10.4%	10.8%	10.3%	8.8%	10.6%
RCF / Net Debt	4.6%	6.2%	6.1%	9.5%	7.3%	-3.4%	6.4%	10.4%	6.7%	6.5%	7.9%	8.3%
Net Debt / Regulated Asset Base	77.8%	78.7%	73.7%	71.3%	72.1%	68.8%	67.1%	65.6%	66.4%	68.3%	69.7%	62.9%

All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade. Rating for Wessex Water Serviced Limited is assigned at the level of its finance subsidiary Wessex Water Services Finance Plc.
Source: Moody's Financial Metrics™

Exhibit 14
Yorkshire Water Services Limited
Moody's adjusted debt breakdown

(in GBP million)	FYE Mar-18	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22
As Reported Total Debt	4,909	5,095	5,598	5,514	5,457
Leases	11	12	9	0	0
Non-Standard Adjustments	(10)	66	58	213	281
Moody's Adjusted Total Debt	4,910	5,173	5,665	5,727	5,738
Cash & Cash Equivalents	(28)	(37)	(250)	(198)	(29)
Moody's Adjusted Net Debt	4,882	5,136	5,416	5,529	5,709

All figures are calculated using Moody's estimates and standard adjustments.
Source: Moody's Financial Metrics™

Exhibit 15
Yorkshire Water Services Limited
Moody's adjusted FFO breakdown

(in GBP million)	FYE Mar-18	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22
As Reported Funds from Operations (FFO)	430	405	414	480	470
Leases	2	3	3	0	0
Capitalized Interest	(14)	(21)	(17)	0	0
Alignment FFO	(109)	(128)	(69)	(96)	(216)
Unusual Items - Cash Flow	(51)	(50)	(50)	(28)	0
Moody's Adjusted Funds from Operations (FFO)	383	348	314	344	362

All figures are calculated using Moody's estimates and standard adjustments. The non-standard adjustment comprises of interest paid and received being moved from investing and financing activities into operating cash flow, offset by adding back annual inflation accretion on index-linked debt to FFO.
Source: Moody's Financial Metrics™

Exhibit 16

Yorkshire Water Services Limited

Selected historical financial data, Moody's-adjusted

(in GBP million)	FYE Mar-18	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22
INCOME STATEMENT					
Revenue	1,027	1,059	1,063	1,101	1,119
EBITDA	627	435	564	568	335
EBITDA margin %	61.0%	41.1%	53.0%	51.5%	30.0%
EBIT	330	126	235	245	2
EBIT margin %	32.2%	11.9%	22.1%	22.2%	0.2%
Interest Expense	288	311	259	257	411
BALANCE SHEET					
Cash & Cash Equivalents	28	37	250	198	29
Total Assets	9,001	9,333	9,661	10,010	10,853
Total Liabilities	7,865	8,380	8,982	9,180	9,756
CASH FLOW					
Funds from Operations (FFO)	383	348	314	344	362
Cash Flow From Operations (CFO)	422	360	339	450	420
Dividends	29	33	62	2	15
Retained Cash Flow (RCF)	355	316	251	342	347
Capital Expenditures	(444)	(544)	(486)	(437)	(371)
Free Cash Flow (FCF)	(51)	(216)	(209)	11	34
INTEREST COVERAGE					
EBITDA / Interest Expense	2.2x	1.4x	2.2x	2.2x	0.8x
Adjusted Interest Coverage Ratio	1.4x	1.5x	1.3x	0.9x	0.9x
LEVERAGE					
Debt / EBITDA	7.8x	11.9x	10.0x	10.1x	17.1x
Net Debt / EBITDA	7.8x	11.8x	9.6x	9.7x	17.0x
Debt / Book Capitalization	76.3%	79.8%	84.6%	82.4%	76.6%
Regulated Asset Base (RAB)	6,457	6,698	6,960	7,024	7,746
Net Debt / Regulated Asset Base	75.6%	76.7%	77.8%	78.7%	73.7%
FFO / Net Debt	7.8%	6.8%	5.8%	6.2%	6.3%
RCF / Net Debt	7.3%	6.1%	4.6%	6.2%	6.1%

All figures are calculated using Moody's estimates and standard adjustments.
Source: Moody's Financial Metrics™

Ratings

Exhibit 17

Category	Moody's Rating
YORKSHIRE WATER SERVICES FINANCE LIMITED	
Outlook	Stable
Bkd Senior Secured -Dom Curr	Baa2
Underlying Senior Secured -Dom Curr	Baa2

Source: Moody's Investors Service

Endnotes

1 Ofwat letter to Yorkshire Water, Water and Sewerage Appointees – Definition of "Issuer Credit Rating", 19 May 2022

2 Environment Agency, Water and sewerage companies in England: environmental performance for 2021, 22 July 2022

3 Ofwat, Undertakings for the purpose of Section 19 of the Water Industry Act 1991

4 Yorkshire Water's intercreditor arrangements contain provisions intended to reduce the likelihood of an event of default and, if one were to occur, to allow resolution before enforcement action. In particular, an automatic standstill of up to 18 months follows the occurrence of an event of default (resulting from, for example, non-payment of scheduled payments, maintaining forward-looking liquidity of less than six months, violation of licence terms, rating downgrades from multiple agencies or breach of default financial ratios). The standstill is designed to allow time for secured creditors to pursue options that could include a sale of the regulated business. During the standstill period, no other enforcement of creditor's rights is allowed, including payment acceleration that would trigger termination payments to swap counterparties

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Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

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