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CREDIT OPINION
18 January 2024

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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

Regular update following HY 2023/24 results

Summary

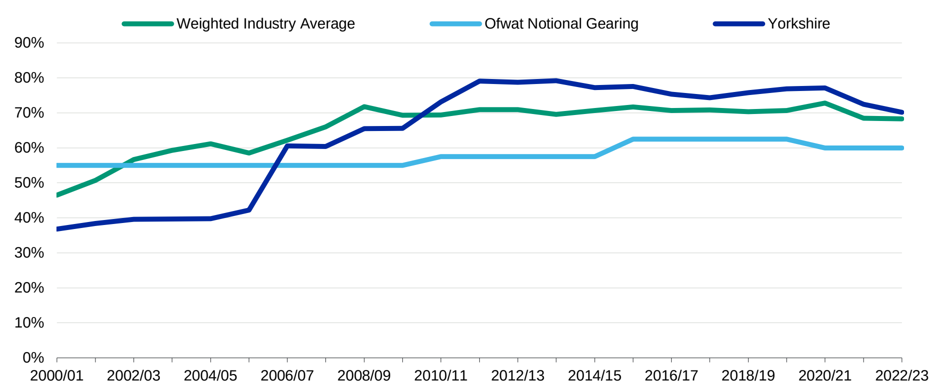
Yorkshire Water Services Finance Limited and Yorkshire Water Finance plc are the financing subsidiaries of Yorkshire Water Services Limited (Yorkshire Water), which guarantees all issuance. Yorkshire Water's credit quality is supported by (1) the company's low business risk as a monopoly provider of 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 £1.6 billion (18% of RCV) in September 2023 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 to reduce pollution from storm overflows, the company has committed to start the next regulatory period (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 regulatory expectations in the current regulatory period (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 was found to have not complied with its permits

Rating outlook

Although Yorkshire Water's AICR will fall below our guidance for the current rating over the remainder of AMP7, the stable outlook reflects our expectation that the ratio 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 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

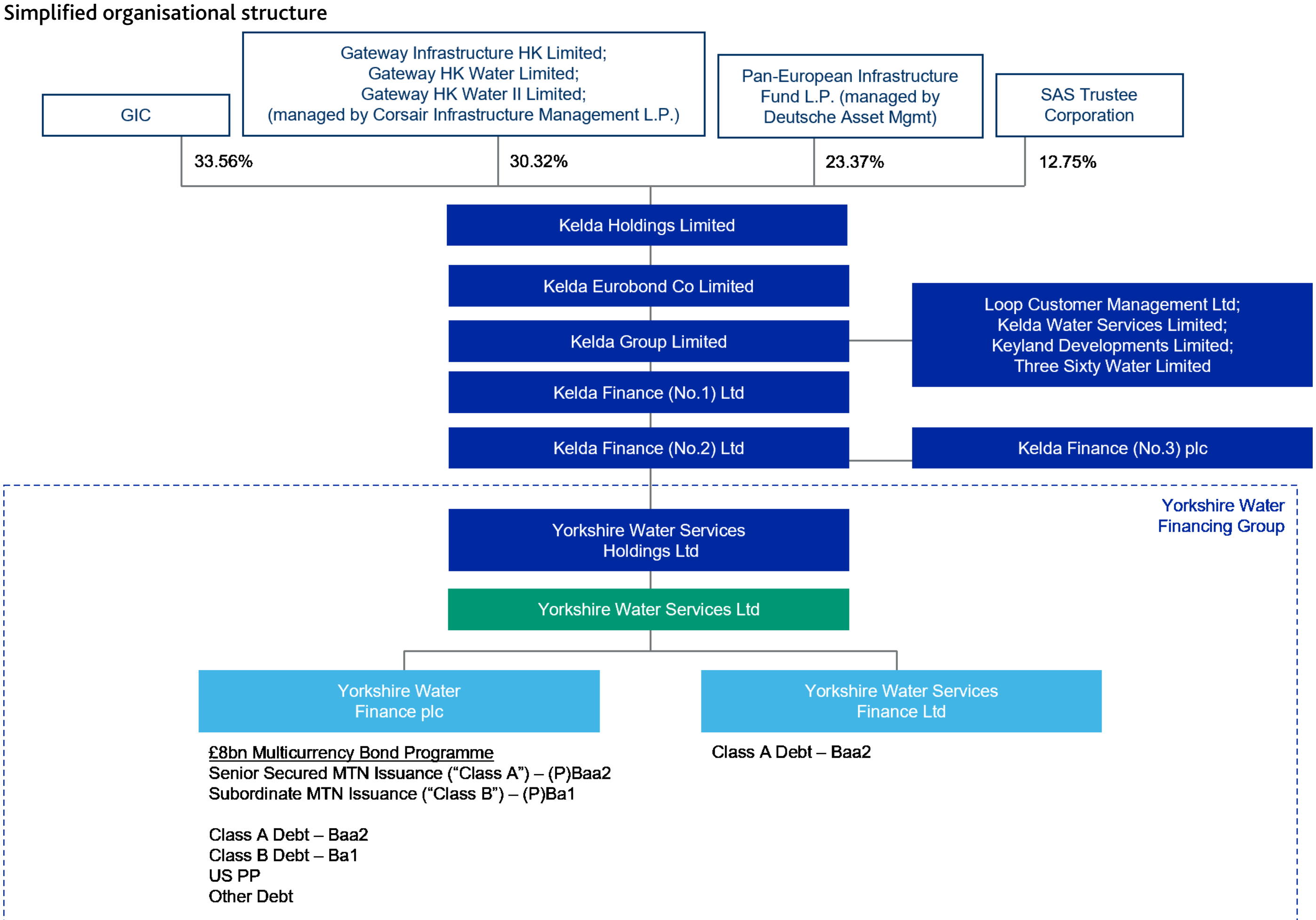
	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	12-18 months forward view
Adjusted Interest Coverage Ratio	1.5x	1.3x	0.9x	1.0x	0.7x	1.0x - 1.3x
Net Debt / Regulated Asset Base	76.7%	77.8%	78.7%	73.7%	72.0%	70% - 72%
FFO / Net Debt	6.8%	5.8%	6.2%	6.3%	5.8%	6% - 8%
RCF / Net Debt	6.1%	4.6%	6.2%	6.1%	5.1%	6% - 8%

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. Although the CMA's redetermination will affect cash flow starting only in the 2022-23 financial year, Moody's AICR adjusts for reprofiling and reflects the benefit of the redetermination from the 2020-21 financial year.
Source: Moody's Financial Metrics™

Profile

With an RCV of £8.7 billion as of March 2023, 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 million people and 140,000 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.

...with tighter regulatory oversight expected for AMP8

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. While "early view" equity returns may appear low in the context of rising cost of debt, latest market evidence will have to be considered when Ofwat resets the allowed return at the 2024 price review. A rise in allowed cash returns would be credit positive, particularly in the context of likely rising investment needs and associated funding requirements in a higher interest rate environment. However, Ofwat also aims to further tighten performance requirements, which will mean greater penalties for companies that fall short of the regulator's expectations.[1]

In March 2023, Ofwat also published its decision to modify the regulatory ring-fencing conditions in the licences of the water and wastewater companies in England and Wales. With effect from 1 April 2025, the rating trigger resulting in a cash lock-up under the licence will be raised to Baa2/BBB negative from Baa3/BBB- negative currently. Additional licence changes, which apply from 17 May 2023, will allow the regulator to also take enforcement action where companies do not link their dividend payments to operational performance or fail to be transparent about their dividend policy. On balance, the licence modifications are credit positive for the operating companies, but detrimental to holding company credit quality where the operating company is at an increased risk of triggering the lock-up. This is relevant for Yorkshire Water, given that its dividend payments support debt service at various holding companies within the wider organisational structure.

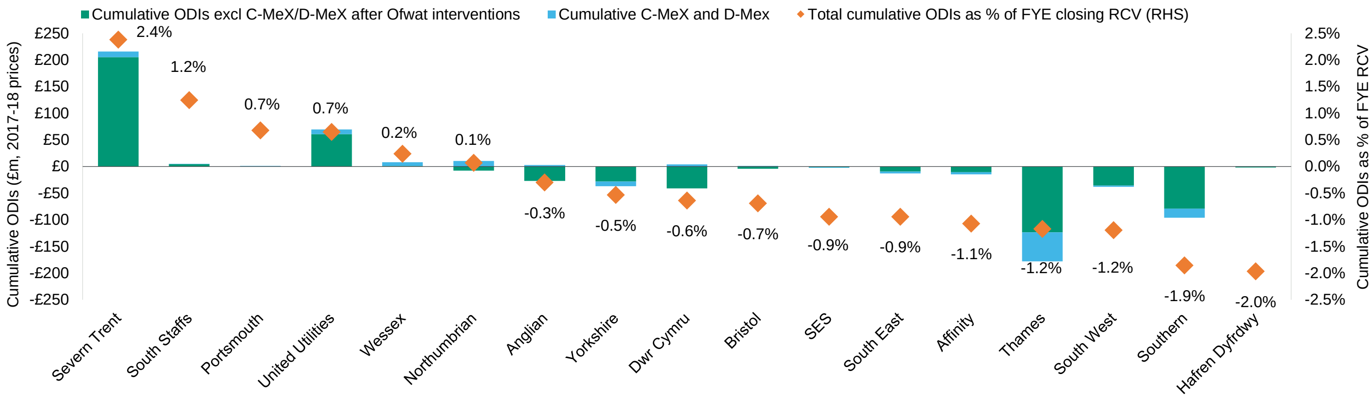
The definition of "issuer credit rating" that Ofwat considers relevant for the rating trigger includes Moody's Class A rating, currently at Baa2 stable.

Operational performance has been below regulatory expectations in AMP7

Yorkshire Water has historically been a relatively strong operating performer, earning material rewards under outcome delivery incentives (ODIs) 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 three years of the period, it incurred net ODI penalties of £28 million (in 2017/18 prices), 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 FY 2022/23, the largest failures were for internal sewer flooding, water supply interruptions, and the number of main repairs, all part of the common performance commitments. Underperformance in internal sewer floodings was exacerbated by a dry summer followed by heavy rainfall towards the end of 2022. Partly offsetting these penalties, the company earned rewards on its bespoke performance commitments by reducing the number of external sewer flooding incidents.

In its annual performance report for FYE March 2023, Yorkshire Water indicated up to £70 million (in 2017/18 prices) net aggregate penalties over the full 2020-25 period, excluding customer service. The penalties are concentrated in internal sewer flooding, water quality, supply interruptions and mains repairs. ODI penalties incurred in the last two financial years of AMP7 will carry over into AMP8 with a two-year lag. In addition and subject to final assessment at the 2024 price review, any deferred penalties will be reflected as a legacy adjustment to revenue for the next regulatory period from 1 April 2025. Yorkshire Water's business plan includes cumulative ODI penalties of around £12 million (in 2022/23 prices) as part of its AMP8 legacy revenue adjustment, largely linked to per capita consumption performance.

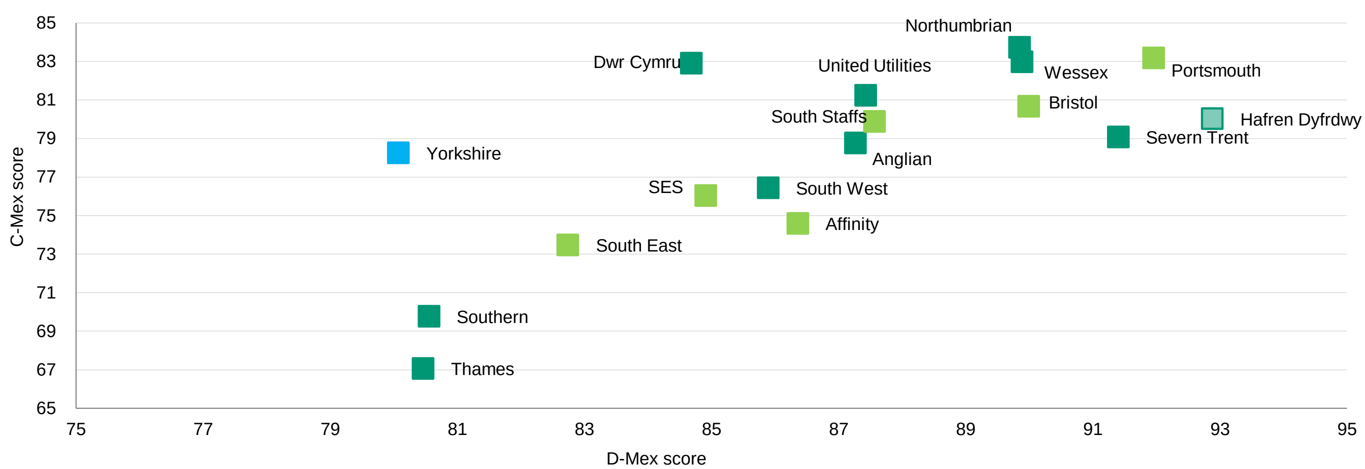
Exhibit 5
Cumulative ODI reward and penalties for FY 2020-21 to FY 2022-23 in absolute terms and as % of March 2023 RCV (in 2017/18 prices)



Source: Companies' annual performance reports, Ofwat's final ODI determinations

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 11th out of 17 water companies on C-MeX, a deterioration from 10th in the previous year, with the main causes relating to dissatisfaction on resolution of issues, communication and ease of contact with customers. On D-MeX, Yorkshire Water significantly improved its score in 2022/23 but remains the lowest-ranked company among its peers. In the first three years of AMP7, Yorkshire incurred penalties for customer service of just over £9 million (in 2017/18 prices), mostly attributable to D-MeX. However, the company believes its position has improved during the course of 2023/24.

Exhibit 6
Yorkshire Water's customer service performance
Companies' C-Mex and D-Mex scores, 2022-23



Source: Companies' annual performance reports

Ongoing pollution investigations pose risk of material fines

In November 2021, the UK government's Environment Agency (EA) and Ofwat launched parallel investigations into more than 2,000 sewage treatment works across all wastewater companies in England, "after new checks led to water companies admitting that they could be releasing unpermitted sewage discharges into rivers and watercourses." In November 2022, Ofwat confirmed that it had opened enforcement cases against six companies, which aside from Yorkshire Water also included Anglian Water Services Ltd.(A3 stable), Northumbrian Water Ltd. (Baa1 stable), South West Water, Thames Water Utilities Ltd. (Thames Water, CFR Baa2 stable) and Wessex Water Services Limited (funded through Wessex Water Services Finance Plc, rated Baa1 stable).

In December 2023, the regulator notified Northumbrian Water, Thames Water and Yorkshire Water of its provisional findings. The companies will have the opportunity to respond and provide further evidence, before a draft decision is published for consultation in the first quarter of 2024. While these companies have been highlighted on the basis of the information provided, the remaining three enforcement cases are ongoing and all wastewater companies remain part of the regulator's wider investigation.

Yorkshire Water could face a material fine if it was found to be in breach of its regulatory obligations. Ofwat can impose a financial penalties of up to 10% of relevant turnover, while Environment Agency fines follow sentencing guidelines[2] and are unlimited, particularly for repeat or deliberate offenders.

However, Yorkshire Water's historical performance had been relatively solid. While the company's environmental performance assessment dropped from 4 (industry leading) to 2 stars (defined as requiring improvement) in 2021 (following changes to the definition of serious pollution incidents), it improved again to 3 stars (good) in 2022.[3]

Catch-up of capital investment in AMP7 will prepare for step-up in AMP8

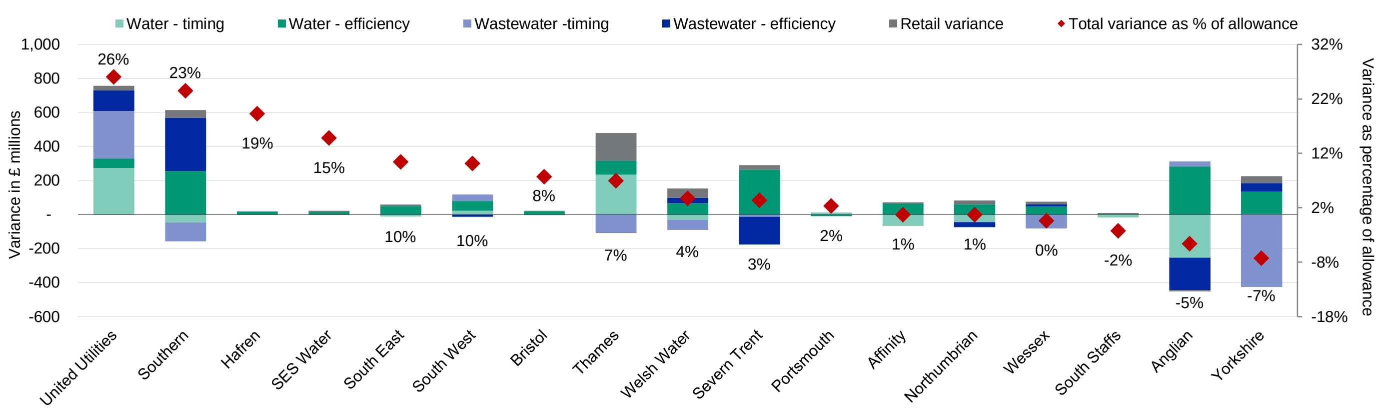
Over the first three years of the current regulatory period, Yorkshire Water invested significantly less than its totex allowance, particularly with respect to its enhancement expenditure, which aims to improve service for customers. Yorkshire Water is unique in this respect, with most other companies 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.

Capital investment has stepped up significantly in the first half of FY2023/24 and further scaling up is planned for FY2024/25 in order to ensure that all WINEP requirements can be met by the end of AMP7.

Exhibit 7

Cumulative totex variance over AMP7 to date

Amounts in 2017/18 CPIH-deflated prices



Source: Ofwat's summary performance report sector data, 2022/23

The recently published business plan also indicates a significant step-up in investment for the next regulatory period with overall proposed totex of £7.9 billion (in 2022/23 prices), almost 50% higher than AMP7 levels. Enhancement expenditure, which aims to improve services and is largely driven by new statutory requirements to reduce pollution as well as the environmental impact of water abstraction, accounts for £2.8 billion, more than double AMP7 enhancement levels. If confirmed by Ofwat in its 2024 determination, this would lead to a 24% real growth in RCV compared with under 6% for the current period.

We understand that Yorkshire Water is at an advanced stage of preparing its supply chain capabilities, and we expect the company to be able to manage the step up in AMP8 capital investment, also in the context of the ramp-up in the investment programme over the final years of this regulatory period. Capital investment for 2024/25 is expected around £750 million, compared with average annual capital spend of £730 million (in 2022/23 prices) forecast for AMP8 under the submitted business plan.

Deleveraging under regulatory pressure

The phasing of spending contributed to a reduction in leverage from 77.8% in March 2020 to 72% in March 2023. We had previously expected that leverage would rise again toward 78% by the end of AMP7 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 will provide annual updates to Ofwat on the plan during the rest of AMP7.[4]

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. In June 2023, Yorkshire Water received £400 million via partial repayment of the intercompany loan, with the remaining receivable balance reduced to £537 million.

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

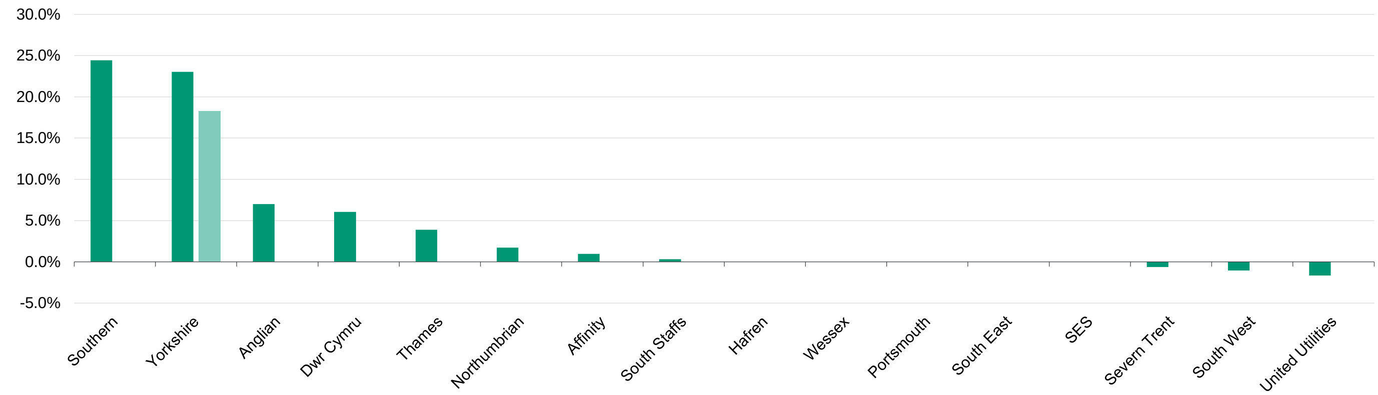
Yorkshire Water's borrowing costs are relatively high because of inflation swaps entered into at the time of the acquisition in 2008, many of which extend to the mid-2040s or beyond. Under these swaps, Yorkshire Water receives an amount linked to SONIA and pays a fixed coupon, while accruing an amount 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.[5]

However, the rise in market interest rates since March 2022 as well as the company terminating early a number of RPI-linked swaps with original maturity in 2026 and a notional amount of £177 million have reduced the MTM by around 40%, to £1.6 billion or around 18% of RCV as at 30 September 2023. Although it remains material, the reduction in the MTM is positive for senior creditors.

Exhibit 8

Yorkshire Water continues to exhibit one of the sector's highest MTM exposure, albeit reduced from its high point at March 2022
Outstanding derivative MTM values as % of RCV as at 31 March 2023



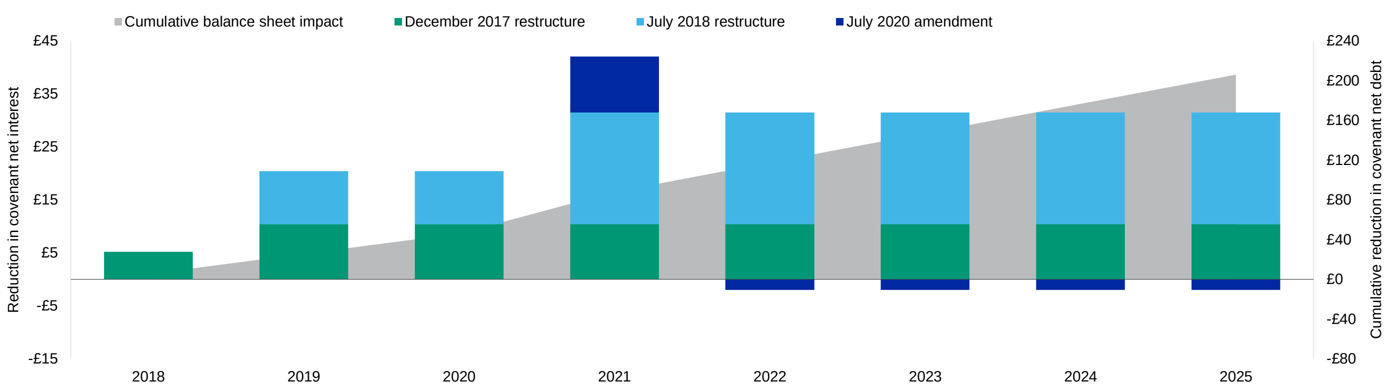
Lighter shaded green bar for Yorkshire indicates reduction in MTM at September 2023 due to prepayment of inflation-linked derivatives with a notional amount of £177 million.
Source: Companies' annual performance reports, Moody's Investors Service

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 it 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 the coronavirus outbreak 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 0.18x in 2022-23 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 debt-like, 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 increases volatility of credit metrics in AMP7

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. The company saw a two-thirds increase in power cost between FY 2022/23 and FY 2020/21, compared to 60% for the industry. Customer bills for 2023/24 will rise based on November 2022 CPIH of 9.4%, 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.

The inflation-linked RCV growth will also only bring modest benefit to Yorkshire Water's gearing because, as at 30 September 2023, around 55-60% of its debt and derivatives liabilities were also inflation-linked (broadly in line with the sector average). We estimate that debt equivalent to almost 40% of RCV will grow with RPI, which is broadly in line with the RCV portion that continues to inflate with RPI over AMP7. However, the company started to reduce basis risk by entering into RPI-CPI swaps with a notional value of £300 million during the first half of FY 2023/24.

Rising interest rates will increase borrowing costs for all water companies over time. Yorkshire Water already proceeded with the refinancing of £557 million of debt maturing in 2023 and early 2024, and will have no further significant debt maturities in AMP7; the company's plan to reduce leverage means total debt will rise only modestly. As a result, we expect Yorkshire Water's borrowing costs to rise only gradually. In addition, all companies – and particularly the four that appealed their determinations – will 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.

Structural considerations

Debt structural features provide additional creditor protection, but benefit weakened by swap arrangements

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, creditors have 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. However, as previously discussed, the company's swap arrangements, in particular accelerated cash flow receipts that will be returned at a later stage, have created headroom in the interest cover covenants. This may prevent the interest cover trigger levels from working as intended and thereby weaken creditor protections. Any potential adverse impact on gearing covenants is more limited, but with continuing deleveraging, gearing triggers will be less of a constraint.

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 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. The ratings, therefore, also factor in the sizeable super-senior obligations, which limit the benefit applied to Class A debt, in particular, in the context of its rank within the capital structure.

Liquidity analysis

Yorkshire Water has an adequate liquidity profile, underpinned (1) undrawn revolving credit facilities totalling £710 million with £630 million maturing in November 2028 (reflecting increase in commitment and extension of availability periods in November 2023); and (2) £95 million of unrestricted cash and cash equivalents as of September 2023. These are sufficient to cover the company's operating, investment and refinancing needs until the end of the current regulatory period.

Liquidity is further supported by a £182 million rolling five-year evergreen debt service reserve guarantee issued by Assured Guaranty UK Limited (A1 stable) and a £120 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.

ESG considerations

Yorkshire Water Services Finance Limited's ESG credit impact score is CIS-4

Exhibit 10
ESG credit impact score

CIS-4

ESG considerations have a discernible impact on the current rating, which is lower than it would have been if ESG risks did not exist. The negative impact of ESG considerations on the rating is higher than for an issuer scored CIS-3.

Source: Moody's Investors Service

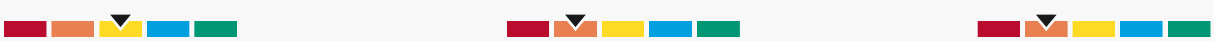
The **CIS-4** ESG Credit Impact Score for Yorkshire Water indicates that ESG considerations have a negative impact on current credit quality and that the rating is lower than it would have been if these risks did not exist. The **CIS-4** score largely reflects high social and governance as well as moderate environmental 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 in order to avoid negative credit implications in the future.

Exhibit 11
ESG issuer profile scores

ENVIRONMENTAL E-3

SOCIAL S-4

GOVERNANCE G-4



Source: Moody's Investors Service

Environmental

Yorkshire Water's **E-3** 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 in March 2022 enforcement cases were opened against Yorkshire Water and four other companies. In December 2023, three companies, including Yorkshire Water, were notified of provisional findings on which to respond, and Ofwat expects to publish a draft decision during the first quarter of 2024. Companies found to have made illegal discharges could face material fines and penalties. Yorkshire Water had been a relatively solid performer on environmental measures, historically. 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

Yorkshire Water's **S-4** score reflects elevated risk that public concern over environmental, social or affordability issues could lead to adverse regulatory or political intervention. While the risk is common to all regulated utilities, it is particularly acute for UK water companies, with public perception at an all-time low and heightened scrutiny over operational performance and dividend payments.

Materially growing investment requirements to improve environmental performance and increase drought resilience will require bills to rise, exacerbating affordability concerns.

Governance

Yorkshire Water's **G-4** score reflects the company's highly leveraged financial structure and extensive use of derivatives, including 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 Regulated Water Utilities rating methodology, last published in August 2023. The scorecard-indicated outcome is currently depressed by weak cash flow based metrics, but credit quality remains underpinned by solid liquidity and shareholder support.

Exhibit 12

Rating methodology scorecard

Yorkshire Water Services Limited

Regulated Water Utilities Industry [1][2]	Current FY 3/31/2023		Moody's 12-18 Month Forward View As of December 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)	0.8x	Caa	1x - 1.3x	B
b) Net Debt / Regulated Asset Base (3 Year Avg)	74.6%	Ba	70% - 72%	Ba
c) FFO / Net Debt (3 Year Avg)	6.1%	Ba	6% - 8%	Ba
d) RCF / Net Debt (3 Year Avg)	5.8%	Ba	6% - 8%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notch Lift		Ba2		Ba1
Notch Lift		1		1
a) Scorecard-Indicated Outcome		Ba1		Baa3
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 31/03/2023. (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™

Ratings

Exhibit 13

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

Appendix

Exhibit 14
Yorkshire Water Services Limited
Selected peer comparison

	Yorkshire Water Services Finance Limited Baa2 Stable			Dwr Cymru Cyfyngedig A3 Stable			Anglian Water Services Ltd. A3 Stable			SW (Finance) I PLC Baa3 Stable		
(in GBP million)	FYE Mar-21	FYE Mar-22	FYE Mar-23	FYE Mar-21	FYE Mar-22	FYE Mar-23	FYE Mar-21	FYE Mar-22	FYE Mar-23	FYE Mar-21	FYE Mar-22	FYE Mar-23
Revenue	1,101	1,119	1,145	778	810	844	1,352	1,400	1,495	820	845	816
EBITDA	636	606	611	361	518	585	706	790	819	353	452	592
Regulated Asset Base (RAB)	7,024	7,746	8,715	6,010	6,460	7,161	7,993	8,780	9,959	5,149	5,665	6,455
Total Debt	5,727	5,738	6,571	3,909	4,305	4,530	6,981	6,534	6,914	4,059	4,127	4,622
Net Debt	5,529	5,709	6,278	3,688	3,790	4,151	6,695	5,663	6,281	3,702	3,677	4,476
Adjusted Interest Coverage Ratio	0.9x	1.0x	0.7x	0.6x	0.8x	0.4x	1.4x	1.4x	1.4x	0.4x	-0.1x	-0.1x
FFO / Net Debt	6.2%	6.3%	5.8%	6.2%	6.5%	4.0%	6.5%	8.4%	8.4%	6.5%	1.4%	-2.3%
RCF / Net Debt	6.2%	6.1%	5.1%	6.2%	6.5%	4.0%	6.5%	6.7%	5.7%	6.6%	1.5%	-2.3%
Net Debt / Regulated Asset Base	78.7%	73.7%	72.0%	61.4%	58.7%	58.0%	83.8%	64.5%	63.1%	71.9%	64.9%	69.3%

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 15
Yorkshire Water Services Limited
Moody's adjusted debt breakdown

(in GBP million)	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-23
As Reported Total Debt	5,095	5,598	5,514	5,457	6,070
Leases	12	9	0	0	0
Non-Standard Adjustments	66	58	213	281	502
Moody's Adjusted Total Debt	5,173	5,665	5,727	5,738	6,571
Cash & Cash Equivalents	(37)	(250)	(198)	(29)	(294)
Moody's Adjusted Net Debt	5,136	5,416	5,529	5,709	6,278

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

Exhibit 16
Yorkshire Water Services Limited
Moody's adjusted FFO breakdown

(in GBP million)	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-23
As Reported Funds from Operations (FFO)	405	414	480	470	445
Leases	3	3	0	0	0
Capitalized Interest	(21)	(17)	0	0	0
Alignment FFO	(128)	(69)	(96)	(216)	(369)
Unusual Items - Cash Flow	(50)	(50)	(28)	0	0
Non-Standard Adjustments	139	33	(12)	109	286
Moody's Adjusted Funds from Operations (FFO)	348	314	344	362	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 17

Yorkshire Water Services Limited

Selected historical financial data, Moody's-adjusted

(in GBP million)	FYE Mar-19	FYE Mar-20	FYE Mar-21	FYE Mar-22	FYE Mar-23
INCOME STATEMENT					
Revenue	1,059	1,063	1,101	1,119	1,145
EBITDA	435	564	636	606	611
EBITDA margin %	41.1%	53.0%	57.7%	54.2%	53.4%
EBIT	126	235	313	273	270
EBIT margin %	11.9%	22.1%	28.4%	24.4%	23.6%
Interest Expense	311	259	257	411	583
BALANCE SHEET					
Cash & Cash Equivalents	37	250	198	29	294
Total Assets	9,333	9,661	10,010	10,853	11,007
Total Liabilities	8,380	8,982	9,180	9,756	9,834
CASH FLOW					
Funds from Operations (FFO)	348	314	344	362	362
Cash Flow From Operations (CFO)	360	339	450	403	390
Dividends	33	62	1	15	40
Retained Cash Flow (RCF)	316	251	343	347	322
Capital Expenditures	(544)	(486)	(437)	(371)	(507)
Free Cash Flow (FCF)	(216)	(209)	12	17	(157)
INTEREST COVERAGE					
EBITDA / Interest Expense	1.4x	2.2x	2.5x	1.5x	1.0x
Adjusted Interest Coverage Ratio	1.5x	1.3x	0.9x	1.0x	0.7x
LEVERAGE					
Debt / EBITDA	11.9x	10.0x	9.0x	9.5x	10.8x
Net Debt / EBITDA	11.8x	9.6x	8.7x	9.4x	10.3x
Debt / Book Capitalization	79.8%	84.6%	82.4%	76.6%	77.8%
Regulated Asset Base (RAB)	6,698	6,960	7,024	7,746	8,715
Net Debt / Regulated Asset Base	76.7%	77.8%	78.7%	73.7%	72.0%
FFO / Net Debt	6.8%	5.8%	6.2%	6.3%	5.8%
RCF / Net Debt	6.1%	4.6%	6.2%	6.1%	5.1%

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

Endnotes

1 Please also see Moody's 2024 UK Water Outlook, published on 15 January 2024.

2 Please see Moody's July 2015 comment 'UK Water Sector: Environmental damage likely to attract more material fines' as well as the sentencing council's guidelines for environmental offences effective from 1 July 2014: https://www.sentencingcouncil.org.uk/offences/magistrates-court/item/organisations-illegal-discharges-to-air-land-and-water-unauthorised-or-harmful-deposit-treatment-or-disposal-etc-of-waste/

3 Environment Agency, Water and sewerage companies in England: environmental performance for 2022, 12 July 2023

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

5 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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