



Utility Management
Institute (UMI)

North American
Development Bank

“GUIDE TO ACHIEVE THE CREDIT RATING BY RATING AGENCIES”

FitchRatings



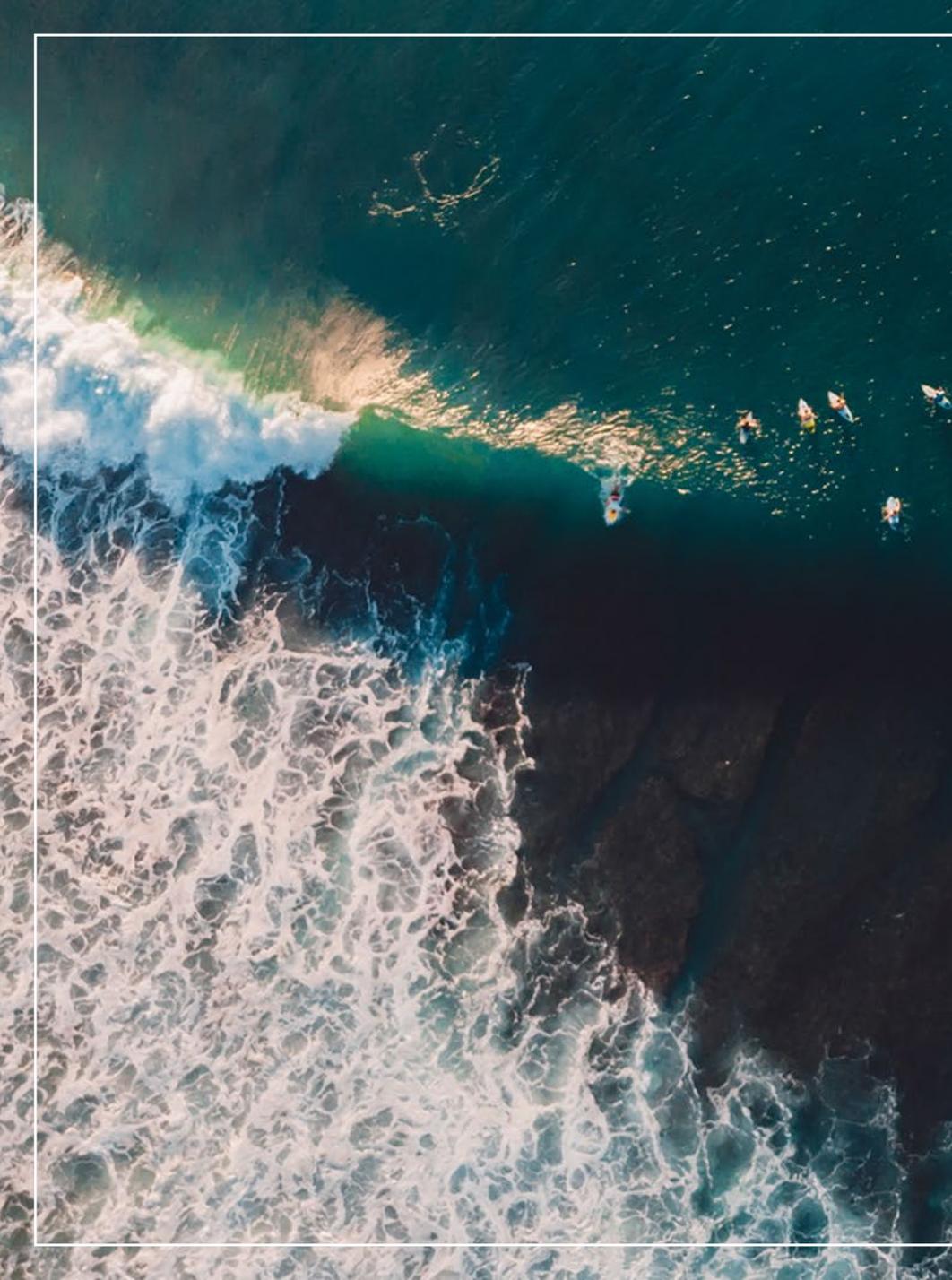
NADBank

Fitch Water and Sewer
Criteria

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Intro to Fitch

Rating Process &
Information
Requirements

Useful Links

The Rating Process (How Fitch Assigns Credit Ratings)

<https://www.fitchratings.com/research/corporate-finance/the-rating-process-how-fitch-assigns-credit-ratings-24-02-2022>

Master Criteria:

[Public Sector, Revenue-Supported Entities Rating Criteria \(9/1/2021\)](#)

Sector-Specific Criteria:

[U.S. Water and Sewer Rating Criteria \(3/18/2021\)](#)

Fitch Analytical Stress Test (FAST) Water & Sewer

[Water & Sewer FAST Tool](#)

Rating Process & Data





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Sector Risk Profile

Sector Risk Profile

Monopoly Providers

- Provide essential services
- Serve monopoly territories
- Strong contractual frameworks
 - **Take-and-Pay Contracts:** Payment obligation is contingent only upon the service provided.
 - **Take-or-Pay Contracts:** Payment obligation whether or not service is provided, thereby eliminating operating risk. Step-up requirements can range from 20% to more than 100% of a participant's initial obligation.

Sector Risk Profile

Rate-Setting Autonomy

- Legal ability to adjust rates
- Primarily non-rate regulated entities

Not-for-Profit Business Model

- “Excess cash flow is typically retained and used to build financial cushion, fund capital investment or reduce borrowings, although a portion of net revenues may be returned to host municipalities through transfers.”
- Transfers out typically make up a small and stable percentage of revenues.

An aerial photograph of a person in a yellow kayak on clear turquoise water. The water is very clear, showing the seabed and some rocks. The person is wearing a red life jacket. The kayak is positioned in the lower-left quadrant of the image. The overall scene is bright and clear, suggesting a sunny day.

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Key Rating
Drivers

Key Rating Drivers

Revenue Defensibility

- Assessment of ability to generate cash flow based on legal framework and fundamental economics of the service area.

Operating Risk

- Assessment of operating cost burden and flexibility as well as current and future capital needs.

Financial Profile

- Assessment of liquidity profile and leverage in context of utility's overall risk profile on historical and forward-looking basis.

Asymmetric Additive Risk Considerations

- Assessment of risk factors, such as debt structure, management and governance, legal, and regulatory. Only weaker factors affect final rating.

Key Rating Drivers

Key Rating Drivers – Retail Water/Sewer Utilities

Revenue Defensibility	aa	a	bbb	bb
Revenue Source Characteristics	Very strong. Nearly all revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is insignificant.	Strong. A significant portion of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is manageable.	Midrange. The majority of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is meaningful.	Weak. Less than 50% of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is significant.
Service Area Characteristics	Very strong demographic trends generally characterized by strong customer growth, above-average income levels and low unemployment rates.	Strong demographic trends generally characterized by average customer growth, with average income levels and average unemployment rates.	Midrange demographic trends generally characterized by little or no customer growth, and below-average income or above-average unemployment rates.	Weak demographic trends generally characterized by a declining customer base, well below-average income and high unemployment rates.
Rate Flexibility	Independent legal ability to increase service rates without external approval.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation of operating and capital costs being recovered on a timely basis is strong.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation that operating and capital costs may not be recovered on a full or timely basis.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation that operating and capital cost recovery will be neither full nor timely.
	Utility costs are affordable for the vast majority of the population.	Utility costs are affordable for most customers but are high for a meaningful portion of population.	Utility costs are affordable for the majority but are high for a significant portion of the population.	Utility costs are high for an exceedingly large segment of the population.
Asymmetric Rating Factor Considerations	Concentration of revenues from individual customers above 10% or over 25% for the largest 10 customers, industry concentration, tax revenue volatility, weak wholesale contract structures and counterparty risk are negative considerations.			
Operating Risk				
Operating Cost Burden	Very low operating cost burden.	Low operating cost burden.	Midrange operating cost burden.	High operating cost burden.
Capital Planning and Management	Moderate life cycle investment needs.	Elevated life cycle investment needs but supported by adequate capital investment.	Elevated life cycle investment needs with weak capital investment.	Elevated life cycle investment needs with extremely weak capital investment.
Asymmetric Rating Factor Considerations	Meaningful supply or resource-management concerns, project completion risk and counterparty risk are negative considerations.			
Financial Profile				
Leverage Profile	Refer to the Rating Positioning table.	Refer to the Rating Positioning table.	Refer to the Rating Positioning table.	Refer to the Rating Positioning table.
Liquidity Profile	Liquidity profile is based on coverage of full obligations and liquidity cushion. A weaker liquidity profile can constrain the financial profile assessment.			
Asymmetric Additional Risk Considerations	Debt structure and contingent liability, management and governance, legal and regulatory, information quality, and rating relationship to the host government characteristics that are significantly outside the norm for the sector are factored into the final rating.			

An aerial photograph of a beach with turquoise waves crashing onto the sand. The water is a vibrant blue-green, and the foam is white. The sand is a light brown color. The image is framed by a thin white border.

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Revenue Defensibility

Revenue Defensibility

Revenue Source Characteristics

- Typically 100%
- Water-related sales encompass water, sewer, reclaimed, stormwater, etc.
- “Other operating revenues” are generally still counted towards a monopolistic service revenue since they would not be remitted in the absence of the utility.

Revenue Source Characteristics

Metrics to Support Assessment

- Fitch assesses revenue risk through an analysis of a utility’s business lines and the related revenue relied on to support both operations and debt service. Generally, retail utility systems that derive more than 95% of operating income from services or business lines exhibiting monopolistic characteristics have revenue source characteristics consistent with a ‘aa’ factor assessment; over 80% to 95%, ‘a’; over 50% to 80%, ‘bbb’; and 50% and less, ‘bb’.
 - Fitch may also consider in its assessment each business line’s contribution to total income and FADS using the thresholds outlined above.
-

Revenue Defensibility

Service Area Characteristics

- Customer Growth
- Median Household Income
- Unemployment
- Lumesis and Census Bureau data

Service Area Characteristics

Metrics to Support Assessment

- Strong economic, customer and demographic trends support strong revenue defensibility. Fitch analyzes representative customer growth rates and service area unemployment rates and income levels relative to national levels.
 - Utilities that experience a historical compounded average annual growth in customers (typically over a five-year period) of more than 1.5% exhibit stronger growth characteristics; 1.5% to 0.0%, midrange; and less than 0.0%, weaker.
 - Service areas that report median household income in excess of 125% of the national median exhibit stronger income characteristics; 125%–75%, midrange; and less than 75%, weaker.
 - Service areas that report unemployment rates that are less than 75% of the national average exhibit stronger employment characteristics; 75%–125%, midrange; more than 125%, weaker.
- Markets that exhibit midrange retail customer growth and midrange demographic trends are considered strong and consistent with factor assessments of at least 'a'. Markets that experience a greater number of stronger characteristics than weaker characteristics are typically assessed 'aa'. Markets that exhibit one more weaker characteristic than stronger characteristic are typically assessed as 'bbb'. Markets that exhibit two or more weaker characteristics than stronger characteristics are typically assessed as 'bb'.

Revenue Defensibility

Rate Flexibility

- Rate-setting autonomy – nearly all Fitch-rated issuers have legal ability to increase service rates without regulatory approval
- Affordability

Affordability

Metric to Support Assessment

- Fitch calculates an affordability rate to determine the number of people whose bill accounts for an outsized portion of their income. Generally, a combined water-related bill that is greater than 5% of household income (or individually, 2.0% for water, 2.5% for sewer and 0.5% for stormwater) is considered unaffordable. Utilities with 20% or less of their population whose bills are considered high are deemed to have an affordability assessment factor of 'aa'; over 20% to 30%, 'a'; over 30% to 40%, 'bbb'; and over 40%, 'bb'.
-

Revenue Defensibility

Asymmetric Additive Risk Considerations

Revenue/Customer Concentration

- Revenue/Customer concentration is assessed by comparing the amount of revenue collected by the ten largest customers (or single largest customer) to total operating revenues:
 - More than 10% of operating revenue from the single largest customer.
 - More than 25% of operating revenue from the 10 largest customers.

Tax Revenue Volatility

- USPF tax-backed criteria and related FAST will only be applied in limited cases.

An aerial photograph of turbulent blue water with white foam, likely a waterfall or rapids. The water is dark blue-green, and the foam is bright white. The image is framed by a thin white border.

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Operating Risk

Operating Risk

Operating Cost Burden

- Assesses cost per unit (based on average water production and/or sewer flows).

Life Cycle Ratio

- Assesses plant age compared to total useful life of plant to determine how far the system is through its life cycle.
- Evaluates the 5-year average of annual capex/depreciation in relation to the life cycle ratio.

Operating Cost Burden

Metric to Support Assessment

- Fitch measures a utility's ratio of total operating costs from a utility's financial statement relative to its million gallons (mg) of water produced and/or sewer flows treated during the year to determine operating cost burden. Generally, utility systems with an operating cost of \$6,500/mg or less have an operating cost factor assessment of 'aa'; over \$6,500/mg to \$9,500/mg, 'a'; over \$9,500/mg to \$12,500/mg, 'bbb'; and over \$12,500/mg, 'bb'.
- Stormwater utilities generally have limited operations and lack measured flows, and, thus, are assumed to have an operating cost factor assessment of 'aa' for stand-alone utilities unless there is evidence to suggest the assessment should be lower, in which case, the rationale for a lower assessment will be noted.

Capital Planning and Management

Metrics to Support Assessment

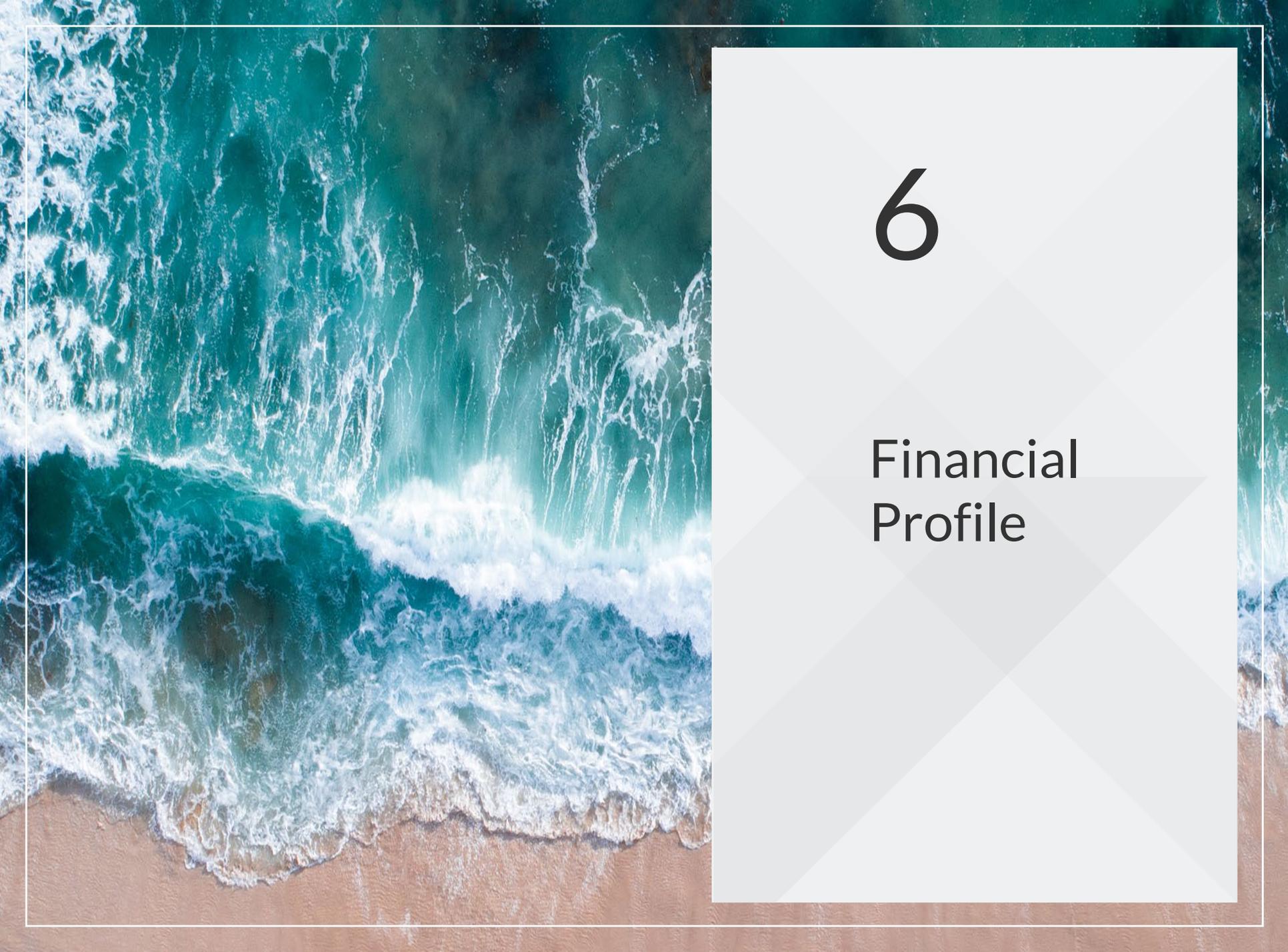
- Fitch calculates a ratio to measure the status of a utility's life cycle based on information from a utility's financial statements and typically over the most recent five-year period. The life cycle ratio is calculated as age of plant as the numerator divided by the sum of age of plant plus remaining useful life. Age of plant is calculated as accumulated depreciation divided by annual depreciation expense, while remaining useful life is calculated as net capital assets divided by annual depreciation expense. In cases where accumulated depreciation is not available, Fitch will calculate age of plant as follows: $45 - (\text{remaining useful life})$.
- Low life cycle ratio generally indicates low investment needs. Typically, a utility with a life cycle ratio of 45% or less is considered to have moderate investment needs and a capital assessment of 'aa'. Generally, a life cycle ratio greater than 45% indicates elevated investment needs. A high life cycle ratio (over 45%), combined with moderate average capital spending as a percentage of depreciation expense greater than or equal to 80%, has a capital assessment of 'a'; where capital spending is between 40% and 80% of depreciation, the assessment is 'bbb', while capital spending below 40% is assessed at 'bb'.

Operating Risk

Asymmetric Additive Risk Considerations

Supply or Resource management concerns

- Assessed qualitatively, based on availability of long-term supplies.
- Shortfalls in resource capacity are expected to be met through either purchases (where available) or construction of additional infrastructure. The emphasis is on cost and perceived difficulties in ensuring adequate supply resources.

An aerial photograph of a beach with turquoise waves crashing onto the sand. The water is a vibrant blue-green, and the foam is white. The sand is a warm, golden-brown color. The image is framed by a thin white border.

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Financial Profile

Financial Profile

Leverage Profile

Net Adjusted Debt to Adjusted FADS

- Measures total debt and other obligations (net of certain balance sheet resources) relative to annual cash flow needed to pay such obligations.
- Capitalizes a portion of purchased water/sewer costs.
- Includes standard Fitch-calculated pension liabilities.
- Leverage profile may be less of a consideration in a rating where an issuer benefits from a pass-through contractual framework with one or more counterparties or purchasers.

Leverage Ratio - Net Adjusted Debt to Adjusted FADS Ratio

$$\frac{\text{Total Debt} + \text{Capitalized Fixed Charges} + \text{Adjusted Net Pension Liability} - \text{Available Cash} - \text{Funds Restricted for Debt Service}}{\text{FADS} + \text{Fixed Services Expense} + \text{Net Transfers} + \text{Pension Expense}}$$

FADS - Funds available for debt service

Financial Profile

Liquidity Profile

Coverage of Full Obligations (COFO)

- Utility's ability to cover its annual obligations in any given fiscal year.

Liquidity Cushion

- Current Days Cash on Hand

Coverage of Full Obligations Ratio

$$\frac{\text{FADS} + \text{Fixed Services Expense} + \text{Net Transfers}}{\text{Total Annual Debt Service} + \text{Fixed Services Expense}}$$

FADS - Funds available for debt service.

COFO is used to assess an entity's liquidity profile as follows:

Coverage of Full Obligations (COFO)

Metric to Support Assessment

- COFO generally less than 1.0x from all available revenues and/or generally less than 1.0x excluding connection/availability fees is weak and risk additive.
- COFO below 1.0x may not be considered risk additive if a borrower maintains Current Days Cash on Hand at 120 days or more.

Liquidity Cushion Ratio

$$\frac{\text{Current Cash Available} + \text{Available Borrowing Capacity}}{\text{Average Daily Cash Operating Expenses}}$$

Liquidity Cushion

Metric to Support Assessment

- A liquidity cushion at or above 90 days is neutral to ratings, as long as Current Cash Available is at or above 30 days. A liquidity cushion below 90 days or Current Cash Available below 30 days are considered weak and risk additive.

Financial Profile

Scenario Analysis

- Starts with last five years of audited financial reports to illustrate a baseline performance scenario.
- Baseline can begin with default assumptions or incorporate projections from the utility.
- Stress case assumes a uniform capital spending stress
- Calculates key metrics
- **Fitch may further sensitize the base case to reflect its view of macroeconomic or issuer specific issues**

FAST Default Assumptions

Assumption	Applies to:
Grown at rate of inflation (2%)	<ul style="list-style-type: none"> • Non-operating revenues from taxes, investment income, net transfers and subsidies • Restricted cash and investments (excluding construction funds)
Fixed at most recent historical (typically five-year) average	<ul style="list-style-type: none"> • Non-operating revenues from miscellaneous cash • Connection fees • Purchased water/sewer services • Capital expenditures (150% of average)
Grown at rate of three- or five-year CAGR	<ul style="list-style-type: none"> • Operating expenses (excluding depreciation and purchased water/sewer services) • Operating revenues (capped at operating expense growth CAGR)
Held constant in nominal terms	<ul style="list-style-type: none"> • Operating lease expense • Restricted construction funds (unspent balances held constant) • Adjusted net pension liability • Pension expense
Average interest rate implied by the last five or three years of historical data	<ul style="list-style-type: none"> • Principal payments (amortization based on the 15th year of a 30-year time horizon, at this interest rate) • Cash interest paid (total debt multiplied by this interest rate)

Financial Profile

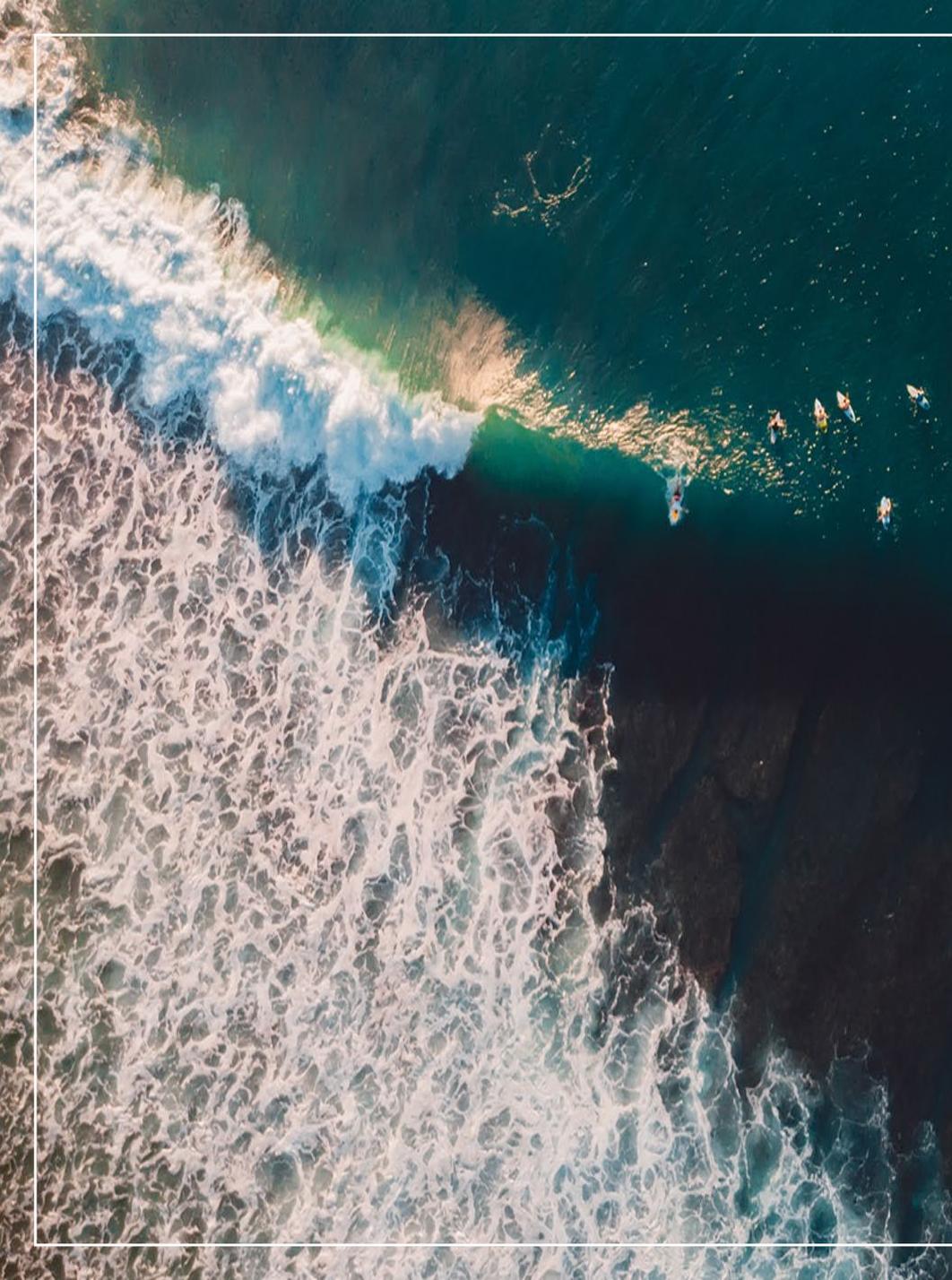
Rating Positioning Table

- The RPT's suggested analytical outcome is meant to be informative, but the final rating could also include other factors.
- Asymmetric additive risk considerations
- Counterparty focus
- Volatility in financial profile

Rating Positioning

Revenue Defensibility Assessment	Operating Risk Assessment	Leverage Profile Assessment (Net Adjusted Debt/Adjusted FADS) (x)				
		aaa	aa	a	bbb	bb
aa	aa	<5	5–10	10–14	14–16	>16
aa	a	<4	4–8	8–12	12–16	>16
a	aa	<4	4–8	8–12	12–16	>16
aa	bbb	–	<7	7–11	11–14	>14
a	a	–	<6	6–11	11–14	>14
a	bbb	–	<6	6–11	11–14	>14
aa	bb	–	<5	5–9	9–12	>12
a	bb	–	<4	4–7	7–12	>12
bbb	aa	–	<4	4–7	7–12	>12
bbb	a	–	<4	4–7	7–12	>12
bbb	bbb	–	<0	0–5	5–6	>6
bbb	bb	–	<0	0–1	1–4	>4
bb	aa	–	–	<1	1–4	>4
bb	a	–	–	<0	0–4	>4
bb	bbb	–	–	<0	0–2	>2
bb	bb	–	–	<(3)	(3)–0	>0
Suggested Financial Profile Assessment		aaa (Exceptionally Strong)	aa (Very Strong)	a (Strong)	bbb (Midrange)	bb (Weak)
Suggested Analytical Outcome ^a		AAA	AA	A	BBB	BB or below

^aSCPs will be assessed as aaa, aa, a, bbb or bb. FADS – Funds available for debt service.



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Asymmetric Additive Risk Considerations

Asymmetric Additive Risk Considerations

Debt Structure and Contingent Liability –

- Material exposure to refinance risk, contingent liabilities (i.e. swaps with collateral postings), and/or unhedged floating-rate interest; highly sculpted/substantial use of deferred amortization; etc.

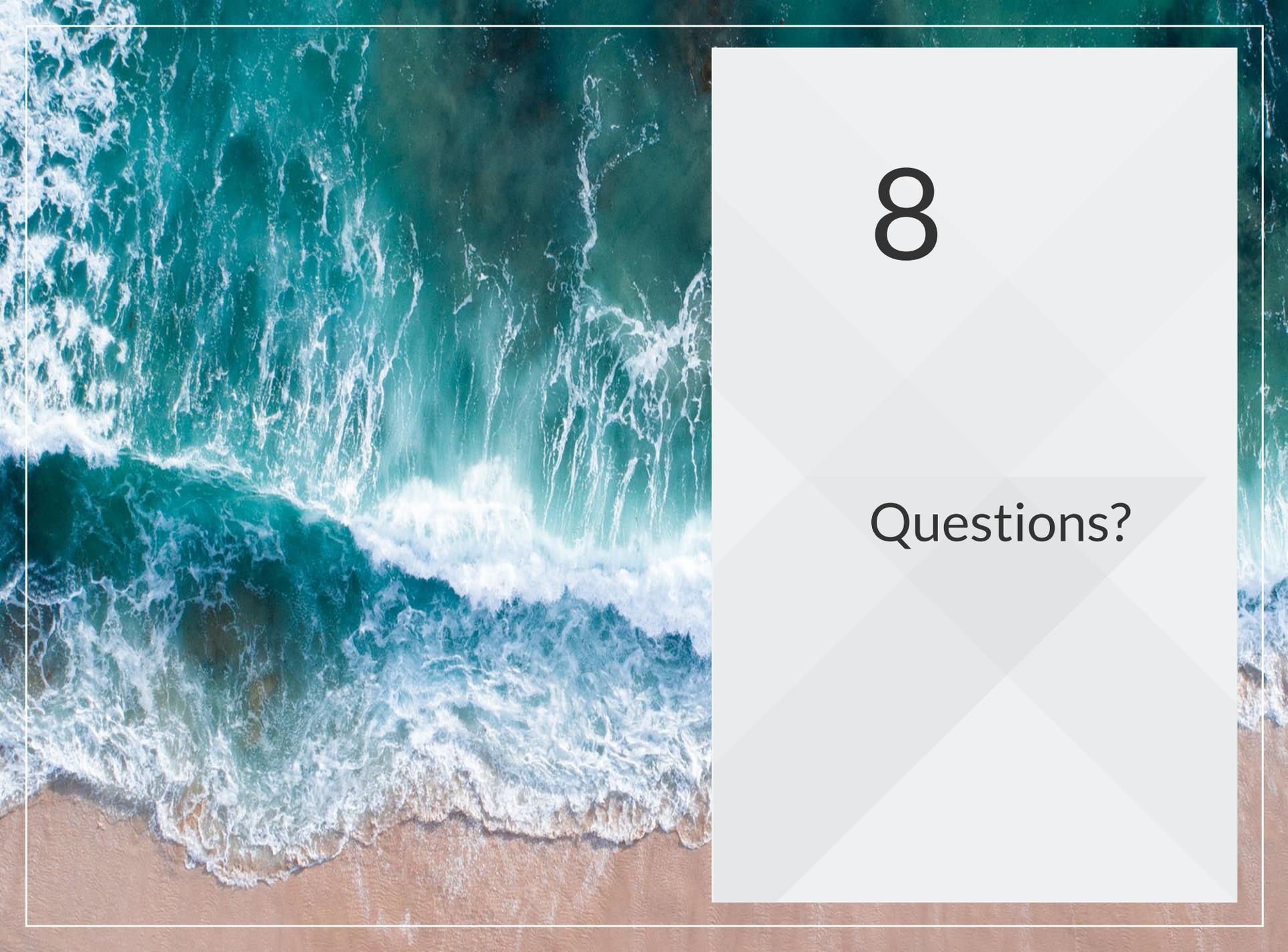
Management and Governance –

- Lack of experience/depth; significant political pressure; weak or lack of forecasts and resource management plans; etc.

Legal and Regulatory –

- Contractual, regulatory or statutory framework dependent on untested legislation/regulation; proposed state or federal regulation that would curtail rate-setting authority; etc.

Information Quality

An aerial photograph of a beach with turquoise waves crashing onto the sand. The water is a vibrant blue-green, and the foam is white. The sand is a light brown color. The image is framed by a thin white border.

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Questions?

Analytical Contacts



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