



Review of Hingham's Financial  
Analysis of the Acquisition of the  
Water Company  
January 10, 2019

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# About Andersen Tax

Andersen Tax is the founding member of Andersen Global, an international association of member firms with nearly 4,000 professionals worldwide, nearly 500 global Partners, and a presence in over 122 locations through its member firms and collaborating firms. In the U.S., Andersen Tax has more than 1,000 personnel located in 19 cities across the country.

Andersen Tax encompasses top advisors with previous experience in the international accounting firms, law firms, IRS and state taxing authorities. Our advisors hold multiple professional credentials and have expertise in a broad range of complex and sophisticated financial and tax matters, allowing us to provide clients with comprehensive, integrated solutions.



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## Jim Dondero – Managing Director Valuation

- Over 30 years of experience advising clients on business and valuation matters,
- Leads Andersen Tax's Valuation Practice in Boston
- Works with both private and public companies
- Work routinely reviewed by SEC, "Big 4" auditors, PCAOB and IRS
- Projects have included financial reporting related valuations, tax valuations, strategic planning, financial modeling and acquisition analysis
- Before joining Andersen Tax, Jim was a managing director and partner at several national professional service firms
- Masters in management science from the Sloan School of Management at the Massachusetts Institute of Technology, Proudfoot – Samuelson Fellow 1987
- Bachelor of science in accounting from Michigan State University

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## Scope of Project

Validate all aspects of the Town financial analysis, including, but not limited to the following:

- a) Confirm that Town financial analysis: is consistent with the facts in the DPU rate case filings and includes costs associated with municipal ownership
- b) Assess reasonableness of assumptions contained in Town financial analysis. Recommend modifications as needed and rationale for making them.
- c) Identify and analyze differences between Town financial analysis and Aquarion model
- d) Identify additional aspects of the Town financial analysis that require analysis or review.

Recommend modifications as needed and rationale for making them.

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## Background Observations

Municipal water companies generally funded through enterprise funds - **no direct impact on a town's tax rates.**

Whether private or public, all costs of running a water company must be paid by the water customers (not taxpayers). Assumptions should be consistent in both the Town's and Aquarion's analysis.

**Goal is an apples to apples comparison**

Historical measures (i.e. rates of change, leverage ratios) are a reasonable basis for predicting future performance (unless extraordinary factors are present)

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## Background Observations (continued)

Municipal ownership eliminates some costs: income taxes, profit/return on assets, rate filing costs

Municipal entities may have higher wage costs due to prevailing wage laws (*impact unclear and likely not material*)

Municipal entities have lower borrowing costs

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## Review of Revenue –Town’s Assumptions of Aquarion Rates (Top-Down)

The Town model estimates Aquarion’s revenue based on rate increases . It also considers changes in the water treatment plant (“WTP”) charge.

Assumes a 10% rate increase every 3 years. Equates to just over 3.2% compounded annual growth rate (“CAGR”)

Aquarion’s historical CAGRs since 2005 were 3.5% in MA, 3.3% in CT and 4.3% in NH.

**Conclusion – Rate increase assumption is in line with Aquarion’s approved rate increase history and in line with the Town’s inflation assumption. Based on over a decade of historical rate increases in three states the assumption is reasonable.**

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## Review of Revenue – Aquarion’s Assumptions of Aquarion Rates (Bottom-Up)

Applies inflation to all cost categories except: depreciation, cost of debt and cost of equity and WTP lease costs.

Inflation assumption - 2.2% (~10 year inflation forecast, but used in a 30 year forecast) Lower than the Town’s assumption.

Depreciation assumption is based on \$2 million per year of capital expenditures (“capex”) and 35 year life for both current balance and all future investment. **No cost increase built into capex.**

Asset balances decline over time (due to error in depreciation roll-forward) **decreasing debt and equity costs over time.**

Debt costs assume Aquarion can borrow at Town’s long term rate of 3.75%. Aquarion’s current Moody’s credit rating is Baa2 = 4.88% 10 yr.

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## Review of Revenue – Aquarion’s Assumptions of Aquarion Rates (Bottom-Up) continued

Lower interest rate applied to the declining asset balance noted above lowers Aquarion’s debt cost projections

WTP percentage rent payment held constant and adjustment factor only applied in first year

Equity costs use 10.5% cost of equity which are applied to the declining asset balance.

Finally, Aquarion assumes that only 75% of the rate requests will be approved. Most recent rate increase approved 99% of requested amount.

**Conclusion – Many Aquarion assumptions are biased to lower rate increases**

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## Review of Revenue – Town’s Assumptions of Town Rates (Bottom-Up)

Operating costs based on third party quote for system’s operation.  
Additional costs identified and estimated based on other water system’s and incremental payroll costs.

All operational costs are projected based on 3% inflation rate

Debt service on acquisition based on 3.75% borrowing rate, 29 year debt and level payments

Capex increases 5% every 3 years starting at \$2 million per year.

Capex funded with 20 year debt interest rate starts at 3.5% then increased by 25 BPS every 3 years

**Conclusion – Operating cost estimate is from credible third party.  
Financing assumptions appear reasonable or conservative**

**Aquarion utilized Town’s Model in Comparison**

## Apples to Apples – Aligning Assumptions

Assumptions	Town	Aquarion	Andersen
<b>Operating Cost Inflation –</b> Not applied to fixed costs for WTP, financing or depreciation costs	<b>3.0%</b>	<b>2.2%</b>	<b>3.0%</b>
<b>Capital Expenditure Cost &amp; Increases</b>	<b>\$2.0 million (\$5.0 million in 2019)</b>	<b>\$2.0 million (\$5.0 million in 2019)</b>	<b>Aquarion plan of 8/13/18 through 2022 then 5% inc every 3 years</b>
<b>Interest Rates - Town (30 Year)</b> <b>Town (20 Year)</b>	<b>3.75%</b> <b>3.50% + inc 25 BPS/3 yrs</b>		<b>3.75%</b> <b>3.50% + inc 25 BPS/3 yrs</b>
<b>Aquarion</b>		<b>5.87% (19-21)</b> <b>4.99% (22)</b> <b>3.50% (23 – 49)</b>	<b>5.87% (19-22)</b> <b>5.32% +</b> <b>Inc every 5 yrs.</b>

## Apples to Apples – 2020-2048 Perspective

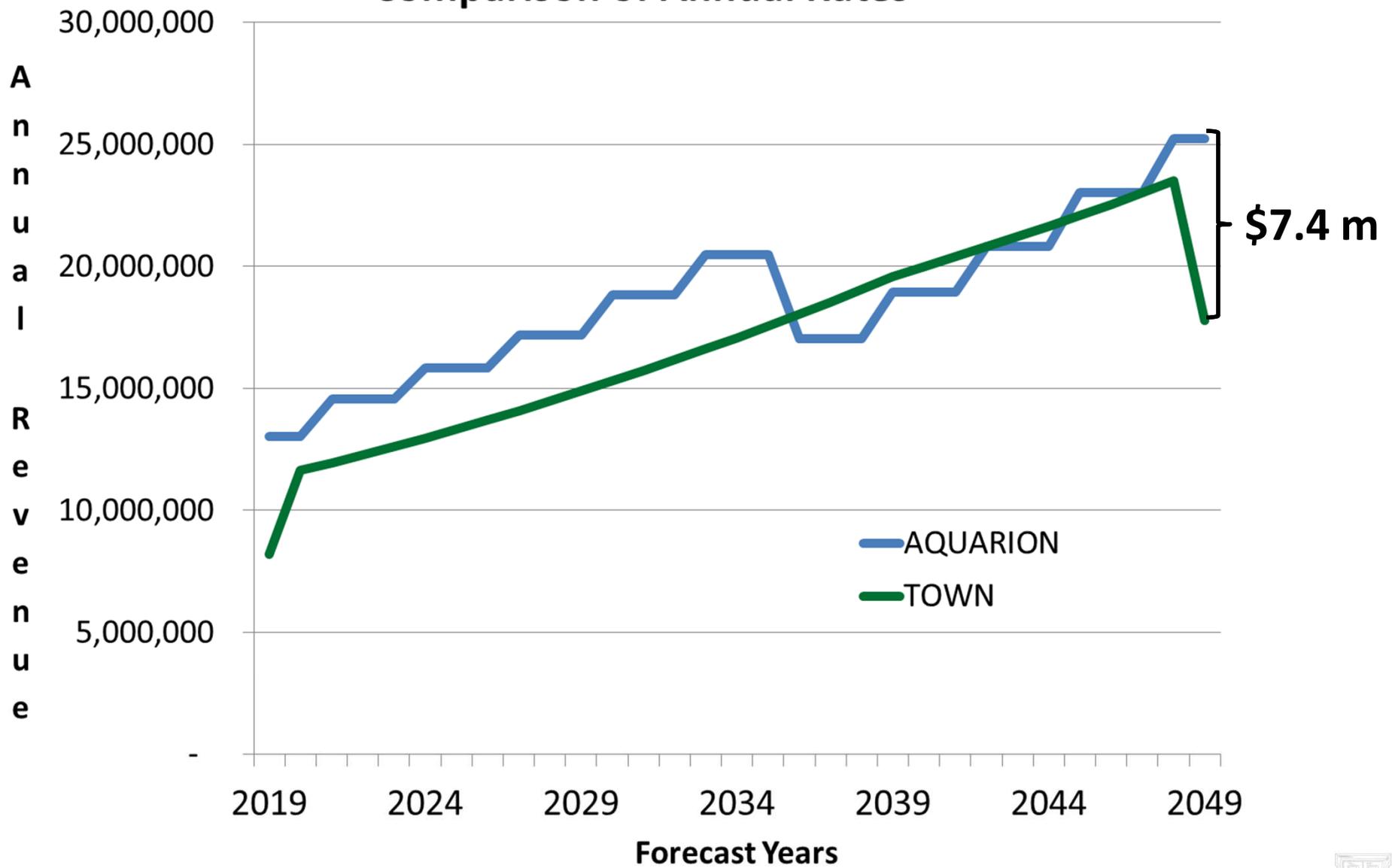
	Town 2020	Aquarion 2020	Town 2048	Aquarion 2048
Operating Costs	\$5,489,000	\$11,669,000	\$12,516,000	\$20,001,000
Debt Service (Aq. Int. Only)	\$6,325,000	\$816,000	\$11,344,000	\$2,550,000
Equity Profit	N/A	\$1,297,000	N/A	\$2,691,000
CAPEX	\$2,700,000	\$2,700,000	\$3,694,000	\$3,694,000
Depreciation	N/A	\$1,470,000	N/A	\$2,734,000
Revenue Requirement	\$11,632,000	\$12,939,000	\$23,497,000	\$25,223,000

**2048 is the last year of Town payments related to acquisition.  
Projected revenue requirement subject to a decline of  
approximately \$6,200,000**

Model	Town	Aquarion	Andersen
Town	\$510,867,000	\$510,867,000	<b>\$526,855,000</b>
Aquarion	\$647,725,000	\$470,894,000	<b>\$576,623,000</b>
Difference Town Higher/(Town Lower)	(\$136,858,000)	\$39,973,000	<b>(\$49,768,000)</b>

**Forecast period includes acquisition debt repayment –  
Starting in 2049 (last year of forecast) total savings  
increase to \$7.4 million per year**

## Comparison of Annual Rates



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## Conclusions

In order to compare ownership options an apples to apples comparison is essential. Common assumptions must align.

Due to differences in interest rates, the need for equity returns, debt leverage and cost structure the Town ownership option generates just under \$50,000,000 in savings over 30 years.

Once acquisition cost is paid off, **annual** savings increase to \$7,400,000 per year.

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