Water Company Acquisition Study Committee

Recommendation Vote Summary

January 2019
WCASC charged to review available information related to potential purchase of the water system and report back to the Board of Selectmen with a recommendation.
WCASC Investigation Process Summary

Article 19, Town Meeting 2012: “...determine whether the acquisition is feasible and advisable for further Town Meeting consideration”

- 25 WCASC meetings: 30 May 2012 – 23 Jan 2019
- Periodic updates of Town financial model at request of Town Administrator
- Mar 2018: Resumption of Governance & Engineering investigations at conclusion of litigation
- Jan 2019: Summary reviews
  - 3rd-party expert financial model reviews: Berry Dunn + Andersen Tax
  - Financial Analysis, Governance, and Engineering phase summaries
Financial Analysis
Financial Analysis Summary

- **2H2012**: Identified ~$7M in Aquarion costs that Town-owned water system would not have to pay
  - Revenue from eliminated costs could be ‘re-deployed’
- **Apr 2016**: Court-ordered 31 Dec 2013 price: $88.6M
- **Purchase price estimate** as of Town Meeting 2019: $107.8M
- **Apr 2017**: Aquarion files for 14.7% rate increase
- **Dec 2017**: Aquarion purchased by Eversource for $1.68B
- **Dec 2018**: DPU approves 11.9% increase for SAA ratepayers
  - DPU also approves annual 2% MRAM ratepayer surcharge
Financial Analysis Summary (cont’d)

- **Nov 2018**: Town retained two 3rd-party experts to review Town financial model
  - Berry Dunn ➔ Town’s assumption of 10% Aquarion rate increase every three years is “conservative and reasonable”
  - Andersen Tax ➔ Town ownership would result in at least $50M in ratepayer savings over 31 years
    ➔ Ratepayer savings would increase by $7.4M each year after acquisition debt paid off
### Financial Analysis Summary (cont’d)

<table>
<thead>
<tr>
<th>Model</th>
<th>Town</th>
<th>Aquarion</th>
<th>Andersen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town</td>
<td>$510,867,000</td>
<td>$510,867,000</td>
<td>$526,855,000</td>
</tr>
<tr>
<td>Aquarion</td>
<td>$647,725,000</td>
<td>$470,894,000</td>
<td>$576,623,000</td>
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<tr>
<td>Difference</td>
<td>($136,858,000)</td>
<td>$39,973,000</td>
<td>($49,768,000)</td>
</tr>
<tr>
<td>Town Higher/(Town Lower)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Forecast period includes acquisition debt repayment – Starting in 2049 (last year of forecast) total savings increase to $7.4 million per year
Financial Analysis Summary (cont’d)

• Andersen Tax Model “Apples to Apples” Key Factors and Assumptions
  
  – Acquisition Cost: $107.8M
  – Fund Balance Repayment: $1.49M
  – Borrowing: 1 year short-term + 29 years’ long-term, level payment
  – Annual capital expenditure (CAPEX): $2.7M → $3.7M
    • Used Aquarion’s 13 Aug 2018 Infrastructure Investment Plan amounts
  – Initial Town operating costs increase 3% annually
    • Outsourced system operations & maintenance
    • Water system Superintendent
    • Admin support
    • Other municipal costs
Financial Analysis Final Points

- All water system costs are paid by ratepayers—not taxpayers

- 337 MA communities (96%) served by public water systems

- Aquarion’s purchase price doubled in 10 years ($860M → $1.68B) for a compelling reason: 10.5% authorized profit
Governance
Governance: Diligence

- Researched state law governance and operational requirements
- Obtained legal advice from Town Counsel
- Reviewed MA Drinking Water Regulations
- Contacted professional water consultant
- Contacted bond counsel in the water-utility space
- Met with representatives from Hull and Cohasset
- Contacted other municipalities and talked with water superintendents in other towns
- Contacted officials at MassDEP
- Reviewed Tighe & Bond *2017 Massachusetts Water Rate Survey*

(Source: UNC School of Government Environmental Finance Center *MA Water and Wastewater Rates Dashboard*)
Governance: Municipal vs. For-Profit Systems

Serviced by publicly owned companies

Serviced by Aquarion MA/Eversource: 19,772 customers

Serviced by other privately owned companies: 12,988 customers

Source: MA Department of Public Utilities
Governance: Municipal Ownership of Medium-Sized Water Systems

- 41 medium-sized water systems (ranging from 10,000 to 25,000)
- 40 of 41 medium-sized systems in MA are owned and operated by municipalities
- We are the only system owned by a for-profit entity
- 39 out of 41 systems are governed by either a mayor or the Board of Selectmen acting as Water Commissioners
- Most medium-sized water systems provide water to one or more additional municipalities or to customers in other towns  (Source: MassDEP Records)
Governance: Day 1 Structure

Citizen Advisory Board
- Appointed by Board of Selectmen
- Residents from Hingham (3), Hull (1), and Cohasset (1)
- Membership – public record
- Multi-town, public volunteer body subject to Open Meeting Law, Public Records Law, and State ethics rules
- Advise on rate setting and citizen complaints/concerns
- Uncompensated volunteers

Board of Selectmen
As Water Commissioners

Town Administrator

Water Superintendent

Operations & Maintenance Vendor

Capital Vendor(s)

Transition Committee
- Appointed by Board of Selectmen
- Advise Water Superintendent
- Assist with transition tasks
Governance: Rate-Setting Process

- Local hearings vs. DPU process
- Significantly greater transparency
- Process for rates, capital, and budget-setting:
  - Recommendations from Water Superintendent
  - Recommendations from Transition Committee (in Year 1) with input from Citizen Advisory Board
  - Recommendations from Water Commissioners (Board of Selectmen) and Advisory Committee to Town Meeting
  - Non-binding Town Meeting vote on rates, capital, and budget
Governance: Conclusions

• The vast majority of towns control their own water system

• Owning the water system enables a higher level of transparency and accountability for rates, capital, and budget-setting

• Public governance eliminates profit motive and any potential conflict between shareholders and rate payers

• There is a public interest in having control over your own water system
Engineering
Capital Investment

Approach:
- Reviewed Aquarion capital-improvement plans, DEP and DPU filings, rate-case exhibits, and Town information

Conclusions:
1. A significant and sustained increase in water main replacement and rehabilitation is required
2. Much closer coordination with Hingham and Hull road-building plans is required
Aquarion Water Main Replacement History

Service Area A – Historical Water Main Feet Replaced

10,000 linear feet is ~1% of water distribution system

Recommended in Aquarion’s 2014 study:

1% of system’s main-feet replaced each year

Aquarion track record: less than 1/3 of 1% replaced

Sources: Tata & Howard Study, 2014; Aquarion rate case DPU 17-90, Jul 2018
Hingham Emergency Water-Repair History

Number of Street-Opening Permits for Emergency Water Repairs: 2011 – May 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Streets not under 5 year moratorium</th>
<th>Streets under 5 year road moratorium (2011 and beyond)</th>
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<tbody>
<tr>
<td>2011</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>2012</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>2013</td>
<td>13</td>
<td>0</td>
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<tr>
<td>2014</td>
<td>13</td>
<td>1</td>
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<tr>
<td>2015</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>2016</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>2017</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>YTD 2018</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

22% of emergency street openings occurred on roads under the 5-year moratorium. Several roads had multiple repairs.

Source: Hingham Town Engineer
Result of Water Main Underinvestment → Leaks

Service Area A Unaccounted for Water (UAW)

Source: DEP-Approved Performance Standards for MA Public Water Suppliers
Inconsistent Operations & Maintenance ➔ Discolored Water

Summer 2018

Hull

'Just Gross': Hull, Mass. Residents Disgusted to See Dark Brown Tap Water

The issue, which began on Monday, affected nearly 4,000 homes across Hull and prompted hundreds of residents to lash out at Aquarion Water Company.

By Mike Manzoni
Published Aug 9, 2018 at 7:43 PM | Updated at 7:49 PM EDT on Aug 9, 2018

Hundreds of Hull, Mass., residents have lashed out at the Aquarion Water Company after sediment blazed through the water supply and turned tap water dark brown in nearly 4,000 homes.

(Published Thursday, Aug. 9, 2018)
Water Company Acquisition Study Committee Summary
WCASC Recommendation

“The Water Company Acquisition Study Committee recommends that the Town exercise its statutory rights to purchase the water system serving Hingham, Hull, and North Cohasset”

⇒ Unanimous (5-0) affirmative vote, 23 Jan 2019
Water Company Acquisition Study Committee
Recommendation Vote Summary
Appendix

January 2019
Study Pre-Litigation Timeline

**Apr - May 2012**
WCASC Appointed by Board of Selectmen

**May 2012 - Jun 2013**
WCASC Feasibility Study - Financial Analysis with Look-Aheads

**Annual Town Meeting 2012**
Approval of Article 19

**WCASC Recommendation to Board of Selectmen**

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April 2012

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June 2013
Litigation Timeline

**Town Litigation to Determine Water System Purchase Price**
- July 2013

**Superior Court Discovery, Motions, and Trial**
- Sep 2013 – Mar 2015

**Superior Court Final Judgment**
- April 2016

**Appeal Court Filings**
- Jul 2016 – May 2017

**Appeal Court Affirmation**
- Nov 2017

**SJC Denial of FAR**
- Mar 2018
Post-Litigation Timeline

Feb – Oct 2018
DPU Amended Rate Case

Nov 2018 – Jan 2019
3rd-Party Review of Town Financial Model

Aquarion Rate Case Amendment

February 2018

DPU Rate Case Order *

October 2018

* 16 Nov 2018: DPU directs Aquarion to make 14 corrections to its tariffs
Financial Feasibility Criteria:

- Rate-transparent acquisition (acquisition alone would not necessitate a rate increase)
- Establish significant capital reserve upon acquisition
- Replenish capital reserve annually
- Repay all feasibility study costs (including litigation)

* Additionally, every 3 years, starting in 2021:
  - Capital replenishment amount increased by 5%
  - Capital replenishment borrowing rate increased by 25 basis points
Continued Aquarion Ownership Impacts

• Taxpayer Impact
  – Hingham Fund Balance not repaid $1.49M

• Ratepayer Impact
  – Tighe & Bond 2017 Survey: $730/year was ~23% > MA average
  – Ratepayer increase per DPU Order effective 1 Nov 2018:
    • Residential: 11.9% ➔ $817/year
    • MRAM 2% annual surcharge ➔ Additional ~$13/year ➔ Cumulative
      ➢ Sep 2019: $10+14 ➔ ~$841
      ➢ Sep 2020: $39 ➔ ~$856
      ➢ Sep 2021: $50 ➔ ~$867
      ➢ Sep 2022: $63 ➔ ~$880
  • By 2022 ➔ ~21% increase in 4 years
    ➢ With no assumption of a base rate increase in 2021
Town Ownership Impacts

- **Taxpayer Impact**
  - No property tax impact
  - Hingham Fund Balance repaid $1.49M

- **Ratepayer Impact**
  - At least $50M of savings over 30 years from 2019
    - >$7M of additional savings/year starting in 2049
    - over $100M total savings by 2055
  - Increased capital infrastructure investment
    - No 2% annual ratepayer surcharge starting Sep 2019
### Apples to Apples – Aligning Assumptions

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Town</th>
<th>Aquarion</th>
<th>Andersen</th>
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</thead>
<tbody>
<tr>
<td>Operating Cost Inflation –</td>
<td>3.0%</td>
<td>2.2%</td>
<td>3.0%</td>
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<tr>
<td>Not applied to fixed costs for WTP,</td>
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<td></td>
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</tr>
<tr>
<td>financing or depreciation costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Expenditure Cost &amp; Increases</td>
<td>$2.0 million ($5.0 million in 2019)</td>
<td>$2.0 million ($5.0 million in 2019)</td>
<td>Aquarion plan of 8/13/18 through 2022 then 5% inc every 3 years</td>
</tr>
<tr>
<td>Interest Rates - Town (30 Year)</td>
<td>3.75%</td>
<td>3.50% + inc 25 BPS/3 yrs</td>
<td>3.75%</td>
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<tr>
<td>Town (20 Year)</td>
<td>3.50% + inc 25 BPS/3 yrs</td>
<td>5.87% (19-21) 4.99% (22) 3.50% (23 – 49)</td>
<td>3.50% + inc 25 BPS/3 yrs</td>
</tr>
<tr>
<td>Aquarion</td>
<td>5.87% (19-22) 5.32% + Inc every 5 yrs.</td>
<td>5.87% (19-22) 5.32% + Inc every 5 yrs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Town 2020</td>
<td>Aquarion 2020</td>
<td>Town 2048</td>
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<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>---------------</td>
<td>-----------</td>
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<tr>
<td>Operating Costs</td>
<td>$5,489,000</td>
<td>$11,669,000</td>
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<td>Debt Service (Aq. Int. Only)</td>
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<td>Equity Profit</td>
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<td>CAPEX</td>
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<td>$2,700,000</td>
<td>$3,694,000</td>
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<td>Depreciation</td>
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<td>$1,470,000</td>
<td>N/A</td>
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<td>Revenue Requirement</td>
<td>$11,632,000</td>
<td>$12,939,000</td>
<td>$23,497,000</td>
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</table>

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