WHAT IS AMBI?

- 10 Alberta municipalities
- Grant from Alberta Municipal Affairs
- Collaboration to build a framework and allow comparison
- Develop an ongoing benchmarking process

*A benchmark is an established point of reference against which things can be measured and compared*
WHY BENCHMARKING

- Helps to tell the municipal “performance story”
- Sound business practice
- Share knowledge and best practices
- Identifies opportunities for change
- Encourages continuous improvement
- Demonstrates transparency and value for money
- Supports results-based accountability
TWO DIMENSIONS

Efficiency
• a measure of productivity: quantity
• often expressed in cost per unit

Effectiveness
• a measure of value or benefit of service: quality
• often expressed as percentage or rate
Water service is:
- the treatment and distribution of potable water

- First of 10 service areas to be benchmarked
- Other service areas over next 7 months
WATER BENCHMARKS

10 benchmarks measured

- 6 efficiency measures
- 4 effectiveness measures
Stacked graph helps tell the story

- Amortization
- Overhead
- Indirect Costs
- Distribution
- Treatment

City of Medicine Hat

$1,049/ML
2.2 TOTAL WATER COSTS

Total Water System (Cost per ML)
Medicine Hat’s story

- CMH providing value to residents through fiscal sustainability
- Total cost below median at $1,049/ML
- High variability in raw water quality
- CMH amongst largest utilities within comparison group
2.3 DRINKING WATER TREATMENT

Treatment or Purchase (Cost per ML)
2.3 DRINKING WATER TREATMENT

Medicine Hat’s Story

• Treatment cost below median at $404/ML
• Highly variable source water quality
• Savings realized through operational efficiencies and shared services
• CMH has recently completed significant infrastructure upgrades due to regulatory requirements
2.4 DRINKING WATER DISTRIBUTION

Distribution (Cost per KM)
2.4 DRINKING WATER DISTRIBUTION

**Medicine Hat’s Story**

- Distribution cost below median at $15,381/KM of pipe
- Topography and total length of water mains impacts total costs
- CMH currently has a robust Aging Infrastructure Plan which impacts amortization costs
2.7 WATER USAGE

Water Usage – Total (litres per person per day)

- Litres/Person/Day Other
- Litres/Person/Day Residential

Year/Municipality:
- Beaumont
- Okotoks
- Airdrie
- Cochrane
- Wetaskiwin
- Canmore
- Lethbridge
- Medicine Hat
- Banff
Medicine Hat’s Story

• City residential usage approximately
  • 340 litres/person/day

• Benchmark average approximately
  • 200 litres/person/day

• Climate and community values impact usage

• Semi-arid climate in Medicine Hat
2.8 WATER MAIN BREAKS

Water Main Breaks (breaks per year per 100KM)

- Average Age of Infrastructure (years)
- Mains Breaks Per 100 KM Distribution Pipe

Bar chart showing the number of water main breaks per year per 100km, along with the average age of infrastructure in years.
Medicine Hat’s Story

• Average age of infrastructure is 35 years
• Generally older infrastructure = more breaks
• One of lowest number of main breaks at 0.9/100KM despite older infrastructure.
• CMH has a robust aging infrastructure replacement program, highly evolved asset inventory, inspection and preventative maintenance programs
2.10 NON-REVENUE WATER

Non-Revenue Water (%)
Medicine Hat’s Story

- Allows municipalities to identify system loss
- North American benchmark is 16%
- Medicine Hat had 15% non-revenue water in 2014
2.11 RESIDENTIAL WATER BILL

Residential Water Bill for 19m³ water / month

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- Banff
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- Canmore
- Lethbridge
- Okotoks
- Airdrie
- Beaumont
- Medicine Hat
- Wetaskiwin
2.11 RESIDENTIAL WATER BILL

Medicine Hat’s Story

• MH operates on a Full Cost Recovery rate model to ensure financial sustainability

• MH does not bill based on meter size

• MH continues to have total combined utility bill less than median within Alberta
CONCLUSIONS AND NEXT STEPS

• Complete other service area benchmark reports
• Review practices and seek efficiencies where possible
• More participating municipalities = more meaningful comparisons