



# Alberta Municipal Benchmarking Initiative



# 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

# DRINKING WATER

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

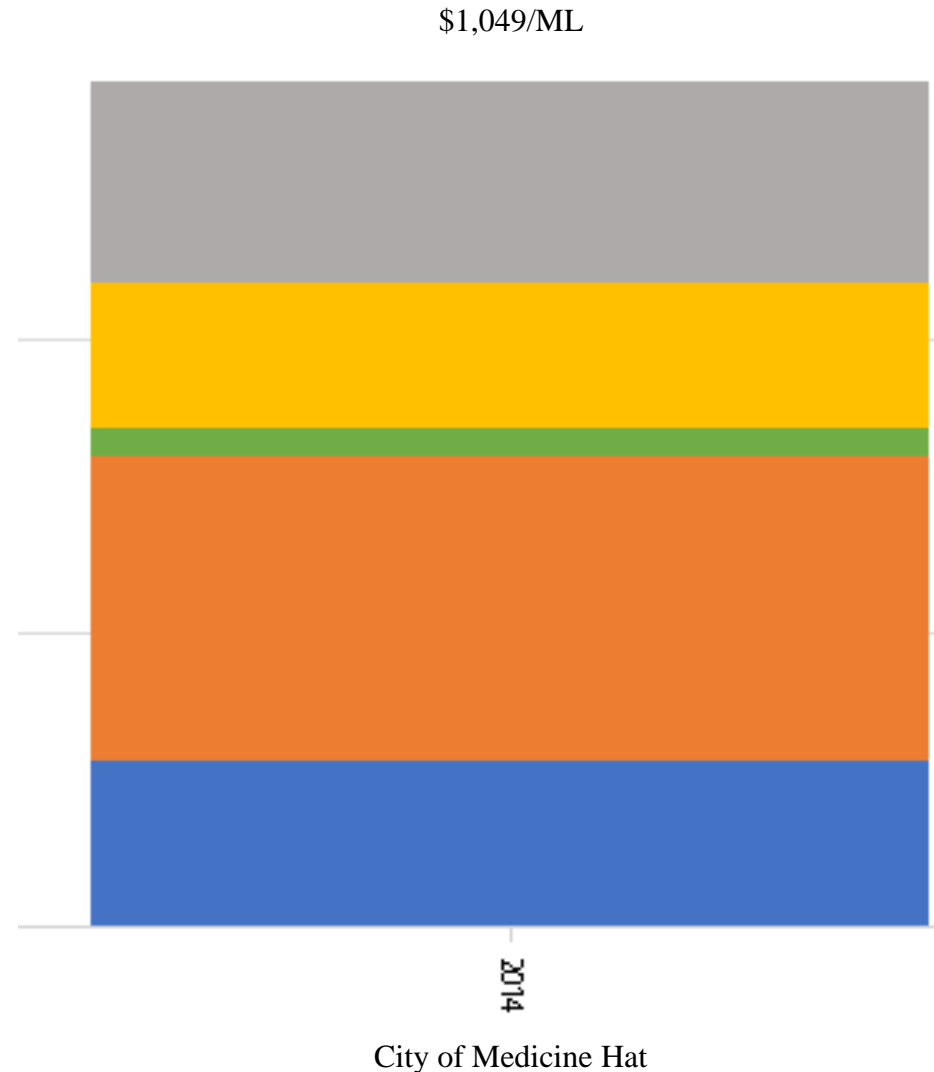
10 benchmarks measured

- 6 efficiency measures
- 4 effectiveness measures

# STACKED GRAPHS

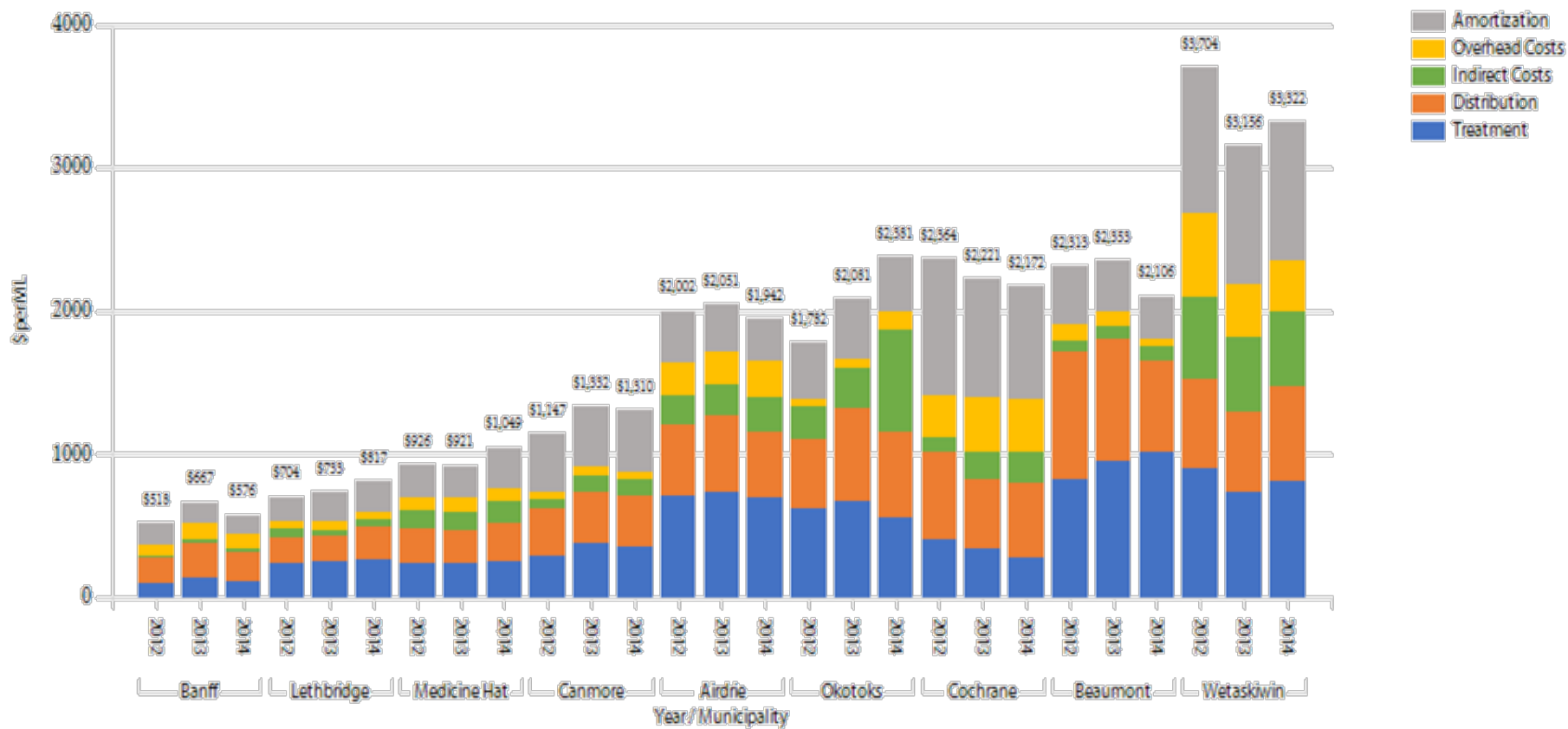
Stacked graph helps tell the story

- Amortization
- Overhead
- Indirect Costs
- Distribution
- Treatment



# 2.2 TOTAL WATER COSTS

Total Water System (Cost per ML)





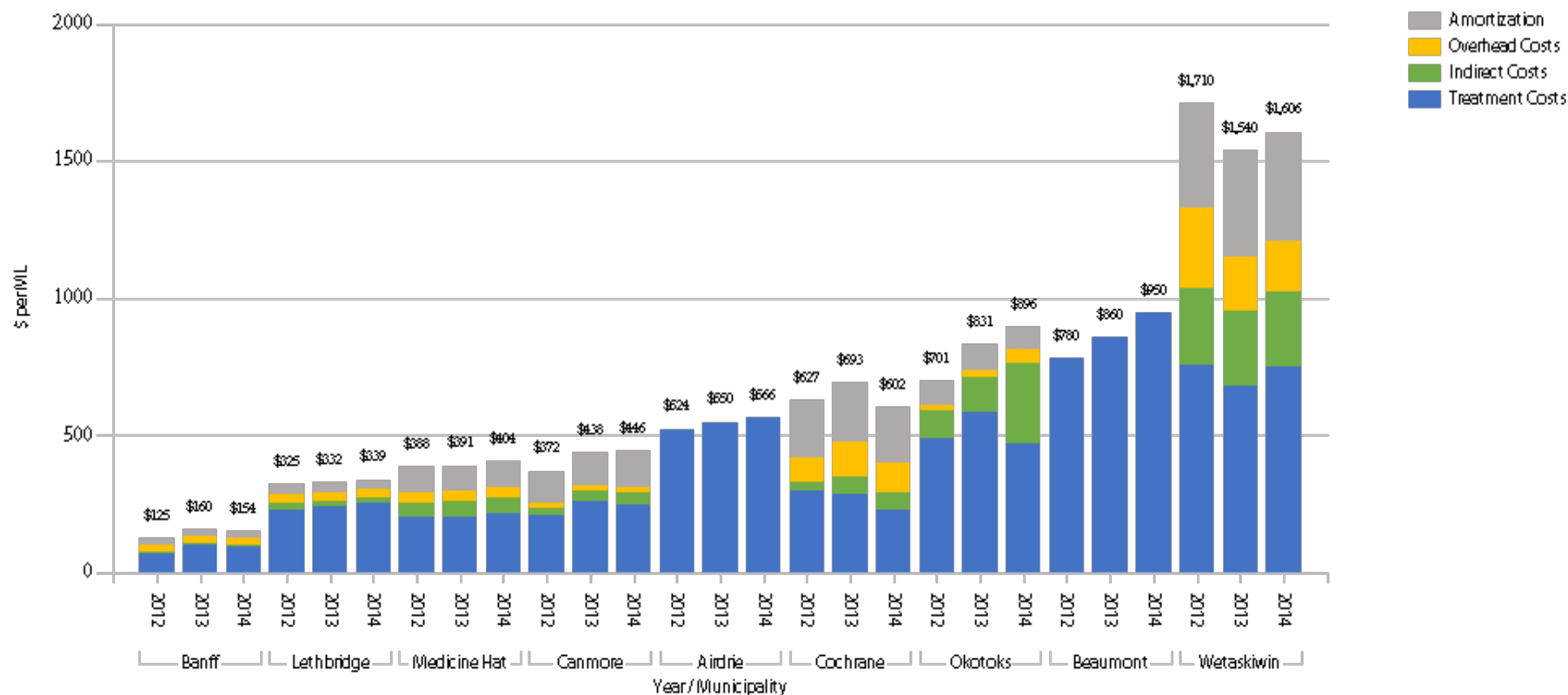
## 2.2 TOTAL WATER COSTS

### **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)



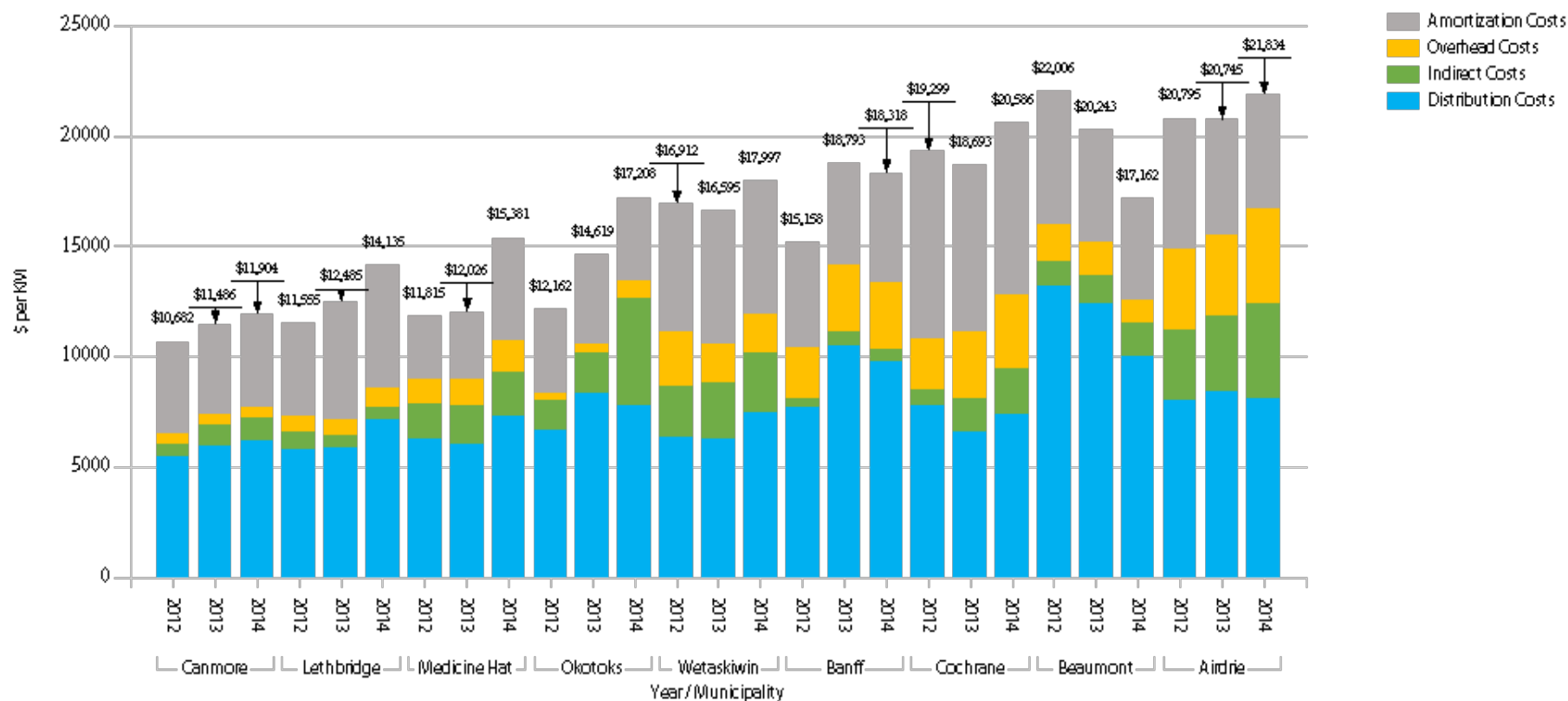
## 2.3 DRINKING WATER TREATMENT

### **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)



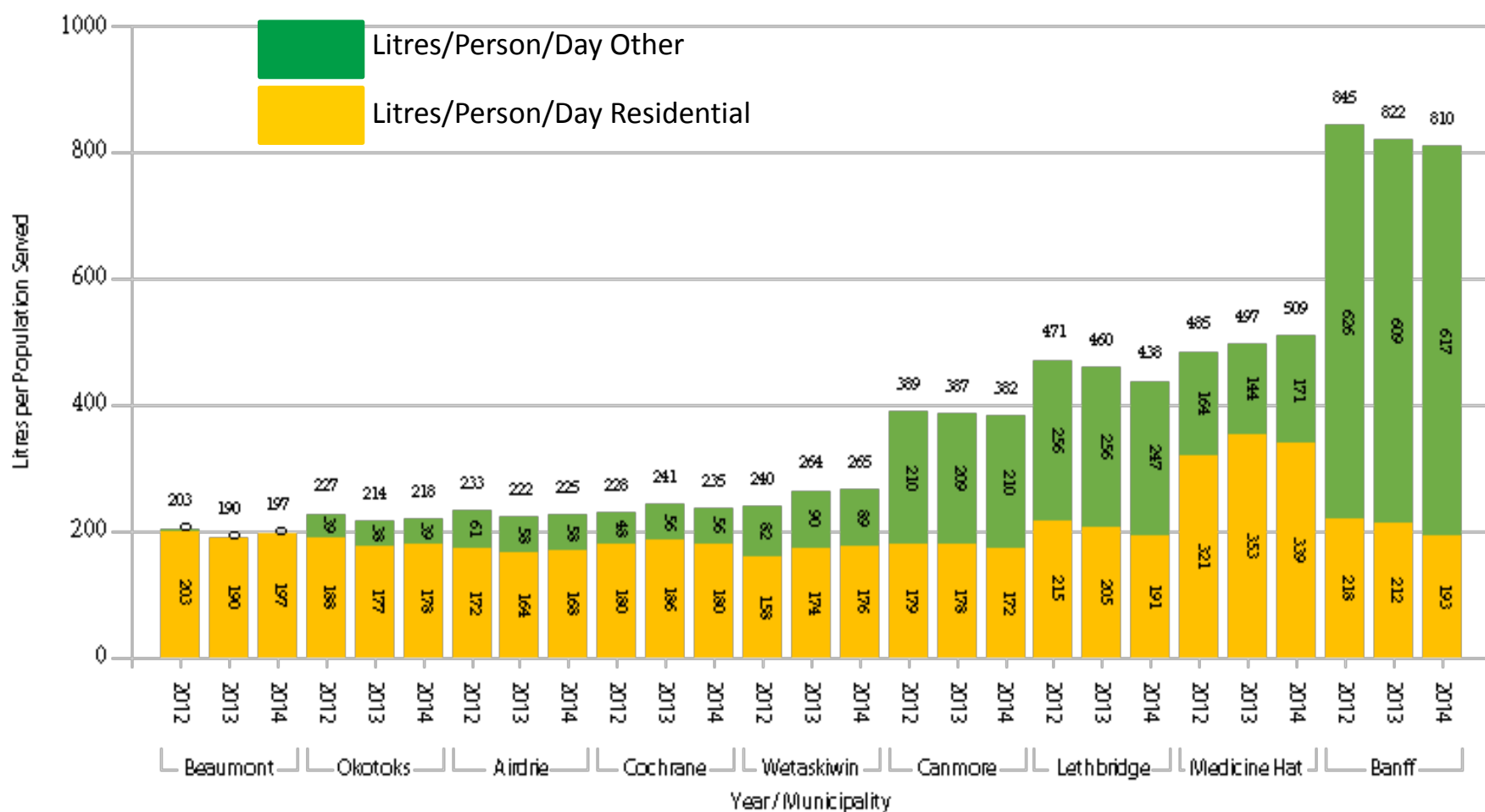
## 2.4 DRINKING WATER DISTRIBUTION

### **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)



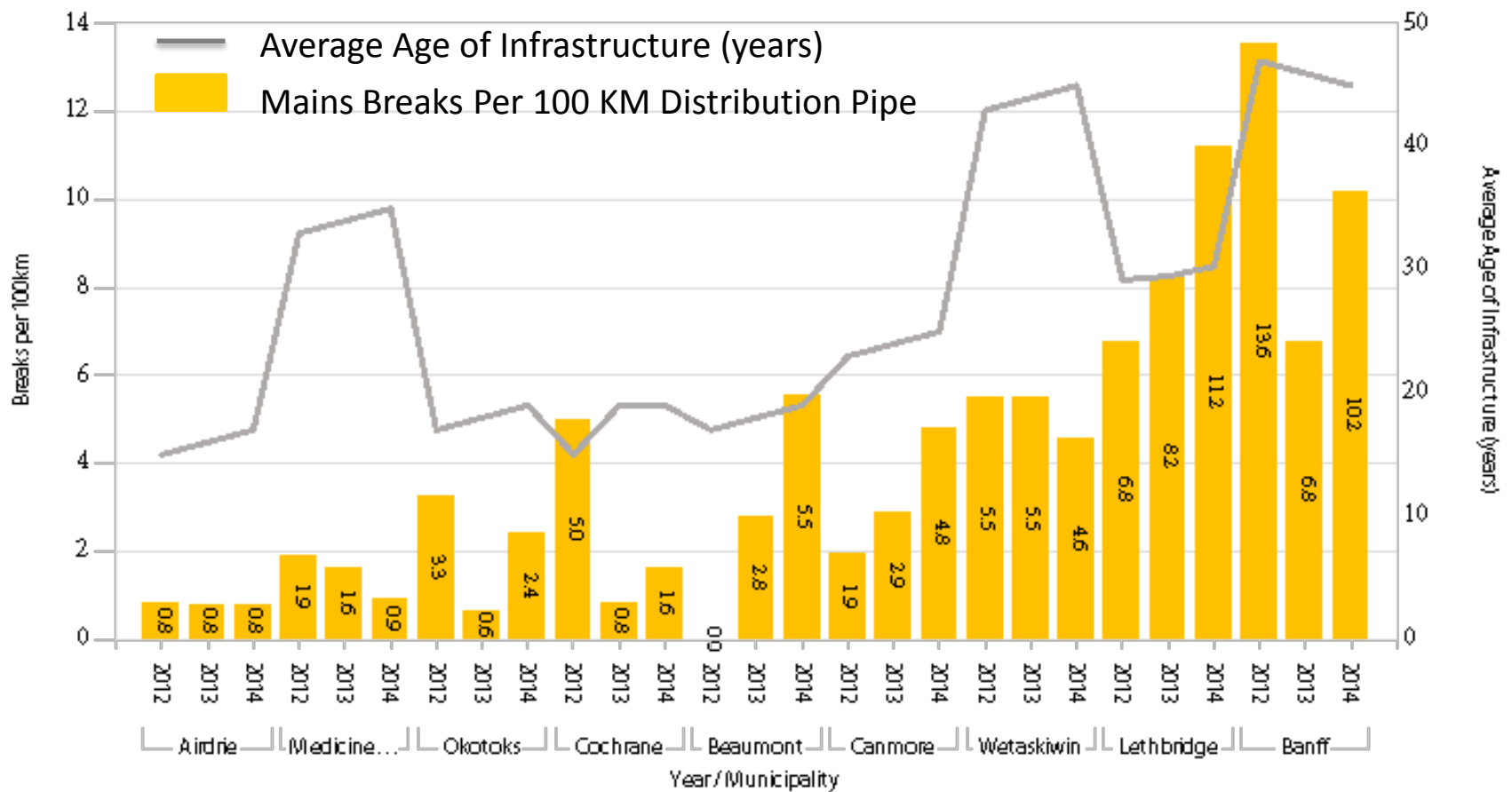
## 2.7 WATER USAGE

### **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)**





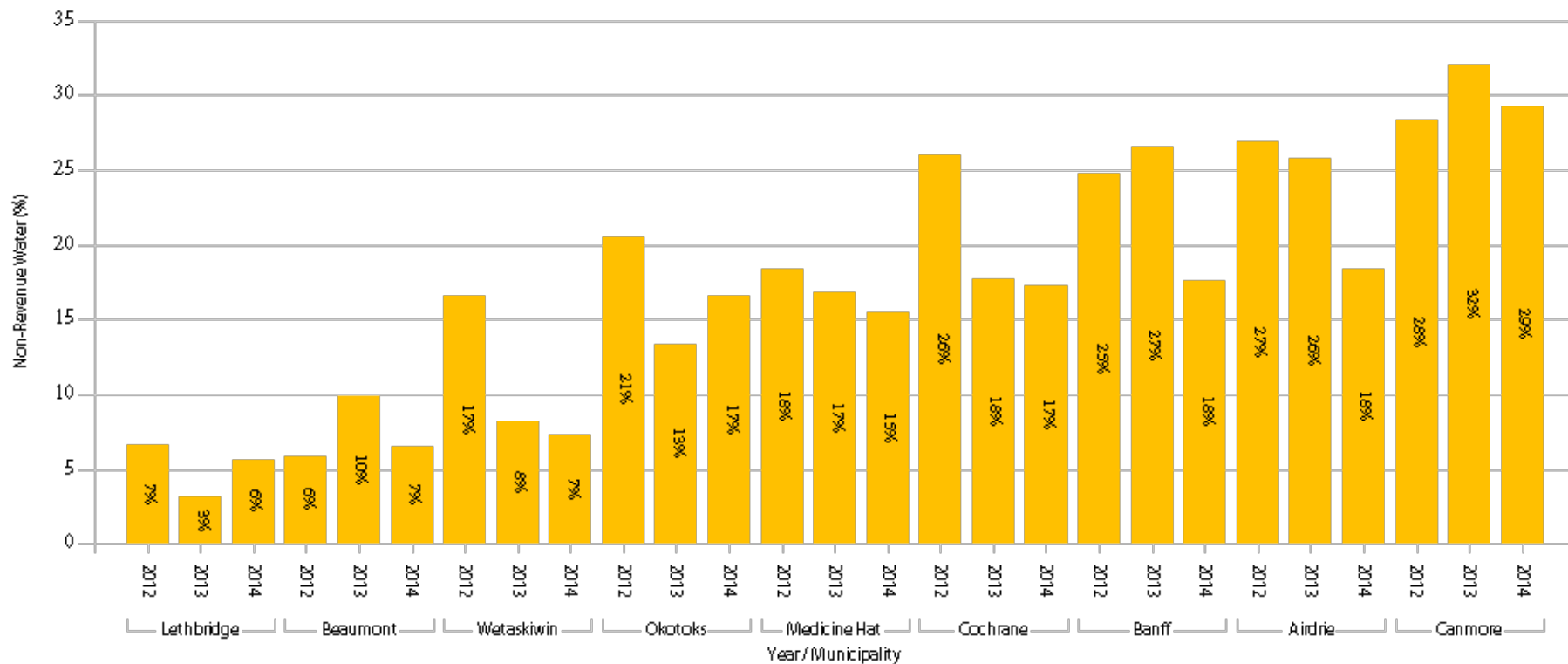
## 2.8 WATER MAIN BREAKS

### **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 (%)



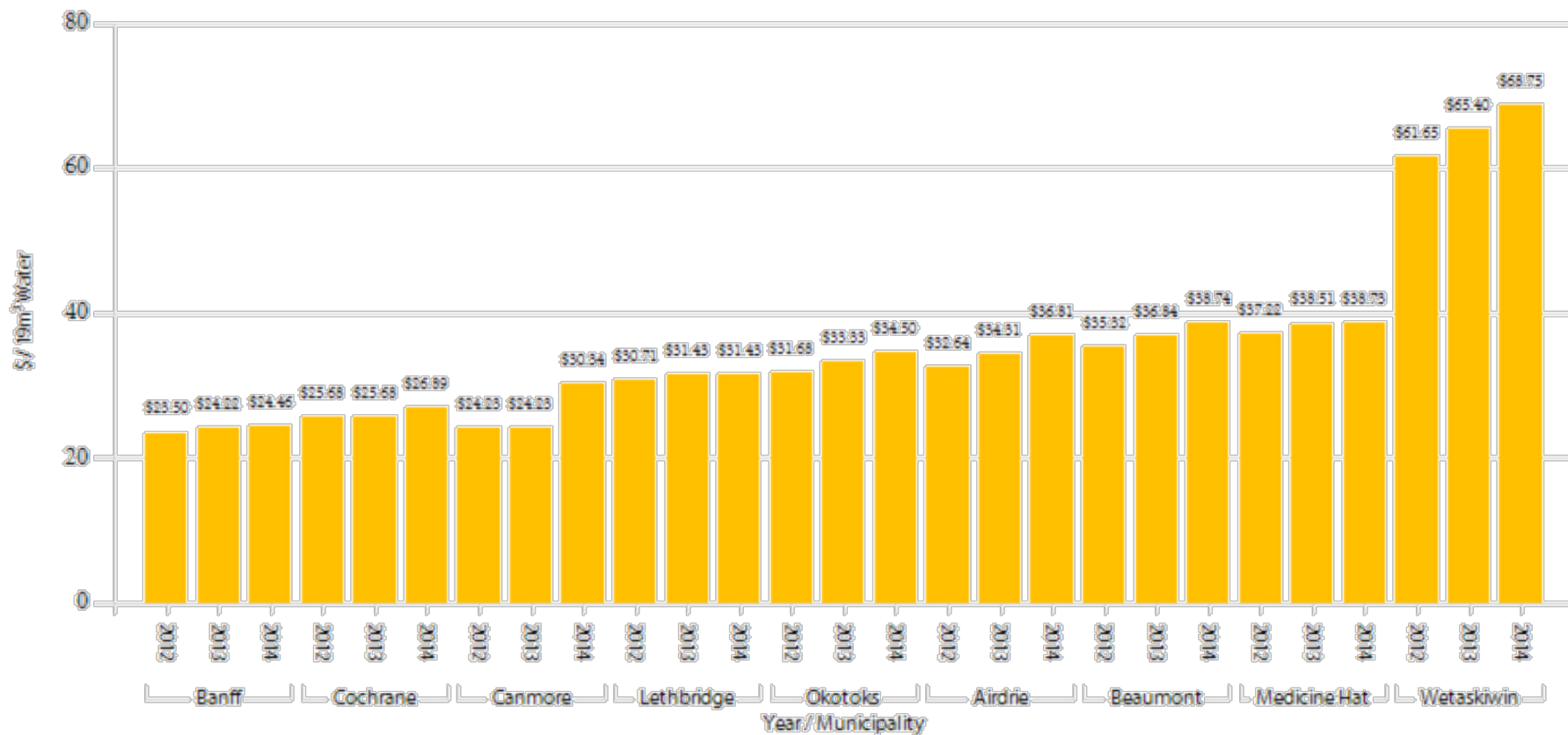
## 2.10 NON-REVENUE WATER

### **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 19m<sup>3</sup> water / month



# 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