




National Water and Wastewater
Benchmarking Initiative

Performance Benchmarking Public Water Utilities Without Getting Soaked: A Canadian Partnership's Experience

EARTH  TECH


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Topics

- What is Benchmarking?
- How did this Benchmarking initiative evolve?
- Why does it work?
- What makes it different?
- How do utilities use the results?

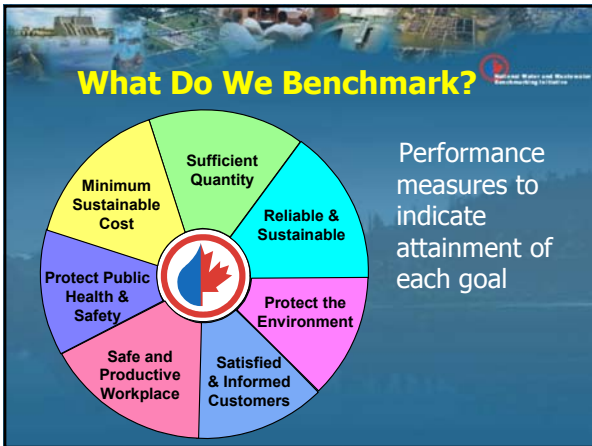


What is Benchmarking?

How well are we doing?
How do we compare?
Are we providing value for money?
How can we improve?









Canada Coast to Coast
 From Halifax to Victoria.....

Representing approximately 60% of Canada's population

Our Approach

- ✦ Onsite data collection
- ✦ Specific definitions
- ✦ Process benchmarking task forces
- ✦ Annual workshop with all participants
 - Networking
 - Facilitated breakout sessions
 - Development of best practices
- ✦ Database & Annual Report
- ✦ Leverage from others

Some Examples

- ✦ Factual data to support infrastructure reinvestment business cases
- ✦ Maintenance Management
- ✦ Water loss task force
- ✦ What is high quality water?

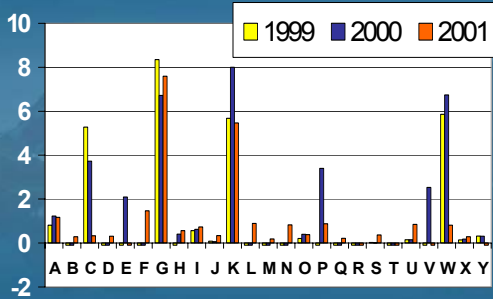
High Quality Water



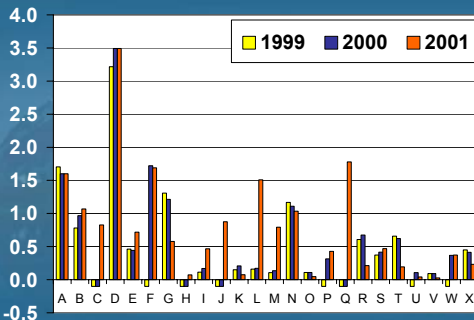
How to measure?


- % of tests in compliance
- Total # of quality tests/regulated tests
- # of water quality complaints ✓
- Average values for parameters eg NTU ✓
- # of occurrences over a group target ✓
- Total # of quality tests/ML treated ✓

Water Quality Complaints/ 1,000 People Served




Total # of Quality Tests/ML treated







Conclusions




- What makes this initiative different from others?
 - Onsite data collection
 - Specific definitions
 - Annual facilitated workshop
 - Process benchmarking task forces



Capital Regional District Water Department








Watershed Protection and Disinfection






- Protected and owned
- 87 square km
- Total storage 92 million m³
- Water is Chlorinated and Chloraminated
- Ave Day Demand 134 MI/d

Transmission System



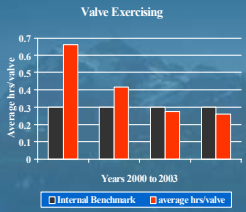
- ✦ All municipalities in Greater Victoria area
- ✦ 85% of total water treated
- ✦ 105 km of pipe
- ✦ Potable storage 50 MI

Distribution System



- ✦ 5 Municipalities
- ✦ 15 % of total water treated
- ✦ Over 15,000 retail customers
- ✦ 346 Km pipe
- ✦ 33 Pump stations
- ✦ 12 Potable Reservoirs
- ✦ Potable storage 11 MI

Why Benchmarking?



Year	Internal Benchmark (hrs/valve)	Average hrs/valve
2000	0.35	0.65
2001	0.30	0.45
2002	0.30	0.25
2003	0.30	0.25

- ✦ Internal benchmarks
- ✦ Management Information and tools
- ✦ Network
- ✦ National Participation

What has Changed?

Stage	Cost (1000 km length)
Early stages	7
Learning curve	3
Data analysis	3
Data recording	10
Do not work in isolation	7
Re-evaluating programs	9
Other	3

- ✦ Early stages
- ✦ Learning curve
- ✦ Data analysis
- ✦ Data recording
- ✦ Do not work in isolation
- ✦ Re-evaluating programs

Have There Been Benefits?

- ✦ Data correction
- ✦ Meaningful Management Info
- ✦ Data recording
- ✦ Networking
- ✦ Results

Future

- ✦ Analyzing data
- ✦ Refining data collection
- ✦ Implementing changes



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Thanks!

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