Asset Management and PSAB

An Operations (Manager's) Perspective

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Do what you do best

Overview

- Resort Municipality of Whistler Case Study
- Benchmarking and Key Performance Initiatives (KPI)
- Continuous Management Cycle
- In Summary

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Case Study: Resort Municipality of Whistler

- Community Profile:
  - Population of 9,248, up 6%
  - 8,751 dwellings, 45% of which are first homes
  - 2.1m annual visits
- Main Champion/visionary
  - Ron Sander, Operations Manager

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Situation

- Required Work Management processes that:
  - Build historic data
  - Provide accessible data
  - Facilitated benchmarking
- Key staff nearing retirement age

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Vision

- Ron's vision:
  - Wanted to systematize methodologies for Project Management and Work Scheduling
  - Wanted a system that through its use would build historical information
  - Needed an asset ledger to keep track of replacement schedules, valuations, etc.
  - Needed data to reinforce Key Performance Indicators (KPIs) and provide information for their benchmarking Initiative

System Requirements

- Need information structured in a way to facilitate the tracking of metrics from the National Water and Wastewater Benchmarking Initiative:
  - System needs to be flexible and customizable
- Provide Work Management, Maintenance Management, Project Management and Asset Management
- System must focus on and support people and process

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Selection Process

- Looked at many systems on the market for a project management and work scheduling system
- Wanted to purchase a system from the provider of their GIS
  - The data sources dovetail together
- How does GIS link everything together?
  - Most of the key assets are in the GIS
    - GIS is a consolidated data source
    - Leverage current assets in GIS
    - Just need to add an AM ID
- Decided on Worktech from Diamond Municipal

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Implementation Plan

- Prioritization of Utilities Department:
  - Starting with Water and Sewer
  - Wastewater
- Following in Parks
  - Employ four hundred staff in the summer
- System completion by the end of the 2007 calendar year

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Benchmarking and Key Performance Indicators (KPI)

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Whistler's Benchmarking Initiative

- Worked with Earth Tech to implement NRC's benchmarking initiatives which track many areas like:
  - Number of hydrants, which have been flushed, staff hours to perform the work, etc.
- Why do Benchmarking:
  - Increase service levels
  - Cost control
  - Environmental Compliance
  - Reduce workplace accidents
  - Ensure that the adequate level of maintenance is being provided
  - In Ontario the Province requires KPIs to be met before providing funding

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How to Report on Benchmark Compliance

- Data for KPIs should be generated from the Work Management System and provided through a data template
  - Critical that the definitions in the Work Management System can be synchronized with those of the *National Water and Wastewater Benchmarking Initiative* and similar initiatives. *(www.nationalbenchmarking.ca)*
- The benchmarking source data:
  - 75% is work activity related
  - 25% is from HR (ie. Sick time, etc.)
- Data from the Work Management System becomes the information base from which to make decisions and to generate metrics

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National Water and Wastewater Benchmarking Initiative, 2007 Public Report

- Started in 1997 with Earth Tech, National Research Council and four participating cities
- Now it has grown to 38 member Municipalities and is the national standard for water and wastewater benchmarking:

  Benchmarking can help Utility Managers to achieve continuous performance improvement towards the utility's goals. But benchmarking and the data collection alone will not provide performance improvement, it is the cycle of monitoring, variance calculation, goal setting and implementation of action plans that close the gap towards performance improvement. By monitoring trends in key business functions, managers can take proactive steps to avoid and resolve issues in the operating environment.

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National Benchmarking Initiative's Utility Goals

- Reliability and Sustainability
- Infrastructure Adequacy
- Cost Efficiency
- Public Health & Safety
- Safe & Productive Work Environment
- Customer Satisfaction
- Environmental Protection

- Success is these areas is measured by 156 discrete benchmarks

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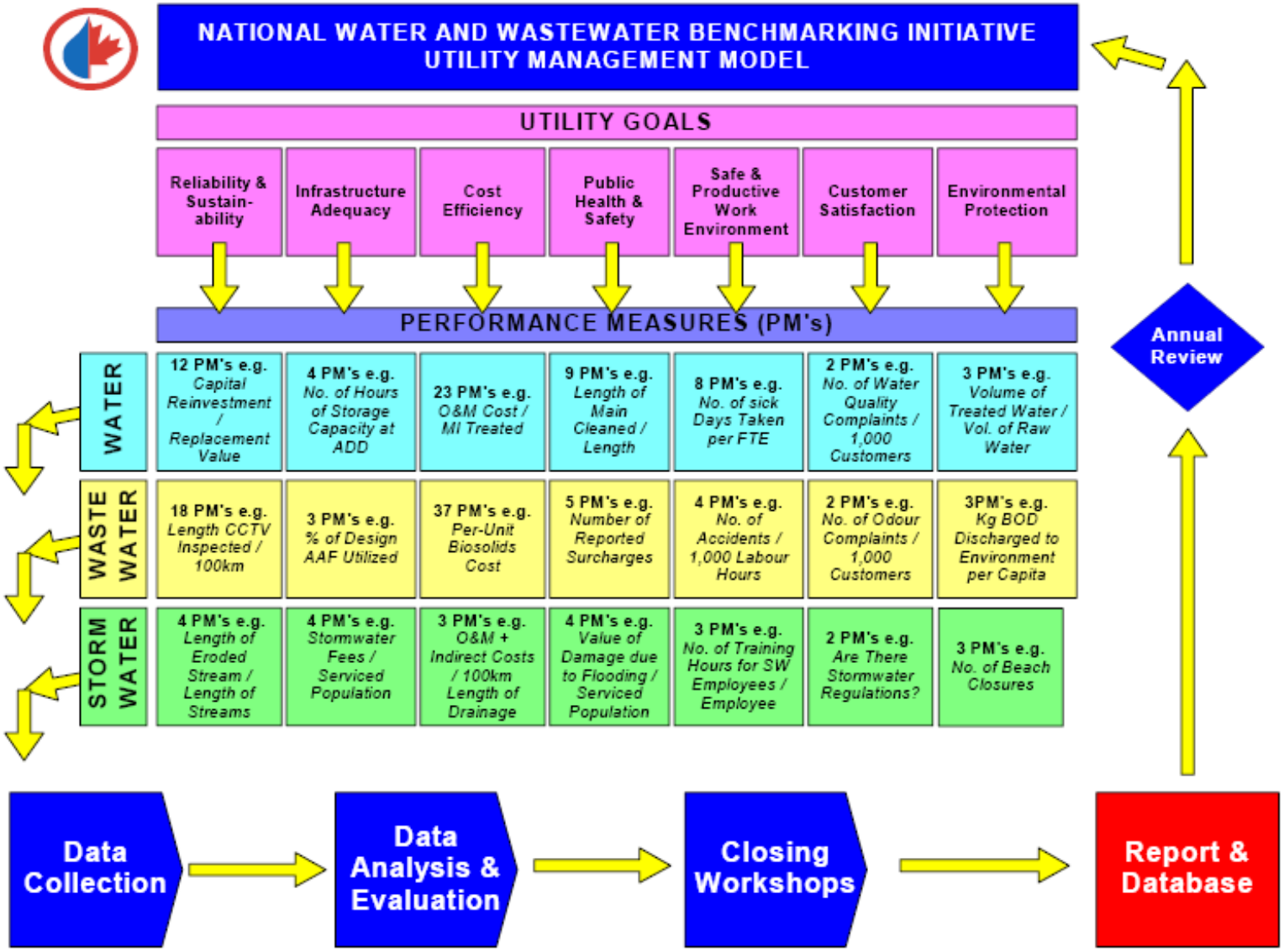

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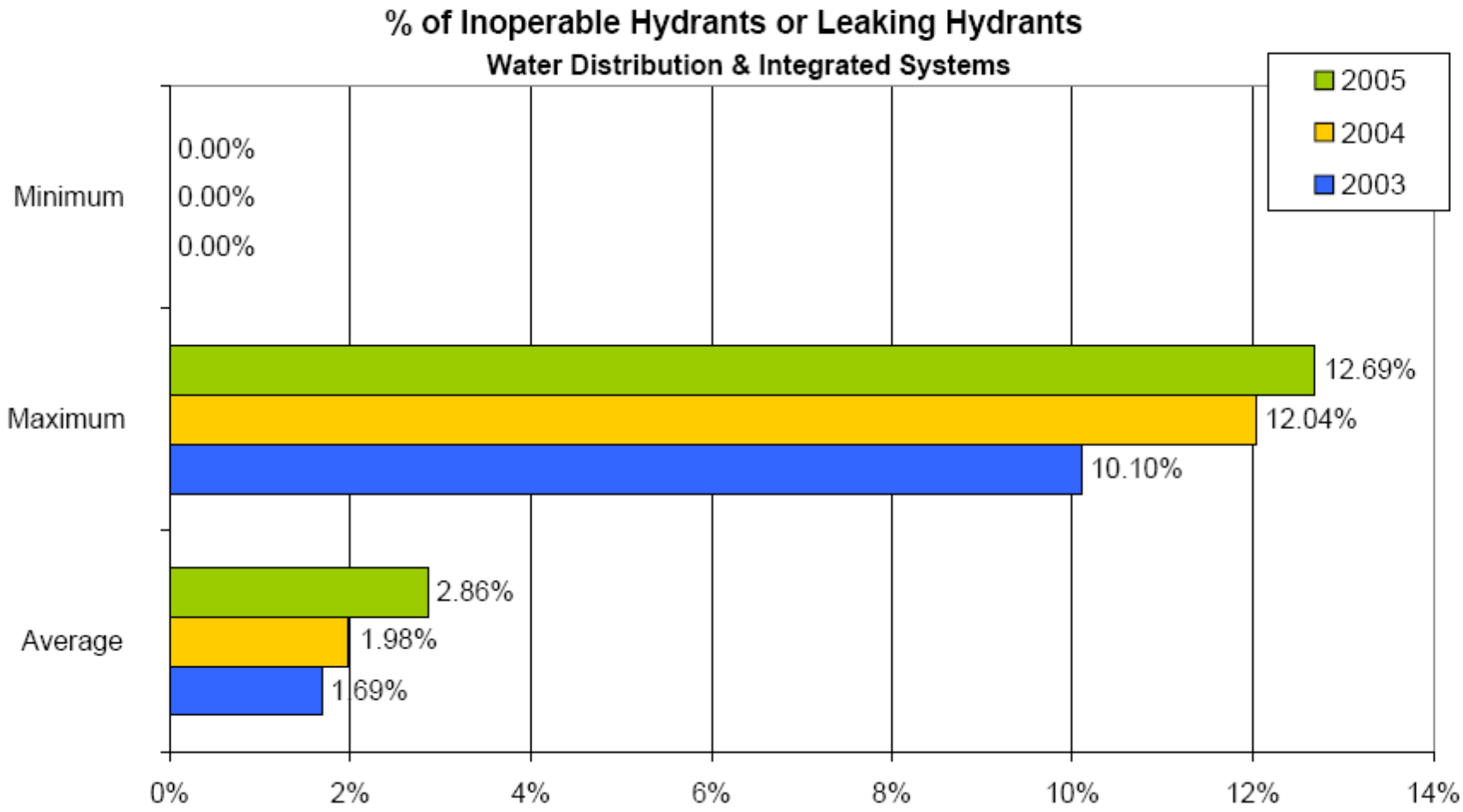
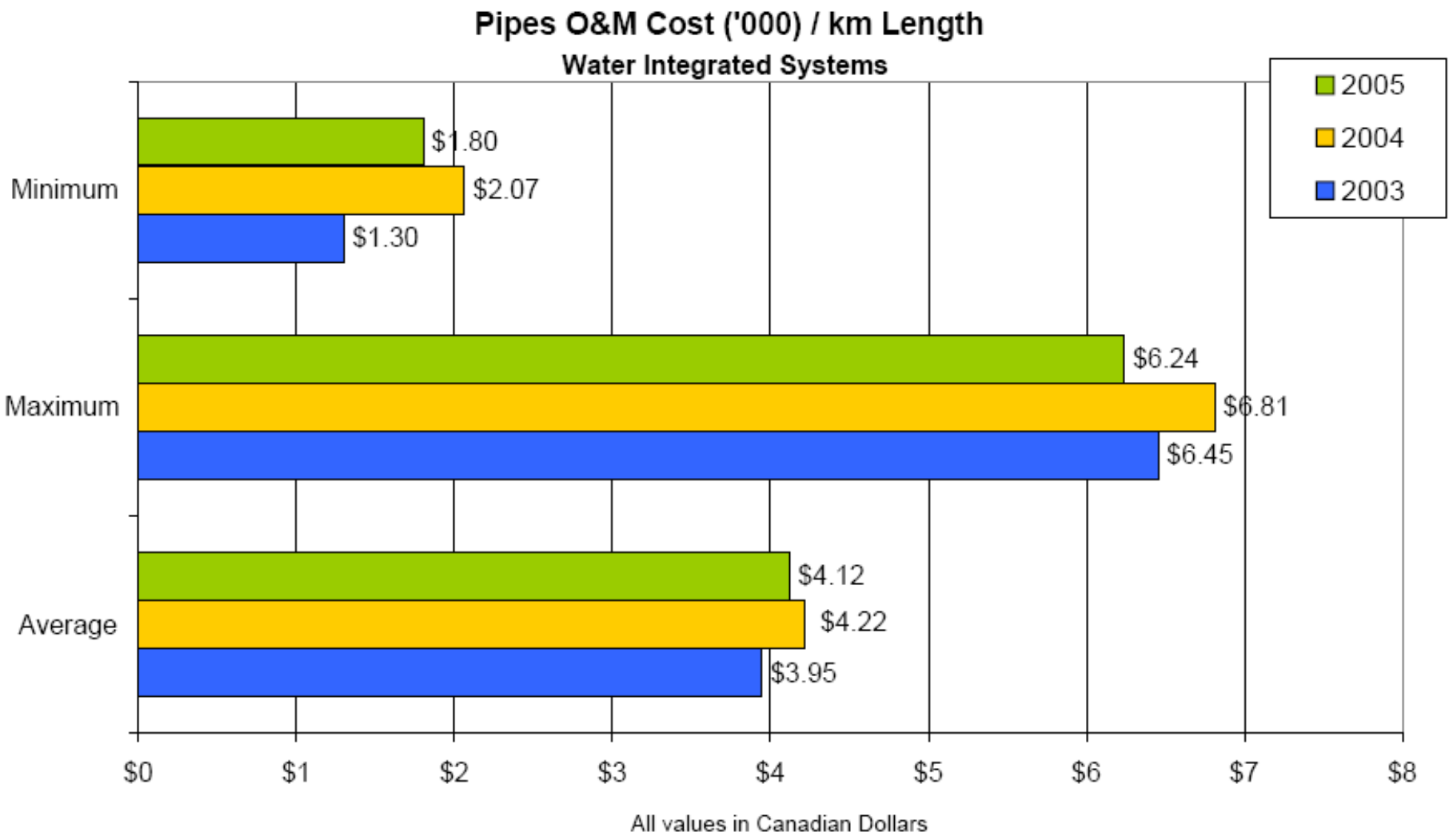
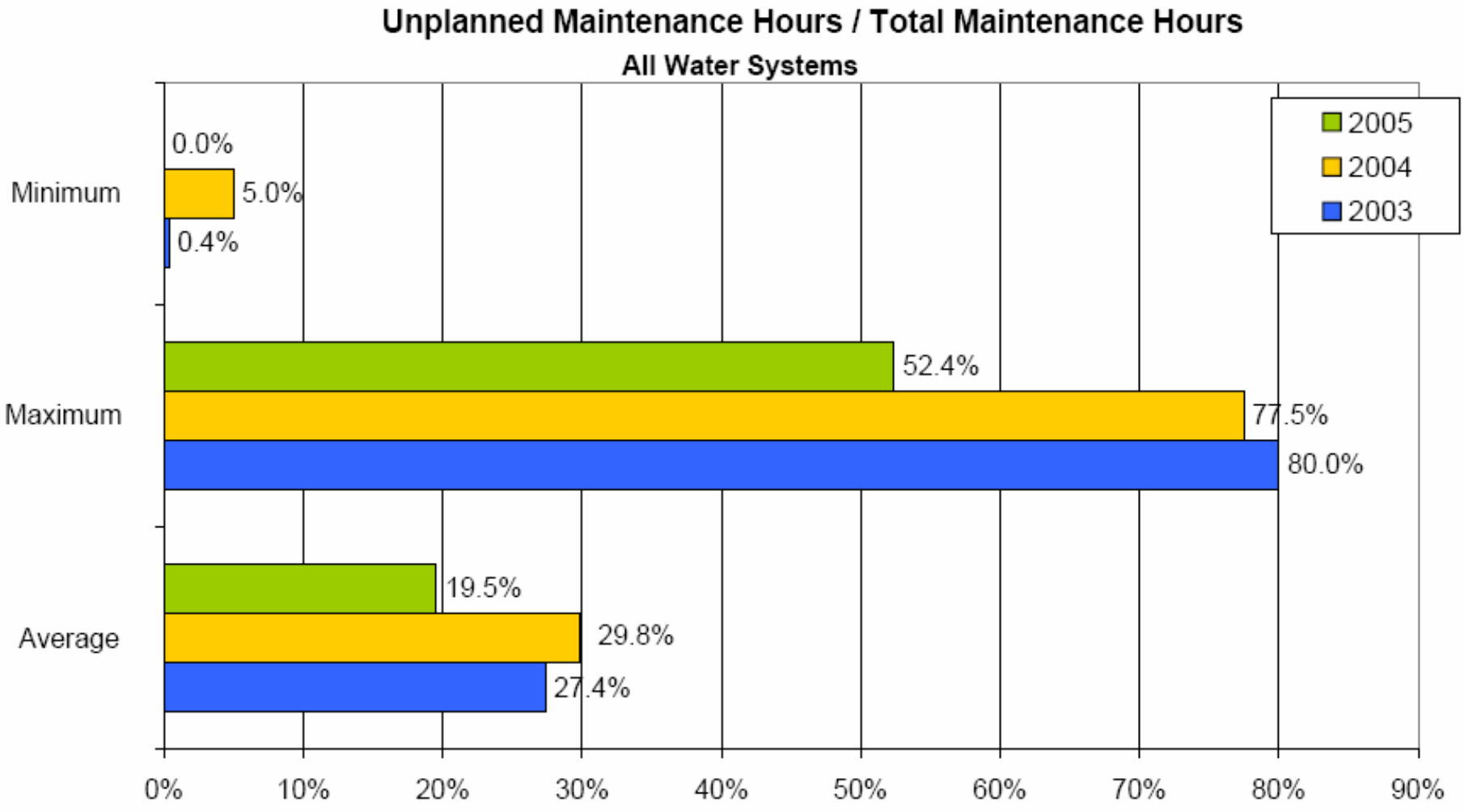

% of Inoperable Hydrants or Leaking Hydrants
Water Distribution & Integrated Systems
2005
2004
2003
Minimum
0.00%
0.00%
0.00%
Maximum
12.69%
12.04%
10.10%
Average
2.86%
1.98%
1.69%
0%
2%
4%
6%
8%
10%
12%
14%


Pipes O&M Cost ('000) / km Length
Water Integrated Systems
2005
2004
2003
Minimum
$1.80
$2.07
$1.30
Maximum
$6.24
$6.81
$6.45
Average
$4.12
$4.22
$3.95
$0
$1
$2
$3
$4
$5
$6
$7
$8
All values in Canadian Dollars


Unplanned Maintenance Hours / Total Maintenance Hours
All Water Systems
2005
2004
2003
Minimum
Maximum
Average
0.0%
5.0%
0.4%
52.4%
77.5%
80.0%
19.5%
29.8%
27.4%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%

Who's Involved

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Continuous Management Cycle

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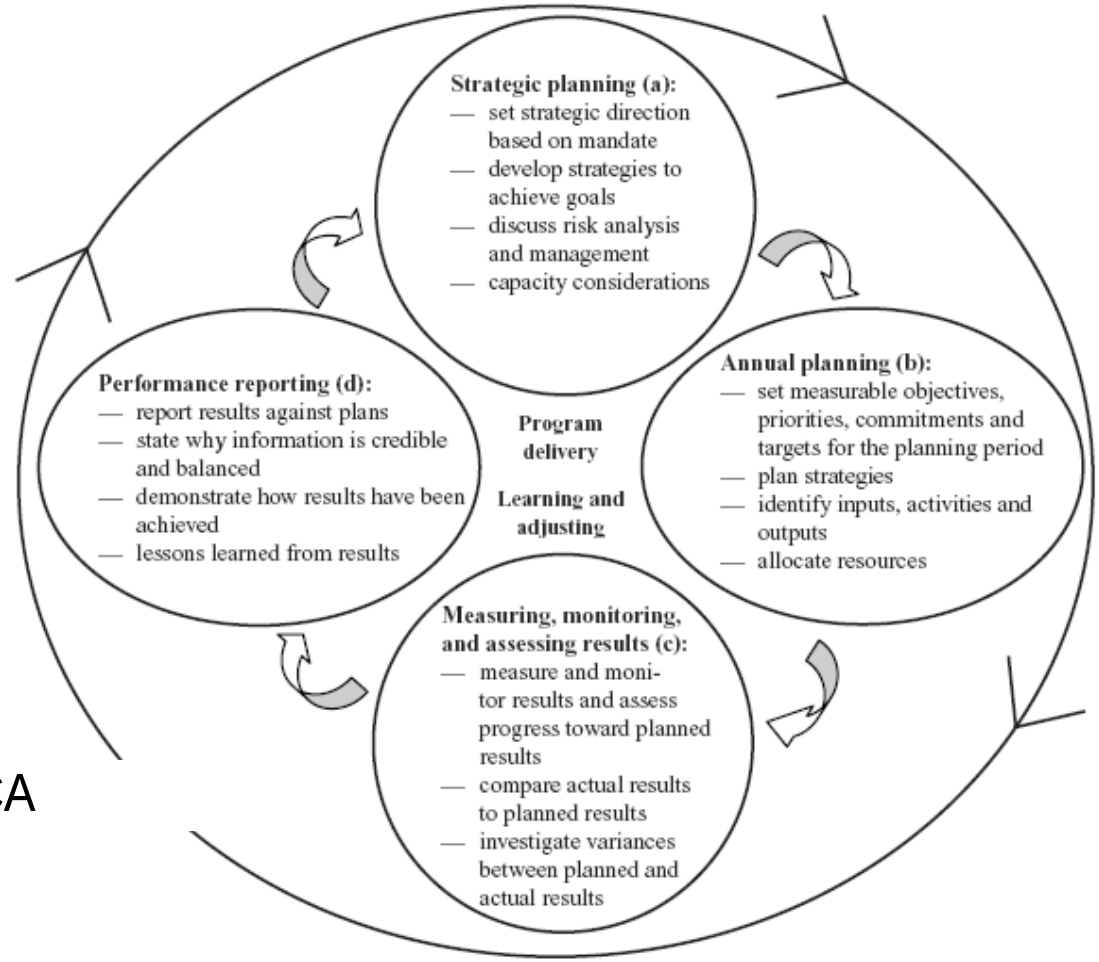
Supporting the Continuous Management Cycle



*From PSAB of CICA

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Supporting the Continuous Management Cycle

a) Strategic Planning

- Set strategic direction based on mandate
- Develop strategies to achieve goals
- Discuss risk analysis and management
- Capacity considerations

*From PSAB of CICA

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Supporting the Continuous Management Cycle

b) Annual Planning

- Set measurable objectives, priorities, commitments and targets for the planning period
- Plan strategies
- Identify inputs, activities and outputs
- Allocate resources

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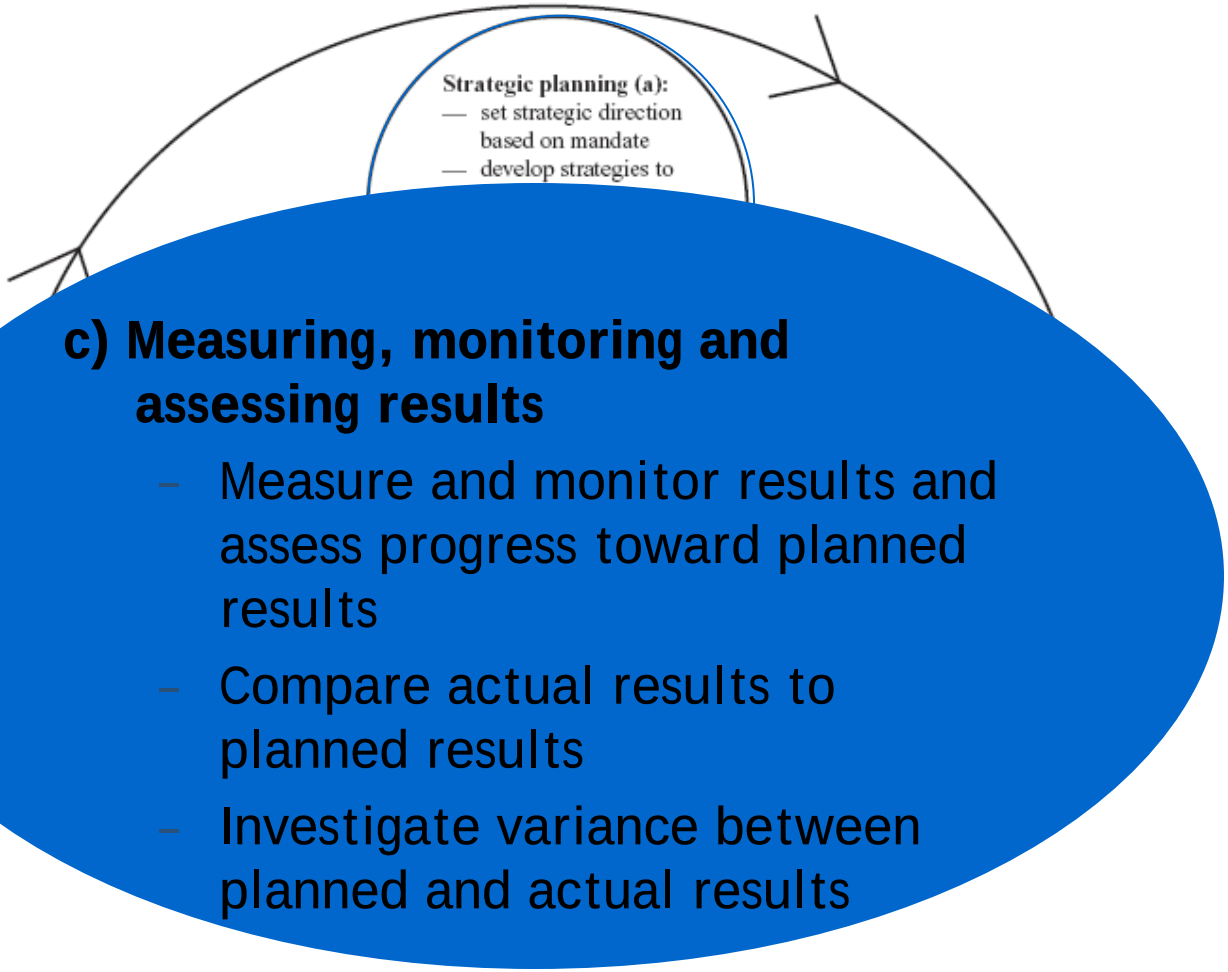

c) Measuring, monitoring and assessing results

- Measure and monitor results and assess progress toward planned results
- Compare actual results to planned results
- Investigate variance between planned and actual results

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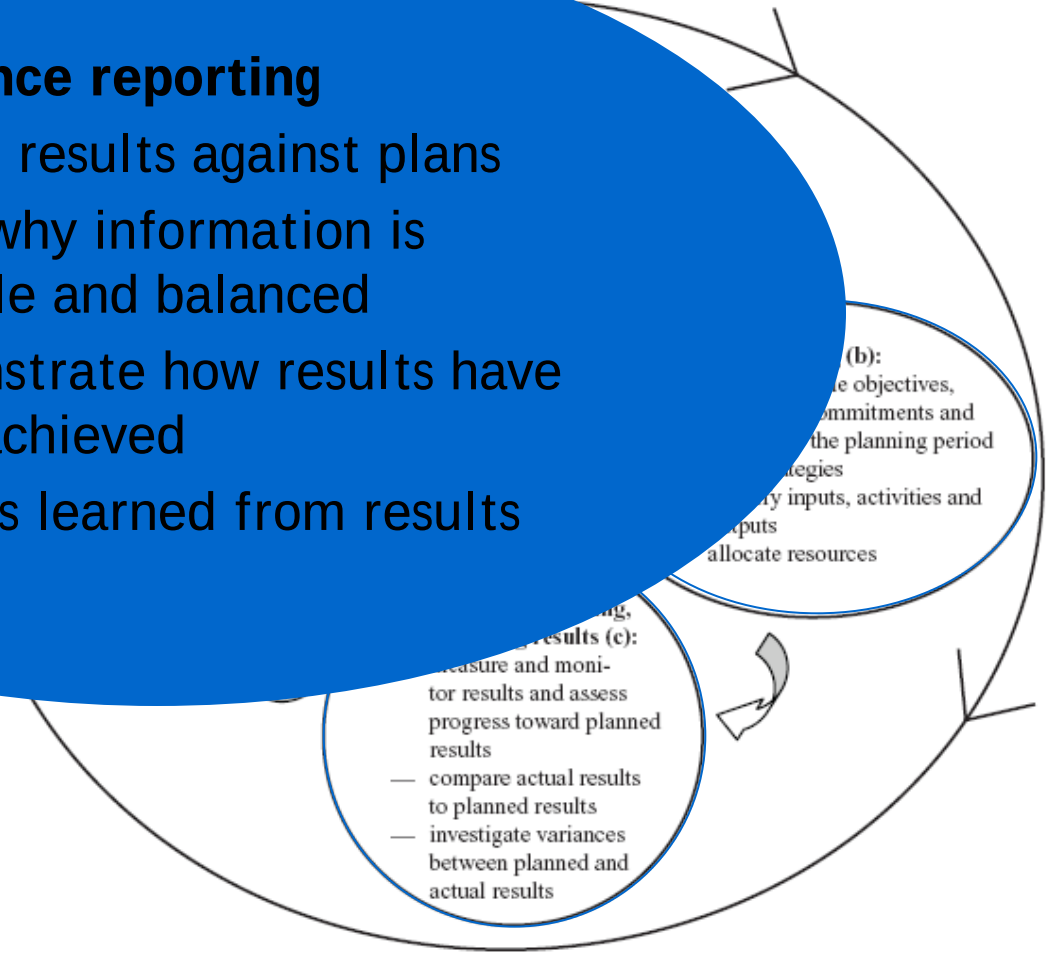
Supporting the Continuous Management Cycle

d) Performance reporting

- Report results against plans
- State why information is credible and balanced
- Demonstrate how results have been achieved
- Lessons learned from results



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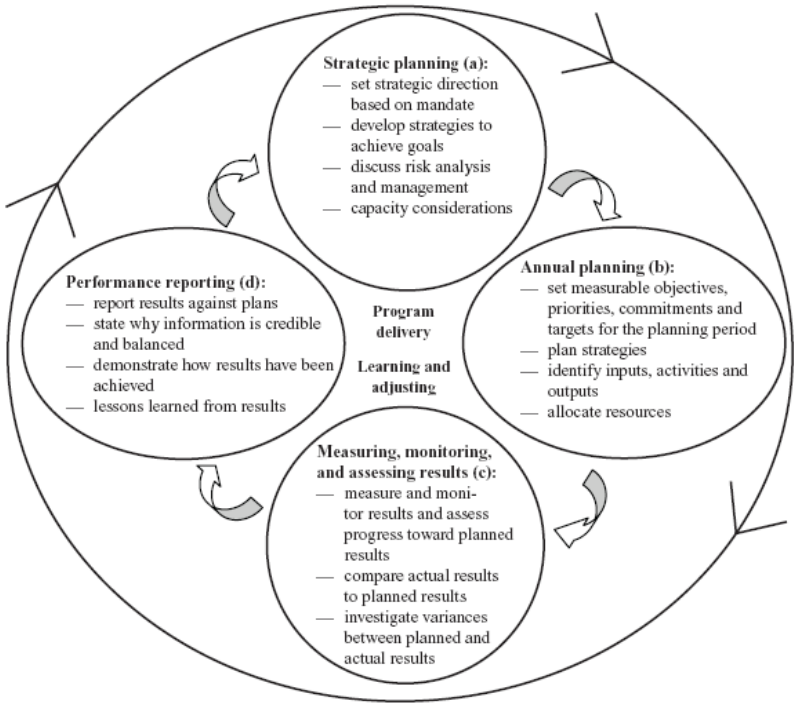
Supporting the Continuous Management Cycle

- The key:
  - Business systems must provide data to support the Continuous Management Cycle
  - This promotes process improvement over time



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Budgeting and PSAB Compliance

- Need information for prioritizing replacement programs
- Depreciation of assets in ledger
- Residual value of assets in ledger
- Information for PSAB compliance is a by-product of the system
- PSAB compliance didn't drive further budget for this initiative

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In Summary

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In Summary: What Data from Current Systems Will Provide

What do we have? *(GIS and DB Data)*

- Identify what assets you have and where they are located.
- Asset characteristics and specifications.
- Above or below ground.

What is it **worth**? *(Financial or Property Mgmt Systems)*

- Actual value of the asset during it's lifecycle.

Depreciate the asset and it's value over a period of time.

Is the cost of maintaining it worth the value of the asset and its standard of service.

What **condition** is it in? *(Service / Score Cards, Maintenance Tools)*

Rate the level of risk based on condition of the asset.

How much you can extend the life of the asset.

Asset history or benchmarking/score carding

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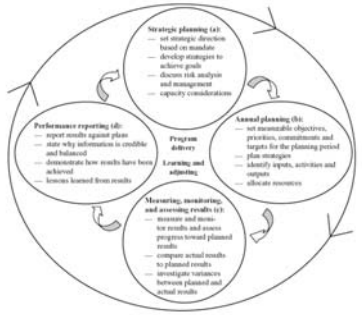
How will Whistler look Next Year?

- The same information is now required for four reasons (motivating stakeholder buy-in):
  - Project Management – work scheduling
  - History
  - Benchmarking/KPI
  - Asset Management – PSAB compliance



- KPIs and benchmarks will be reportable out of the system

"It all just fits together"

- The goal will have been met:
  - Business information will be provided as part of the process
    - Anticipate that additional staff will not be required
    - The flywheel of the Continuous Management Cycle will be spinning

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Foundation for Whistler's Future Plans

- A relentless drive for more data sources:
  - Confirming all hard assets as part of all future programs. For example, this summer:
    - GPS program for location confirmation
    - During unidirectional flushing program will collect more information
- Laptops in the field with wireless connection

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Thank you

Interviewed for this presentation:

- Ron Sanders, Resort Municipality of Whistler
- David Main, Earth Tech

Please join us for ‘drinks on us’ in the Lounge following the event.

Chris Webber

cw@pat.ca

604.676.6000

www.pat.ca

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