



Only **Tap Water** Delivers



2006 **Canmore Utilities** Performance Report

**EPCOR**



# 2006

CANMORE UTILITIES PERFORMANCE REPORT





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## INTRODUCTION

*Only Tap Water Delivers public health, fire protection, support for the economy and quality of life. Your tap water - it's safe, reliable and when compared to other water options, very affordable. Your water bills pay for the stewardship of local water resources and the processes required to deliver safe and sustainable water to the community.*

The 2006 Performance Report provides an overview of the successes and improvement opportunities within the Town of Canmore utility system in 2006. Our key measures include a full range of activities, summarized under the headings of Quality and Efficiency, Customer Care and Community, Regulatory and Environment, Safety and Capital and Rehabilitation Programs.

EPCOR has had a successful year of operations in Canmore and would like to extend our appreciation to the Town Administration for their continued support and assistance. We look forward to the challenges and successes of our partnership in 2007.

## BACKGROUND

The contract with EPCOR Water Services is one of the most comprehensive in Canada, including water and wastewater treatment, water distribution, wastewater collection, storm drainage, biosolids composting, meter reading, billing and account management. The Town is supplied with water from two sources: the Spray Lake's reservoir system and a groundwater aquifer. The former is treated by filtration and ultraviolet UV filters (the second municipality to do so in Alberta), and the latter by chlorination. Total capacity of the wastewater treatment plant is 20 megalitres per day.

The ten-year fixed-price performance-based utility management contract was signed in May 2000, with a five-year renewal in January 2005. The Town continues to own all of the assets (plant and distribution). EPCOR is required to meet detailed performance levels in environmental compliance, safety, quality and efficiency and customer service that are all set by the Town and corresponding provincial regulations. A capital program and operations budget is approved yearly by Town Council, along with detailed reporting of several performance indicators. As capital works are identified, EPCOR also acts as project manager and receives a project-specific management fee. Responsibility for aggressive leak detection and repair as well as risks for life-cycle costs and emergency repairs has been transferred to EPCOR in the past two years and funded through annual contributions to the Rehabilitation Reserve. The Operation and Maintenance contract is a fixed price, but with annual changes to inflation, labour and utility costs. Thus, all operational risk was transferred to EPCOR.

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## QUALITY & EFFICIENCY

Quality and efficiency have been enhanced through diligent operations and high quality standards. All provincial regulatory requirements have been met and or exceeded as required by Alberta Environment.

### HIGHLIGHTS

- Completed 4878 water quality tests and 1988 wastewater tests in compliance with the approval for water requirements. Tests completed by Canmore operations staff with Quality Assurance support from the EPCOR Lab in Edmonton.
- Preventive maintenance activities on the water, wastewater, distribution, collection and stormwater facilities, met or exceeded targets. The ongoing preventive maintenance program work and maintenance activities include, but are not limited to the following: *Testing and/or servicing for emergency power generators and batteries, pumps, electrical panels, lift station wet wells and load testing, heating and ventilation systems, cranes and hoists, emergency lighting systems, fire alarm panels, fire extinguishers, pressure reducing valves, aerators, belt press, air relief valves, clarifiers, digesters, grit handling systems, water and wastewater filters, blowers, control and alarm systems, air compressors, disinfection systems, reservoirs, chemical feed systems, grounds maintenance, snow removal, vehicle maintenance, distribution system main lines and valves, collection system main lines, and manholes. As well as, stormwater drywells, catch basins, oil & grit separators and outfalls.*
- Regulatory and operational reports required on a monthly basis or on an as-needed basis were submitted on schedule.
- Reports on staffing, maintenance procedures, rehabilitation budget accounting, one and five year capital budgets, quality management, insurance and WCB coverage were submitted to meet contract requirements.
- Monthly Electronic Billing Reports for the metering program were submitted on schedule.
- Scheduled cleaning and flushing of the sanitary mains was completed, which included the entire downtown flats.
- Annual inspections and adjustments to all pressure reducing valves complete, with new settings entered into the hydraulic model.
- Operational gains were made in 2006 through the concerted effort to calibrate the Synergy hydraulic model, and balance the pressure zones.
- Increased operational efficiencies and reliability through implementation of a complex work management system used to schedule, log and track all preventive and corrective maintenance activities.

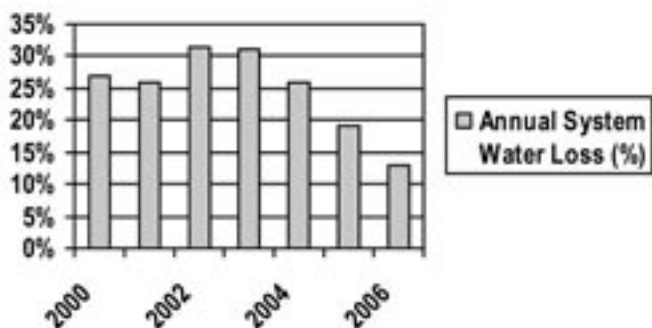
- A fulltime millwright compliments Canmore’s maintenance department supported by additional trades from EPCOR’s Edmonton based maintenance crew on monthly scheduled visits.
- Successful recruiting also saw the addition of a Level IV waste water operator join the Canmore team. Additionally a number of operators successfully challenged regulatory exams, thereby advancing their qualifications and deepening the operation team’s credentials.

EPCOR employees work to ensure that the water provided to the community meets or exceeds standards and expectations for safety, reliability and quality.

<b>QUALITY AND EFFICIENCY INDEX</b>					
<b>ACTIVITY</b>	<b>ACTUAL VALUES</b>				<b>TARGET VALUES</b>
	<b>2002/2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	
Quality Assurance & Quality Control Measures	461	1256	1268	1065	300
% Completion of Preventive Maintenance (PM) Activities	85%	100%	100%	100%	100%
% Completion of Contract Reporting Requirements	89%	100%	100%	100%	100%

- Significant reduction in system water loss has been achieved as a result of ongoing leak detection and repairs as well as a meter calibration program for all large water users. System water losses have been reduced from 32% in 2002 to 13% in 2006.

### **SYSTEM WATER LOSSES**



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## CUSTOMER CARE AND COMMUNITY

EPCOR staff provides 24 hour emergency services, is available to answer customer questions and is committed to resolving customer concerns in a timely manner. A variety of information, including water efficiency is available through the EPCOR website. EPCOR is proud to actively support the community and we strive to build sustainable partnerships that enhance community life and promote wellness.

### HIGHLIGHTS

- Sponsorship of the Canmore Children’s Festival.
- Sponsorship of Comedy Cares – International Street Performers visit to the Canmore General Hospital.
- Sponsorship of public swim and public skate during the Christmas holiday season.
- Sponsorship of the Canmore’s Planning and Development Department “Stroke and Chew” event.
- Participation in “The Big Bow Float” providing information on water efficiency and watershed.
- Commitment towards fundraising event for the Canmore and Area Health Care Foundation.
- Offering of EPCOR’s School Education program.
- EPCOR Essential Volunteers Program – Helping Hands Grant.
- Member of the Bow River Basin Council.
- Support to the Bow Valley SPCA.
- Sponsor of the Road to Champions.
- EPCOR stage at the Canmore Folk Festival.
- Ongoing support for the Canmore Fire Department.

### CUSTOMER SERVICE INDEX

ACTIVITY	ACTUAL VALUES				TARGET VALUES
	2002/2003	2004	2005	2006	
% of Service Outages Restored in Less than 24 hrs	94%	100%	100%	100%	90%
External Customers Satisfaction Survey	92%	95%	N/A	N/A	80%
Community Events	12	11	9	13	4
Internal Customer Satisfaction	100%	100%	100%	100%	100%





## REGULATORY AND ENVIRONMENT

All regulatory and environmental requirements have been met or exceeded.

### HIGHLIGHTS

- Continuous improvement through a reduced number of environmental releases and contraventions to the Approval to Operate below prior year's levels.
- Met and exceeded regulatory and environmental requirements better than 99.9% of the time.
- Reporting of Water Quality data and all regulatory reporting was met as required.
- Implementation of process changes at all facilities to prevent violations and environmental releases.
- Extensive training and development has been completed to ensure that operators are proficient in performing government required testing. Quarterly audits from Edmonton Quality assurance staff assures the highest standard is maintained.
- Scrutinized the new Alberta Environment Standards and Guidelines and provided the Town with a comprehensive gap analysis with recommended upgrades and budgets to meet these new regulations.

### REGULATORY AND ENVIRONMENTAL INDEX

ACTIVITY	ACTUAL VALUES				TARGET VALUES
	2002/2003	2004	2005	2006	
Violation to the Approval to Operate License	1	13	5	4	6
Environmental Releases	4	7	2	0	9
Proactive Activities	8	32	15	6	9
Completion of Required Regulatory Reporting	100%	100%	100%	100%	100%

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## SAFETY

EPCOR is committed to the ongoing safety of our employees with the promotion of safe work practices incorporated into regular work activities with regular inspections conducted in all work areas. Lost time incidents are reported monthly and a target of zero is set annually.

### HIGHLIGHTS

- No lost time incidents for any employees.
- Continued focus on safety training for all employees. Implementation of a Behavior Based Training Program.
- First Aid and 'Confined Space Entry' training completed by all new staff, with refresher training completed by several existing staff members.
- Continued use of a safety orientation program for new employees and contractors.
- Safe work plans, confined space entry permits and preventive talks were tools that continued to be used in the Canmore Operations.

### SAFETY INDEX

ACTIVITY	ACTUAL VALUES				TARGET VALUES
	2002/2003	2004	2005	2006	
Safety related Training (hrs/employee)	12.3	24.3	37.8	13	8
Preventive Activities	58	59	199	193	55
Safety Meeting	12	11	12	12	11
Lost Time Incidents	0	0	1	0	0



## CAPITAL AND REHABILITATION PROGRAM

There were many capital projects and infrastructure programs undertaken in 2006.

### HIGHLIGHTS

- Commissioned a bulk water supply station which provides a 24 hour centralized source of metered water for the construction industry.
- Started construction of a new sanitary lift station (LS#2a) using a non-conventional construction method (open cassion) to mitigate the risk of building in a high water table.
- Installed a new sanitary forcemain from LS#2a to the WWTP.
- Completed a leak detection survey on the cast iron water distribution piping to locate unaccounted for water losses in the system. As a result a number of large volume leaks were identified and repaired resulting in a significant reduction in system water loss.
- Continuation of the Pumphouse #1 Aquifer Monitoring Project. This period saw ongoing testing and analysis of the aquifer and local surface water sources. The results of this program will provide a snapshot of the condition of the aquifer, advance indication of a potential deterioration of the wellhead and whether or not the groundwater is under the influence of surface water (GUI). Should this be the case a treatment upgrade at Pumphouse #1 may be required.
- Addition of a mobile boiler/high pressure steam cleaner to the fleet. This will assist with thaws, lift station cleaning and sanitary blockages.
- WWTP Upgrades included: the installation of a 6mm influent screen and a low pressure- high output UV system, a complete reprogramming of the BAF backwash PLC controls, a detailed design for the emergency overflow tank and an upgrade strategy for future upgrades i.e.- Septage receiving, BAF, increased filtration rates, etc.
- Completed the Facility UPS (uninterrupted power supply) upgrade.
- Started the detailed design for a multiphase upgrade of Three Sisters Drive / MacDonald Place. This is the launch of a very significant project for the Town which will replace the water and sewer mains, two pressure reducing valves, and incorporate a more natural storm water management system. This project will be a template of all future deep utility, road and storm upgrades in the future.
- Upgraded the utility billing software and meter readers.
- A comprehensive audit was done of the private grease interceptors in an effort to reduce the grease loading on the sanitary collection system and the WWTP.
- A survey and thorough visual inspection was completed on all 3 riverbed sanitary main crossings and the WWTP effluent discharge pipe. Results were positive, showing no signs of bedding washout or disturbance.

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- Six hydrants received major rebuilds.
- Lift Station #1 level controllers were rebuilt.
- Lift Station #7 had upgraded milltronic level controls installed.
- Pumphouse #1 & Pumphouse #2 chlorine delivery systems underwent extensive rebuilds.
- Pumphouses #2 instrument air and coagulant delivery systems rebuilt and upgraded to streamline and simplify the operation.
- Pumphouse #2's floor was resurfaced and sealed.
- Pumphouse #2's surface and backwash control philosophy was reprogrammed.
- Pumps were rebuilt at Lift Station numbers 1, 2, 3 and 9, both Pumphouse numbers 1 and 2, the Canyon Ridge Booster Station, the Three Sisters Booster Station and the Wastewater Treatment Plant.
- Sludge handling poly feed system was overhauled.
- A new energy efficient Wastewater Treatment Plant air compressor was installed to match the unit replaced in 2005.
- The Wastewater Treatment Plant chlorine system for potable water was recommissioned to comply with Occupational Health and Safety regulations.

EPCOR's expertise in managing utilities provides our community partner with savings. This expertise has added value to the Town of Canmore by delivering infrastructure projects at or below budget. EPCOR manages the capital costs in an innovative manner that minimizes the risk of cost overruns to the Town.



## WHAT'S AHEAD

### QUALITY

- Increased focus on reducing system water loss.

### CUSTOMER CARE

- Community activities will include EPCOR Road to Excellence, School Education Program, Comedy Cares, Canmore Children's Festival, and Employee volunteerism through EPCOR's Helping Hands Grant.
- 2004 Customer Satisfaction Survey found ninety-five percent (95%) of Canmore residents are satisfied with their water service supplier overall. Follow-up research scheduled for 2007.
- Customer Communication with additional priority placed on water efficiency education.

### REGULATORY AND ENVIRONMENT

- EPCOR and the Town are working towards a regional solution for biosolids management.
- Further monitoring of ground water quality at the production wells at Pumphouse #1 to ensure that the source is not under the influence of surface water. Should the monitoring identify groundwater under the influence of surface water (GUI), capital plans would be put in place to upgrade the treatment process to ultraviolet light treatment similar to that already in place at Pumphouse #2.
- Assist the Town in meeting the new environmental regulations related to their upcoming water license renewal.
- Watershed management program focusing on public awareness and education.

### SAFETY

- Continued commitment to EPCOR's Safety Program to ensure the safety of staff and the public at large. This is to include, but not limited to, further training in Transportation of Dangerous Goods (TDG), Construction Safety Training Software (CSTS) flagman train the trainer certification and expanded Confined Space Training for all new and existing staff members.
- EPCOR promotes and encourages all staff to attain the highest level of Alberta Environment certification available, resulting in an increase of operational knowledge, and in turn a safer and more productive work environment.

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