



Only **Tap Water** Delivers



2009 **Canmore** Utility Performance Report

EPCOR



Bow River, Canmore

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Canmore WWTP

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.

EPCOR'S LONG TERM VISION

We are committed to protecting the public health through the production and delivery of high quality drinking water and responsible management of wastewater.

A sustainable water utility is not only financially sound and operationally excellent, it also assumes responsibility for the environment in which it operates and is accountable to its customers and the larger community. Financial, social and environmental responsibility is the foundation for all we do.

We put this philosophy into action by following these principles set out below:

FINANCIAL AND OPERATIONAL EXCELLENCE	SOCIAL	ENVIRONMENTAL
<p>We conduct all operations in a fiscally responsible manner to maintain sustainable water systems.</p> <p>We proactively manage all infrastructure through regular maintenance, evaluations and improvements.</p> <p>We enhance our leadership position in the drinking water industry through the development of best practices, support of research and building of staff expertise.</p> <p>We regularly assess and report the performance of our operations to identify opportunities for improvements and efficiencies.</p>	<p>We provide timely, ongoing communication with our customers and we regularly identify and engage stakeholders in many aspects of program planning.</p> <p>We ensure our operations have emergency response plans and capabilities to deal with situations in a timely and safe manner.</p> <p>This is done in cooperation with health authorities, regulators and other stakeholders.</p>	<p>We conduct our business guided by the commitments of EPCOR's Environmental Policy.</p> <p>We provide water and wastewater services that consistently meet all provincial regulatory requirements.</p> <p>We strive to meet recommended guidelines such as the Canadian Drinking Water Guidelines and the draft CCME Municipal Wastewater Effluent Guidelines.</p> <p>We provide source-to-tap management for the water system using a multiple-barrier approach, with an appropriate level of treatment based on the source water quality.</p> <p>We work in cooperation with local, provincial and federal health and environment agencies to advance industry initiatives and research to ensure long term safety and supply of drinking water.</p>

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Pumphouse #2

BACKGROUND

The 2009 Town of Canmore Utility Performance Report provides an overview of the achievements and looks ahead at plans for 2010. Our key measures of success include a full range of activities that are summarized under the headings of Quality and Efficiency, Regulatory and Environment, Customer Care and Community, Safety, and Capital and Rehabilitation Programs.

The full spectrum contract between Canmore (the Town) and EPCOR Water Services Inc. (EPCOR) includes water and wastewater treatment, water distribution, wastewater collection, storm drainage, biosolids composting, meter reading, billing and account management. The ten-year fixed-price, performance-based utility management agreement was signed in May 2000.

The Town is supplied with water from the Spray Lake's reservoir system and a groundwater aquifer. The former is treated by filtration and ultraviolet (UV) filters and the latter by chlorination. Total capacity of the wastewater treatment plant is 21.6 megalitres (million litres) per day. The Town continues to own all of the plant and distribution assets.

EPCOR is required to meet detailed performance levels in environmental compliance, safety, quality and efficiency and customer service. These levels are all set by the Town and corresponding provincial regulations. A capital program and operations budget is approved annually by Town Council, along with detailed reporting of several performance indicators.

As capital work is identified, EPCOR also acts as project manager and receives a project-specific management fee. Responsibility for proactive leak detection and repair as well as risks for life-cycle costs and emergency repairs have been transferred to EPCOR and are now funded through annual contributions to the Rehabilitation Reserve. Operation and Maintenance activities are provided at a fixed price, but with annual changes due to inflation, labour agreements and utility costs. Thus, all operational risk is transferred to EPCOR.

Water quality is measured by analyzing the physical, chemical and microbial properties of the water. Health Canada has established science-based guidelines for drinking water known as The Canadian Drinking Water Guidelines (CDWG). These guidelines set the maximum acceptable concentrations (MAC) of chemical, microbial and radiological contaminants found in water. They also address aesthetic water quality issues such as color, taste and odor.

Canmore Water Treatment Plants continues to produce excellent water relating to microbiological parameters and meeting all regulatory requirements.

Protecting public health is a key priority for EPCOR. EPCOR employees work to ensure that water provided to the community meets or exceeds standards and expectations for safety, reliability and quality.

EPCOR completed water quality tests and wastewater tests in compliance with the approval to operate requirements. All tests are completed by Canmore operations staff with Quality Assurance support from EPCOR's laboratory in Edmonton.



Clarifier Deck, Canmore WWTP

QUALITY & EFFICIENCY

HIGHLIGHTS

Preventive maintenance activities on the water, wastewater, distribution, collection and storm water facilities met or exceeded targets. These activities included:

- Regulatory and operational reports were submitted on schedule.
- Revised Water Diversion licenses were submitted to Alberta Environment for approval.
- Implemented and operated under new Water and Wastewater approvals.
- Produced an Operations Plan as required by Alberta Environment.
- Produced and submitted an annual Water Loss Audit.
- Submitted reports on staffing, Committee of the Whole (COW), maintenance procedures, rehabilitation budget accounting, one and five year capital budgets, quality management, insurance and WCB coverage.
- Submitted monthly Electronic Billing Reports for the metering program on schedule.
- Scheduled cleaning and flushing of the sanitary mains including the entire valley.
- Completed annual inspections and adjustments to most pressure reducing valves, with new settings entered into the hydraulic model.
- Operational gains were made in 2009 through efforts to calibrate the Synergy hydraulic model, and balance the pressure zones.
- Increased operational efficiencies and reliability through use of a complex work management system (IVARA and My EPCOR- Oracle) to schedule, log and track all preventive and corrective maintenance activities.
- EPCOR's Edmonton and Southern Alberta based maintenance crew performed preventative maintenance on monthly scheduled visits.
- A number of operators successfully passed regulatory exams, thereby advancing their qualifications.
- EPCOR's Edmonton Quality Assurance department conducted a proficiency laboratory audit at the Canmore operations lab.
- Canmore operations lab analyzed Alberta Environment's regulatory proficiency testing samples in March and April.

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UV Disinfection Area,
Canmore WWTP

QUALITY AND EFFICIENCY INDEX

ACTIVITY	ACTUAL VALUES					TARGET VALUES
	2005	2006	2007	2008	2009	
Quality Assurance & Quality Control Measures	1268	1065	2433	2320	4178	300
% Completion of Preventive Maintenance (PM) Activities	100%	100%	100%	100%	100%	100%
% Completion of Contract Reporting Requirements	100%	100%	100%	100%	100%	100%



REGULATORY AND ENVIRONMENT

All regulatory and environmental requirements have been met or exceeded.

HIGHLIGHTS

- Met or exceeded regulatory and environmental requirements better than 99.9% of the time.
- Supplied Water Quality data and all regulatory reporting as required.
- Implemented process changes at all facilities to prevent violations and environmental releases.
- Operators completed training to ensure excellence in government required testing.
- Successfully passed an Alberta Environment compliance audit related to the Water Approval.
- Inspection of Cross Connection Controls at all private high risk locations followed by a letter indicating the requirement for an annual inspection.

REGULATORY AND ENVIRONMENTAL INDEX

ACTIVITY	ACTUAL VALUES					TARGET VALUES
	2005	2006	2007	2008	2009	
Violation to the Approval to Operate License	5	4	3	3	5*	6
Environmental Releases	2	0	8	3	0	9
Proactive Activities	15	6	10	16	0	9
Completion of Required Regulatory Reporting	100%	100%	100%	100%	100%	100%

*Summary of Violations

- Failure to complete 2008 annual water chemistry analysis of PH 1 & PH 2
- Exceeded the monthly Total & Fecal coliform counts of 1000 & 200 and Total & Fecal coliform samples were accidentally placed in the wrong incubators therefore the results were considered invalid
- Failure to meet new monitoring and reporting requirements
- Operations failed to complete free water chlorine analysis and monitoring as required by the new water approval

CUSTOMER CARE AND COMMUNITY

EPCOR 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 relating to water services, 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

- GOLD Sponsor of the Canmore and Area Health Care Foundation golf tournament.
- Sponsored the Road to Champions Local Community Program:
 - Through the Sports Excellence fund, EPCOR provided funding for the Canmore Skating Club to purchase specialized Dart Fish software to improve performance analysis.
 - Through the Youth Excellence Award, EPCOR provided funding for a youth to attend the national circus school.
- Sponsored the Comedy Cares-International Street Performers visit to the Canmore General Hospital.
- The Town of Canmore and EPCOR partnered to manage compostable materials for the Folk Festival.
- Canmore Operations once again participated in the TOC pumpkin composting program.
- Member of BOWDA (formerly UDI)
- Donated to the local food bank during the Christmas holidays.
- Encouraged participation in the Corporate Challenge Events.
- Sponsored the Canmore Children’s festival.
- Provided EPCOR’s School Education on-line program.
- EPCOR Essential Volunteers Program – Helping Hands Grant.

CUSTOMER CARE & COMMUNITY INDEX

ACTIVITY	ACTUAL VALUES					TARGET VALUES
	2005	2006	2007	2008	2009	
% of Service Outages Restored in Less than 24 hrs	100%	100%	100%	100%	100%	6
External Customers Satisfaction Survey	N/A	N/A	94%	N/A	N/A	80%
Community Events	9	13	10	10	12	4
Internal Customer Satisfaction	100%	100%	100%	100%	100%	100%



SAFETY

EPCOR is committed to the ongoing safety of our employees with the promotion of safe work practices incorporated into day to day 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 including chlorine handling, transportation of dangerous goods, WHIMIS, etc.
- All new full time staff completed the Safety 2000 course which includes: OH&S overview, WHIMS training, Hydrate awareness, Respiratory protection, Gas testing, Standard first aid and CPR, H2S Alive, transportation of dangerous goods, Confined space pre-entry and entry, Industrial fire extinguisher #1 and advanced fire extinguisher applications and a mentally active driving program.
- Key employees attended specialized training in Vancouver for the repair and maintenance of pressure reducing valves and safe operational procedures.
- Required staff completed air brake course for safe operation of Vactor truck.
- Local Heroes safety presentation was held for Canmore Operations and Town of Canmore public works staff.
- All staff completed online Hazardous Energy Isolation training.
- Implemented the newly required (OH&S) working alone policy which monitors all staff while on call 24/7.
- Continued use of a safety orientation program for new employees and contractors.
- Safe work plans, confined space entry permits and preventive talks were used in Canmore operations.

SAFETY INDEX

ACTIVITY	ACTUAL VALUES					TARGET VALUES
	2005	2006	2007	2008	2009	
Safety Related Training (hrs/employee)	37.8	13	37.8	55.2	21.5	8
Preventive Activities	199	193	132	115	83	55
Safety Meeting	12	12	12	12	12	12
Lost Time Incidents	1	0	0	0	0	0

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Bow Valley

CAPITAL WORK

EPCOR's expertise in managing utilities provides our community partner with savings by delivering infrastructure projects at or below budget.

HIGHLIGHTS

- Completed multiphase upgrade of Three Sisters Drive/MacDonald Place. This included the replacement of water and sewer mains, two pressure-reducing valves and the incorporation of a more natural storm management system.
- Installed relief sanitary main to increase capacity along Bow Valley Trail. An abandoned water main from 17th Street north to Ray McBride, was lined with a non-invasive Insituform process reducing the amount of excavation and using infrastructure once considered useless.
- Completion of Wastewater Treatment Plant BAF expansion. This project, valued at \$7.2M included the construction of 2 BIOFOR filters, a recirculation system and a new process water line to significantly increase the capacity of the plant.
- Leak detection in South Canmore is ongoing as part of the Water Demand Management Plan. This is in advance of the South Canmore road rework. Once complete a report will be produced listing areas tested and results found. A significant leak in TeePee Town was repaired.
- Preparatory work was completed in the WWTP PH #1 and PH #2 to allow installation of water meters to track water loss.
- Infiltration and Intrusion (I&I) repairs were completed in the valley as part of the 2009 I&I reduction program. All gravity sanitary mains from 1st St - 8th St and North of LS#5 were flushed and camera work was conducted.
- Infiltration reduction repairs are being conducted in LS#5 catchment area. New Line Trenchless Technologies conducted the repairs using a non-invasive in situ repair system.
- Security upgrades are taking place at Grassi Reservoir.
- 2010 – 2014 Capital program was submitted to the Town.
- Completed repairs to Backwash Waste Pit. Repairs were required to prevent biolite loss and allow for sampling of backwash waste-stream.
- Canyon Ridge Booster Station and Lift Station 1 were painted.
- A catchment system was installed to prevent groundwater from surfacing and creating an ice issue.
- Five significant, emergency distribution repairs were conducted.



Bow Valley Trail Sanitary Relief Forcemain



- One water distribution main valve was replaced.
- The downtown public washroom sanitary lateral manhole was replaced.
- Sanitary lift station pump overhauls were conducted at LS#1, LS#2, LS#4 (2) and LS#10 (2).
- Pumphouse #1 and #2 both had their respective chlorine systems overhauled.
- Pumphouse #2 filter system had a complete media replacement and under drain service.
- Wastewater Treatment Plant had the following pieces of equipment replaced or overhauled: digester blower, diaphragm pump, UV system, power UPS.



Equalization Tank, Canmore WWTP



Bow Valley

WHAT'S AHEAD

QUALITY AND EFFICIENCY

- Assist the Town in creation of its Environmental Protection Plan, as required by Alberta Environment.
- EPCOR and the Town are working towards a regional solution for biosolids management.
- The Town was directed by Council to enter into contract renegotiations with EPCOR for continued utility operations services.
- 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.
- Watershed management program focusing on public awareness and education.

CUSTOMER CARE

- EPCOR will be revising its 2010 sponsorship strategy for all communities it serves.
- Continued customer communication with additional priority placed on water efficiency education.

SAFETY

- Continued commitment to EPCOR's Safety Program to ensure the safety of staff and the public at large. This includes 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.
- A joint rescue exercise will be conducted with EPCOR, the Fire Department and EMS to further training in confined space rescue.
- 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.

CAPITAL

- Canmore's most critical sanitary lift station, LS#1, will be upgraded to improve reliability in periods of greater flow and demand.
- Sanitary lift station #5 will have its programmable logic control (PLC) upgraded to improve functionality.
- The Wastewater Treatment Plant influent pumping capacity will be increased through the installation of larger pumps.
- Completion of the Sanitary Model which will be used for utility planning and operational process optimization.
- Completion of the Utility Master Plan which includes review of the Town's population and development plans that could have substantial impacts on the water and wastewater system, and the subsequent examination of Town's water distribution network, water treatment plant, sewer collection system, and wastewater treatment plant for the development of next five to 10 years. In the end, the project will recommend capital programs and possibly maintenance programs for the water and wastewater systems.

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