

Town of **Taber** Performance Highlights – 2009

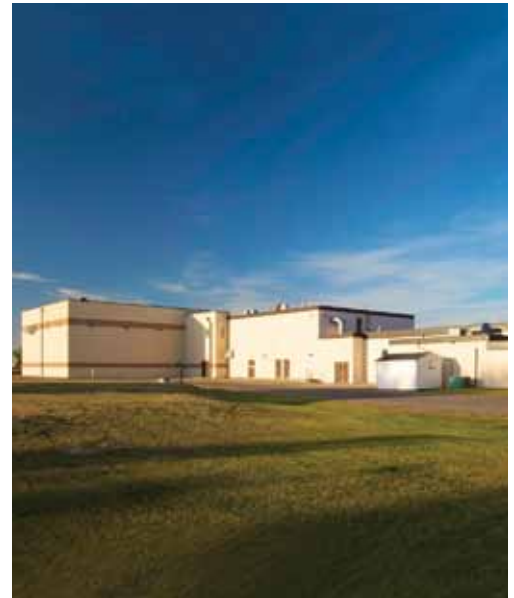
BACKGROUND

Town of Taber has a 20-year utility management contract with EPCOR to run its entire municipal water system. The Town continues to own the water and wastewater assets, set rates and bill 3,030 customer accounts.

EPCOR designed and built upgrades to Taber's wastewater treatment facilities and north storm water system. With modern treatment technology, such as ultraviolet disinfection, biological nutrient removal (BNR) processes and remote monitoring, the \$18.5 million upgrades now allow Taber to meet new Alberta Environment water regulations and support future growth.

System Facts

- Taber's water supply originates from the Chin Lake Reservoir and Taber Irrigation District Canal and is delivered to the water treatment plant by a gravity main and irrigation canals respectively
- The water treatment plant has a design capacity of 23 ML/d
- The wastewater treatment plant is a BNR style facility with a design capacity of 6.5 ML/d
- The wastewater system includes aerated wastewater lagoons with effluent discharge through irrigation pivots



Taber water treatment plant.

Annual Highlights

- Start-up and operation of the new Level III BNR wastewater treatment plant went well
- North Storm-Water project was completed at end of 2008
- Wastewater Approval renewal application submitted to Alberta Environment and approval is anticipated for Q3 2010
- Waterwork Approval renewed with Alberta Environment and became effective July 1, 2009

Annual Challenges

- "Rotten egg" odours resulting from solids handling process at wastewater treatment plant. Recent modifications to process have made substantial improvements.
- Algae in raw water supply resulted in odours in treated water through late summer and early fall. EPCOR is investigating methods for controlling algae growth and hopes to have a process in place for summer 2010.



QUALITY ASSURANCE HIGHLIGHTS

EPCOR completed water quality and wastewater tests in compliance with the approval to operate requirements. All tests are completed by Taber operations staff with Quality Assurance support from the EPCOR Water Laboratory in Edmonton.

- EPCOR staff participated in Alberta Environment’s lab proficiency testing program
- EPCOR has a comprehensive laboratory QA/QC program

Water Quality Testing

- 3,471 tests were performed on 12 parameters
- 99.9% of all tests met regulatory standards

There were 5 regulatory violations: 2 administrative and 3 related to fluoride levels in the treated water. These were reported to Alberta Environment and corrected in a timely manner.

Wastewater Quality Testing

- 3,962 tests were performed on 16 parameters
- 100% of test results met regulatory standards

There were 6 regulatory violations: 2 administrative and 4 minor sewage spills on the ground during construction of the wastewater treatment plant. They were reported to Alberta Environment and corrected in a timely manner.



Water treatment plant dissolved air flotation (DAF) process.

Water Quality Testing

PARAMETER	REGULATORY STANDARD	AVERAGE
Turbidity	< 0.3 ntu	0.07 ntu
Chlorine residual	> 0.5 mg/L	0.80 mg/L
Fluoride residual	0.6–1.0 mg/L	0.80 mg/L
pH	6.5–8.5	7.42

Wastewater Quality Testing

PARAMETER	REGULATORY STANDARD	AVERAGE
WWTP Effluent Total Substance Solids (TSS)	20 mg/L	6.8 mg/L
WWTP Effluent Carbonaceous Biochemical Oxygen Demand (CBOD)	20 mg/L	4.2 mg/L
WWTP Effluent Ammonia	5–10 mg/L	0.54 mg/L
WWTP Effluent Phosphorus	1 mg/L	0.12 mg/L

ENVIRONMENTAL HIGHLIGHTS

EPCOR works in cooperation with local, provincial and federal environmental agencies to ensure all regulatory and environmental requirements are met or exceeded.

Environmental release of effluent to the river during plant operation

- Water Treatment: none
- Wastewater Treatment: none



OPERATIONAL EXCELLENCE HIGHLIGHTS

EPCOR proactively manages all infrastructure through regular maintenance, evaluations and improvements.

- Preventative maintenance plan completed and to be initiated in 2010.
- Asset management plan developed.
- ISAT audit conducted in April 2009 (in depth look at safety, environmental, security and operations). Completed 30 of 41 recommendations to date.
- Water Treatment Plant operations plan completed as part of new Alberta Environment approval requirement.
- All residential meters read every March, June, July, August, September, and December – commercial and industrial meters read monthly.

CAPITAL PROJECTS HIGHLIGHTS

EPCOR's expertise in managing utilities provides the Town with savings 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.

- Wastewater treatment plant upgrade came into service March, 2009.
- Water treatment plant SCADA and online analyzers study completed with upgrades to start in 2010.
- Water treatment plant study underway on dissolved air flotation (DAF) and filter optimization and chemical feed systems. Upgrades are to start in 2010.
- Annual manhole rehabilitation project completed – 10 manholes restored.



Bioreactor construction at the wastewater treatment plant.



Algae removal through DAF process at the wastewater treatment plant.

PEOPLE HIGHLIGHTS

Staffing

Certified EPCOR staff provides 24-hour emergency services, is available to answer customer questions, and is committed to resolving customer concerns in a timely manner.

- 9 operators have achieved provincial certification
- Increase in staff level from 6 to 11 full time and 1 half time employee to 11.5 full time employees

Community Investment

EPCOR is proud to actively support the community, and we strive to build sustainable partnerships that enhance community life and promote wellness.

- Held wastewater treatment plant grand opening
- Sponsored local "Water Conservation Magazine"
- Sponsored local Eco Fair

SAFETY HIGHLIGHTS

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

- Zero lost-time incidents and 1 medical aid incident in 2009
- Site Emergency Response Plan developed
- Hazards registry completed
- Global 2000 safety training – 2 operators attended in 2009
- Sponsored Safety Heroes presentation for EPCOR and Town of Taber employees

LOOKING AHEAD

- Water treatment plant long-term upgrades to include SCADA system and online analyzers
- Continue with manhole rehabilitation, valve replacements and cast iron water main replacements
- Continue with water meter replacement program
- Develop and implement a cross connection control program to protect water quality in the distribution system
- Utilize maintenance management software to initiate preventative maintenance activities

Contact: EPCOR Water Services
Box 4702 Taber, AB T1G 2E1
Contact number for water, wastewater and water billing inquiries in the Taber area
Phone: 403-223-0618



Water treatment plant filter control panel.



Water treatment plant filter pipe gallery.

