

Water Loss Reduction Study



As populations and demands for increasing quality of service grow, the need to make wise use of our finite water resources becomes more acute. Ensuring that water loss is minimized is essential if we are to be good stewards of our water resources.

The City of Chilliwack retained Earth Tech to develop a strategy to address water losses. The Project was split into three phases, the first being a Best Practice review which, included meetings with UK Water Utilities and Regulators to establish current worldwide practices. The second phase applied the most appropriate practices to the City of Chilliwack and Phase III added the required level of detail to the practices for the City to implement effectively and begin to quickly realize the many benefits of the Project.

The International Standard Water Audit was used to estimate the water losses in the City and identify areas where water consumption should be measured, for example firefighting and main flushing. The plan developed for the City of Chilliwack included strategies to track and reduce non-revenue water such as: the creation of District Metered Areas; leak detection initiatives; pipe renewal and replacement plans; and improved revenue collection. Additional detail was provided on a meter replacement and testing program and the recommended location of residential meters (inside or outside the house).

The study was funded through a 50/50 sharing of costs between the City of Chilliwack and the Green Municipal Enabling Fund of the Federation of Canadian Municipalities.

PROJECT DETAILS

CLIENT: City of Chilliwack
LOCATION: British Columbia, Canada

REFERENCE INFORMATION

NAME Glen MacPherson
TEL 604.298.6181

PROBLEM

The City of Chilliwack estimated that they had high water losses yet no practices in place to address this issue.

CHALLENGES

The primary challenge was to develop a long-term plan to deliver reductions in the levels of non-revenue water.

SOLUTION

Development of a strategy to reduce non-revenue water in the City of Chilliwack. The solution consisted of a 13-pillar strategy outlining recommended actions, expected costs and benefits and the time frame for implementation.

BENEFITS

Establishment of best practices for reduction of non-revenue water in the City of Chilliwack. Improved environmental stewardship. A better understanding of the levels of water losses in the City. Other benefits include savings in water production and distribution costs, equitable billing for services rendered and deferment of water source expansion.