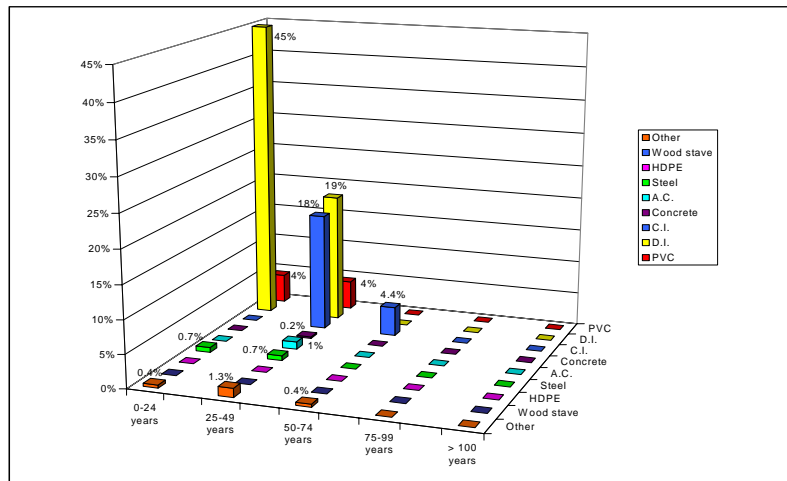


Drinking Water Infrastructure Reinvestment Strategies



The City of Chilliwack retained Earth Tech to develop an Infrastructure Reinvestment Strategy that provides City staff with the necessary tools to manage the drinking water infrastructure in a sustainable manner. This included not only knowledge on the condition of the City's assets under management, but a detailed plan on what infrastructure will need replacement or rehabilitation, when the work needs to be done, and what the necessary water rates will be to support the required level of reinvestment.

We developed a detailed asset inventory with the help of City staff, which included information on the asset location, current replacement value, age, condition and remaining service life (this methodology is based on the National Research Council of Canada's Six Whats of Asset Management Planning, which has proven to be an invaluable tool in predicting asset replacement needs). Earth Tech completed a model for the medium to long-term water asset replacement needs of the City and predicted the annualized expenditure on capital rehabilitation and replacement. Based on the latter information an expected water rate adjustment was calculated to cover the cost of expenditures, and different scenarios modeled to consider the impacts of capital reserve funds, timing of expenditure and variables such as the discount rate and analysis period.

PROJECT DETAILS

CLIENT: City of Chilliwack
 LOCATION: British Columbia, Canada

REFERENCE INFORMATION

NAME: Glen MacPherson
 TEL: 604.793.2810

PROBLEM

Earth Tech conducted a Water Loss Reduction study for the City of Chilliwack and found that Chilliwack rates are one of the lowest in the region. The City's reinvestment rate was also one of the lowest reinvestment rates of more than twenty Canadian water systems benchmarked.

CHALLENGES

An increase in the City of Chilliwack's water rates is required to increase the rate of capital reinvestment in drinking water infrastructure. A practical and defensible plan was needed to convince Council and stake-holders of the need to increase water rates, to define what the capital expenditures needs were for the medium and long term, and what the impact on water rates would be.

SOLUTION

Earth Tech used the "Six Whats" methodology to assess the City's asset inventory, asset valuation, asset expected service life, asset replacement timing and ultimately, the required water rate to meet the expected infrastructure replacement expenditure.

BENEFITS

A well-defined strategic plan for the increase of City of Chilliwack's water rates.