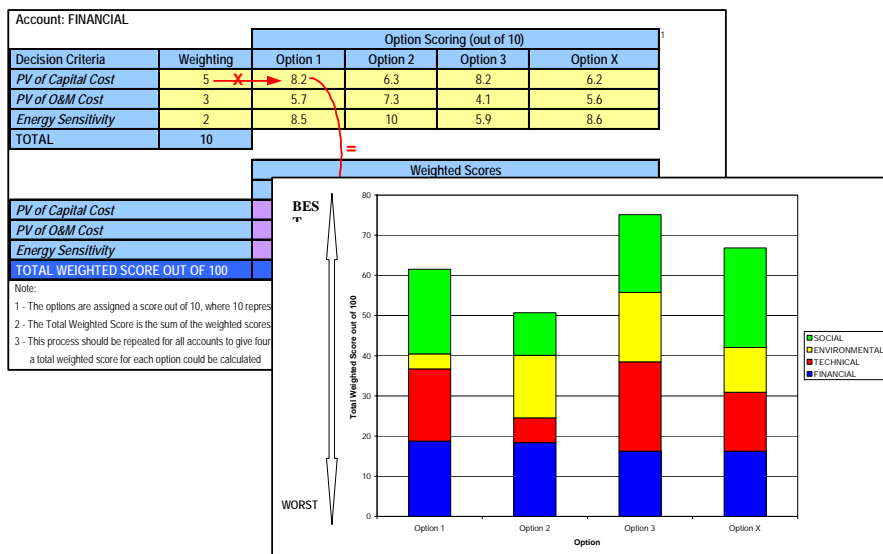


## Water Source Options Financial Analysis



Fraser Valley Regional District (FVRD) appointed Earth Tech in February 2004 to conduct a financial analysis on 16 potential future water source options for the Regional District (FVRD), through water source development of a financial model to calculate the present value for the 30 - year life cycle cost of each of the options. The capital and O&M costs that were used as input into the financial model were based upon data supplied by Dayton and Knight, who performed technical analysis of the options.

Options considered in this evaluation were water sources deemed to have sufficient supply to be able to meet the expected demands of the FVRD, within close enough proximity to the demand centers of the Regional District to make development feasible, and of good enough water quality to be treated to meet the Canadian Drinking Water Quality Guidelines.

A financial model was developed to evaluate the operation and maintenance (O&M) costs and capital cost over a period of 30 year, and to present the results in terms of the present value (PV) of the options.

A number of assumptions were made regarding the discounting rate, the rate of inflation, growth in water demand, etc. The model was structured such that changes to these input variables could easily be made to see what effect it has on the discounted cost of the options.

### PROJECT DETAILS

CLIENT: Fraser Valley Regional District  
 LOCATION: Abbotsford, British Columbia, Canada

### REFERENCE INFORMATION

NAME: Rick Bomhoff, P.Eng.  
 TEL:

### PROBLEM

### CHALLENGES

What strategies should be implemented that will allow the District to respond in the most cost effective and sustainable manner?

### SOLUTION

This study will provide a sustainable financial model to evaluate the operation and maintenance costs and capital cost over a 30-year period.

### BENEFITS

The long-term planning and contributions to a reinvestment fund would be an equitable manner to replace assets, and if adequate funds are placed in reserve in time, the Regional District will avoid paying interest expenses on future asset replacement programs.