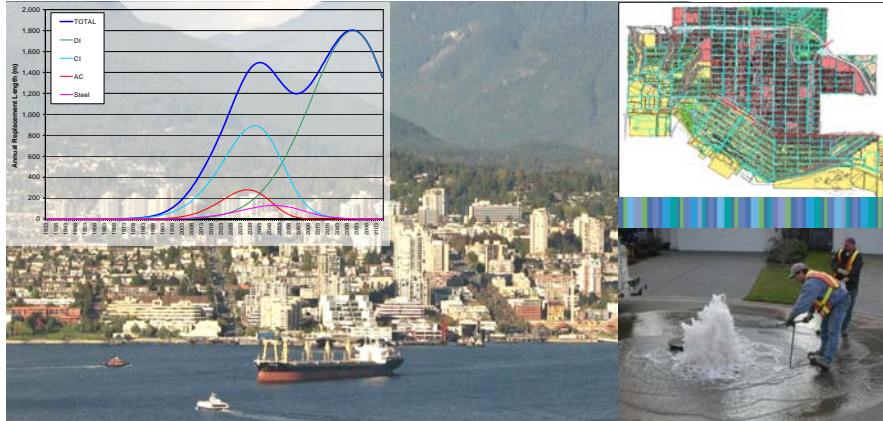


## City of North Vancouver – Water Distribution System Asset Management Pilot Study



Earth Tech was retained by the City of North Vancouver to conduct an asset management assessment of its water distribution system as a pilot for the City future asset management program. The key aims of this project were to firstly assess the condition of the City's water distribution system linear infrastructure and then to design asset management planning processes that could be integrated into their newly acquired computerized information management systems (RIVA and Hansen).

The asset management program was based on InfraGuide and AwwaRF Best Practices starting with the "Top-Down" approach. RIVA software was configured to model strategic long-term infrastructure renewal planning scenarios, which outlined a range of alternative financial investment possibilities. A more detailed Bottom-Up approach was then used for short-term capital planning of specific renewal projects, which was supported with detailed data from the GIS and Hansen CMMS. Thus Earth Tech was able to install and asset management program capable of determining the theoretical network renewal costs over the long term (up to 100 years) as well as a 5 to 10 year operating and capital program.

Based on the successful piloting of asset management practices such as condition and risk assessment standards, infrastructure valuation standards, and alternative reinvestment scenario design within the water distribution network, the City can now apply the same standards and protocols on other important City infrastructure to develop a comprehensive City wide asset management program.

### PROJECT DETAILS

Client: City of North Vancouver  
 LOCATION: Lower Mainland, BC

### REFERENCE INFORMATION

NAME: Tony Barber, P. Eng. -  
 Assistant City Engineer -  
 Engineering, Parks &  
 Environment  
 TEL: 604-983-7338

### PROBLEM

The City needed to design a proactive program for asset management using newly acquired IT tools to ensure that City assets are financially sustainable.

### CHALLENGES

To develop a Best Practice and comprehensive standard approach to asset management that can be directly linked to the City's newly acquired tools (Hansen and RIVA software).

### SOLUTION

Design asset numbering conventions, business processes, asset inspection and valuation procedures based on Best Practices that can take advantage of the Hansen/RIVA potential.

### BENEFITS

Knowing what the funding gap is between its budget for water infrastructure replacement against theoretical renewal costs, the City can take appropriate action to ensure a sustainable management of the water distribution system.