

# Asset Management Decision Support System (DSS)

## North Shore City Council

Commission / Duration :	July 2005 – February 2006
Physical Work Value :	N/A

### the challenge

North Shore City Council (NSCC) recognised the need to develop advanced asset management capabilities in accordance to the Local Government Act 2002 (LGA). Under this act, utilities are required to ensure robustness, transparency, and repeatability of decision-making for asset renewals and maintenance.

NSCC used Microsoft Excel for their decision making. This was shown to have several limitations including:

- Size constraints due to the sheer number of assets.
- Changing parameters and processes to examine the effect becomes extremely complicated and cumbersome.
- The process becomes fractured and difficult to maintain.
- A spreadsheet approach does not include any advanced optimisation or scenario building capability.

### our solution

MWH developed a DSS encapsulating NSCC decision-making rationale within the dTIMS software platform. In conjunction with NSCC, we identified dTIMS as one of the most powerful and flexible software tools in developing an advanced asset management DSS for utilities. dTIMS is a software tool that acts as a manager and interrogator of asset information, enabling asset managers to make more objective and consistent decisions.

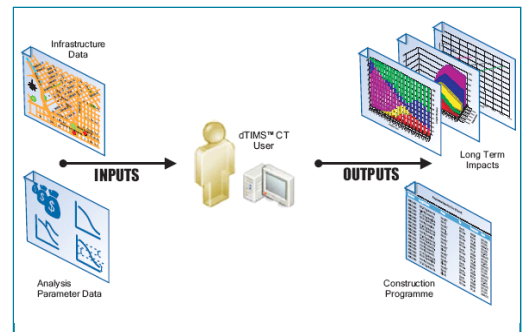
### key outcomes

By utilising our advanced DSS, NSCC are now able to answer complex decisions relating to their assets, including:

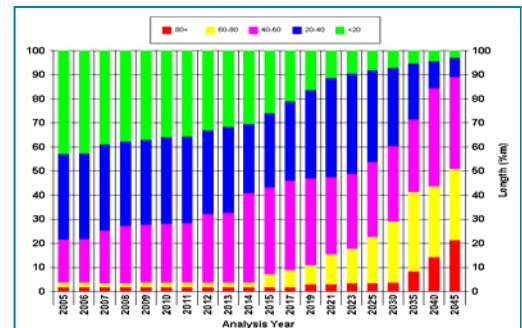
- **Policy identification** - What is the most cost effective lifecycle strategy for each asset?
- **Scenario building** - What is the effect of this strategy on levels of service and risk?
- **Budget forecasts** - What are the resulting capex and opex budgetary requirements in the future?

### Contact

Simon Heart  
 Asset Management Practice Lead – BSG (Business Solutions Group)  
 Tel: (303) 439-2733



A schematic overview of the dTIMS Total Infrastructure Management System



Forecast network age profile over analysis period following optimal maintenance strategy

### client perspective

*“We identified dTIMS as a potential platform for building advanced business intelligence tools and with help from MWH made the first step in developing a leading edge Decision Support System able to support complex cost optimisation analyses. We believe that DSS will find wide application in the water industry”*

Nina Sardareva - Asset Management Coordinator  
 - North Shore City Council (May 2006)