

## Water Resources Modelling, Queenstown

### Client

Queenstown Lakes District Council.

### Project

The Queenstown water supply network provides potable water to a rapidly expanding population in a challenging geographical layout.

For the previous ten years, Tonkin & Taylor has modelled both the present network and several future network options for Queenstown and Wanaka. More recently developed are models for Lake Hawea, Glenorchy, Arthurs Point and Luggate, as well as dynamic models of Lake Hayes and Arrowtown. This has assisted QLDC in determining which major network upgrades need to take place and their priority.

### Services provided

- Developing long term Council community plans for water supply
- Modelling various pressure zone management strategies
- Designing monitoring programmes for peak season flows
- Analysing of flow records to determine hourly and daily demand peaking factors

- Creation of Queenstown and Wanaka dynamic models to cope with diurnal demand patterns, pump performance characteristics, and reservoir capacities
- Identifying and resolving technical issues relating to water supply network.



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