

Test your water

The best way to check for potential water quality issues is to collect a water sample and have this tested by an independently accredited IANZ laboratory.

www.drinkingwater.esr.cri.nz

What to look for

The graphic below lists some parameters and the problems they cause. For more information go to: www.health.govt.nz and search for groundwater bores.

Microbial

Bacteria
Viruses
Protozoan cysts
(Giardia, Cryptosporidium)

Waterborne disease

Inorganic & Organic

Arsenic	Manganese
Boron	Nitrate and nitrite
Copper	Lead
Lead	Pesticides

Health problems

Colour, Hardness (total), Iron, pH, Taste and odour, Turbidity

Aesthetic

Taste, appearance, odour, staining, scale, corrosion

Direct signs of a contaminated water supply can be observed in its colour, odour, taste or cloudy appearance but there are other contaminants such as bacteria, nitrate and arsenic that cannot be seen.



Photos: QLDC

Who looks after the water?

- Territorial local authorities (TLA) like district or city council for large water supplies
- Water suppliers for small water supplies
- Private landowners/self-suppliers that own their household water supply

Who is responsible?

- Regional councils for the management of source catchments (*under the Resource Management Act*)
- Water suppliers for the water supply from the point of abstraction to the property (*under the Health Act*)
- Self-suppliers are covered by the Building Act 2004, which requires any building intended for use as a dwelling house to have an adequate and convenient supply of water that is potable. Self-suppliers have to ensure themselves that their water is safe.

Further reading is available at: www.health.govt.nz (search: *household water supplies*). Advice around particular contaminants, individual water supply wells and groundwater quality is available from:

Health Protection Officers

Public Health South
Dunedin Private Bag 1921, Dunedin 9054 Ph: 03 476 9800
Queenstown PO Box 2180, Frankton, Queenstown 9349
Ph: 03 450 9154
www.southernhb.govt.nz

Environmental Health Officer

Dunedin City Council	Ph: 03 477 4000
Queenstown Lake District Council	Ph: 03 441 0499
Central Otago District Council - Alexandra	Ph: 03 440 0056
Waitaki District Council - Oamaru	Ph: 03 433 0300 or 0800 108 081
Clutha District Council - Balclutha	Ph: 03 419 0200 or 0800 801 350

Groundwater Scientists

Otago Regional Council Freephone: 0800 474 082



Visit www.orc.govt.nz
or contact us on:
0800 474 082

ORC would like to acknowledge Horizons Regional Council for contributing to the information in this brochure

How to protect your well water

Groundwater



Groundwater contamination

Well water is drawn from the groundwater resources. Groundwater originates from precipitation.

As this water moves down from the surface to recharge aquifers it can be affected by a range of human activities.

For example:

- leaching of chemicals/ seepage of contaminated storm water at the land surface
- discharges from septic tanks/ underground fuel storage below ground level.

The quality of groundwater is also influenced by its interaction with soil and rocks.

While this interaction can help remove surface man-made contaminants, there are some naturally derived contaminants that can also impact groundwater quality.

How to minimise the risk

The best way to manage your drinking water supply is to avoid likely sources of contamination.

This diagram provides a few tips for best practice.

- 1 The well casing should be elevated above ground and above stormwater and flood levels. The top of the well should be securely capped, and hoses or cables going into the well should be securely sealed.
- 2 There should be a sample point to analyse the water if a problem is suspected.
- 3 A backflow preventer should be installed to make sure no contaminants can siphon back into the bore.
- 4 The area immediately around the bore casing should be sealed with a concrete apron that slopes away from the bore. This helps minimise any surface water flowing into the bore.
- 5 A bentonite seal should be installed around the casing and should extend below ground level

