

“ 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, that cannot be seen. ”



Groundwater bore at the Centennial Lagoon, Palmerston North

## Find out more

We recommend reading through the Guideline Document for Owners of Water Supply Wells which provides a general overview of groundwater quality in our Region. Copies are available via the Horizons website **[www.horizons.govt.nz](http://www.horizons.govt.nz)** or by contacting a member of our groundwater team.

Advice around particular contaminants, individual water supply wells and surrounding conditions is available from:

### Health Protection Officers

- ✓ Health and aesthetic concerns
- ✓ Sampling
- ✓ Water quality testing
- ✓ Interpretation of testing results
- ✓ Compliance with NZ Drinking Water Standards
- ✓ Advice on water treatment options
- ✓ Historical land use and potential contaminated land issues

**MidCentral District Health Board**  
Palmerston North  
Phone: 06 350 9110

**Whanganui Public Health Centre**  
Wanganui  
Phone: 06 348 1775

**Waikato District Health Board**  
Hamilton  
Phone: 07 839 8666

### Environmental Health Officer

#### Contact your city or district council

- ✓ Health and aesthetic concerns
- ✓ Sampling
- ✓ Water quality testing
- ✓ Interpretation of testing results
- ✓ Compliance with NZ Drinking Water Standards
- ✓ Advice on water treatment options
- ✓ Historical land use and potential contaminated land issues

### Groundwater Scientist

#### Horizons Regional Council

Freephone: 0508 800 800

- ✓ Well siting
- ✓ Well construction
- ✓ Groundwater quality data

**How safe is  
my well water?**  
Groundwater



## Well water is drawn from the Region's groundwater supply

In most cases this water is suitable for stock water and irrigation but, throughout much of the Region, water drawn from a well will require some form of treatment before human consumption. It's important to understand factors that could impact well water and have your water tested to ensure it's safe to drink.

Groundwater originates from rainfall or seepage from rivers. As this water moves down from the surface to recharge our groundwater supply it can be affected by a range of human activities at the surface (such as leaching of chemicals from agricultural or horticultural practices or seepage of contaminated stormwater) or just below ground level (such as discharge from septic tanks or underground fuel storage).

The quality of groundwater is also influenced by its interaction with the natural strata. While this interaction can help remove surface man-made contaminants, there are some naturally derived contaminants that can also impact groundwater quality.

## 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 Keep the area around the well head clear of chemicals and rubbish. Stock should be fenced away from a well head.
- 2 Sample point- if you suspect a problem with your water supply you should get it analysed.
- 3 The area immediately around the bore casing should be sealed with a concrete apron. It should slope away from the bore to prevent any surface water flowing into the bore.
- 4 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.
- 5 A backflow preventer should be installed to make sure no contaminants can siphon back into the bore.

## What to look for

Direct signs of a contaminated water supply can be observed in its colour, odour, taste or a cloudy appearance. For example:

**IRON** - Staining of laundry and sanitary ware

**MANGANESE** - Staining of laundry

**AMMONIA** - Odour

**HARDNESS** - Scale deposition and scum formation

Other contaminants such as bacteria or viruses that could cause vomiting and diarrhoea may not be as obvious. 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. It is a good idea to have at least one sample collected and analysed for every drinking water supply sourced from groundwater. Ask Horizons, your district council's Environmental Health Officer or a Health Protection Officer from MidCentral Health, Whanganui Public Health Centre or Waikato District Health Board for information on an appropriate testing laboratory.

