

79 Kioreroa Road  
Private Bag 9023, Whangārei 0148  
09 4304 220  
wdclaboratory@wdc.govt.nz

We are open Monday to Friday  
between 8am and 4pm. Your efforts  
to deliver the samples to us by 3.30  
is always appreciated.

## TECHNICAL NOTE 1 | MICROBIOLOGICAL ANALYSIS

Whangarei District Laboratory is IANZ Accredited and provides a wide range of testing services, please contact us to discuss and quote on your requirements.

### DIRECTIONS FOR TAKING MICROBIOLOGICAL (E COLI) SAMPLES

#### 1. SELECT A SAMPLE POINT

This will depend on the reason for testing the water. If it is to assess a source of water as a potential supply, then take the water directly from the source. If you are checking the quality of an existing supply, take the sample from a tap that is used often.

#### 2. USE A STERILE BOTTLE

A sterilized bottle is required, these are available from the Laboratory free of charge. If you do not have one, boil a glass bottle (including the cap) for three minutes, allow to cool before taking the sample. Avoid contaminating the bottle after boiling. We require 200mL for an E coli test.

#### 3. RUN THE TAP

If taking the sample from a tap, let the tap run for 2 - 3 minutes before taking the sample. This is to clear any water sitting in the pipeline ensuring a fresh and representative sample. If taking several samples, label each bottle clearly with your reference.

#### 4. FILL THE BOTTLE

Fill the bottle to just below the neck. Leave 25mm air space above the water. Replace the cap – taking care to avoid contaminating the bottle by placing your fingers or anything else inside the bottle or cap while taking the sample.

#### 5. RETURN THE SAMPLE

Delivery on the same day is recommended, if this is not possible, overnight delivery is acceptable if the sample is chilled. In all cases the water sample must be analyzed within 24 hours of collection.

#### 6. COMPLETE THE SAMPLE SUBMISSION FORM

Copies of the sample form are available from the lab or at [www.wdc.govt.nz/WaterTesting](http://www.wdc.govt.nz/WaterTesting)

We need the following information:

- name, email address and phone number of person requiring analysis
- where the sample comes from and why you are testing the water
- date and time of sample collection
- tests required (a guide for water tests necessary to meet regulatory requirements is over the page).

**A report will be emailed to you.**

# REGULATORY REQUIREMENTS

## ***New Zealand Drinking Water Standard***

Standards for Water Quality are set by the Ministry of Health. These standards list the criteria applicable to drinking waters and are used as the basis for grading the quality of community drinking water supplies.

All water supplies (except for domestic household supplies) must comply with the NZ Drinking Water Standard – which specifies:

### ***NZ Drinking Water Standards Table 2.1***

<b><i>Micro-organism</i></b>	<b><i>Maximum Acceptable Value</i></b>
Escherichia Coli (E coli)	less than one in any 100mL sample (<1/100mL)

### **NZ DRINKING WATER STANDARD CRITERIA APPLIES TO THE FOLLOWING INDUSTRIES:**

Global Gap (localg.a.p control points and compliance criteria Table 7.7)

## ***MPI - Food safety plan***

To comply with food safety regulation water must meet this criterion:

<b><i>Measurement</i></b>	<b><i>Criteria</i></b>
Escherichia coli (E. coli)	must not be detected (less than 1 in any 100mL sample) * (<1/100mL)
Turbidity	Must not exceed 5 Nephelometric Turbidity Units (NTU). Should not routinely exceed 1 NTU.
<b><i>If using chlorinated water (Town supply) include these tests</i></b>	
Free Available Chlorine	Not less than 0.2mg/L (ppm) free available chlorine with a minimum of 20-minute contact time
pH	6.5 - 8.0
<b><i>*E coli testing must be performed by an IANZ accredited Lab</i></b>	

### **FOOD SAFETY CRITERIA APPLIES TO THE FOLLOWING INDUSTRIES:**

- Farm Dairy Water (MPI DC 2: Animal products (Dairy) approved criteria for farm dairies)
- Egg producers (NZFSA Egg template – Risk Management Programme Attachment H)
- Honey Producers (NP1 Operational code: Processing of Bee Products)
- Winemaking (NZ Winegrowers code of practice)