

## Appendix 2 Water Grading Explained

Supplies for 500 or more people should have a Public Health Grading.

### The public health grading

The Ministry of Health grading provides an assessment of its confidence in the public health safety of each drinking-water supply serving a community of over 500 people. The grading has two letters. The first letter (in upper case) represents the source and treatment grading, while the second letter (in lower case) grades the water in the distribution zone itself. Gradings containing C or c indicate marginal quality, while lower gradings show that quality or risk management is unsatisfactory.

An ungraded supply is indicated by u in the *Register*.

This consists of a single grading for each treatment plant (eg B) and a combined grading for each distribution zone (eg Ba).

### Distribution Zone Grades

Zone grading (a to e) is based upon the microbiological and chemical quality of the water, along with the condition of the reticulation system and the quality of its care, etc. A zone grading should always be considered with the accompanying plant and source grading.

a	Completely satisfactory, negligible level of risk, demonstrably high quality
b	Satisfactory, low level of risk
c	Marginal, moderate level of risk, may be acceptable in some small communities
d	Unsatisfactory, high level of risk
e	Completely unsatisfactory, very high level of risk
u	Not yet graded (Not yet required if less than 500 people)

### Source and Plant Grading

Plant and source grading is based primarily on the likely health risks to the community arising from bacteria, protozoa (giardia and cryptosporidium) and chemical substances in the source water, and how effectively the treatment plant can act as a barrier to such contaminants passing through to the reticulation. Possible gradings are A1 (best), then A to E. As well as appearing against each plant, each zone inherits the plant grading from the worst plant providing it with water.

A1	Completely satisfactory, negligible level of risk, demonstrably high quality
A	Completely satisfactory, very low level of risk
B	Satisfactory, low level of risk
C	Marginal, moderate level of risk, may be acceptable in some small communities
D	Unsatisfactory, high level of risk
E	Completely unsatisfactory, very high level of risk
u	Ungraded

**Zone:** (or Distribution Zone) That part of the town or community receiving water of similar quality. For a small supply, that means "everywhere". For larger supplies, it may be only part of a town or city. By definition, parts receiving different water will

**Plant:** The treatment plant supplying the water. In some situations where no treatment is given, a nominal plant is defined as where the water is pumped from or merely gathered together. In others, the treatment plant will have highly technical operations

**Source:** The river, groundwater, or other source from which the water is taken. About half of New Zealand's drinking-water is pumped from the ground, with the remainder coming from surface sources.