HACCP

KEEPING WATER SAFE

The Queensland Government introduced the *Water Supply (Safety and Reliability) Act 2008*, and made it mandatory for water suppliers to have risk-based quality management plans in place to protect the public from drinking unsafe water.

Wide Bay Water Corporation (WBWC) has implemented the HACCP (Hazard Analysis and Critical Control Points) system to manage hazards and risks to the safety of our drinking water.

WHAT IS HACCP?

HACCP is an international food safety system that helps to identify hazards that are risks at any point in the process to the safety and quality of the drinking water and that might cause illness.

Preventative measures are put in place to manage these hazards and risks.

The HACCP system was developed by NASA 30 years ago to prevent astronauts from becoming ill because of unsafe food.

One of the most important responsibilities of WBWC is to provide water that is safe to drink. In most cases this means the water must be disinfected before distribution to our customers.

WHAT IS DISINFECTION?

Most tap water in Australia undergoes a range of treatment processes before it is distributed to consumers, to make sure that it is safe to drink. Disinfection is one of the most important of these processes.

Disinfection kills the bacteria, viruses and other micro-organisms that are often found in water. Having some disinfectant present throughout the water distribution system prevents potentially harmful microorganisms growing in water pipes.

CHOOSING A DISINFECTANT

The most frequently used disinfectant is chlorine, but other types of disinfectant are becoming more common, such as chloramine, ozone and ultraviolet light. Burgowan Water Treatment Plant (WTP) uses ozone as well as chlorine, Howard WTP, Teddington WTP and Tiaro WTP all use chlorine.

A number of key factors were considered when choosing the disinfection systems. These include:

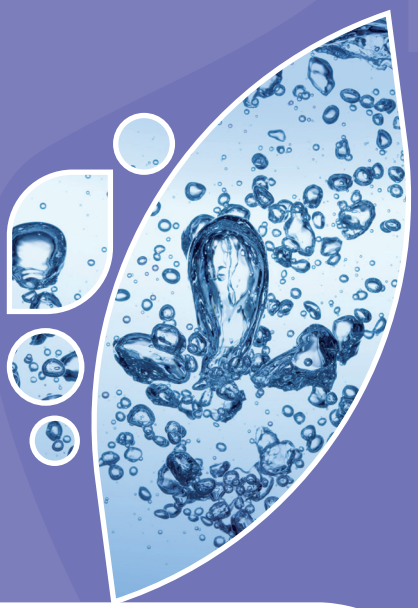
- Effectiveness in killing a range of microorganisms
- Ability to remain effective in the water throughout the distribution system
- Safety and ease of handling
- Cost

ABOUT CHLORINATION

Chlorine is the most widely used disinfectant for drinking water in Australia. It is used in most Australian capital cities and many smaller water supplies. The process of using chlorine to disinfect water is called chlorination.

Chlorine passes through microorganism cell walls and attacks vital enzymes, causing cell death.

Chlorine is cheap, easy to use, and effective at low dose levels against a wide range of infectious microorganisms, can protect water within the pipe system, and has a long history of safe use around the world.



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WHAT IT MEANS FOR YOU

Wide Bay Water Corporation is committed to the supply of safe drinking water which meets or exceeds the standards set by the Australian Drinking Water Guidelines (ADWGs). The ADWGs are a set of water quality standards developed and maintained by the National Health and Medical Research Council of Australia (NHMRC). These standards cover the minimum requirements for safe health parameters and for the aesthetic values of drinking water. Health parameters cover such things as biological and physical contamination. Aesthetic values cover the qualative aspects of water for domestic consumption such as colour, taste and odour.

WHAT ARE SOME OF THE HAZARDS THAT CAN AFFECT THE WATER SUPPLY?

- BIOLOGICAL
  Bacteria, viruses and protozoa that can cause illness or in extreme cases death. Examples are Cryptosporidium, E. Coli and Blue Green algae.

- CHEMICAL AND METALS
  Manganese, Aluminium and chemical impurities such as cleaning agents, pesticides and treatment chemicals used incorrectly are some of the metal and chemical hazards encountered in a water supply system.

- PHYSICAL
  Turbidity (fine particulates), colour, taste and odour may also be hazards in water supplies.

To ensure efficient and appropriate management of these hazards, WBWC has regulatory responsibilities as well as the commitment of its management and employees to providing safe drinking water. The State Government regulatory body which oversees Water Service Providers (WSPs) in Queensland is the Office of the Water Supply Regulator at the Department of Energy and Water Supply (DEWS). The instrument governing WSPs in Qld is the *Water Supply (Safety and Reliability) Act 2008*. This Act and associated regulations provide for mandatory reporting on water quality issues and in particular any breaches of water quality health parameters.

The Water Supply (Safety and Reliability) Act 2008 also requires WBWC to develop and maintain a formal Drinking Water Quality Management Plan (DWQMP) which provides a framework to managing the supply, treatment and delivery of safe water from catchment to customer. This plan incorporates the principles of risk management and details responses to identified risks and hazards; it also includes an action plan for continuous improvement. The DWQMP is formally reviewed and resubmitted to the regulator every three years to ensure it is updated and relevant.

WBWC demonstrates its commitment to providing safe drinking water by achieving and maintaining formal accreditation to the International food safety standard, ISO 22000. At the heart of this food safety standard is the Hazard Analysis and Critical Point Control Points process (HACCP) which is a systematic approach designed to monitor, identify and remove any hazards in the water supply.

HACCP helps identify hazards that are risks to the safety and quality of drinking water.

HACCP provides a comprehensive series of principles to ensure that the water delivered to WBWC's customers exceed the quality and safety parameters of the Australian Drinking Water Guidelines.

WBWC's regulatory commitments, the Drinking Water Quality Management Plan, our commitment to continuing accreditation to the ISO 22000 Food Safety Standard, and just as importantly, the commitment of its employees, together ensures that our water supply is as safe as we can make it.

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