

Keeping Mount Isa water safe

THE importance of a safe, reliable water supply in such a hot, remote location as Mount Isa is vital to the local community.

Mount Isa Water Board's key role is ensuring a reliable, clean water supply for the North West Queensland region, according to its CEO Mr Greg Stevens.

"We recognise the important role we play in the health and wellbeing of the Mount Isa region, both in the treatment and distribution of water, and in maintaining the recreational areas around Lake Moondarra for the community to enjoy," Mr Stevens said.

"Mount Isa has a unique water filtration system and a water quality that the city can be proud of."

He said Mount Isa residents can be assured that the drinking water we supply Mount Isa City Council meets Australian guidelines for water safety and quality.

"We have a regular testing regime to make sure that our water meets Australian Drinking Water Guidelines. On average more than 600 tests are conducted every month for both our drinking water and also raw bulk water.

"The drinking water is also tested every week for lead and other potential contaminants. We're proud of the fact that for many years now the water supplied to Council has consistently met the required Australian Drinking Water Guidelines: our water is clean and safe to drink."

Mount Isa Water Board (MIWB) was established as a State Government water authority in 1974 to provide a reliable, quality supply of bulk treated water to its local customers.

Mount Isa Water Board has three main customers: it provides good quality drinking water to Mount Isa City Council, which then reticulates this water to the approximately 23,000 people in Mount

This information feature has been provided by Mount Isa Water Board to answer the most common questions residents are asking about local water supply and water quality.



The picturesque Lake Julius, which serves as the backup water storage area for Mount Isa.

Isa city. Mount Isa Water Board's two local industrial customers are Xstrata Mount Isa Mines and Incitec Pivot Ltd. Mount Isa Water Board maintains nearly \$100 million of vital water supply and treatment infrastructure, including

86 km of transmission pipeline, 8 major pump stations, and power distribution and control systems, employing local staff who live in Mount Isa.

"We use Clear Water Lagoon as a natural filtration system to treat our potable

(or drinking) water. This natural filtration system reduces the colour, turbidity and concentration levels of chemical and microbiological contaminants," Mr Stevens said.

Common questions Isa residents ask about their water

Is the tap water safe to drink?

Mount Isa Water Board supplies the Council with drinking quality water, compliant with Australian Drinking Water Guidelines (ADWG). More than 8,000 water quality tests were conducted in 2011-12 to ensure the water complied with Australian guidelines. Mount Isa Water Board had a 99.99% compliance rate, with no E.coli bacteria detected in any water supplied to our customers, and no other issues impacting on public safety.

Why does the water from my tap sometimes smell or taste funny?

A natural filtration water treatment process is used in Mount Isa. Water safety is our first priority and we ensure Australian standards are met, so that Mount Isa residents have the same level of safety with their drinking water that other Australian regions enjoy. This natural filtration process treats the water to Australian standards, but may not remove some of the aesthetic characteristics. There are additional filtration options that could improve the smell and taste of the water, but these would be very expensive to implement.

If fluoride is added to the local water will it make it unsafe for drinking?

No, if fluoride is added to the water supply (as has been recommended by Queensland Health and has been undertaken in most parts of Australia for many years) Mount Isa Water Board will ensure our water continues to meet Australian drinking water standards. All products used in this process would be of a high standard to comply with the Queensland Code of Practice for the Fluoridation of Public Water Supplies.

Is lead a problem in Mount Isa's drinking water?

Residents will be very aware that lead and other metals are naturally occurring substances within local soils across the region - however they are not a problem in the drinking water supply. Regular testing is undertaken to check for lead and other contaminants. Mount Isa residents can be very confident that the water supplied by Mount Isa Water Board does not contain lead or other harmful contaminants and meets Australian Drinking Water Guidelines (see story on next page about the water treatment and testing process).

Water fast facts

- Mount Isa Water Board's water distribution network extends all the way from Lake Julius to Mount Isa.
- The Board maintains nearly \$100 million of vital water supply and treatment infrastructure, including 86 km of transmission pipeline, 8 major pump stations, and power distribution and control systems.
- Each year about 20,000 Megaliters of water are supplied from Lake Moondarra and Lake Julius to customers - the equivalent of 8,000 Olympic swimming pools.
- Water demand in Mount Isa can be more than 80 Megaliters of water a day.

Isa unique: Australia's only natural filtration system

Water treatment and testing vital to keep standards high

ONE of the important things Mount Isa Water Board does is to sample, test and treat the water supplied to customers to ensure it meets Australian Drinking Water Guidelines.

Mount Isa Water Board conducts more than 8,000 water quality tests each year, on over 800 water samples taken from more than 20 locations.

Raw water is sourced from either Lake Moondarra or Lake Julius and pumped to Clear Water Lagoon, and as the water travels down the flume to Clear Water Lagoon it is aerated.

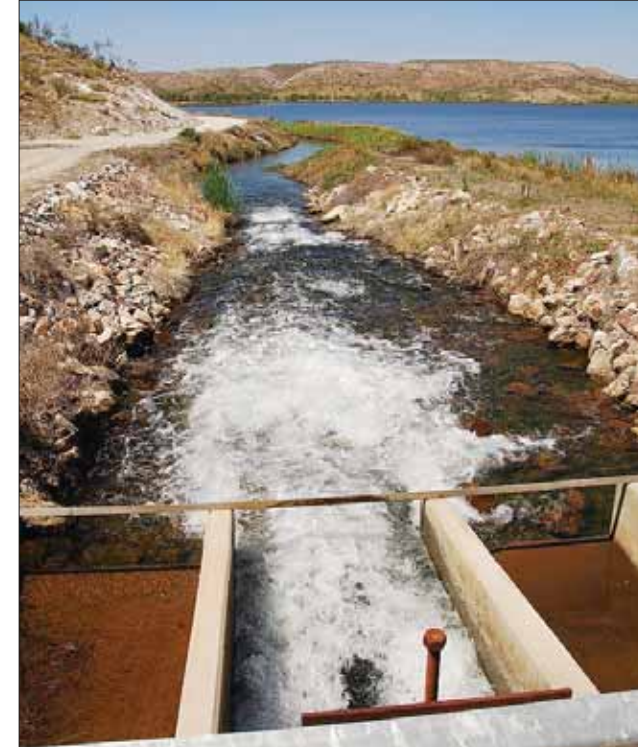
At Clear Water Lagoon the water undergoes a natural treatment process over a 30 day period. The water moves slowly through a settling pond where the water is filtered and clarified. From the settling pond the water

travels through another flume into the back of the main lagoon. The lagoon uses a series of natural grasses and floating reed beds to filter and store the water to achieve the required water quality.

The lagoon has storage of over one month's water supply and ensures that there is still a clean water supply reserve, even if the Leichhardt River floods.

After the natural treatment process, water is pumped from the Col Popple Pump Station into Mount Isa. The water goes through further safety treatment in Mount Isa, before being pumped from the Mount Isa Terminal Reservoir Pump Station to customers.

Mount Isa Water Board CEO, Mr Greg Stevens, said "Clear Water Lagoon is the only natural filtration system used in Australia to treat raw water to



Water runs through a natural treatment process in Clear Water Lagoon before being pumped into Mount Isa where it has further quality treatment before being pumped from Mount Isa Terminal Reservoir Pump Station to customers.

potable (drinking) water standards".

Mr Stevens said "Water samples and field measurements are regularly

taken throughout the water treatment system,

including raw lake water, treated water and potable water points".

"These samples can be tested against more than 150 parameters in the Australian Drinking Water Guidelines," he said.

"Significant work continues to be done in the area of water quality, with the development during the year of a new Drinking Water Quality Management Plan and increased internal capability for water quality testing to supplement the existing external testing facilities."

Monitoring blue green algae

Each year Lake Moondarra and Lake Julius record an increase in Blue Green Algae levels over the summer period.

Blue-Green Algae is a naturally occurring type of bacteria known as "Cyanobacteria", and is found in rivers, lakes, damp soil, tree trunks and hot springs.

Some species have the potential to produce toxins which can cause health issues like rashes, itchiness or gastrointestinal problems. Mount Isa Water Board monitors the Blue-Green Algae levels in Lake Moondarra and shows the risk level on a dial indicator at the entrance to the Lake Moondarra Reserve. There is no Blue Green Algae in the drinking water system.

Lake Moondarra for all to enjoy

LAKE Moondarra is not just Mount Isa's primary water source, it is also a popular local leisure area and wildlife sanctuary set on 11,000 hectares of reserve.

Mount Isa Water Board is trustee of the water catchment and recreation reserve (R48 Reserve) around Lake Moondarra, about 16 km downstream from Mount Isa.

Many people visit and enjoy the Lake Moondarra reserve each year, with activities include boating, skiing, fishing, canoeing, astronomy and archery.

To help manage water quality, Mr Stevens said the Board operates land and aquatic pest weed management programs within the local Lake

Moondarra catchment and water treatment systems.

The raw water in Lake Moondarra is monitored against the ANZECC freshwater ecosystem guidelines.

The Board also maintains the substantial recreational amenities at the reserve, including picnic areas, water sports facilities, playgrounds, gazebos and barbecues.

The Mount Isa Fish Stocking Group holds the annual three day Lake Moondarra Fishing Classic here, of which Mount Isa Water Board is a major sponsor. This popular event has attracted more than 5,000 spectators in recent years.



Lake Moondarra is the region's principal water storage area: pictured is Lake Moondarra Pontoon Pump Station which takes water from the lake and sends it to Clear Water Lagoon.

Mount Isa Water Board's role

- The Board's primary responsibilities are to:
- conserve, store and supply bulk water to local and industrial customers
 - take appropriate measures to protect the quantity and quality of present and future water supplies
 - investigate and plan for future infrastructure requirements
 - construct, operate and maintain the water infrastructure necessary to meet customer demands

Mount Isa Water Board is a Queensland Government statutory authority governed by a 5 member Board which is appointed by the Governor in Council and reports to the Minister of Energy and Water Supply.

The staff, management and Board of Mount Isa Water Board are committed to ensuring a high quality of drinking water for our community. If you have queries about matters in this Special Feature, please contact Mount Isa Water Board on 07 4740 1000.

