CLERMONT WATER SUPPLY: FREQUENTLY ASKED QUESTIONS

MONDAY, 19 OCTOBER 2026

➢ WHERE HAS THE MANGANESE COME FROM?

Manganese is naturally occurring in the Theresa Creek Dam catchment and is always present. The amount of Manganese in the water source can change though as a result of changes in weather, changes in system operations or other events in the catchment.

The treatment plant can remove Manganese in the water supply through treatment processes but when the amount of Manganese in the water changes, it can make treatment more difficult.

The amount of Manganese coming through the raw water system from Theresa Creek Dam to the treatment plant has spiked considerably in the past several weeks.

The current issues being experienced are likely from many years of build-up in our raw water network which we believe were stirred up when we had recent failures of our raw water pumps at the dam.

➢ WHAT ARE THE AUSTRALIAN DRINKING WATER GUIDELINES FOR MANGANESE?

Manganese has two *Australian Drinking Water Guideline* (ADWG) values.

The first is what is called an aesthetic value. This value is tied to the visual quality of the water rather than to any health impacts, when water is above this level there is increased risk of discoloured water, changes to water taste and a risk of staining laundry.

The aesthetic value is 0.05 mg/L and the bulk of the exceedances during the current event have been aesthetic exceedances.

The second value is the health value. Based on health considerations, the concentration of manganese in drinking water should not exceed 0.1 mg/L[1]

➢ HOW DID WE GET SUCH HIGH LEVELS OF MANGANESE?

Manganese occurs naturally in many Queensland drinking water supplies. Manganese builds up on the inside of water pipes over time. When it occurs at higher levels it can cause staining of clothes and create unpleasant taste and odour in the water.

[1] (https://guidelines.nhmrc.gov.au/australian-drinking-water-guidelines/part-5/physical-chemical-characteristics/manganese)

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➢ WHY WAS THE WARNING SPECIFICALLY TARGETED TO BOTTLE FED BABIES?

Queensland Health advice is:

"Bottle-fed infants are considered to be the most sensitive to adverse health effects from Manganese in drinking water. The *Australian Drinking Water Guidelines* (the Guidelines) include a value for Manganese that has been developed to protect bottle-fed infants. It is also highly protective of all other community members, including pregnant women, nursing mothers and children.

Queensland Health advises that the use of bottled water when preparing infant formula is highly recommended when levels of Manganese are above the recommended level (0.1 mg/l)."

➢ WHAT ABOUT FOR THE REST OF THE COMMUNITY?

Queensland Health advice is:

"Consumption of tap water with slightly elevated Manganese levels for a short period of time is not desirable but is not expected to lead to any serious harm in adults or children."

➢ WHERE CAN I FIND THE AUSTRALIAN DRINKING WATER GUIDELINES?

You can read the guidelines here: Australian Drinking Water Guidelines | NHMRC

➢ WHAT IF I HAVE CONCERNS OR EXISTING HEALTH ISSUES?

If you would like to discuss the health advice further, please contact the Mackay Public Health Unit on: 07 4885 5800 (Monday to Friday, 8.30am to 4.30pm) or consult your local GP.

➢ HOW OFTEN TO DO YOU TEST THE WATER?

As part of its *Drinking Water Quality Management Plan*, Council conducts twice weekly sampling of its reticulation network at set locations that are at the end of network to ensure compliance with the Guidelines.

Manganese is sampled once a week. These samples are sent to an independent *National Association of Testing Authorities* (NATA) accredited laboratory.The water treatment plant also undertakes weekly NATA accredited sampling.

Daily operational sampling occurs at the plant. This is local testing where we can identify issues, but it is not NATA tested unless an anomaly is detected.

Daily samples taken from the reticulation system during this incident are tested at the Clermont Water Treatment Plant lab.

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➢ WHAT HAPPENS FROM HERE?

Ongoing daily sampling will continue to occur until council believes the Manganese issues are in hand.

In circumstances where test results are high, immediate action is taken to flush via hydrants of the network and undertake retesting.

➢ DID YOU INFORM RESIDENTS IN THOSE AREAS THAT THEIR WATER EXCEEDED THE AUSTRALIAN DRINKING WATER GUIDELINES?

Following receipt of sample results that exceed the Guidelines, council standard practice is to make contact with the *Water Supply Regulator* (WSR) who then notify the *Public Health Unit* (PHU) to report the exceedance, provide advice on what action is being undertaken (i.e. flushing) and seek advice on whether any other action is required.

In this case a Public Notice was issued on Friday, 16 October 2026 advising customers of elevated Manganese levels. Communication via the Council Facebook page also advised of the detected exceedances. A subsequent Public Notice issued on Saturday, 17 October 2026 confirmed the exceedances. Since then, updates have been regularly issued.

Paid social media campaigns are run and are geotagged to the region.

Venues such as Clermont Hospital and Daycare Centre were separately notified directly and provided the option of bottled water while flushing of system occurred.

➢ ARE YOU REQUIRED TO TELL PEOPLE IF THEIR WATER HAS EXCEEDANCES?

Notification requirements are determined in consultation with, and based on advice from, *Water Supply Regulator* (WSR) and *Public Health Unit* (PHU).

➢ WHEN YOU DISCOVER AN EXCEEDANCE, WHAT DO YOU DO TO FIX IT?

Council has several approaches to manage Manganese and we are currently using those to address the issue.

Approaches include cleaning and flushing of raw water assets, including the pipework from Theresa Creek Dam to the Clermont Water Treatment Plant, changes to treatment plant processes and flushing of the drinking water network.

Where there is high Manganese in the drinking water network as experienced, plumbers flush the affected areas in the network.

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This process involves using standpipes and draining the water with high Manganese. The pipeline refills with fresh potable water from the treated water storages in town.

This approach is good for helping clean out pockets of the network with water that are high in Manganese, however it does reduce the volume of drinking water in our storages which can make flushing of the entire network difficult to undertake.

➢ RAW WATER RESERVOIRS

From Thursday, 22 October 2026 Council will undertake a cleaning program for our raw water reservoir and balance tank from Theresa Creek Dam using specialist contractors. This will involve taking these tanks out of service and cleaning out all of the sediment in the tanks. This sediment is high in Manganese and can sometimes leave the tank and enter the pipeline and go into the treatment plant.

Tank cleaning is common and the frequency of cleaning depends on the quality of the raw water. Typically, tanks are cleaned on a 5 yearly schedule, but this can be changed where needed.

The cleaning and flushing of the raw water tanks is planned for completion over the coming week. Following cleaning of the raw water tanks we will have divers complete cleaning of the drinking water tanks as well with all works expected to be completed by Tuesday, 27 October 2026.

Ideally after the cleaning of the tanks things will return to more usual operations. However, changing weather and variability of the raw water in Theresa Creek Dam means that we need to remain vigilant in relation to manganese in the water supply.

Within the treatment plant, Council can change the dosing rates of treatment chemicals to try and remove elevated Manganese. It can be achieved through the dosing of Potassium Permanganate. This causes the manganese to precipitate and drop out of the water as a solid where it can be removed in our clarifier or filters.

There is a balancing act in the use of potassium permanganate as the change in dosing can cause colour changes to the water.

➢ HOW LONG DOES IT TAKE FOR THE EXCEEDANCE TO GO BACK TO NORMAL LEVELS?

The timeframe depends on several factors, including the magnitude of the exceedance, the volume of water required to be flushed through the network, and the location of impacted water within the system.

Levels may return to normal within a few hours but can take up to several days, particularly as Manganese migrates towards dead-end sections of the network.

The dead-end sections are harder to flush and have contributed to the situation we are currently dealing with.

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➢ HOW HAVE YOU COMMUNICATED THESE ISSUES WITH COMMUNITY?

Council uses many methods to communicate with Clermont residents and tailor this to suit different circumstances. Council continues to liaise with *Water Supply Regulator* (WSR) and *Public Health Unit* (PHU) to determine levels of appropriate communication.

A paid, geotargeted social media campaign was used to ensure targeted information, and public notices with further information was also published.

The Clermont Hospital and Kindy were both notified and offered bottled water, when Manganese became unstable. Community was provided free bottled water, available 24/7 from the library.