

FRASER COAST'S SUCCESS WITH IXOM'S GRIDBEE® THM REMOVAL SYSTEM, COMPLYING WITH CURRENT AND FUTURE THM REGULATIONS

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Trihalomethanes (THMs) are regulated in drinking water due to their potential health risks, including cancer and reproductive issues. In Australia, the Australian Drinking Water Guidelines (ADWG) set the limit for total THMs at 250 $\mu\text{g/L}$, which is higher than limits set by the US EPA (80 $\mu\text{g/L}$) and the EU (100 $\mu\text{g/L}$). Discussions are ongoing about tightening these standards to align with international guidelines.

The Fraser Coast Regional Council (FCRC) encountered elevated THM levels—up to 400 $\mu\text{g/L}$ —in a 1 ML drinking water reservoir. High chlorine dosing upstream (3.5 mg/L) to maintain residuals at the reservoir contributed to THM formation. To address this, FCRC partnered with IXOM to implement the GridBee® THM Removal System, which combines spray aeration (SN10), active mixing (GS-9), and ventilation (F4).

The SN10 unit sprays water to release THMs into the air, while the F4 blower enhances airflow and the GS-9 mixer prevents stratification. Post-installation results showed a 65% reduction in THMs, bringing levels down to $\leq 100 \mu\text{g/L}$ —well below the ADWG limit. This successful outcome improved water quality and reduced downstream THM formation, offering a model solution for other councils facing similar challenges.