

Case Study

AUQLDPW-5377.002

Big TTHM problem solved almost immediately

GridBee® THM Removal System reduces TTHM by 65-75% and more!

Topics: total trihalomethane, TTHM, chlorine, formation potential, spray aeration, active mixing, active ventilation



A 1 ML Drinking Water Reservoir (left) and an operating GridBee® SN10 In-Tank Spray Aeration Unit (right).

Location & Contact Information:

Further information may be available upon request. Please contact Ixom Watercare by phone at 866-437-8076 or by e-mail, watercare@ixom.com

Reservoir Overview: This reservoir has a turnover rate of ~0.2 – 0.6 ML/d (0.05-0.16 mgd). There are four chlorine dosing stations on inlet of the reservoir (twice with sodium hypochlorite and twice with chlorine gas).

Construction: Concrete
Diameter: 18.3 m (60 ft)
Height: 4.17 m (14 ft)
Operating Level: 3-4 m (10-13 ft)
Maximum Volume: 1,000,000 L (264,000 gallons)

Pre-Deployment Conditions: High chlorine concentrations of ~3.5 mg/L are needed 5 km (3.1 mi) upstream of the reservoir to maintain 2.0-2.5 mg/L of chlorine residual at the reservoir. This creates a perfect storm of THM formation leading to, out of, and downstream of the reservoir.

TTHMs downstream have been measured as high as 400 µg/l or more.

Project Objectives: Reduce total THM at the reservoir and in the downstream distribution network to well below Australian Drinking Water Guideline TTHM limit of 250 µg/l.

Solution: One (1) GridBee® SN10 In-Tank Spray Aeration Unit, one (1) GridBee® F4 Ventilation Blower, and one GridBee® GS-9 Submersible Tank Mixer

Results: Reference before and after TTHM data from the inlet, outlet and downstream on page 2.

Total THMs were significantly reduced to near 100 µg/l and just below.

The data also shows that THM formation potential has been substantially lessened downstream.

The Customer is very happy with the results.

GridBee® SN Series THM Removal System

River Heads - Before & After TTHM Performance Data

