

# Greater Hobart chlorine control review

Riley Jaack Murtagh-Linnell, University of Tasmania/TasWater.

## OBJECTIVES

This project aims to:

1. Assess what the chlorine dose rate and concentrations should be at various key points as water flows throughout the system. Different flow and water quality configurations will need to be considered. Review the control mechanisms currently in use.
2. Review the adequacy of the existing dosing systems and instrumentation to meet the associated chlorine targets. Consider the need for re-chlorination systems to avoid the aesthetic issue associated with high chlorine residual in some areas, and to minimise manual dosing. Investigate the option of using chloramination.

## PROBLEMS

Chlorine dosing rates and concentrations have been gradually increased over the last 5 years to meet critical control point (CCP) targets. Some of the systems in place may be undersized or not operating within their design range. This has resulted in manual chlorine dosing being required up to twice weekly at the most extreme of cases. There is also an aesthetic issue whereby some areas are forced to see high chlorine residuals to ensure the minimum chlorine residual is met in areas further downstream.

The intended outcome is to find, recommend, and support ways to upgrade infrastructure at TasWater and make the overall chlorination system more reliable and user-friendly. This plans to eliminate the current demand for manual chlorine dosing by outlining ways to optimise the current infrastructure or encourage plans for new infrastructure (re-chlorination sites, buffer reservoirs etc.)

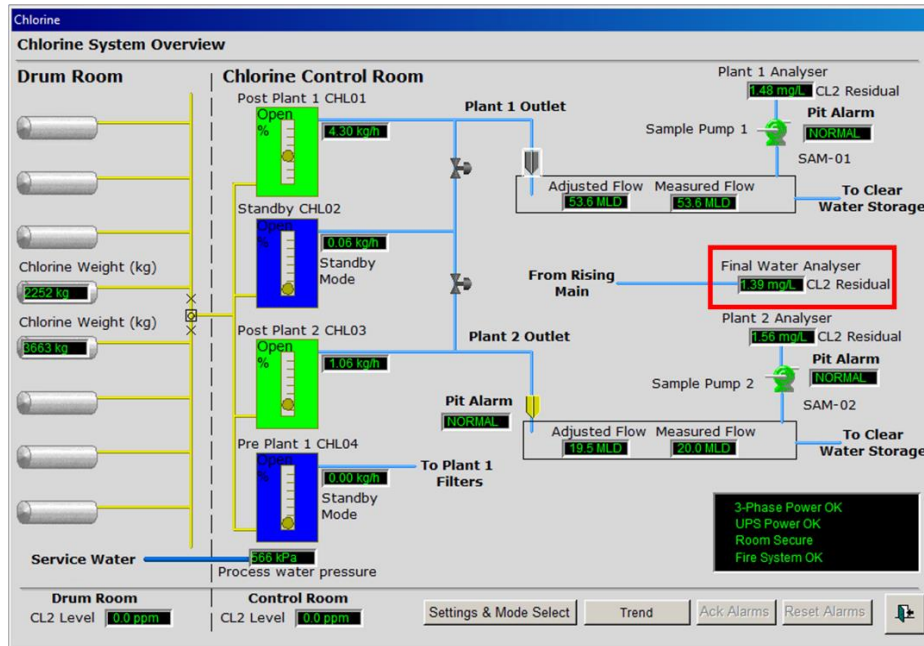


Figure 1. Chlorine Control System Overview - Bryn Estyn



Figure 1. Chlorine Dosing Stations - Greater Hobart Area