



## Water Industry Operators Association of Australia Submission of Abstract

**Platform or Poster:** Presentation

**Title of Abstract:** Managing coagulant dosing for drinking water supply in regional NSW

Abstract (200 words): Water quality variations, particularly high organic content, could lead to water treatment challenges due to climate change. This work provides an evaluation of the suitability of using a software to support coagulation control for Albury, Goulburn, Moama, and Yass drinking water treatment plants in regional NSW. The software, WTC-Coag, can use only turbidity, colour and UV254 to generate dose predictions. These plants were selected based on their different and highly variable water sources, so the software can be assessed in different conditions. The software was provided to assist water treatment operators in determining optimal coagulant doses. When the concentration of organics increased in the raw water, the predicted dose also increased, but the plant dose did not increase until the organic content continued to increase. Although operators often prefer steady state operation even as water quality changes, operator experiences suggest that the software predictions could boost confidence in alum dosing for water treatment, especially during major water change events. The use of the software has great potential for integration into regional operation systems, enhancing the compliance with water treatment operations, ultimately contributing to improved water quality and operational reliability.

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