

Tooleybuc, NSW, right on the border with Victoria.

Working together with CST Wastewater Solutions' delivery partner Envirotech Water Solutions, Wakool Shire Council replaced the old plant with a new ultrafiltration plant to provide potable water for Tooleybuc's town water supply. The entire plant was installed in just two weeks of on-site work and achieved results exceeding Australian standards.

"It was an outstanding outcome to be able to work with the council to complete the work so efficiently within a narrow time frame. Wakool Shire Council is very happy with the installation, which uses technology widely applicable to the many councils facing similar issues," said Mr Damien Abbott, Business Development Manager – Victoria, CST Wastewater Solutions.

"Another big advantage for councils like Wakool is that on-site attendance and maintenance is very low, with only one day a week being required. This produces both cost-efficiency and OH&S benefits," continued Mr Abbott.

The new plant has a capacity of 0.5 MLD (over 20 hours) with a peak flow of 6 L/s. The water is treated for turbidity, colour, protozoa and viruses

using CST's advanced ultrafiltration technology. The technology reduces turbidity from 8 NTU to <0.1 NTU, and colour from 15 to 5. Australian drinking water standards specify that acceptable drinking water needs to be <5 NTU and <15 true colour*, so the Tooleybuc plant well exceeds these standards.

"Improving turbidity by over 80 times and significantly reducing the colour to exceed Australian Standards is an excellent result for the project, which is widely applicable to councils and municipalities across Australia," said Mr Abbott.

The Pentair X-Flow ultrafiltration plant installed at Tooleybuc is a new generation of low-pressure membrane filtration technology engineered to produce water from all kinds of water sources using ultrafiltration (UF) and, more recently, nanofiltration (NF). X-flow's strength is the integration of critical process steps to ensure a Full Circle

Membrane Technology partnering approach encompassing all key process and operational steps including membrane manufacture, engineering design, installation and commissioning support and ongoing operational support. CST integrates a range of X-flow and other membrane systems that are tailored to the specific raw water quality requirements and treated water objectives for clients.



CST's SFC Screen Extractor, left, and hazardous material screened out by CST technology, below



Flood Challenge: Richmond Valley, NSW

An upgrade by Richmond Valley Council of its Casino Sewage Treatment plant has paid immediate dividends by withstanding the fury of June's storms and floods without suffering any polluting spills or odours.

The turnkey upgrade – which included retrofitting of fine screening technology by CST Wastewater Solutions – was completed just days before the bad weather along Australia's East Coast dumped more than 160mm of water on the council region within 48 hours.

"The Council couldn't have timed the upgrade any better. Their foresight and technology upgrade was perfect," said CST Wastewater Solutions Managing