



**UNSW**  
SYDNEY



## Validation of Processes for Water Treatment and Recycling

**Using state-of-the-art asset management techniques to deliver water that is fit for purpose, safer and cheaper, to food growers and manufacturers.**

### Competitive advantage

- Unique interdisciplinary research expertise in developing and optimising water treatment processes for a range of industrial applications
- Extensive research experience in assessing the resilience and reliability of water treatment systems
- Innovative approach to assessing the performance of treatment processes and their ability to deliver fit-for-purpose water

### Impact

- Developing validation guidelines for water treatment and recycling processes to increase safety in food production.

### Successful applications

- Implementation of national guidelines to validate treatment processes for non-potable reuse applications (WaterVal)
- Use of Triple Bottom Line and Life Cycle Assessment to evaluate internal water and energy recovery systems in abattoirs
- Development of food safe, non-microbial, biodegradable silver citrate nanoparticles for rapid validation of water recycling systems, for use in glass house and indoor horticulture applications

### Capabilities and facilities

- Extensive research experience in the use of computational fluid dynamics (CFD) simulation software, for water treatment and membrane processes in particular State-of-the-art analytical suite for organic and microbial characterisation

### Our partners

- Water Corporation of Western Australia
- Sydney Water
- Australian Meat Processor Corporation
- Evoqua Water Technologies

### More Information

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