



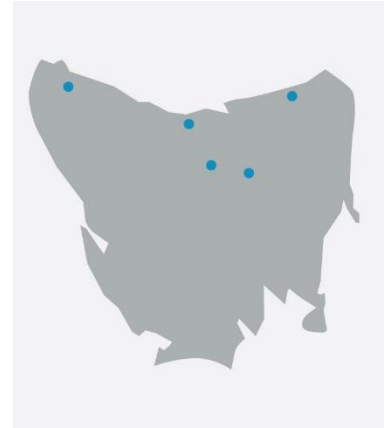
# Beyond Water Smart: Advancing Dairy Irrigation System Performance

## 1. What is the project about?

This project aims to establish optimised dairy irrigation farms with linked satellite farms in 5 regions across Tasmania to demonstrate the benefits of getting irrigation system selection and management right. The project will work with farmers and service providers to identify and demonstrate the farm scale costs/benefits incurred from using technology and good irrigation practice to address the yield gap resulting from poor irrigation system performance and irrigation scheduling practices.

The project will also explore existing and new autonomous irrigation technologies that have potential to increase irrigation performance.

Project sites are located at Lileah, Sisters Creek, Waterhouse, Meander and Cressy.



## 2. Why do irrigators need to know about it?

Currently key irrigation decisions such as start-up time, scheduling interval, irrigation depth and system performance (uniformity and energy efficiency) are often determined by simple rules-of-thumb or gut feel estimates. The Smarter Irrigation for Profit Phase 1 found conducting annual system checks including pumps, getting the startup time right and avoiding the 'green drought' increased energy and water use efficiency as well as overall whole farm productivity and profitability by 30- 40% on some sites.



## 3. How will the research benefit irrigators?

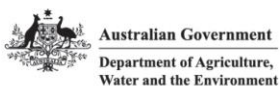
A discussion group made up of farmers and service providers with researcher and extension support will be established for each optimised farm. These groups will oversee the benchmarking of system performance on both the optimised and linked satellite farms, provide input into the selection of technologies to be tested, and ensure recommendations are practical and cost effective. The discussion groups will also provide a basis for professional development training for farmers and service providers.

Smarter Irrigation for Profit I found existing variable rate irrigation technologies can achieve productivity gains of 30% and autonomous irrigation is feasible for dairy and has potential for wider application. Further testing of the autonomous system 'VARIwise', developed as part of the Smarter Irrigation for Profit project, will continue at the TIA Dairy Research Facility. Spatial measurement of pasture growth rates and soil moisture are key technologies that support autonomous irrigation systems. These technologies will be assessed in collaboration with the Centre for Agricultural Engineering at the University of Southern Queensland and other commercial partners.

## 4. Key results to date

For further information or project progress updates, contact:

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