

Securing clean and efficient water supply for 700 dairy cows in Smithton

The Situation

John and Vicki Lillico run a large-scale dairy farm 9 kilometres from Smithton, in the far North-West Coast of Tasmania. They have been in the dairy business for over 30 years.

The dairy industry has been the mainstay of Smithton and the Circular Head Community since the mid-1800s. Today, there are around 150 dairy farms around Circular Heads producing more than 40% of Tasmania's annual milk supply.

As Dairy Producers, John and Vicki understand how important it is to have reliable pump systems in place to ensure the efficient running of their dairy operation. Dairy Producers need water for a multitude of purposes, including for irrigation of pastures, supplying stock with drinking water, for wash-down and wastewater handling.

In late 2014, the Lillico's were experiencing problems with their water supply, which was being pumped from a waterhole to holding tanks at the dairy. The water supply was unreliable and the water quality was poor.

John was also interested in expanding the system capacity, in order to supply water to the heat exchanger at the dairy, and also to be able to supply stock water in the event of a power outage.

The Solution

John approached Conrad Odgers at Think Water Smithton, who have been serving the local community since 1990.

TOPIC:

Water supply for large-scale dairy farm

LOCATION:

Smithton, Tasmania

COMPANY:

Think Water Smithton

After an in-depth discussion with John about their needs, and with his own strong knowledge of the local conditions, Conrad recommended drilling a new bore right next to the dairy, fitted with a quality Grundfos submersible pump complete.

Due to the varying duties required, he also recommended a system with a Variable Speed Drive (VSD). To deal with the water quality issues, Think Water Smithton also recommended a water filter.

The bore hole is 95 metres long and fitted with a Grundfos SP14A-25 (7.5kw) and CUE external variable speed drive. All pump components are made from stainless steel, to ensure high corrosion resistance. It is fitted with a 7.5 kw MS4000 motor with sand shield, mechanical shaft seal, water lubricated journal bearings and a volume compensating diaphragm. Its design ensures good mechanical stability and high efficiency.

The external CUE drive allows additional functionality and control compared to fixed speed systems, and provides easy installation and commissioning.

The Outcome

The pump has been running without any issues since its installation in December 2014.

“Through the addition of a new bore with a Grundfos submersible pump and VSD drive, we could supply both the dairy and stock water as required with a reliable, energy efficient supply of clean water.

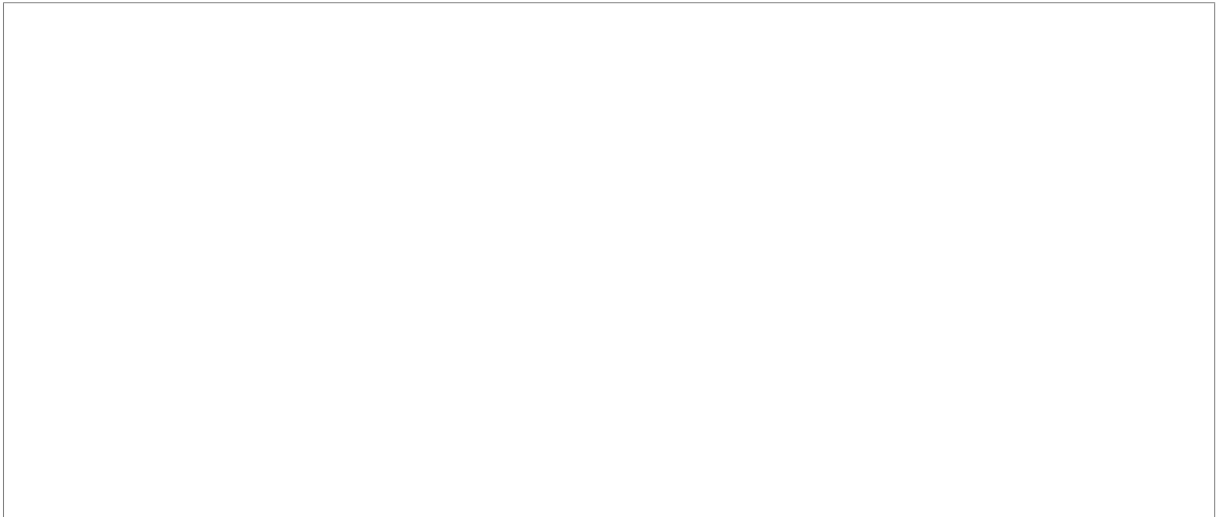
“The pump can also be run by generator power, meaning that the stock water supply is secured, even in a power outage,” says Conrad of Think Water Smithton.

The end result for the Lillico’s has meant a more reliable system for both their dairy and stock water supply.

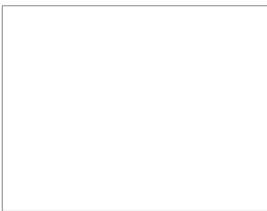
“We’re really happy with the results achieved with the new pump. The team at Think Water Smithton were able to listen to our needs and suggest a system that is a vast improvement on the old one.

“The new pump runs almost all the time and we know that if we ever run into trouble, we have the support of a local expert, backed by a global company with decades of pump innovation experience,” says John Lillico.

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