Pump Flow Monitoring – Going with the flow

# Scoring

Complexity (2 out of 3)

Price (2 out of 3)

Scale (3 out of 3)

For irrigated properties, it is important to have an efficient and effective irrigation system in order to maximise yield and save water. Understanding where and how water is flowing through your irrigation system is an important part of this. Pump flow monitoring will allow you to achieve this by sending real-time data from several sensor points back to a central computer. It can be used on any farm that uses irrigation, and will help minimise water waste, improve yield, and enhance sustainability outcomes.

# How

Irrigation systems are often a complex network of pipes and pumps that reach the very edges of your property. As they operate, small faults and leaks can start to appear in older segments of the pipeline, and these can contribute to significant water waste.

Pump flow monitoring works by using an array of sensors to detect the actual flow volume and measure it against the expected flow. Any significant discrepancies point to pipe leaks or damage, and a robust pump flow monitoring system can also point to where on the property the leak is likely occurring in real time.

Even without damage, pump flow monitoring can help bring optimal performance and contained

consumption to your property. The data gathered from the flow sensors will contribute to a holistic picture of water use, and when combined with other tools such as soil moisture probes, this can greatly increase production and reduce costs.

For any growers, pump flow monitoring is indispensable. It will give you a real-time alert via SMS if there’s a major flow break, and it will also provide an overview of where your water is going - and how much is actually ending up where it should be.

# Why

* An irrigation system with pump flow monitoring saves money, water and frustration.
* It offers a quick way to understand how your pumps are going, which ones need replacing, and how efficient your water supply is.
* It also helps isolate areas that are damaged or perhaps need less irrigation and enables you to address flow imbalances quickly and efficiently.
* Most importantly, it helps save water, a scarce and vital resource. Efficient pump flow monitoring means we can preserve water reserves for many years to come.

# Benefits

## Improved water efficiency

* Keeping water use levels low saves on money and resources.

## Rapid response

* Integrated SMS alert systems mean you can identify and shut down leaks before they become catastrophic.

## Data insights

* Brings together data that can be used in conjunction with other sets to create powerful insights into farm optimisation.

# Getting started

1. Identify where irrigation pumps are located on your property.
2. Obtain pump flow monitoring sensors and compatible dashboard software from reputable suppliers.
3. Install the sensors at outflow points from pumps.
4. Using software, bring together the data gathered from sensors to provide an overview of current irrigation levels and flow rates.
5. Use this data to identify flow inefficiencies or leaks.

# More Info

For more information on how you can deploy this technology on farm, give us a call on 136 186 or visit agriculture.vic.gov.au.

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