



## Valley 381m Polylined Rainger Linear Cost Savings

**Customer:** Pastega Holdings

**Location:** Eton, QLD

**Case Study ID:** CS-126

### Overview

Dowdens Pumping & Water Treatment are the sole authorised Valley Irrigation Master Dealers for Mackay & Whitsundays. The Dowdens agricultural irrigation sales team has over 125 years of combined agricultural and irrigation sales experience to help our customers improve their farm's productivity & lower their overall operating costs.

Valley Irrigation is the worldwide leader in precision irrigation. The Valley brand of center pivot, linear, and corner equipment provides solutions for conserving water and meeting the growing demand for food. The center pivot is much more than an irrigation machine. Sharing the intelligence between connected field devices, the pivot, and the integration of data science and machine learning lets you detect and receive critical information to improve crop precision, which results in greater returns - all while using fewer inputs and resources.

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Pastega Holdings have various sugar cane farms located in Eaton southwest of Mackay. The family have been progressively taking their farming practices into the 21st century and moving their irrigation to Valley pivot systems allowing water, time and electricity savings. They believe that personal time with their families is very important so having a fully automated irrigation system that can be operated via their phone from anywhere in the world was a huge benefit.

## The Problem - Replace existing 140x400 Poly Reel Irrigators

*"Irrigation electricity tariffs in Queensland have risen a minimum of 136% over the past decade, and for some more than 200%." - Qld Country Life - Feb. 2018.*

### Power Costs per Irrigation Cycle

The existing 140x400 Poly Reel Irrigators used 45Kw for 315 hours watering a total of 25mm per irrigation cycle.

**Average power cost \*\$3,969.00 + GST per irrigation cycle**

### Labour Costs

It takes on average 48 hours of the farmer's time to shift the Irrigator per irrigation cycle.

**Labour Cost 48 hrs x \*\$35 hr = \$1680 per irrigation cycle**

**TOTAL COSTS PER IRRIGATION CYCLE - \* \$3969 (power) + \$1680 (labour) = \$5649**



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## Our Solution

### Upgrade to a Valley 381m Polylined Rainger Hose Tow Linear

#### Power Savings per Irrigation Cycle

The Valley Polylined Linear Irrigation System did the same job in an average of 48 hours at \$500.00 + GST in electricity cost.

**Poly Reel Cost per irrigation cycle - \*\$3969 + GST**

**Polylined Rainger Linear Cost per irrigation cycle - \$500 + GST = \*\$3469 SAVING + GST**

#### Time Labour Savings per Irrigation Cycle

It takes the farmer an average of 8 hours to move the Valley Polylined Rainger Irrigation System per irrigation cycle.

**Poly Reel Labour Cost per irrigation cycle - \*\$1680**

**Polylined Rainger Linear cost per cycle \$280 + GST = \*1\$400 SAVING + GST**

**Average Cost Polylined  
Machine  
\*\$4396 H/A Installed + GST**

**Average Savings per  
Irrigation Cycle  
\*\$4869 Power & Time + GST**

\*Please get a detailed analysis to \*confirm you're possible savings.

## Key Components & Features

- Valley 4 wheeled Polylined Rainger Hose Tow Linear
- 37Kw Davey centrifugal pump
- VFD with pressure sensor fitted
- Pumping 60 L/S (28psi at centre point)
- 1200m of 200mm class 6 PVC piping
- 180m of 150mm Snaptide irrigator hose
- Delivering 25mm of water over the area in 48 hours

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## Why Polylined?

- Future liquid fertiliser
- Controlled fertiliser application
- Fertiliser savings

## Maximum Coverage Achievable

- Control via Computer or Mobile Phone
- Increased efficiency and water cost savings
- Programmable to suit your crops needs

## Project Design Philosophy

Dowdens Pumping & Water Treatment's design philosophy for this project was:

- Cost-Effectiveness
- Current Best Practice
- Ease of Installation
- Simple & Effective System Operation
- System Reliability & Delivering Reduced Ongoing Maintenance Requirements.



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## Brands used in this project



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