RED MEAT UPDATES

TASMANIA

29 July 2022

Setting up paddocks for irrigation success

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Gallagher

Outline

A NZ Case Study

- Site
- Measure
- Enterprise(s)
- Nitrogen Loss
- Infrastructure

Assuming Centre Pivot and using…….

Expertise within the industry to:

- Prepare a plan
- Peer review financial business case
- Resource the plan
- Execute to approved plan

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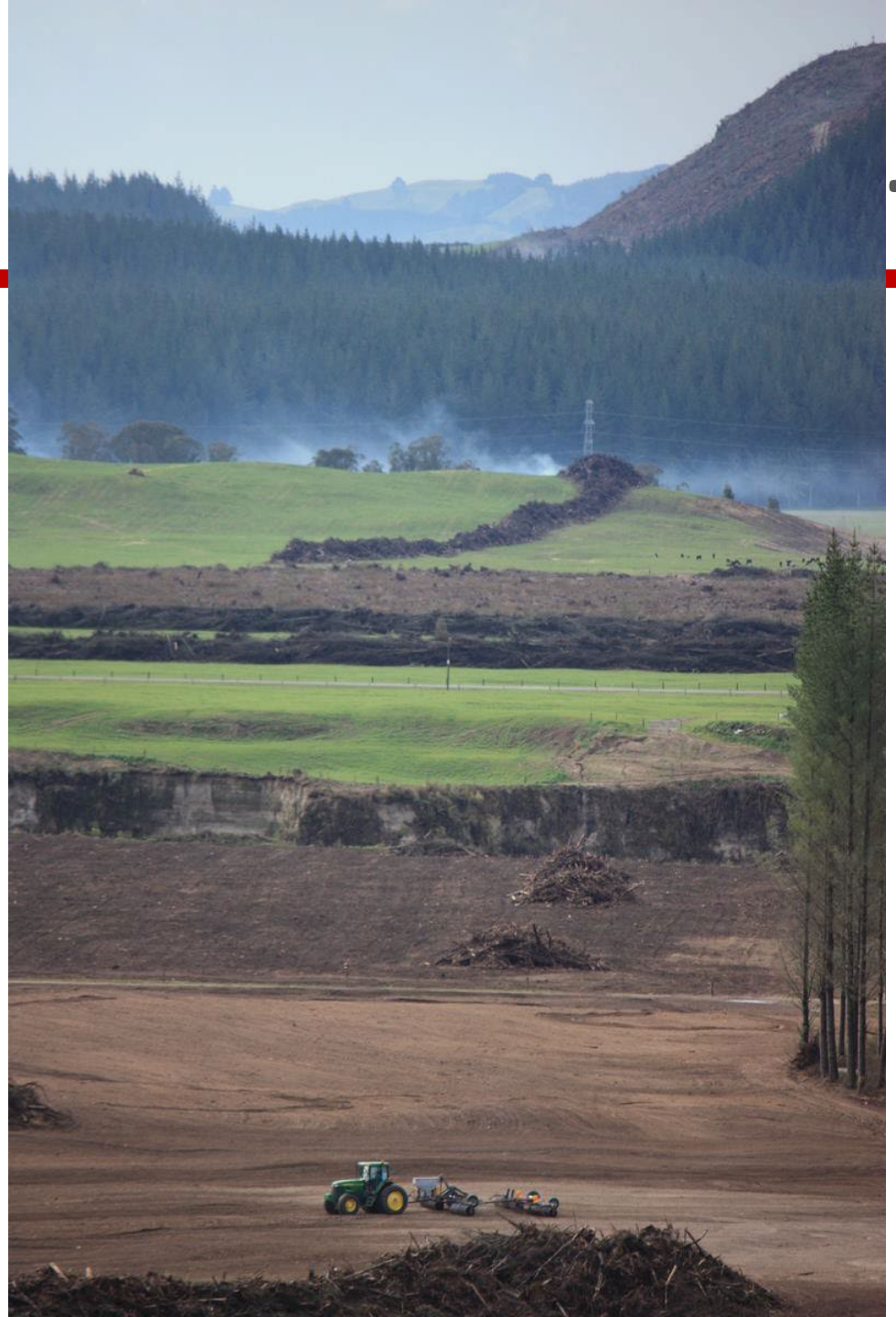
Consideration.....Timing



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A NZ case study – Preparing for irrigation

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A New Zealand case study

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Get to know *the soil under your feet*

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Get to know *the soil under your feet*

The EM survey:

- **Measures and maps**
  - **variability in apparent electrical conductivity within the soil profile using sensors**

- **Measured conductivity - linked to different soil characteristics**
  - **Sand/stone**
  - **Silt**
  - **Clay**

…….to define differing management zones.

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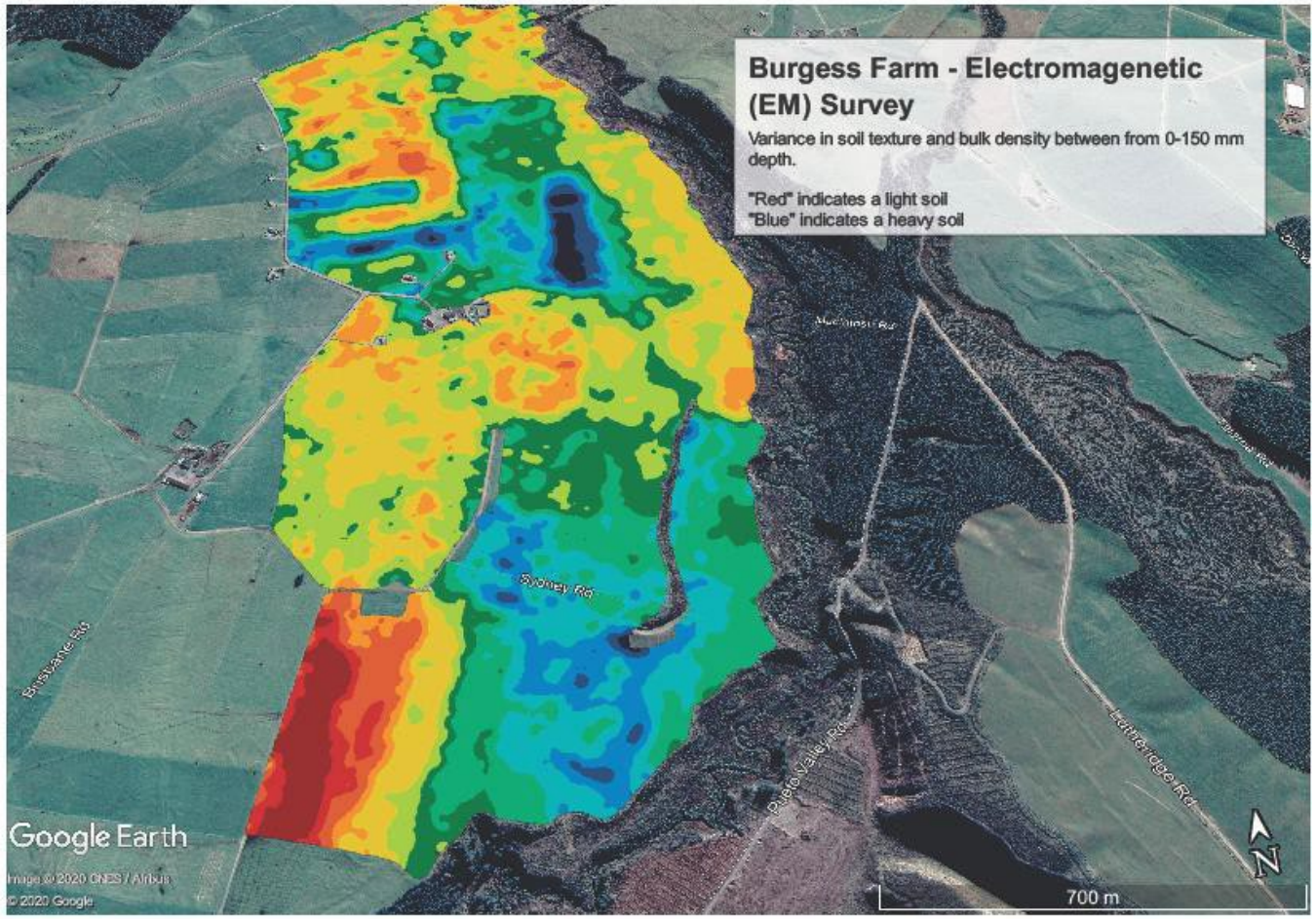
Electromagnetic (EM) Surveys



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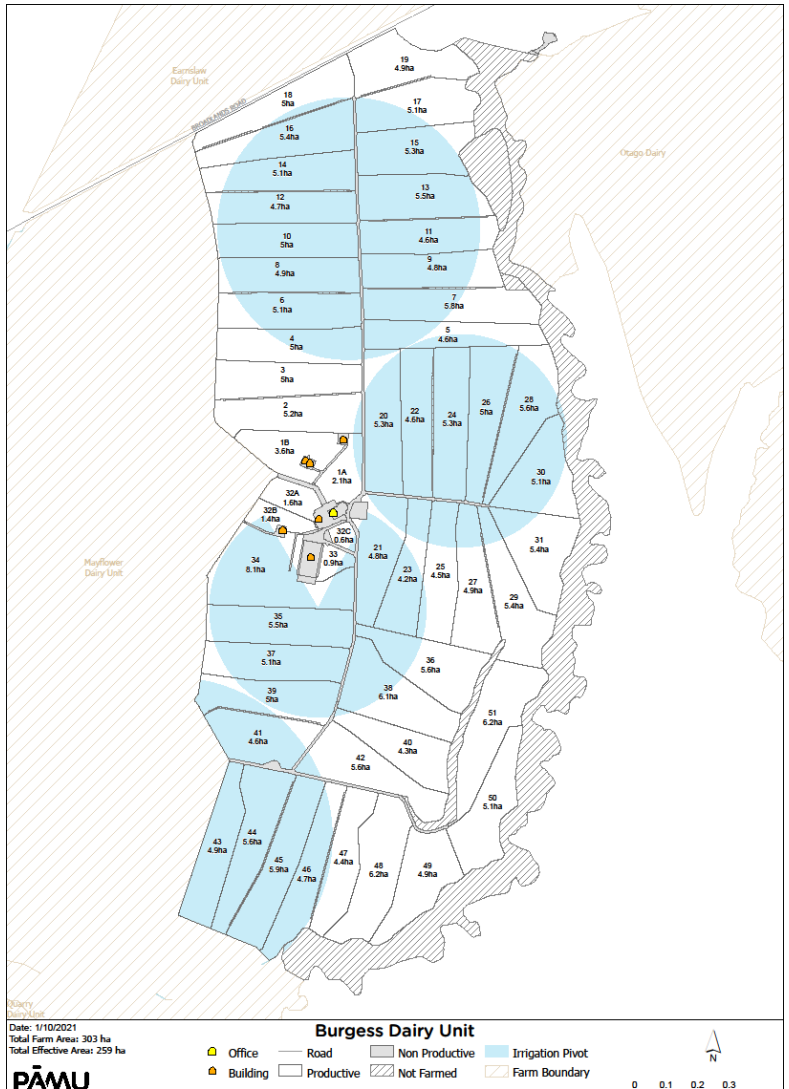
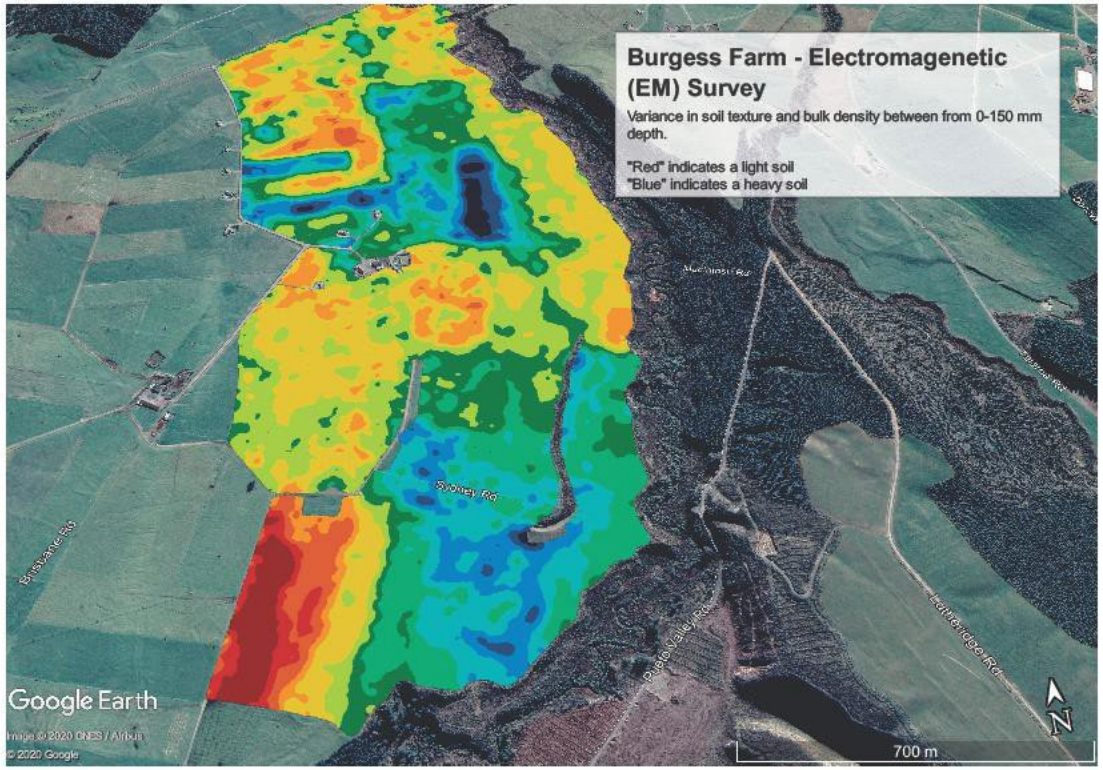
Define best use of water





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*….the soil under your feet…*Key information

Part of a precision ag journey

- **Variable rate applications**
  - **Irrigation**
  - **Fertilizer**
  - **Seeding**
- **Watershed simulations and environmental management**
- **Application of effluent**
- **Plan the center pivot placement to suit**

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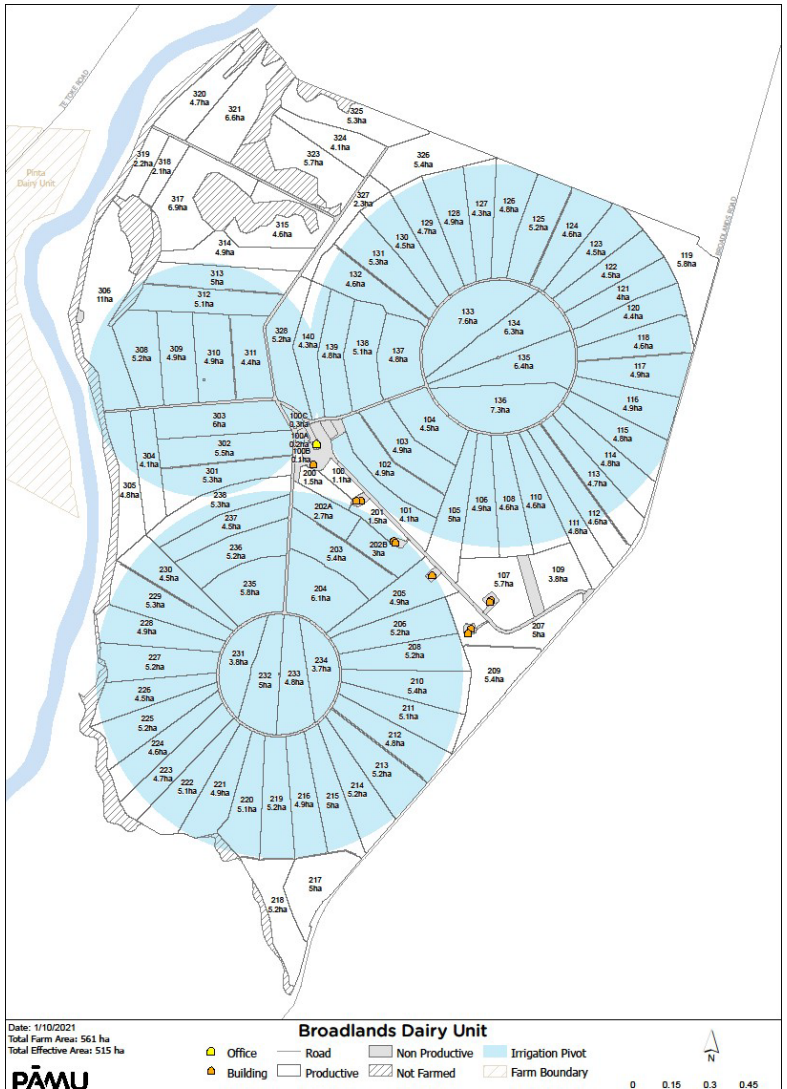
Fencing to the pivot….this works



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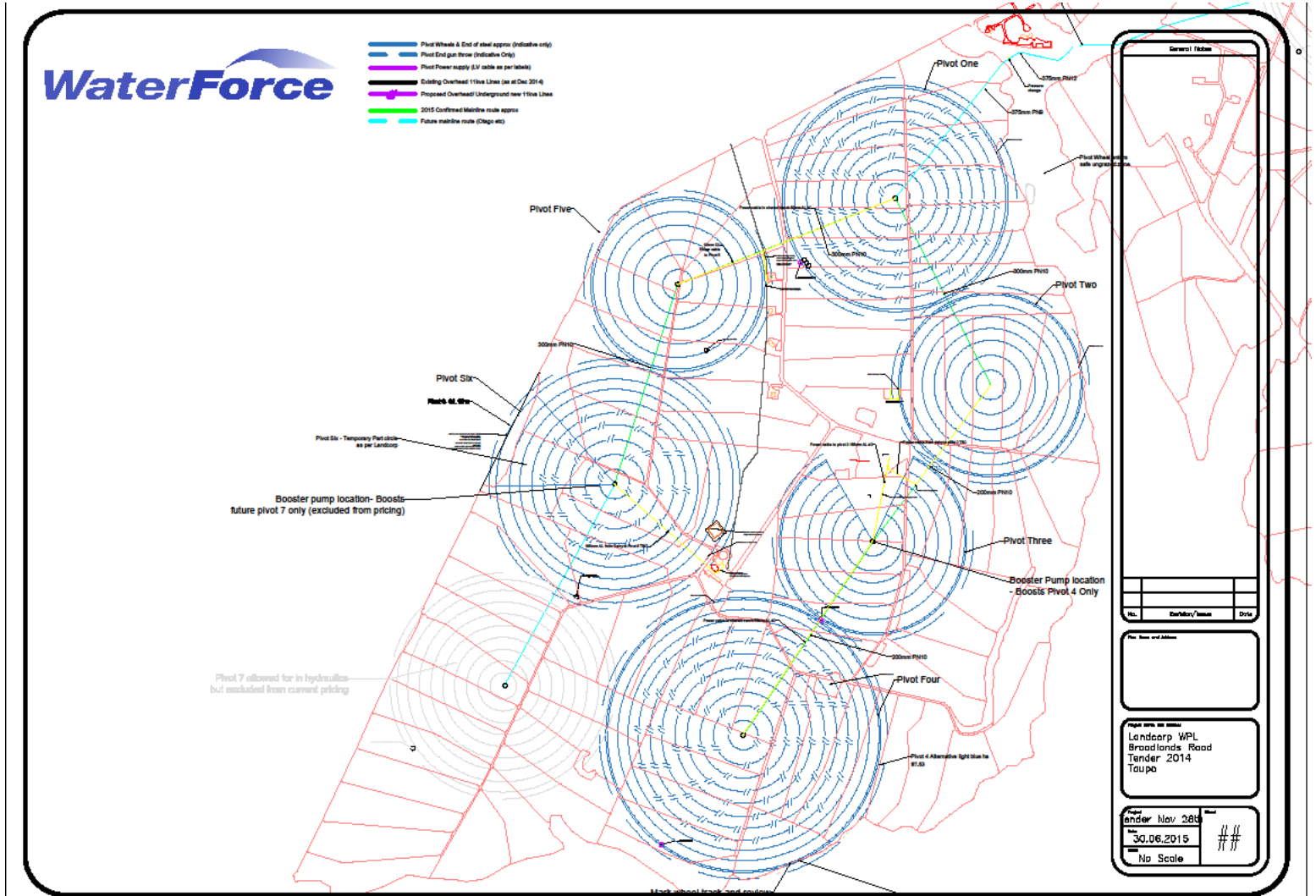
Access to water after infrastructure build??



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Enterprise impact on N loss per hectare

Dairy Enterprize	Total Effective Area (ha)	Total Farm (ha)	Total Nitrogen Loss (kg N/yr)	Total Nitrogen per ha (kg N/ha/yr)
Bovine Dairy Non Irrigation - 9 Farms	5177	6254	289,078	46
Bovine Dairy Irrigation - 3 Farms	1078	1202	107,908	90
Bovine Dairy Organic - Irrigation - 1 Farm	337	390	13,854	36
Ovine Dairy - Non Irrigation	339	474	6,916	15
Dairy Support - Non Irrigation	2619	6,864	147,526	21

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Monitoring and compliance technology

Analyze your relevant site and business data

- Mix of technology and equipment
  - monitor and record your daily operations.

- Understanding how you use water
  - for compliance
  - and/or good management.

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What worked for us…

- Security around water resource
- Variable Rate Irrigation
- Limited effluent disposal through centre pivots
- Soil and Temperature data

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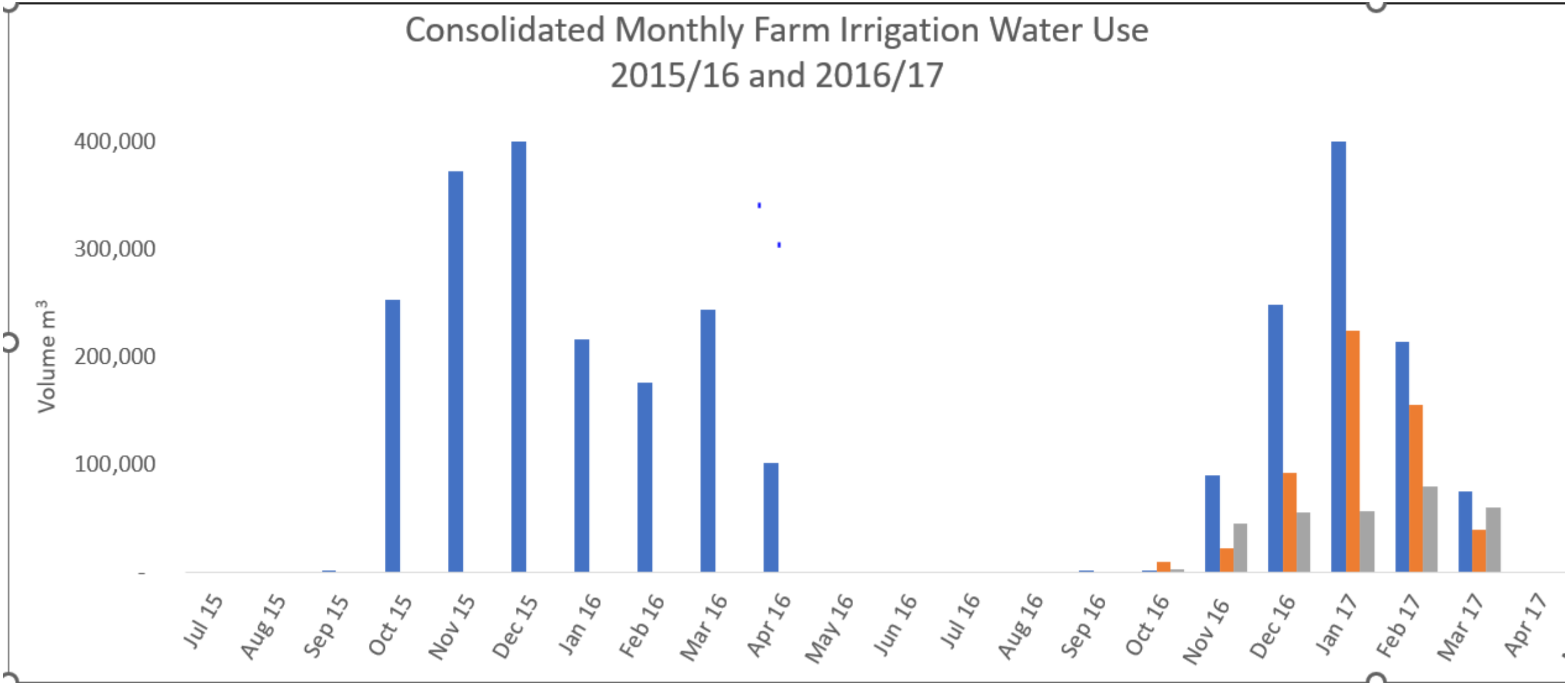
Measure what you can



Paddock subdivision

A combination of permanent and temporary fencing:

Will depend on:

- Enterprise selection
  - Livestock - species/class
    - Dry Matter production
    - Feed demand and supply profiles
    - Mob size drives optimised utilisation
  - Cash Cropping
    - Keep scale for cultivation ease

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Tasmania – suspension fencing

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Tasmania – suspension fencing

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Electric fence crossing

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Electric fence spring systems

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Electric fence spring systems

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Tools, resources & training

- Select competitive known industry providers
- Seek service and delivery
- Stay open to technology.

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Three take home messages…….

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Top three take home messages

1. Understand and measure your soil resource/capability

2. Future proof your business success……land use options

3. Keep flexibility within an environmental foot-print

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