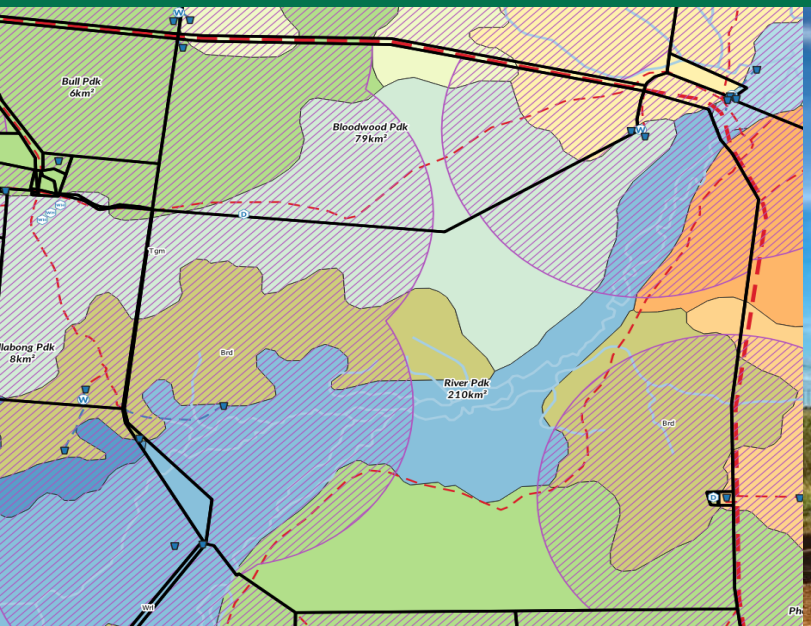
Paddock Power

Taking the guesswork out of paddock development

Dionne Walsh, Range IQ



Acknowledgements

This project was undertaken by the NT Department of Industry, Tourism & Trade with funding support from Meat & Livestock Australia

The following people contributed to the management of the project and development of the tools:

- Caz Pettit, Christie Pearson & Ben Wirf (NT DITT)
- Dionne Walsh (Range IQ)
- Dale Jenner (formerly NT DITT)
- Tom Lynch (Trailmarker)
- Phil Holmes (Holmes & Company), Ian McLean (Bush AgriBusiness) and Michael Wellington (formerly Bush AgriBusiness)

What is the opportunity?

- An estimated 44 million ha of pastoral tenure still available for sustainable development in WA, Qld and the NT
- An additional gross margin of about $810M annually
- Calf wastage costing north Australian cattle producers >$53M annually
- Spreading grazing pressure in over-grazed areas could lift per head productivity
- Restoration of land condition, pasture productivity and carrying capacity

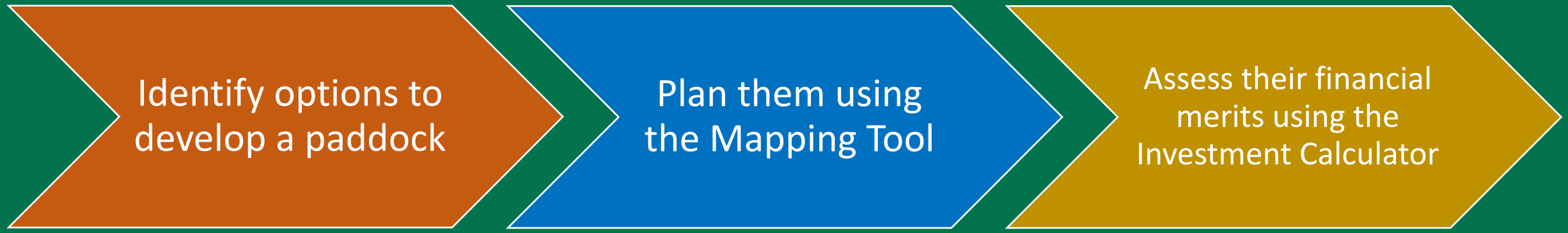
What I'll cover today

- What is Paddock Power?
- Why did we develop these tools?
- What can you do with the tools?
- Video demonstrations
- Questions

Paddock Power is a package of two digital tools

1. The Paddock Power Mapping Tool (QGIS)
2. The Paddock Power Investment Calculator (Excel)

Supported by a Training Workshop and a User Manual



Why did we develop these tools?

Because there's lots of this in northern Australia!

Practical impacts of poor paddock infrastructure

- Over- and under-utilised feed (distance from water)
- Mismatch between energy demand and supply at key times
- Energy wasted on walking – live weight gain and body condition
- Lower re-breed rates and higher calf mortality
- Limited opportunity for herd segregation or controlled mating
- Limited options to spell country from grazing and improve land condition
- Poor herd control, incomplete musters

A more targeted approach to capital allocation

- Funds for infrastructure are constrained in many businesses
- Many development decisions are made on “gut feel”
- Data-driven analysis reduces business risk and identifies good “bang for buck”
- Goal is to find the “sweet spot”:
  - ✓a satisfactory return
  - ✓in the shortest time
  - ✓without creating unmanageable risk

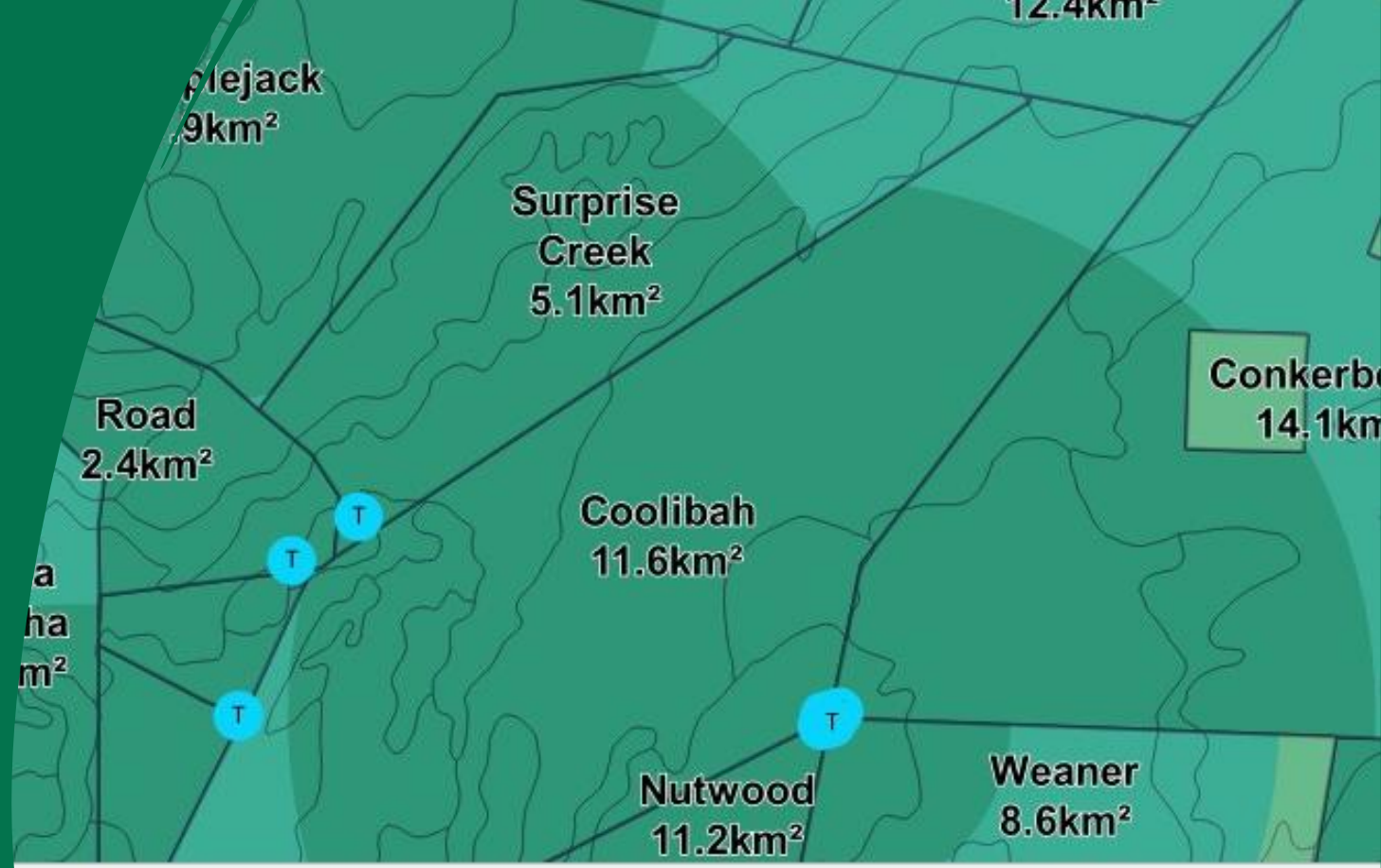
What can you do in Paddock Power?

- Keep your property maps up-to-date
- Put your maps on your mobile devices
- Plan and cost paddock subdivisions, new water points, new fences and new pipelines before you build them
- Compare different infrastructure development options to see which one/s will deliver the best “bang for buck”
- Generate investment reports to take to owners, shareholders or banks to secure funding

How does Paddock Power assess financial merits?

- Paddock Power uses a basic 10-year Discounted Cash Flow (DCF) approach
- Typical costs
- Typical benefits
- Sensitivity tables help assess risks and opportunities (best case, worst case, likely performance)

Mapping Tool Demonstration



ddock Power

ddocks | Land Types | Fences | Pipelines | Waterpoints

cks

	Name	Status	Area (km²)	Watered (km²)	AE	Potential AE
	Hakea	Built	2.88	2.88	18	
	Bloodwood	Built	1.02	0	0	
	Coolibah	Built	11.56	11.56	54	


Questions?

Investment Calculator Demonstration

	14
	364

part of the year, adjust accordingly - e.g. 300 head for 6 months = 150 on a "full year basis". A calculat

e and carrying capacity information - enter data for your current situation - most of this comes from the Ma

	Current (km² basis)
ngth of fencing for paddock (km)	500
azing radius do you use? (km)	5.0
of water points servicing paddock	2
area of paddock (km² and ha)	150.0
nt watered area (km² and ha)	75.0
ered area percentage of paddock (%)	50%
ntial calculated carrying capacity (AE) - fully watered and in "A" land condition	1,050
ent calculated carrying capacity (AE) - current watered area and land condition	500
age AE you are carrying per year (comes from the herd table above)	543
lated average AE you are carrying per water	271
current herd on a watered area basis (AE per km² and ha per AE)	7.2
urrent herd on a whole paddock area basis (AE per km² and ha per AE)	3.6

oduction information - enter data for your current situation - use the average across your whole herd

beef produced per AE carried (per year)	65
rage (2020 Australian Beef Report)	71
5% (2020 Aust Beef Report)	76

How can the Paddock Power tools help you?

- Assess if your new infrastructure could deliver benefits to:
  - Live weight production
  - Land condition
  - Profit
- Help you to convey a stronger business case to owners and financiers for your development plans

What's next?

Contact your local NT DITT office or Range IQ to increase your Paddock Power!

Host a workshop in your region or get one-on-one tuition and advice