



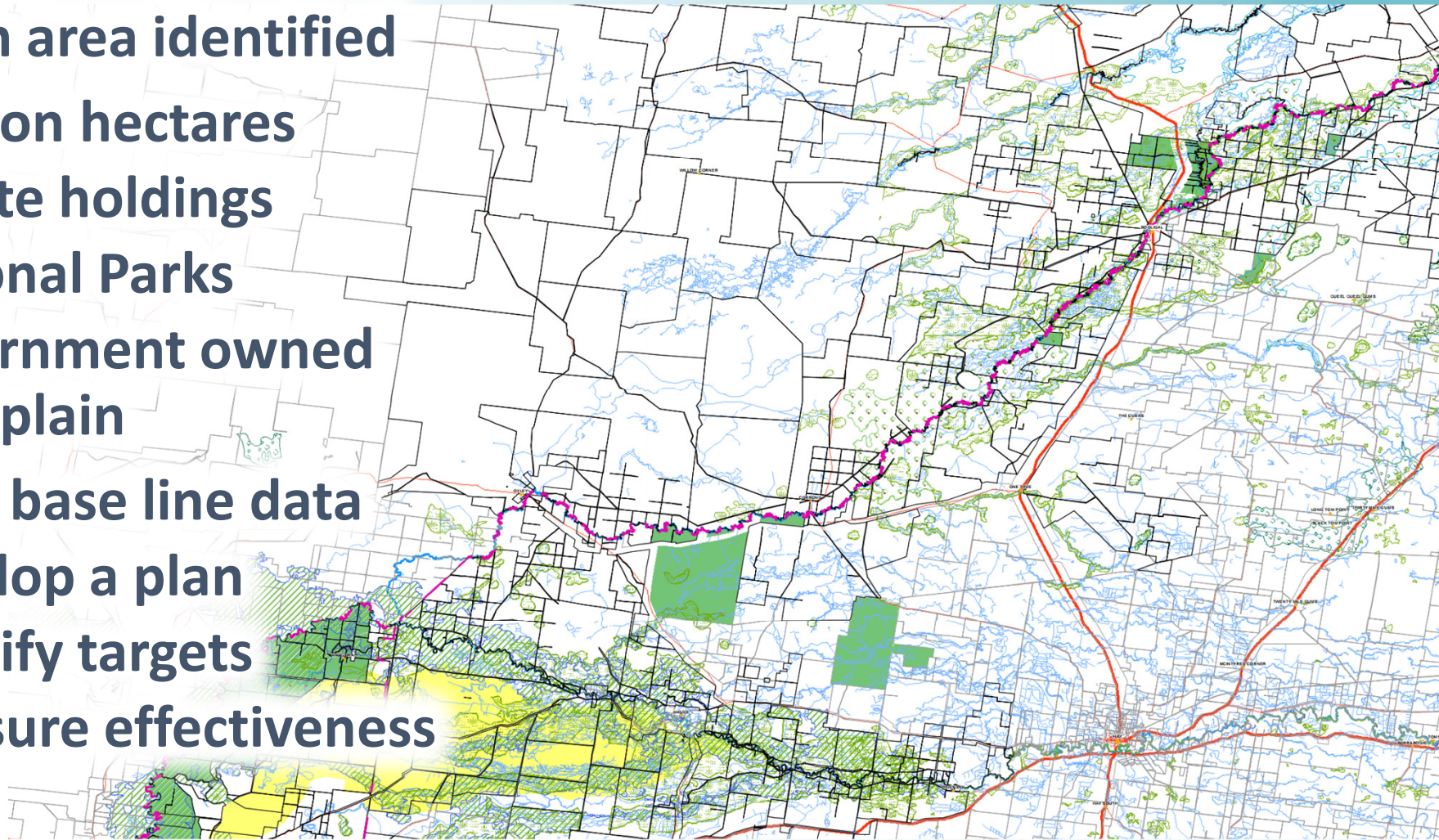
Local Land  
Services  
Riverina

# Western Riverina Pig Project To Count or Kill Pigs? That is the Question

Suzie Holbery, Michael Leane, and Ray Willis

# Western Riverina Pig Project -WRPP

- Problem area identified
- 1.3 million hectares
  - Private holdings
  - National Parks
  - Government owned floodplain
- Needed base line data
  - Develop a plan
  - Identify targets
  - Measure effectiveness

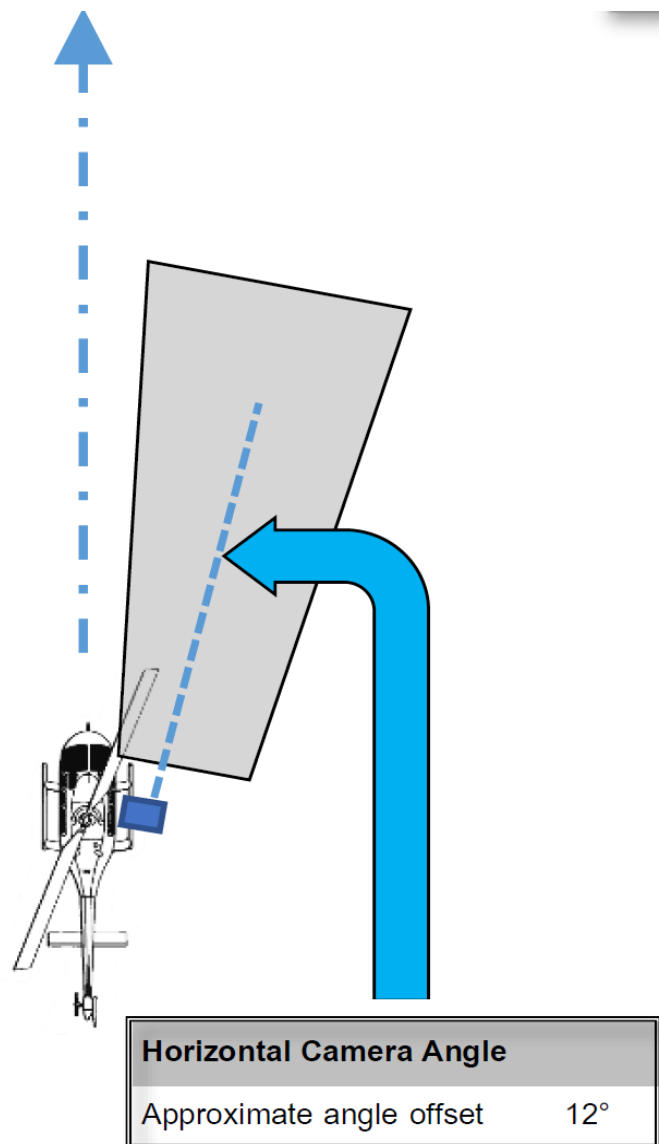




# Landscape of the region

- Flat
- River red gums
- Flood plain
- Lignum swamps
- Saltbush plains





Suspended Mount  
Damper

Ken-Lab KS8  
Mechanical Gyro

Sensor Platform  
Tilt Adjustment



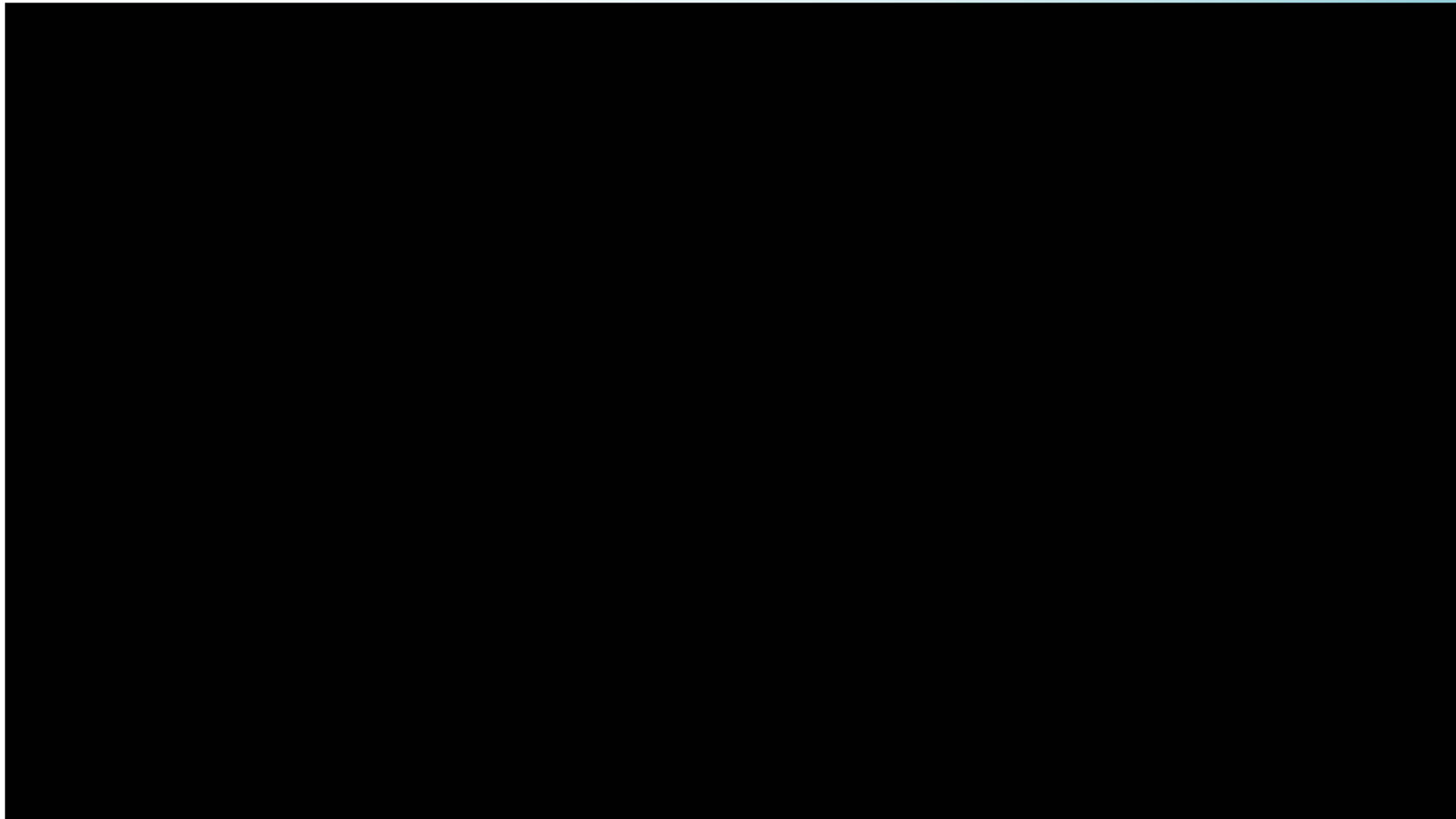
Sony 4K Camera

Jenoptik HD1024  
Thermal Camera

Ken-Lab KS8  
Mechanical Gyro



## IR thermal & 4K video



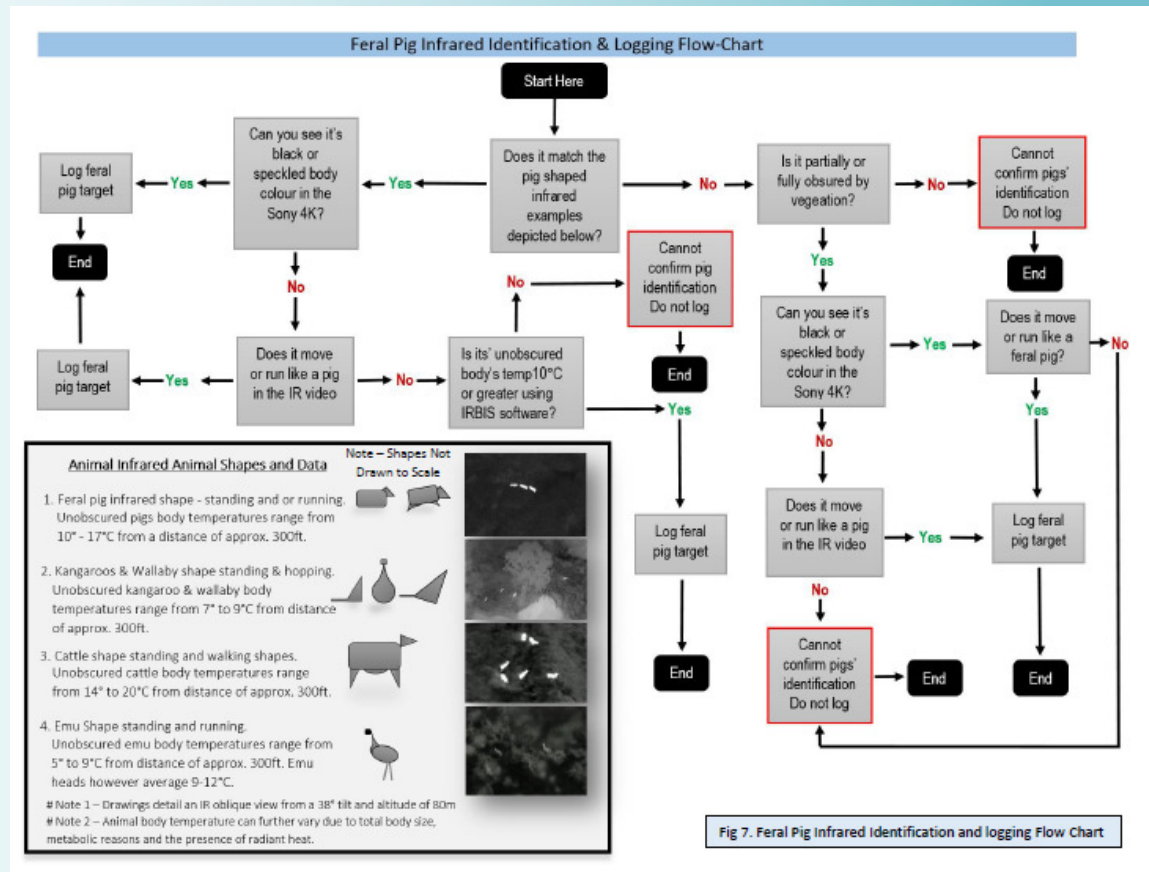
# Analysis

1. Animal shape

2. Temperature

3. Style of movement

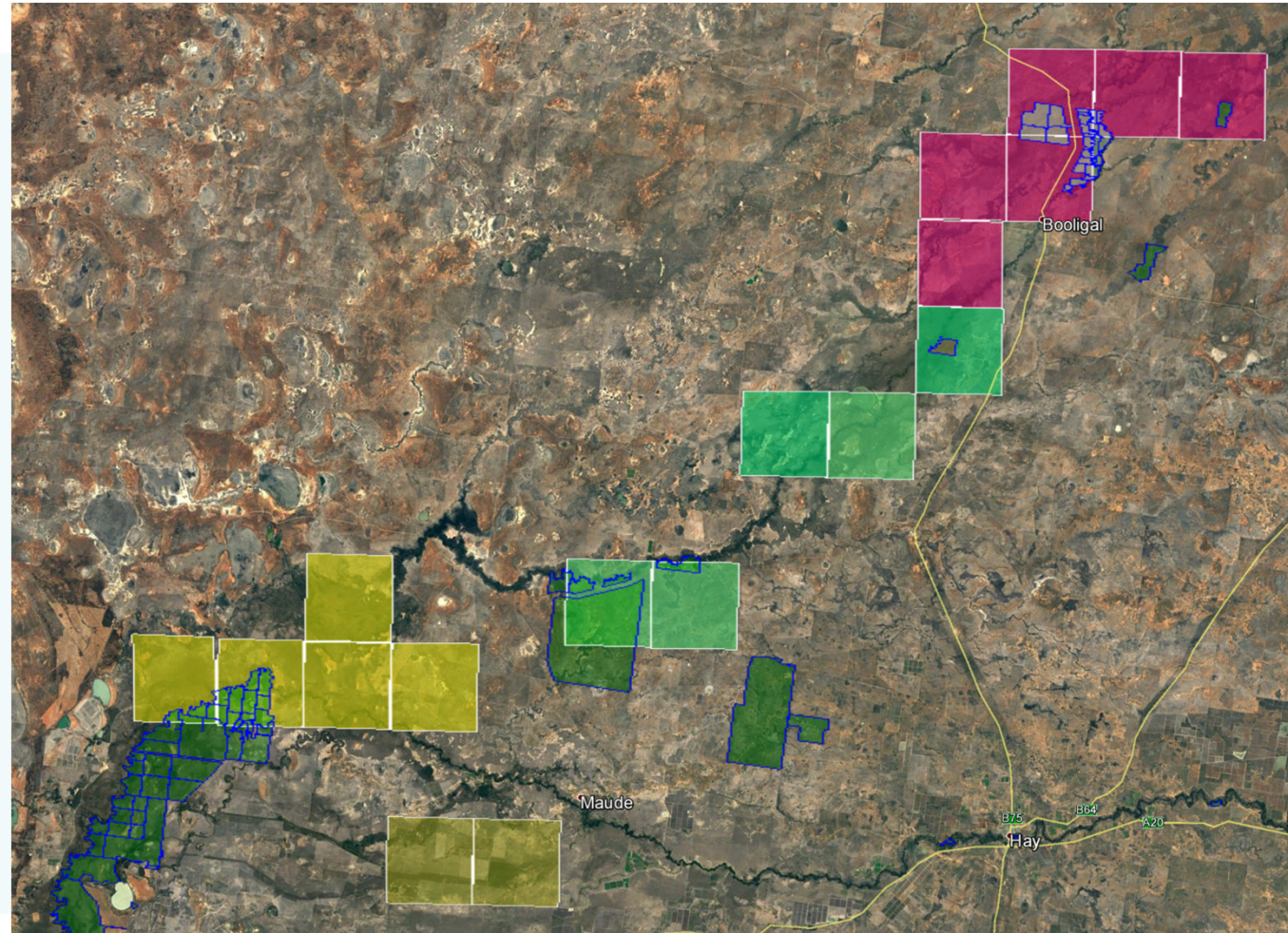
4. 4K video imagery





# Results 2016

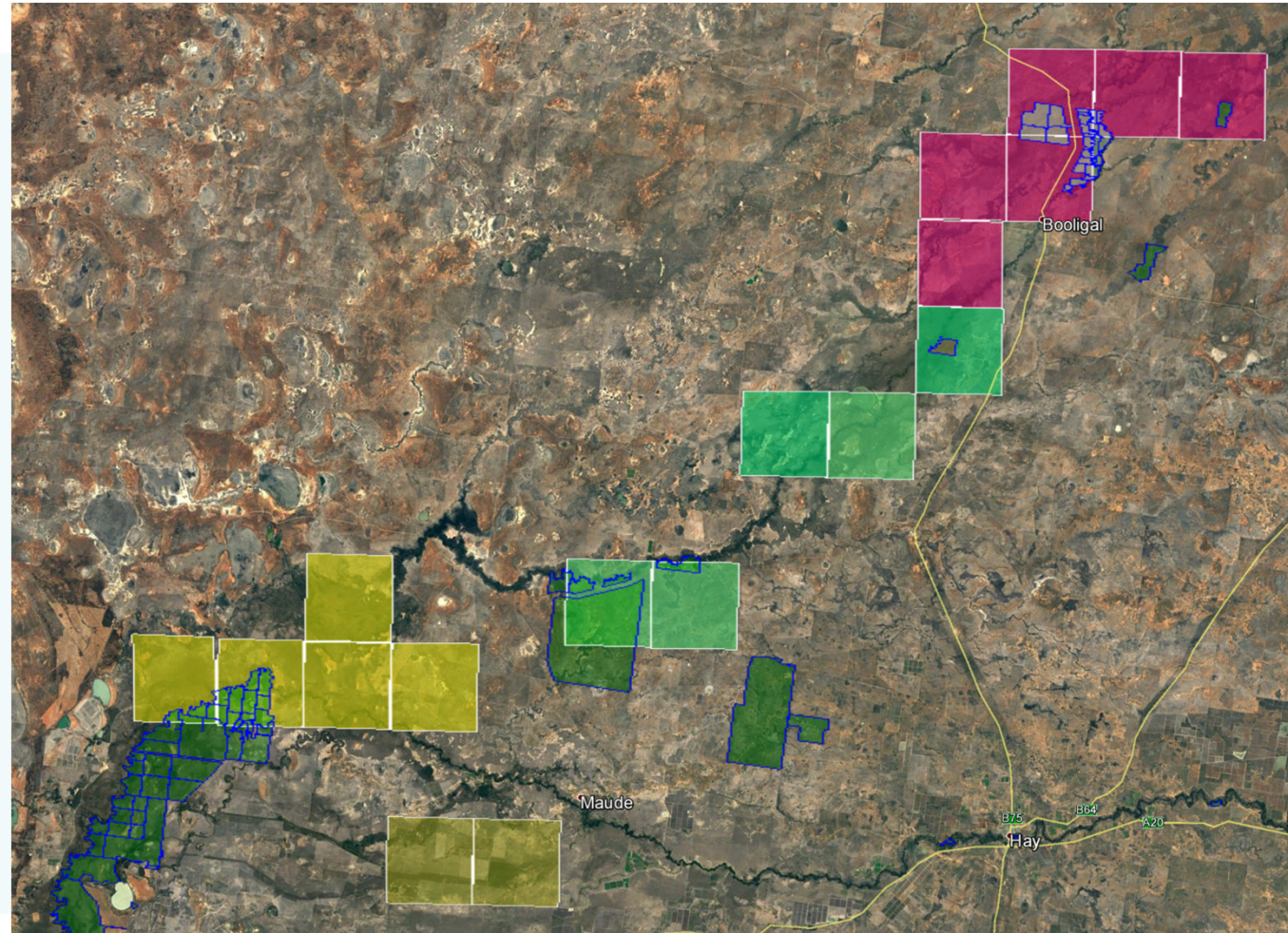
- 18 Blocks (10km x 10km = 10,000 ha)
- 582 ha per block, or 10,476 ha total survey
- 487 pigs spotted over 18 blocks
- 1 pig per 21 hectares





# Results 2017

- 18 Blocks (10km x 10km = 10,000 ha)
- 582 ha per block, or 10,476 ha total survey
- 923 pigs spotted over 18 blocks
- 1 pig per 11 hectares





# What Did We Achieve

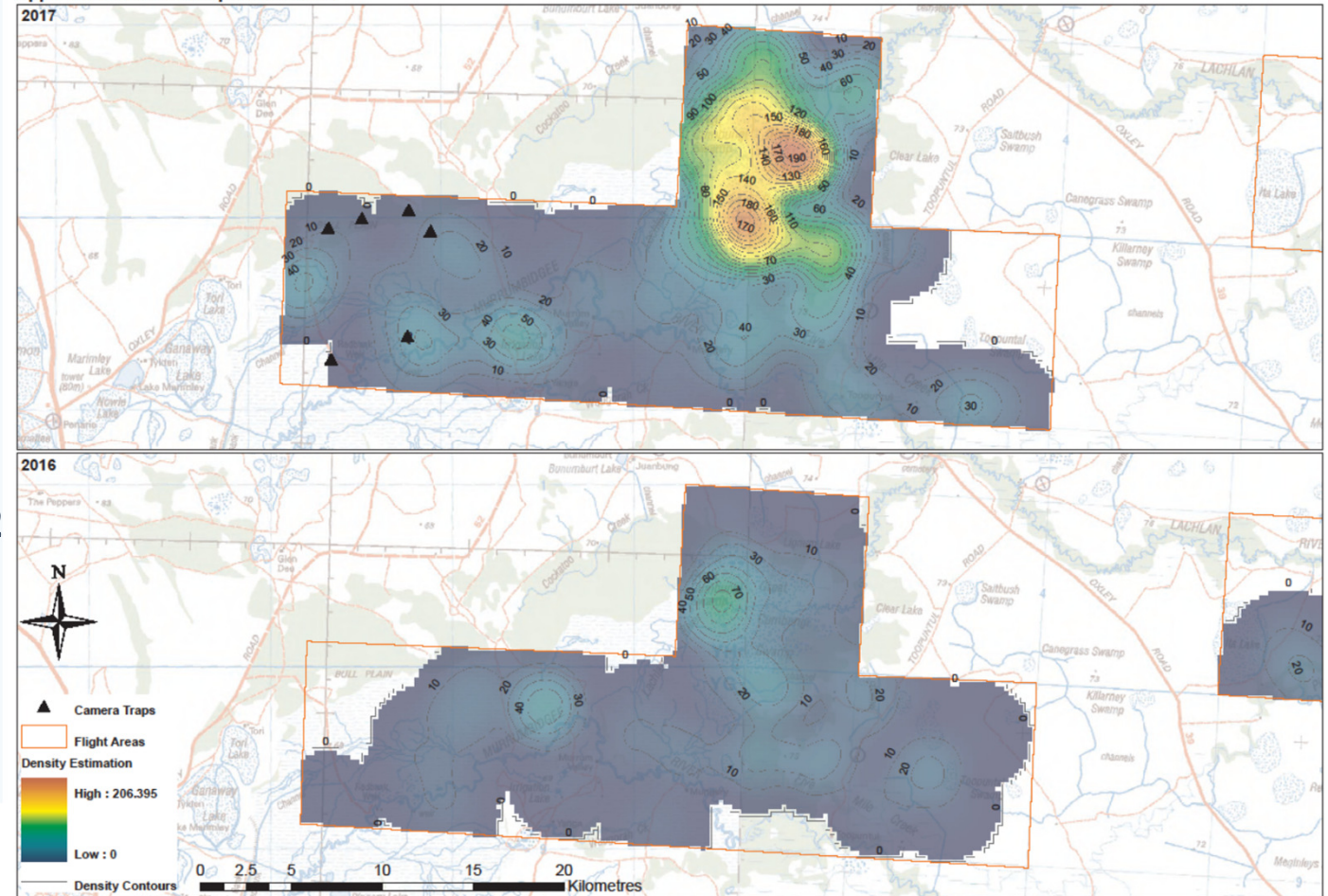
- Approx 10,000 pigs culled between surveys
- Despite control pig numbers doubled
- Good data – needed better analysis
- Need population & density modelling
- Contracted Ecoknowledge to further analyse data



# Further Results – Same Data

- Survey methodology scientifically valid
- Used two different sampling methods to confirm numbers
- Pig density & abundance model-23 000 @206 pigs km<sup>2</sup>
- Population trend figures-2.77 increase – 2m in 5 yrs
- Required cull numbers for effective control -16 000

Appendix D.1 KDE Comparison: West





# Actions

- Identified “hotspots “ to be targeted for control
- Accessed State & Federal \$
- Correspondence with land managers
- Proof that current control not effective
- Participate for free or compliance at your cost
- Undertaking or Direction



# WRPP – Count or Kill

- Need to count before you kill
- Governs where and how many
- Effectiveness of control
- Cost of different methods
- Overall cost of control
- Are you as a pest manager doing a good job.







Local Land  
Services  
Riverina

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**Australian Government**

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