

OFFICIAL

# New tools for controlling feral deer in forests: the SA Feral Deer Eradication Program and beyond



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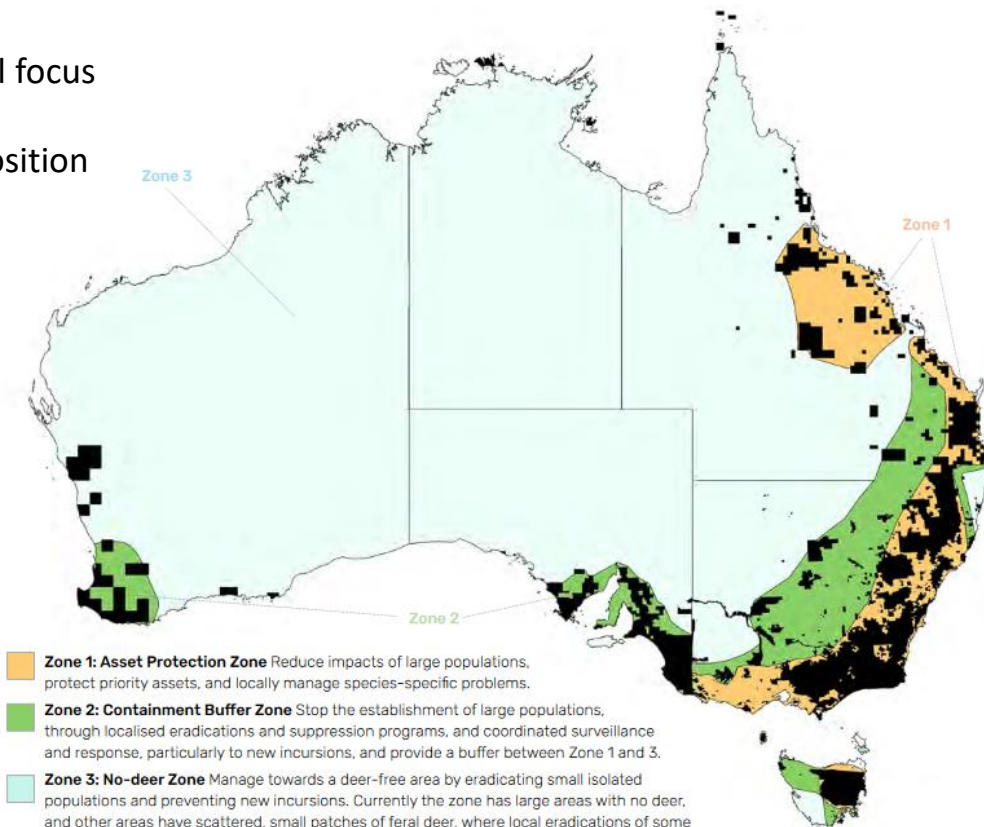


# Feral deer in Australia

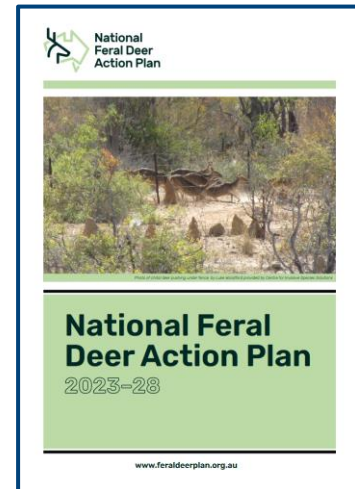
1-2 million feral deer

New national focus

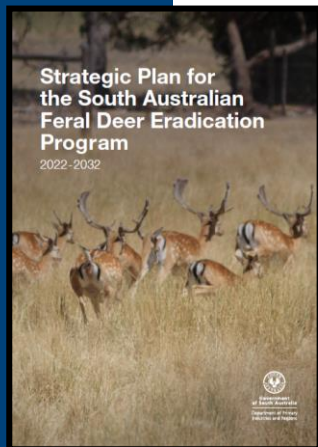
SA unique position



- Zone 1: Asset Protection Zone** Reduce impacts of large populations, protect priority assets, and locally manage species-specific problems.
- Zone 2: Containment Buffer Zone** Stop the establishment of large populations, through localised eradications and suppression programs, and coordinated surveillance and response, particularly to new incursions, and provide a buffer between Zone 1 and 3.
- Zone 3: No-deer Zone** Manage towards a deer-free area by eradicating small isolated populations and preventing new incursions. Currently the zone has large areas with no deer, and other areas have scattered, small patches of feral deer, where local eradications of some populations may be feasible, and eradication of new incursions should be attempted. Note despite relatively large distribution patches in Western Australia, they contain small numbers of feral deer.



# Feral Deer in SA



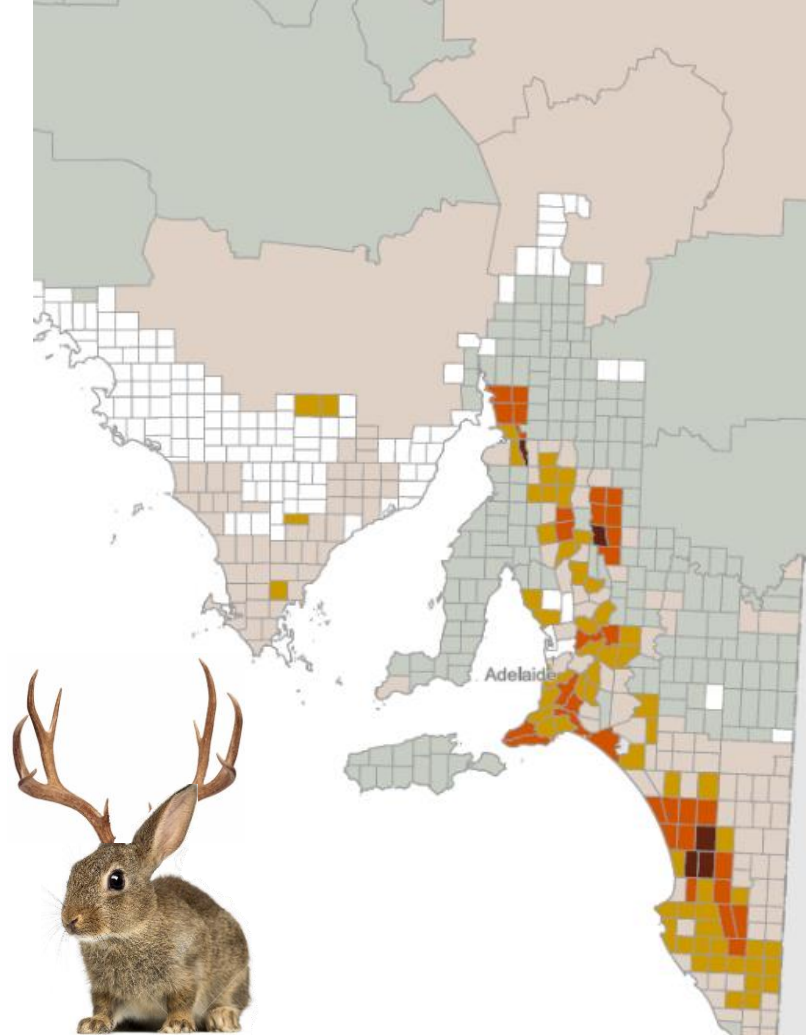
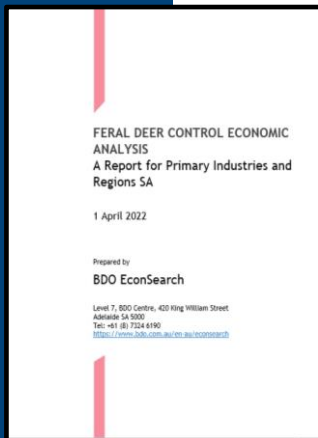
**40,000 feral deer in 2022**  
**\$36M in ag losses**

**Predict 200,000 by 2032**  
**\$242M in ag losses**

**\$14M, 10-year eradication plan**  
**\$518M benefit over 10-years.**

**\$2.70 ROI**

**2022 to present**  
**20,321 feral deer culled and counting**





# Feral deer: SA's worst pest animal for forestry

- \$2.3 million forestry losses in SA, 2022
- Estimated \$6.8 million losses by 2032, without eradication program
- Rut against young trees, damage from browsing, damage to infrastructure
- Attract illegal poachers onto forestry estate



<https://www.youtube.com/watch?v=Kl9Ck2bBmp8>

From Murphy et al. 2012



# New and emerging tools

## Toxic bait for deer

- Under development, using AI
- Will be cost effective

## Thermal drone assisted ground shooting

- Game changer in forests
- Much more efficient ground shooting

## Thermal aerial culling

- Currently most effective available tool for landscape scale control
- Primary tool of the SA deer eradication program





# Thermal aerial culling (aka TAAC)



Cox et al. 2023. *Thermal Aerial Culling for Improved Control of Vertebrate Pest Populations*. Scientific Reports **13**, 10063



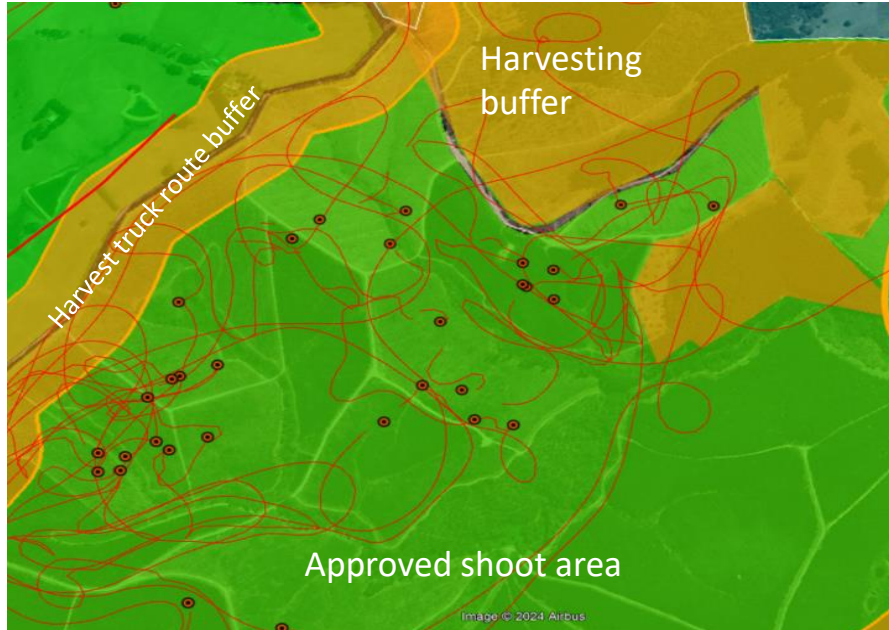
Department of  
Primary Industries

HeliSurveys Airborne Earthcare



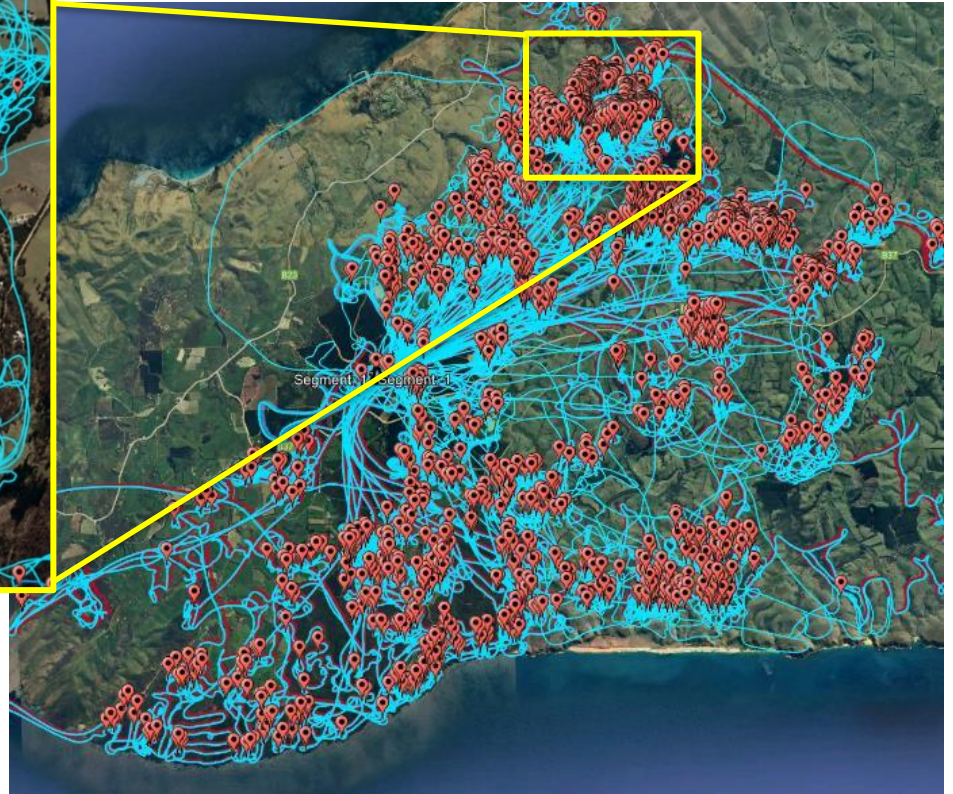
# Considerations for operating in forests

- Close to the public
- Work around forestry operations
- Environmental considerations
- Consider neighbours





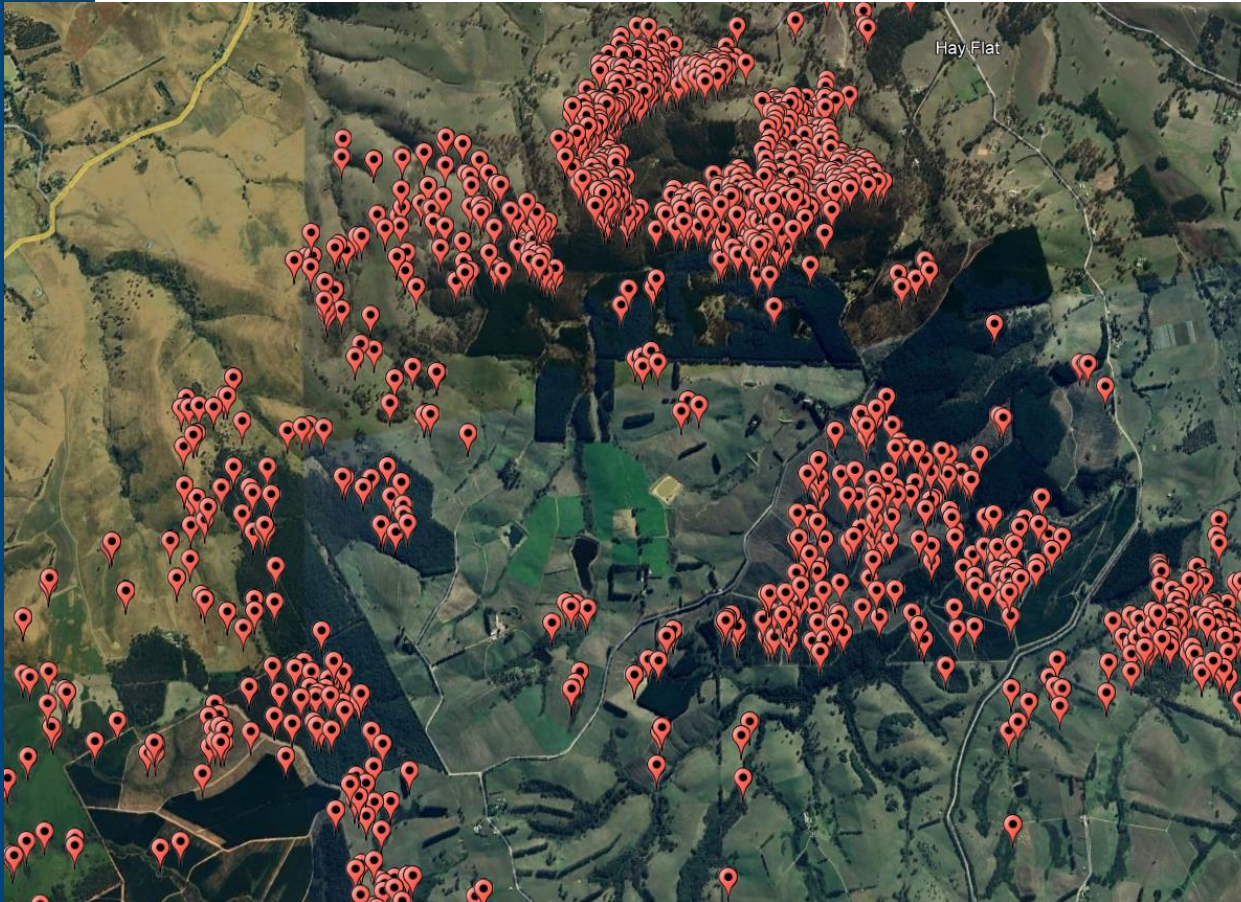
# Southern Fleurieu Peninsula



- **4,000 feral deer culled in 5 culls over 2 years**
- Increasing landscape scale, >80% access



# Forestry & surrounds 23



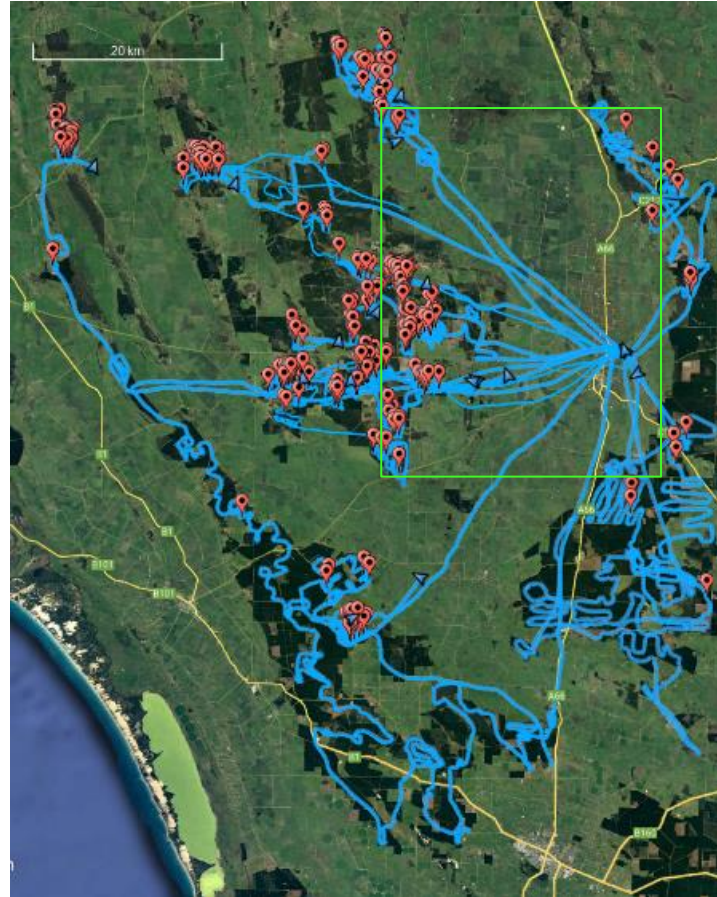
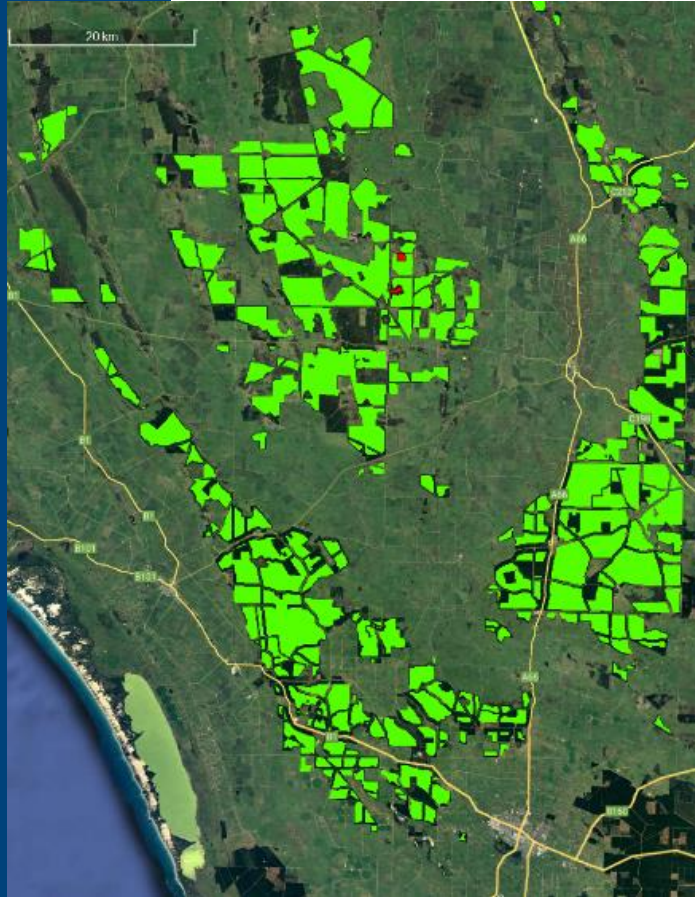
Red points = deer culled

**WAVI LANDSCAPE**  
SOUTH AUSTRALIA  
HILLS AND FLEURIEU





# Limestone Coast March 2023



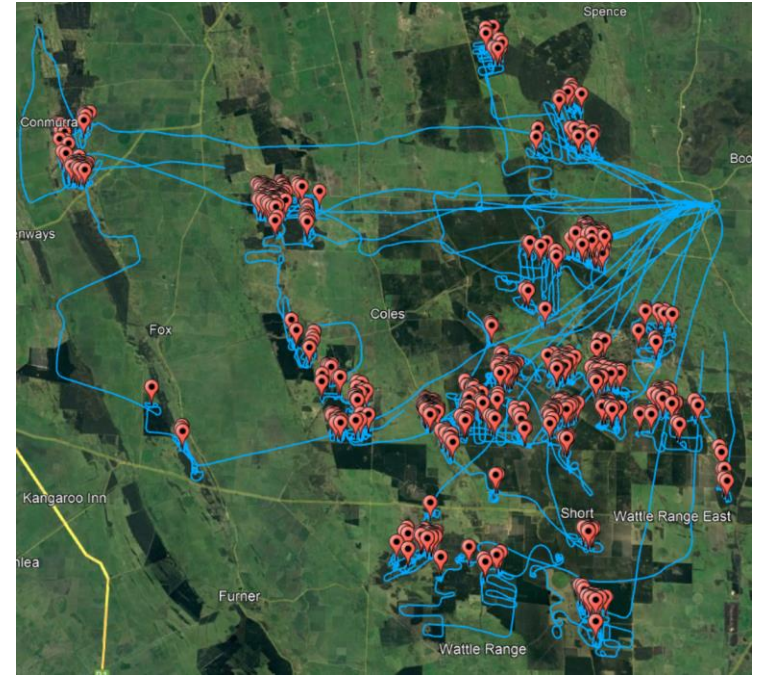
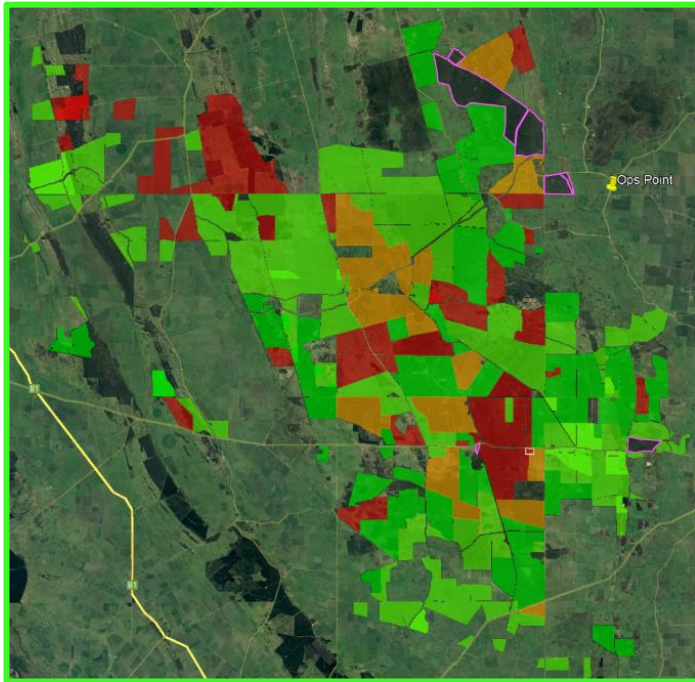
- Over 200,000 ha, landscape scale
- Forestry, farms, parks, conservation
- **5 forest companies**

**LANDSCAPE**  
SOUTH AUSTRALIA  
LIMESTONE COAST





# Limestone Coast, 2023 & 2024

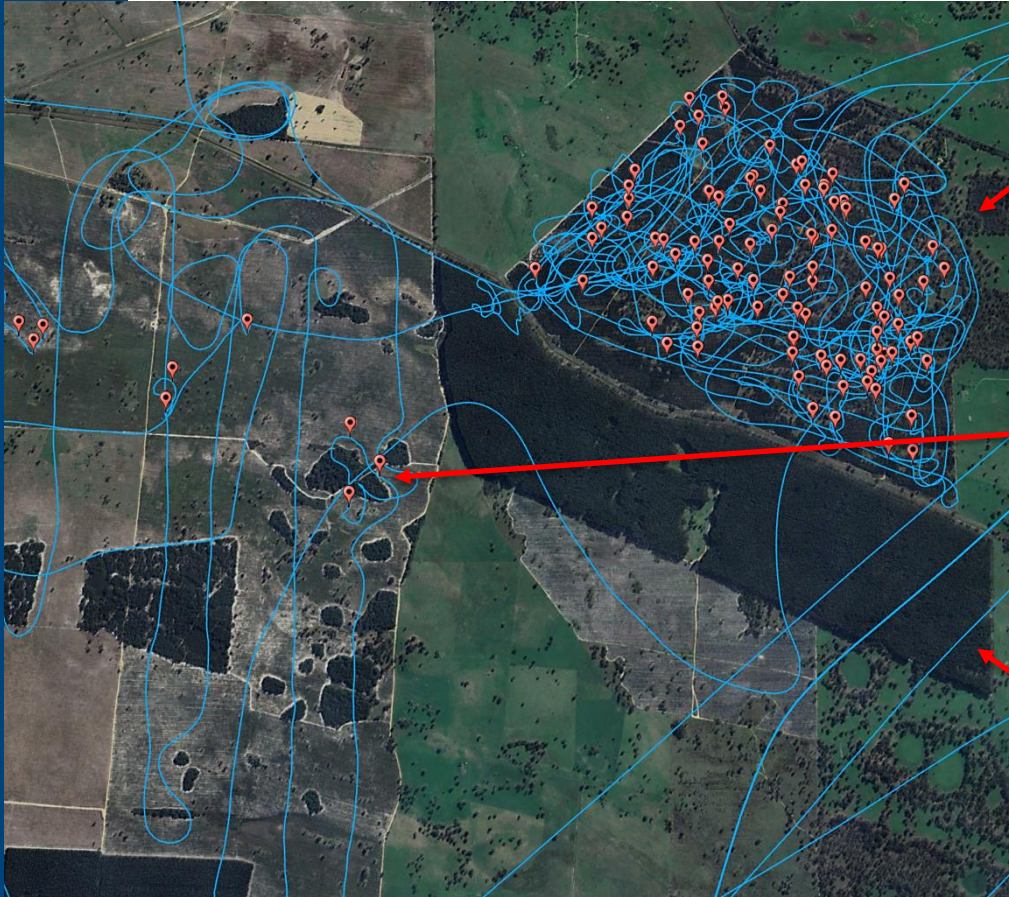


- Over 80,000 ha, forestry and farms
- Over 3,200 deer culled in the region since 2023
- 4 forest companies, all operating during cull

**LANDSCAPE**  
SOUTH AUSTRALIA  
LIMESTONE COAST



# Age class & effectiveness



**Young trees** = lots of deer,  
great detection

**Cleared/new plantings** = some  
deer, great detection

**Mature trees** = poor detection,  
impenetrable



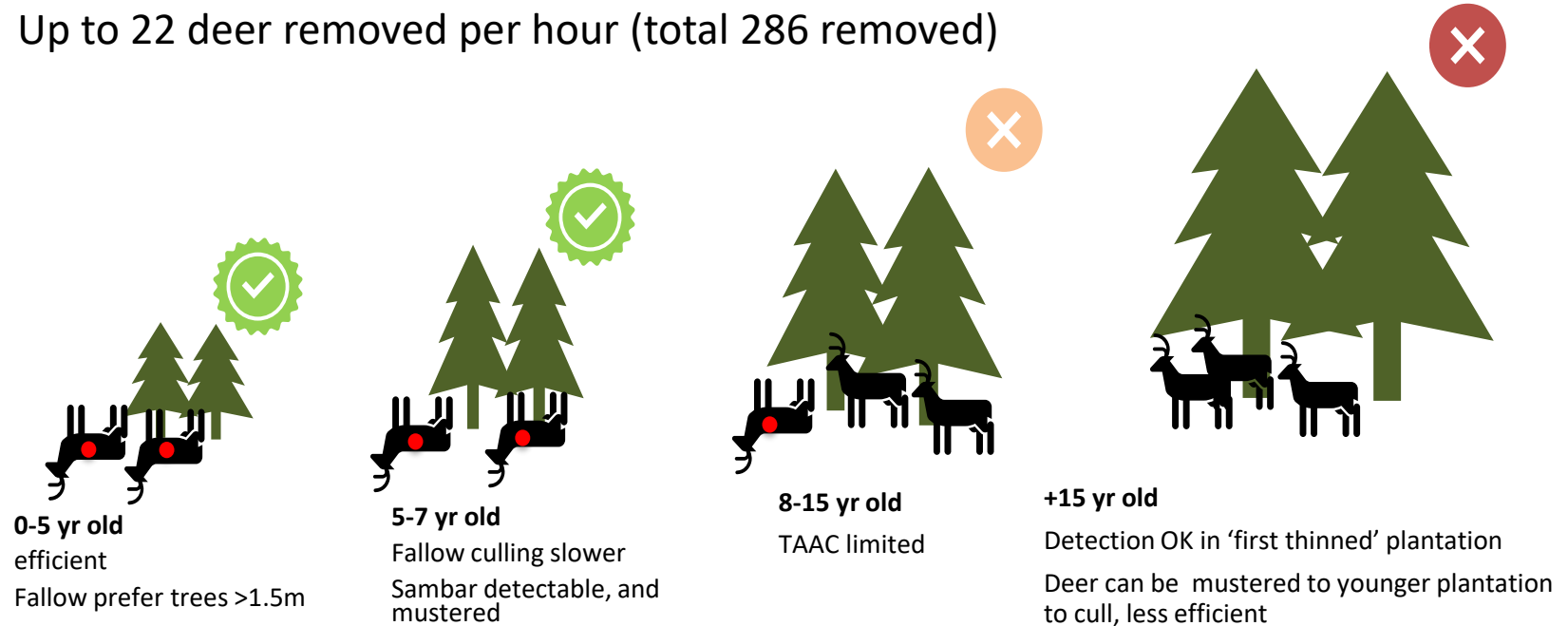
# Beyond SA: HVP TAAC trial – Shelley, Vic

- Softwood plantations heavily impacted
- Long history of contracted ground shooting and uncontrolled rec hunting.
- Large areas burnt 2019/20 bushfires – all now replanted, young and vulnerable to damage
- TAAC trial at Shelley, NE Vic in August 2024
- First ever private aerial operation in VIC + first ever TAAC



# HVP TAAC trial results

Up to 22 deer removed per hour (total 286 removed)



- Community supportive – low residential footprint
- Road closures to be managed carefully – consider haulage and public access



# Lessons from operating in forests

- Thermal aerial culling a game changer in young pines (<10 years) most vulnerable to deer damage
- Works in native veg and blue gums all ages, great post fire until thick regrowth
- Minimal impact on forestry operations
- Tenure is no limitation
- Neighbours appreciative
- Coordinated programs reduce impacts
- Increasing interest in privately funded aerial culling operations

View from the ground



View from above



**Heli** Airborne Earthcare  
Surveys

**LANDSCAPE**  
SOUTH AUSTRALIA



SA Water

**Australian Government**

**Department of Agriculture,  
Fisheries and Forestry**



ForestrySA

Global Ecology



*Pantuyarta Ngadluku Wardli Kuu*



**Government of South Australia**

Department for Environment  
and Water



**National  
Feral Deer  
Action Plan**

