always powering ahead

Biosecurity Obligations

A risk based approach to identifying and prioritising management

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Acknowledgement of Country

E2M and APA acknowledge Aboriginal and Torres Strait Islander peoples as the custodians of all the lands on which we operate. We pay our respects to traditional owners and Elders past, present and future.

Biosecurity- What is it?

Pest Animals

e.g. Fire Ants

Weeds

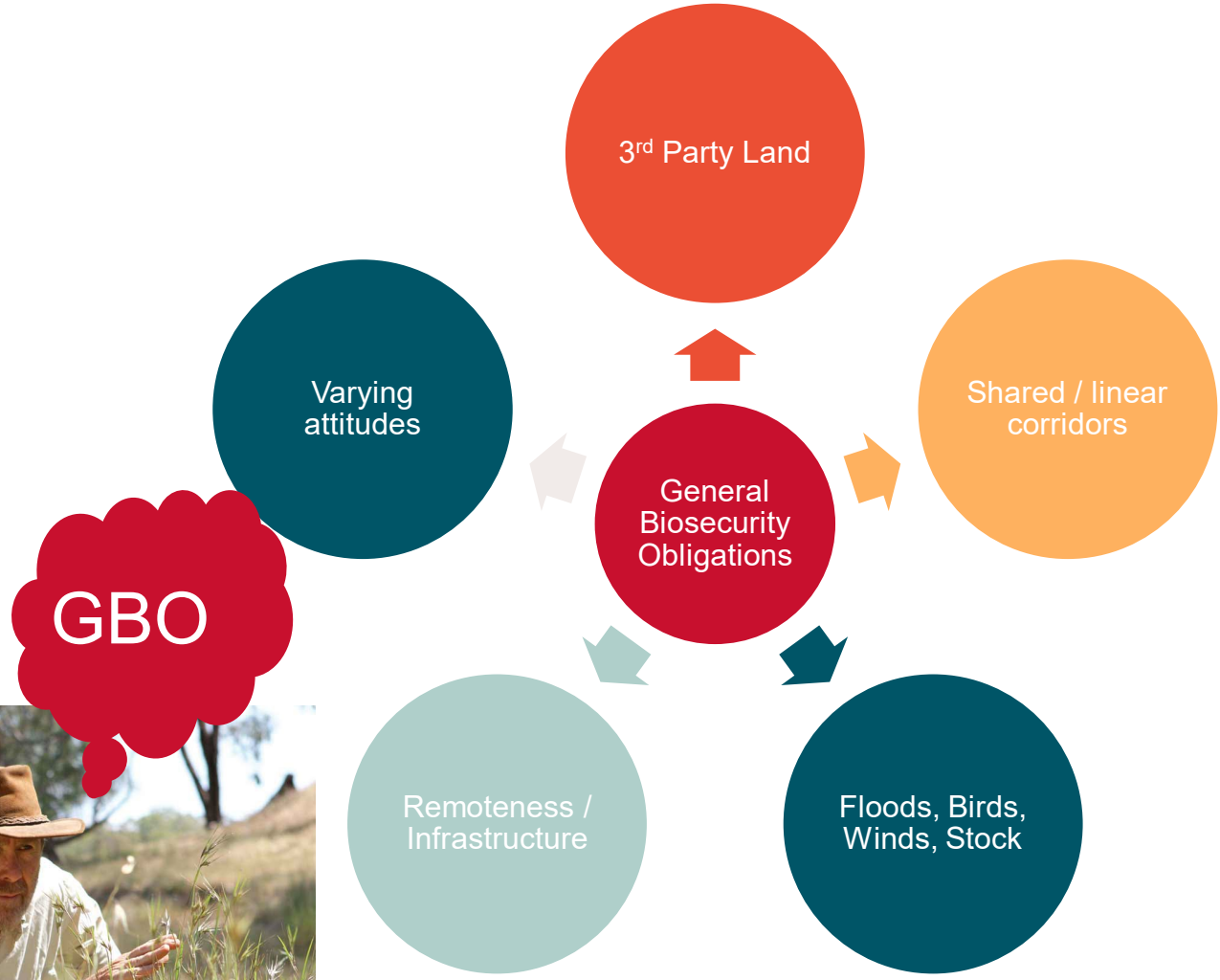
Prickly Pear, Western Qld, 1930's –
Image: State Library Qld

Plant and Animal Diseases

e.g. Phytophora (Dieback Fungus)

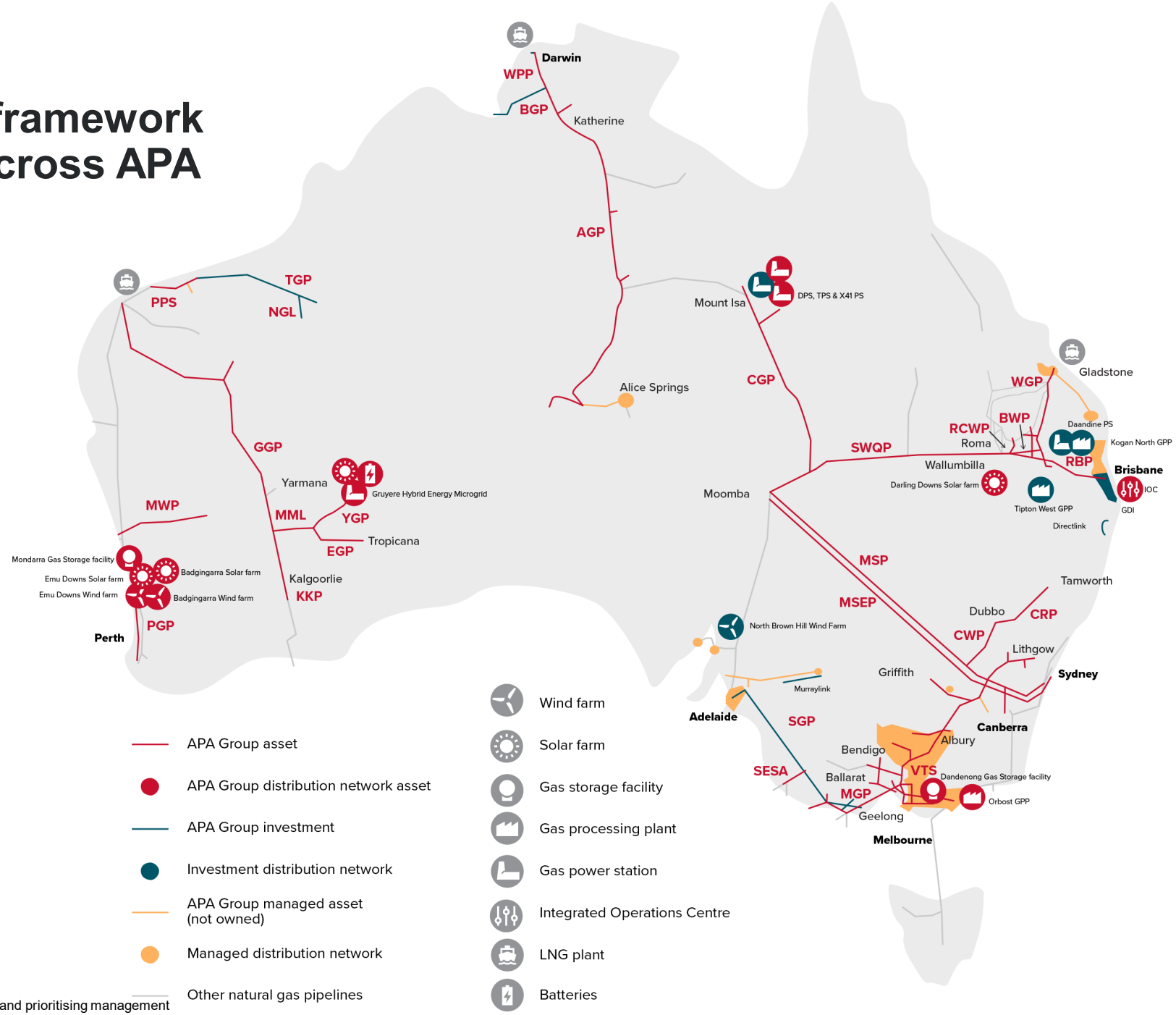
What are the requirements?

- Regulated by State / Territories with local / regional plans.
- General Biosecurity Obligation (GBO) - Identify and manage applicable biosecurity risks



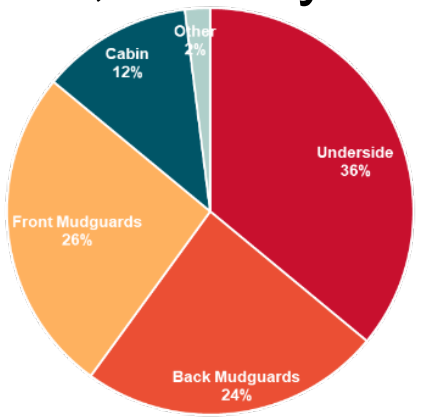
The challenge – develop a framework for managing biosecurity across APA

- >16,000 km of gas transmission pipelines
- 243 km of electricity transmission
- Wind and Solar
- Distribution networks



What's the likelihood?

- UQ Study on utility vehicles in SEQ found
- 1 week after cleandown:
  - Avg 209 viable seeds / vehicle
  - 80% alien to Qld
  - Within mud or dust, directly attached.



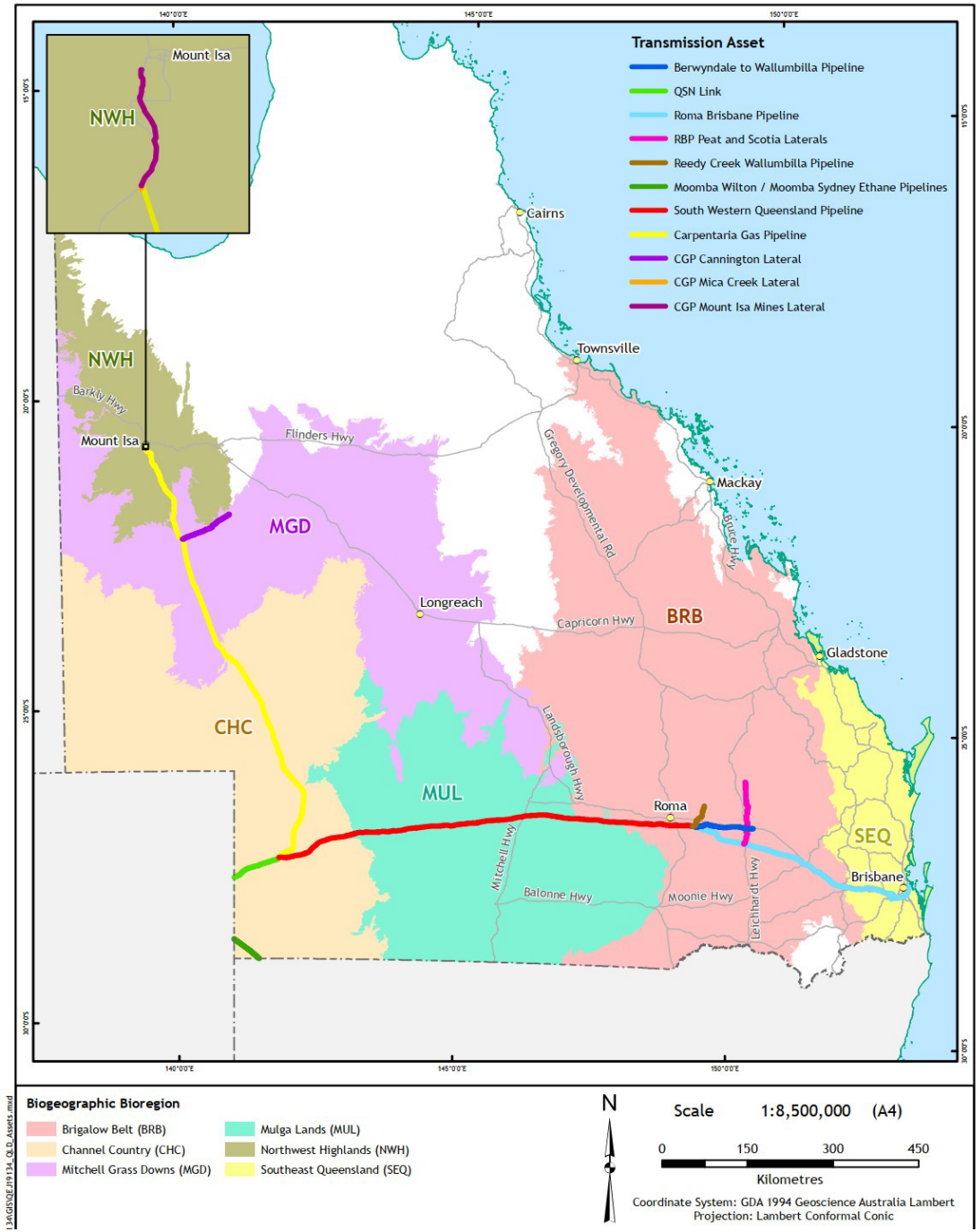
The Project

- Modelled on HB 294:2006 – Weed Risk Management Protocol

Feasibility of Control	PWD Level of Risk			
	Very Low	***Low***	***Med***	***High***
High	**Low -** Monitor	Targeted management in sensitive areas	**High-** Contain spread	**Very High -** Detection & Eradication
Med	**Low -** Monitor	**Med -** Routine management	Targeted management in sensitive areas	**High -** Contain spread
Low	**Low -** Monitor	**Med -** Routine management	**Med -** Routine management	Targeted management in sensitive areas

Desktop Review

- Approx. 4,400 km of transmission pipelines
- 16 local government areas
- 6 IBRA bioregions
- Four APA field service regions
- Varying quality of information and species records from State and Local sources



Risk Identification

- Criteria 1 – Government / Local Council Priority
- Criteria 2 – Potential for Spread from APA Activities
  - How invasive is each species?
- Ranked (high to very low) and assigned a score for each criteria

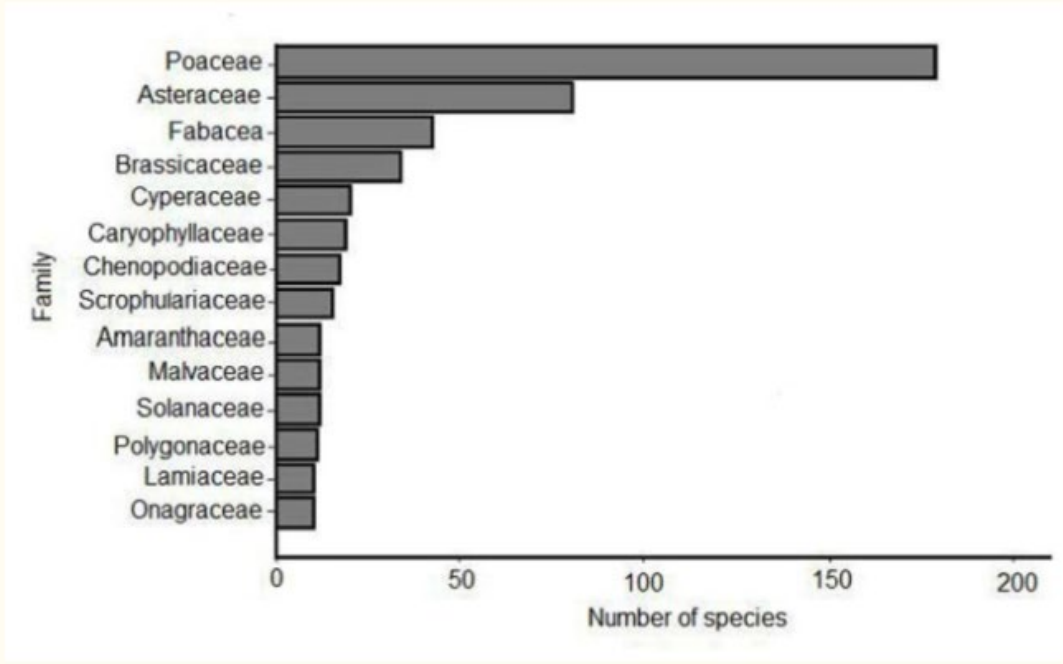


Figure 3

The number of species from the most common plant families with seed collected from cars.

Source: Ansong M, Pickering C (2013)

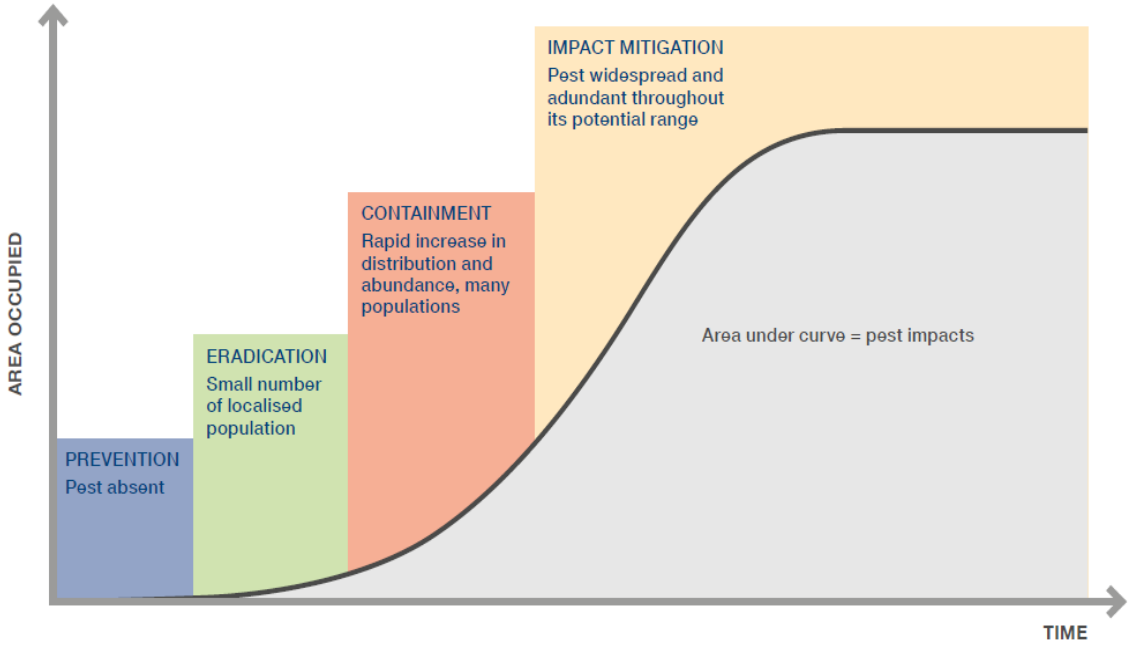
Feasibility of Control

Current Distribution

- Not Present / Localised / Widespread

Coordination Requirements

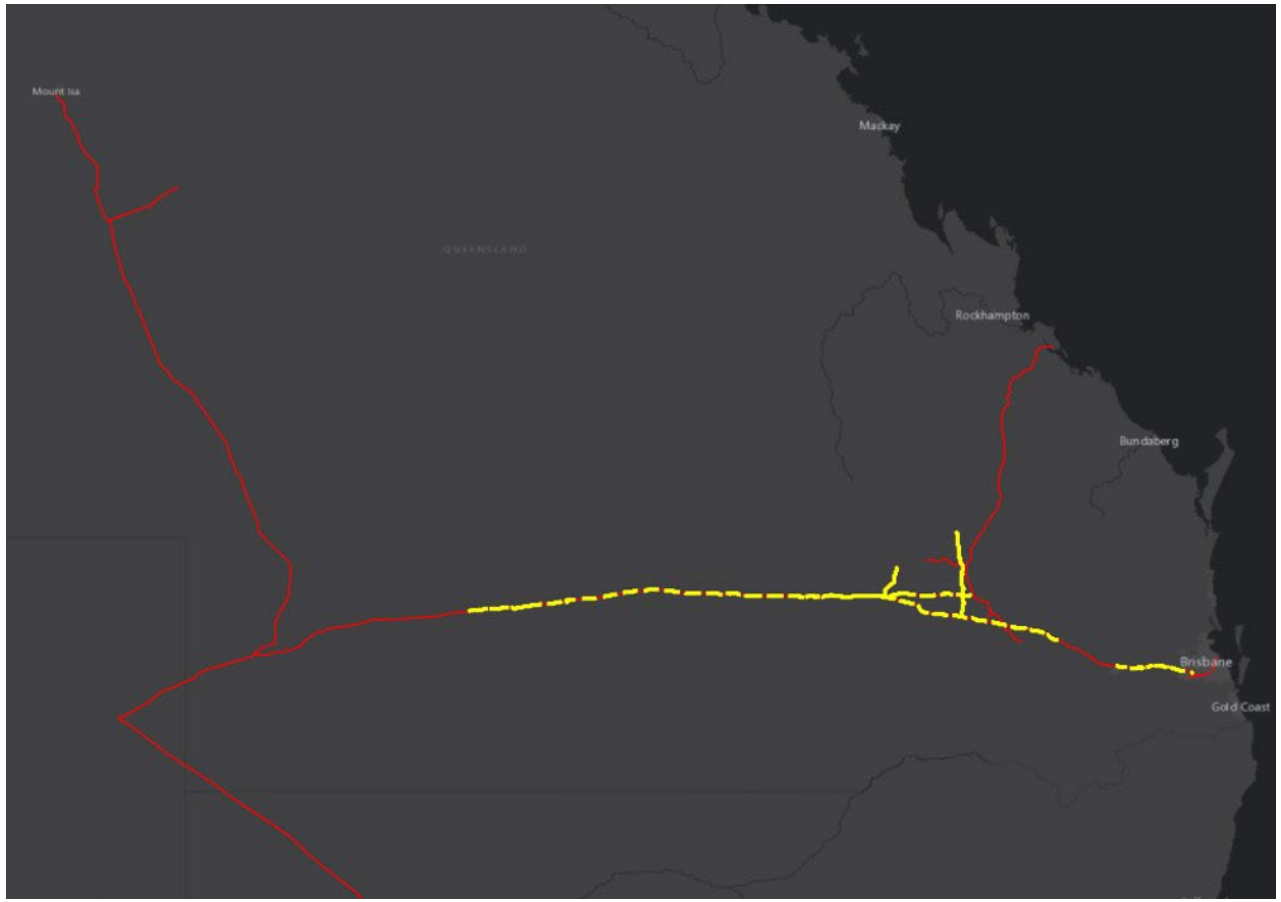
- Local land management activities
- Vectors outside of APA's control
- Default score of Medium and adjusted later



Source: Early intervention of new and emerging weeds, A South Australian Handbook. SA Government, 2021.

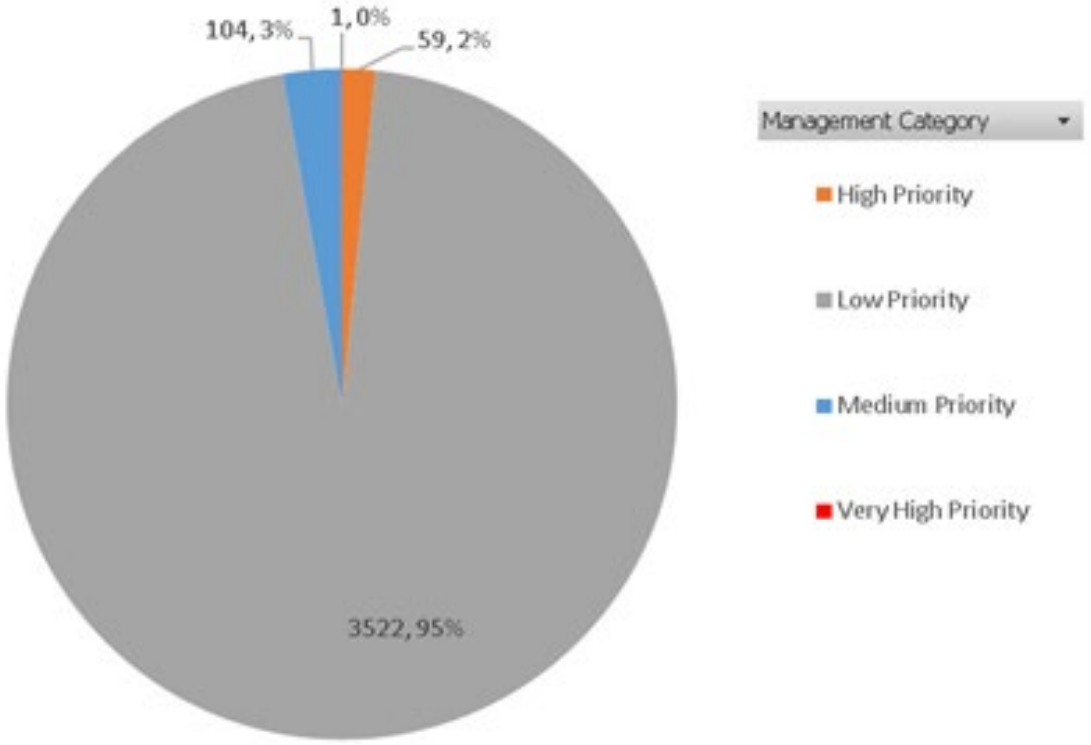
Field Survey

- Survey conducted across approx. 1,000 km of transmission pipeline
- Surveys excluded:
  - Metro areas - intensively managed, public land, widely dispersed
  - Far western areas - woody species, very few known risks
  - Cultivation - intensively managed



Results

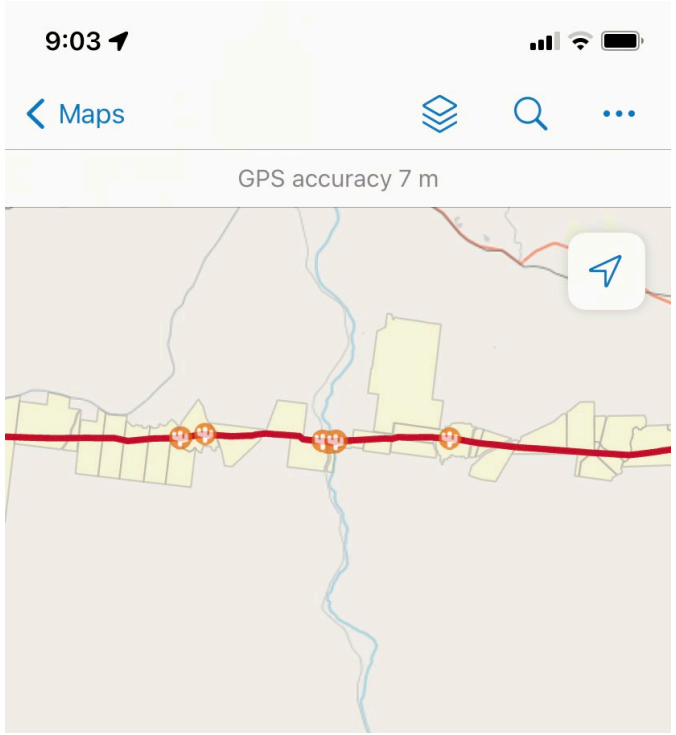
- ~ 1,000 km of field survey
- Rapid assessment - ~ 6500 data points (weeds)
- 1 very high priority species recorded
- 7 high priority species recorded
- Data used to refine feasibility of control scoring
- Four PWD registers created for QLD assets

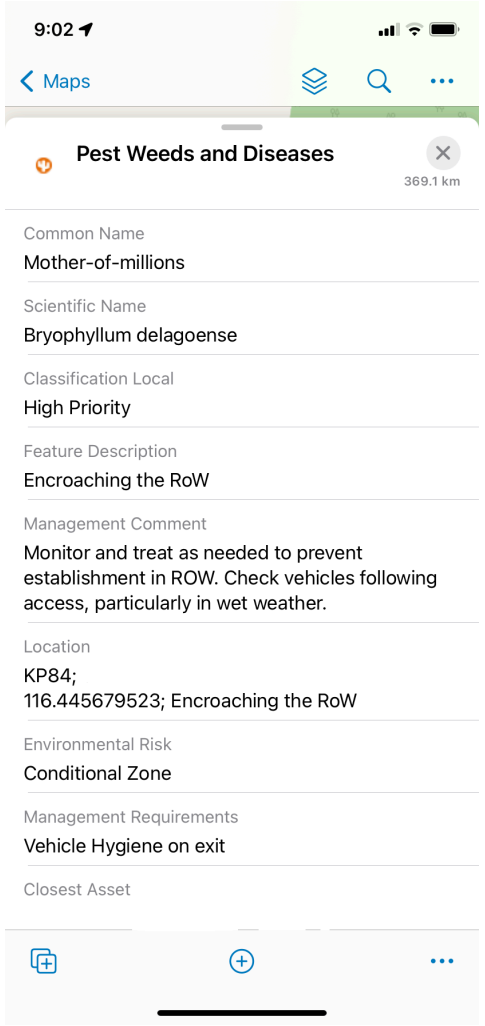


Applying the results

- Significant infestations with cleandown requirements mapped into APA's
  - Land access system
  - GIS / Field mapping app

- Follow up treatment program to reduce / remove





Broader Application & Learnings

- Provides an effective framework for focussing resources
- Supporting data is critical
- Landholder awareness / requirements increasing
- ‘In field’ cleandowns logistically difficult
- Risk registers developed for each operational region
- Supporting surveys in key areas

Example Risk Register, SEQ

Common Name	Botanical Name	State Status	Local Authority Priority	Potential for further spread	Risk level	Recorded	Current Distribution	Level of Coordination Required	Control Feasibility	Final Priority
Chilean Needle Grass	Nassella neesiana	Declared	High	High potential	High	No	Uncommon	Low	High	Very High
Fire Ants*		Declared	High	High potential	High	Yes	Uncommon	Low	High	Very High
Mexican Feathergrass	Nassella tenuissima	Declared	High	High potential	High	No	Uncommon	Low	High	Very High
Parthenium Weed	Parthenium hysterophorus	Declared	High	High potential	High	No	Uncommon	Low	High	Very High
Parkinsonia	Parkinsonia aculeata	Declared	High	Low potential	Med	Yes	Uncommon	Low	High	High
Rat's Tail Grasses	Sporobolus jacquemontii, S. natalensis, S. pyramidalis	Declared	High	High potential	High	Yes	Localised	Med	Med	High
Rubber Vine	Cryptostegia grandiflora	Declared	High	High potential	High	No	Uncommon	Med	Med	High
African Boxthorn	Lycium ferocissimum	Declared	High	Low potential	Med	No	Uncommon	Med	Med	Targeted management in sensitive areas
Fireweed	Senecio madagascariensis	Declared	Med	High potential	High	Yes	Common	High	Low	Targeted management in sensitive areas
Harrisia Cactus	Harrisia spp.	Declared	High	High potential	High	Yes	Localised	High	Low	Targeted management in sensitive areas
Honey Locust	Gleditsia triacanthos	Declared	High	Low potential	Med	No	Uncommon	Med	Med	Targeted management in sensitive areas
Mother-Of-Millions	Bryophyllum spp.	Declared	Med	High potential	High	Yes	Common	High	Low	Targeted management in sensitive areas
Annual Ragweed	Ambrosia artemisiifolia	Declared	Med	Low potential	Low	Yes	Common	High	Low	Med
Asparagus Fern	Asparagus aethiopicus	Declared	High	Low potential	Med	Yes	Common	High	Low	Med