

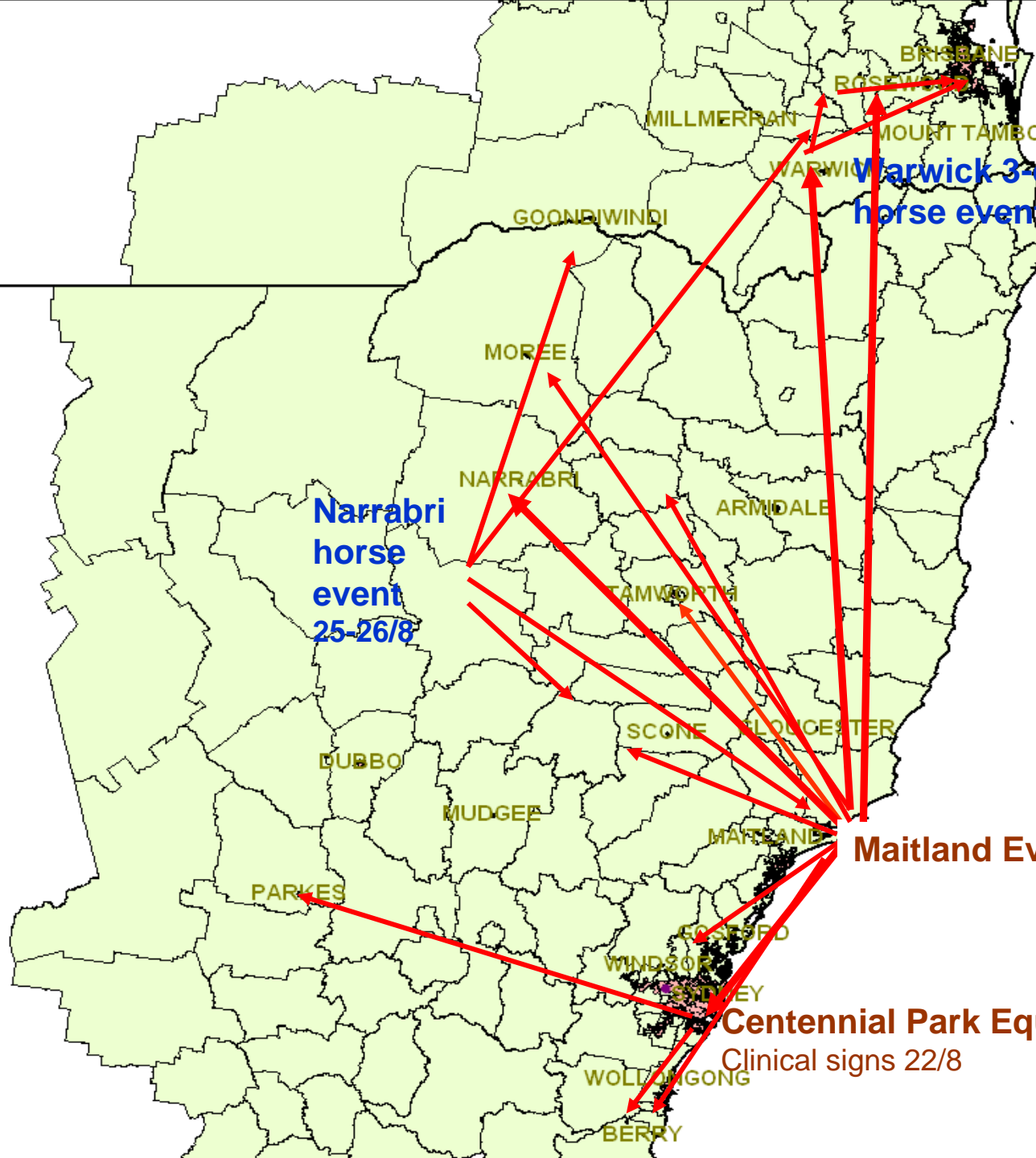
# Eradication of equine influenza from Australia

Glanville Ron J.  
Christie Bruce M.\*\*  
Webster W.Rick  
Roth Ian J.  
Dunn Steve E.  
Crook Alison



# EI timeline and Facts (1)

- August 8 - Horses imported from Japan
  - Quarantined in Eastern Creek, NSW and Spotswood, Victoria
- Date? – EI escapes from Eastern Creek Quarantine Station, NSW
- 17 August first horse at Eastern Creek Quarantine Station shows signs consistent with EI,
- 18–19 August Horse event at Maitland, NSW
- 23 August 5 horses PCR positive for EI at Eastern Creek Quarantine Station
- 24 August
  - 10:40am: exotic disease hotline call from private veterinarian at Centennial Park Equestrian Centre
  - 11pm: PCR results confirm EI
- 25 August, 2am – horse standstill implemented in NSW, the rest of Australia follows soon after.
- 26 August PCR results horses positive Morgan Park Recreational Ground, Queensland.



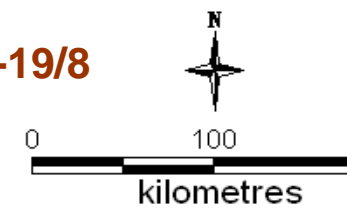
**Warwick 3-day horse event 24-26/8**

**Narrabri horse event 25-26/8**

**Maitland Event 18-19/8**

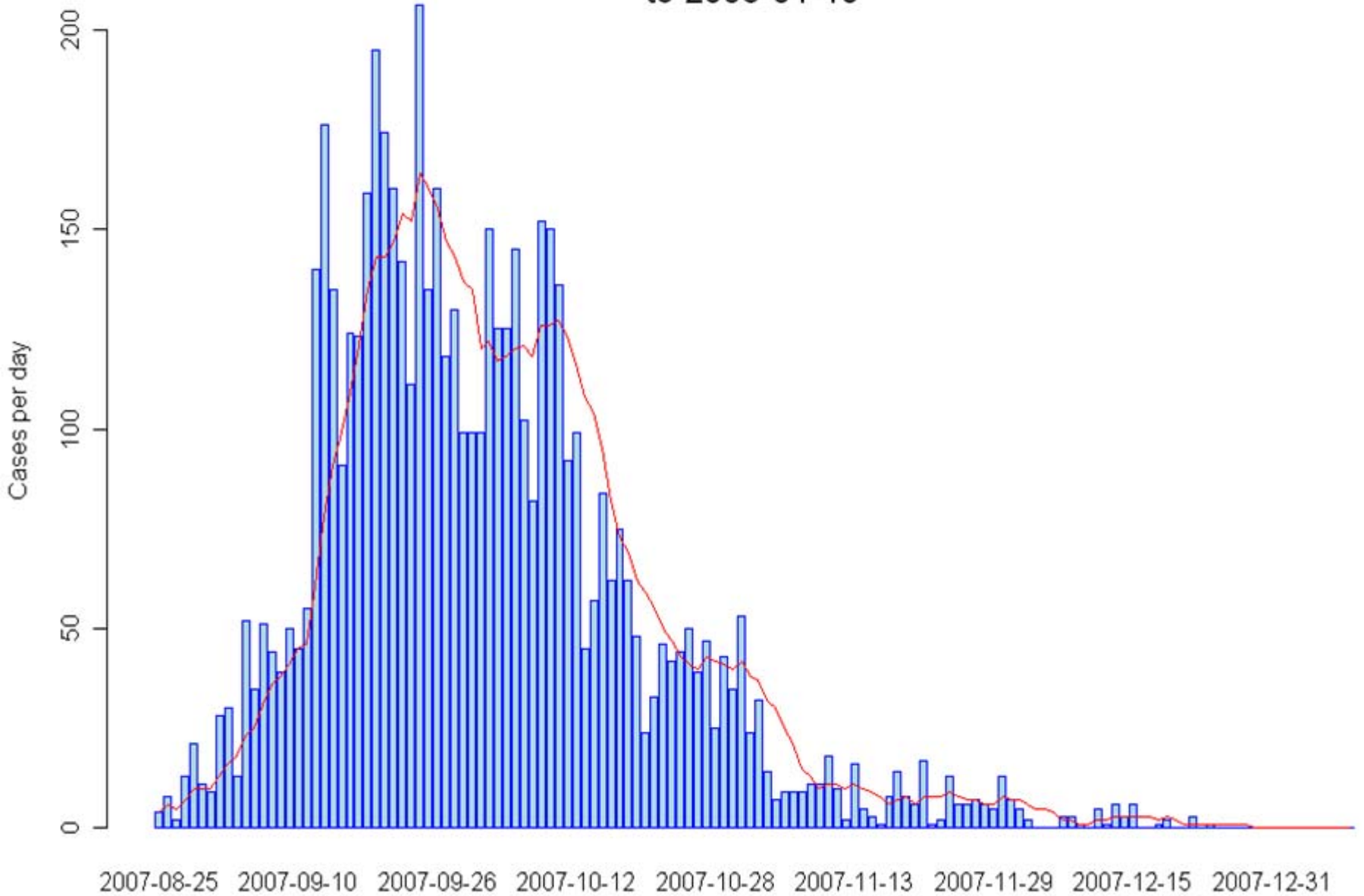
**Centennial Park Equestrian Centre**  
Clinical signs 22/8

**Equine Influenza**



# Epidemic curve for NSW

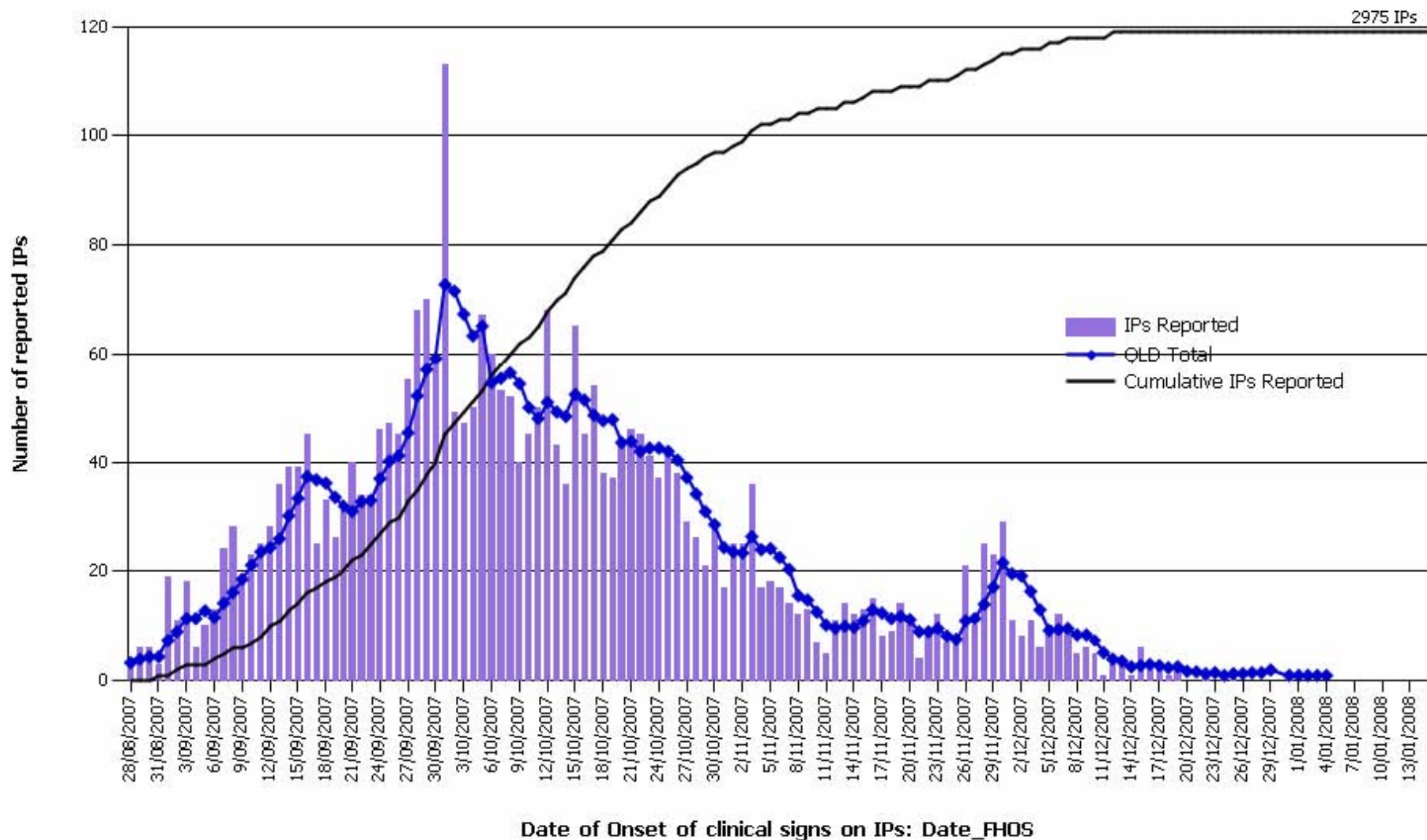
to 2008-01-10





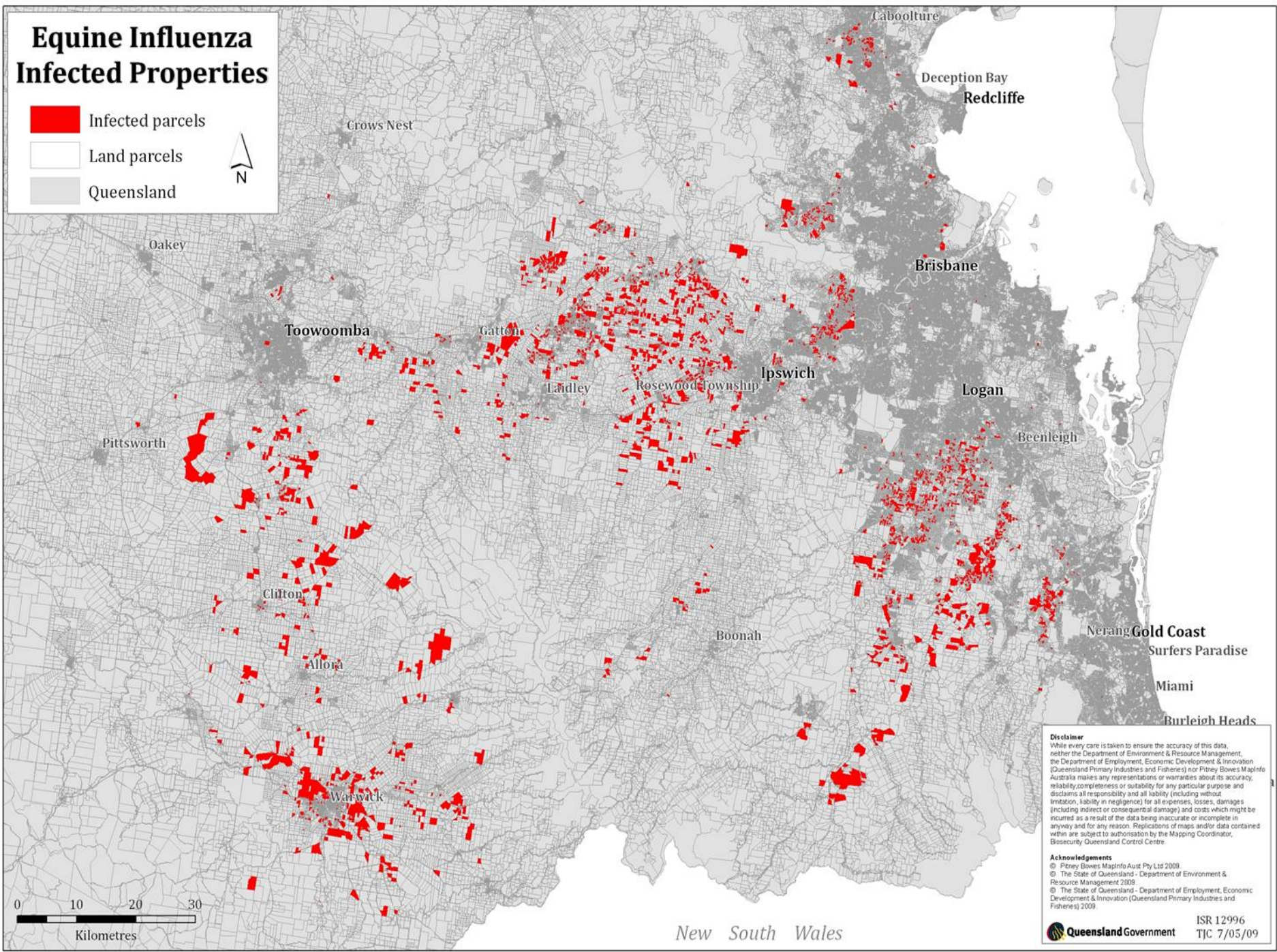
# Epidemic Curve for Queensland

Daily, 5-day rolling average and cumulative count of infected properties by IP onset date Queensland,  
29/8/07 to 15/01/2008  
Counts based on IP number



# Equine Influenza Infected Properties

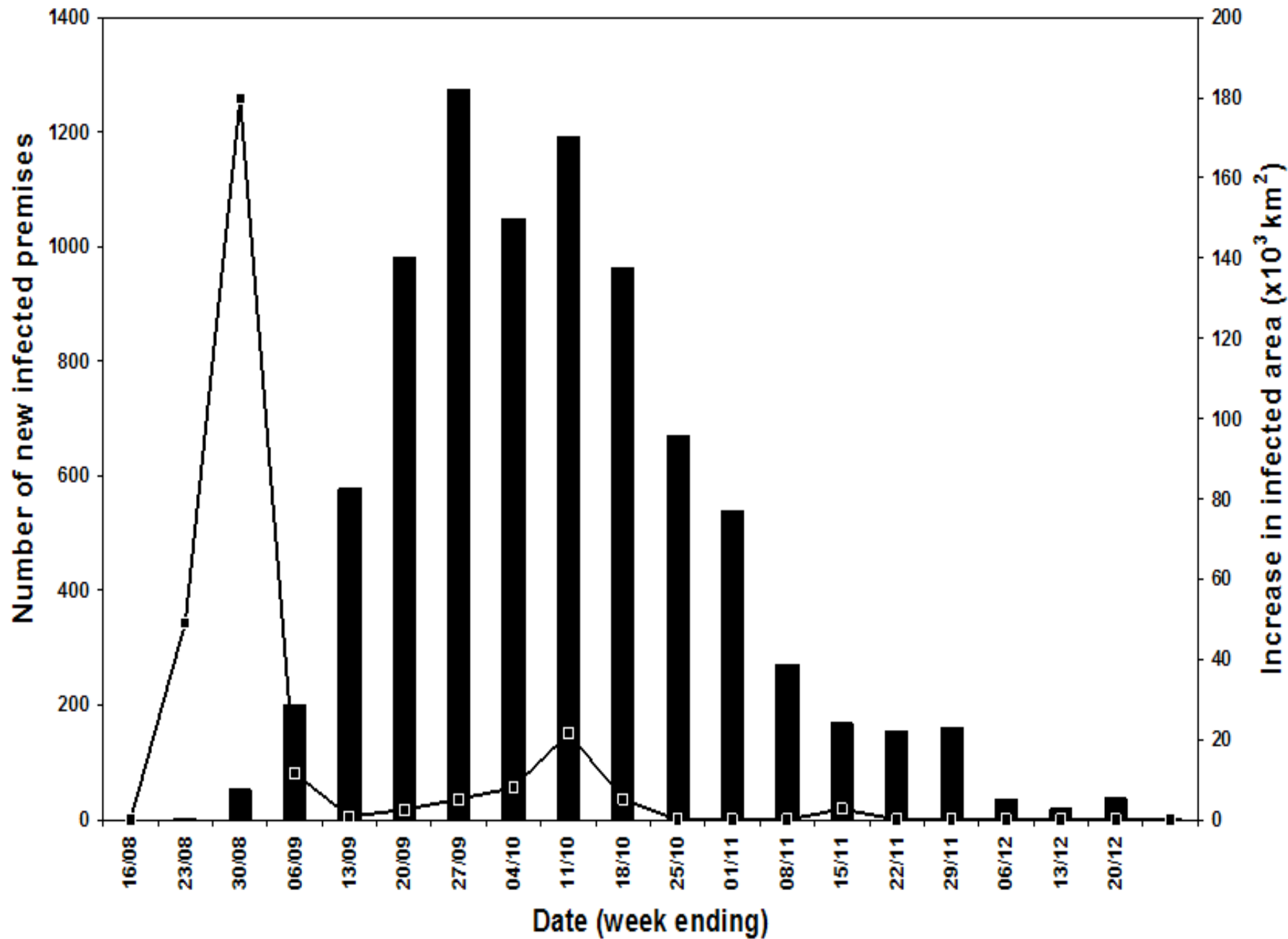
-  Infected parcels
-  Land parcels
-  Queensland



New South Wales

**Disclaimer**  
While every care is taken to ensure the accuracy of this data, neither the Department of Environment & Resource Management, the Department of Employment, Economic Development & Innovation (Queensland Primary Industries and Fisheries) nor Pitney Bowes MapInfo Australia makes any representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way and for any reason. Replications of maps and/or data contained within are subject to authorisation by the Mapping Coordinator, Biosecurity Queensland Control Centre.

**Acknowledgements**  
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# Strategy – control and eradication

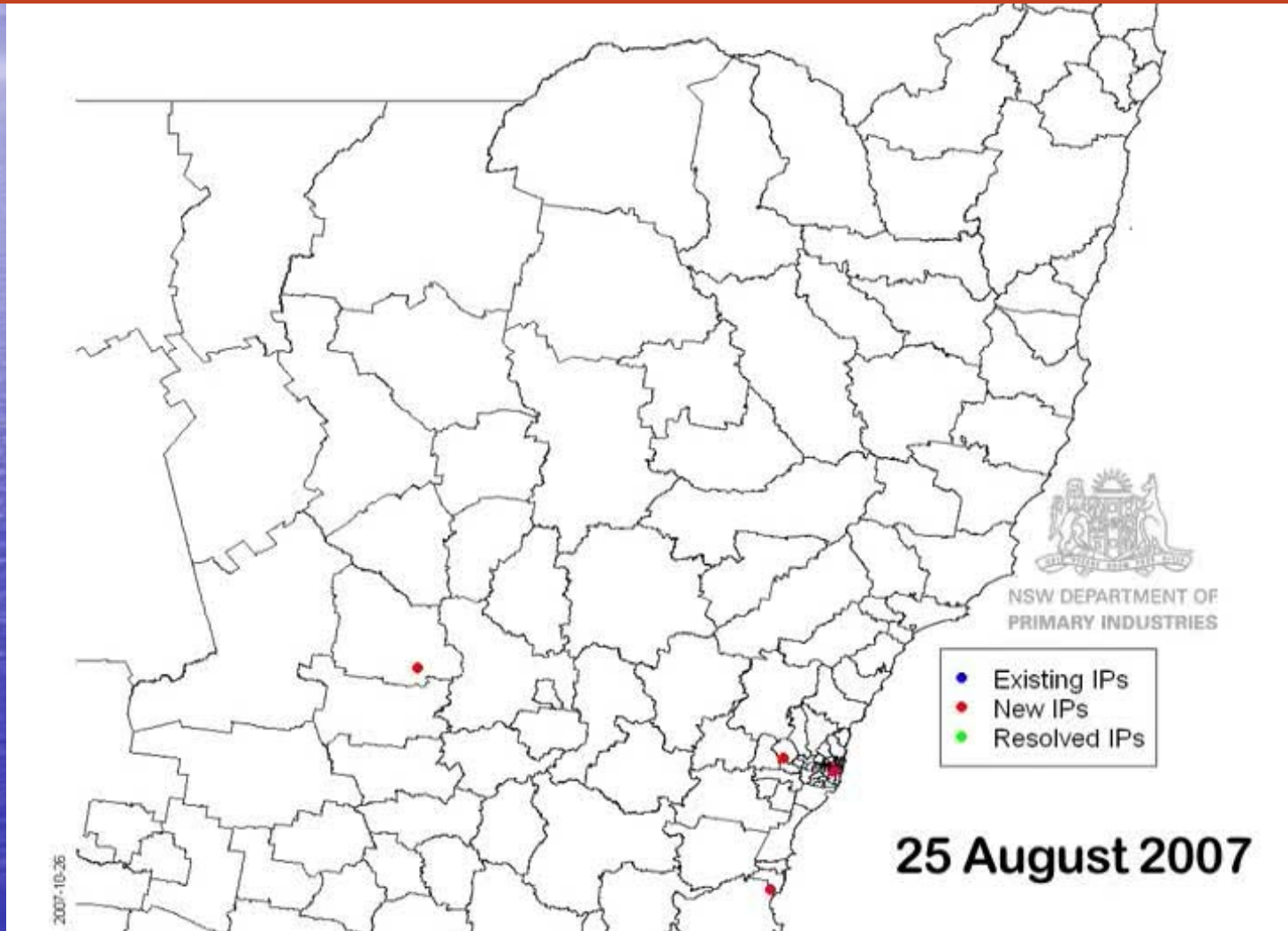
- Stop horse movements
- Quarantine infected properties or areas
- Create zones to limit disease spread and facilitate 'low risk' movement and resumption of usual industry activity
- Create buffers using geographic features, low horse numbers and vaccination
- Vaccination of high value/high importance/high risk horses



# Strategy – control and eradication (2)

- Fill in vaccination
  - in areas where high levels of disease had occurred i.e. Purple and red zones
- Surveillance to detect, control and eradicate.

# Progress of the disease in NSW



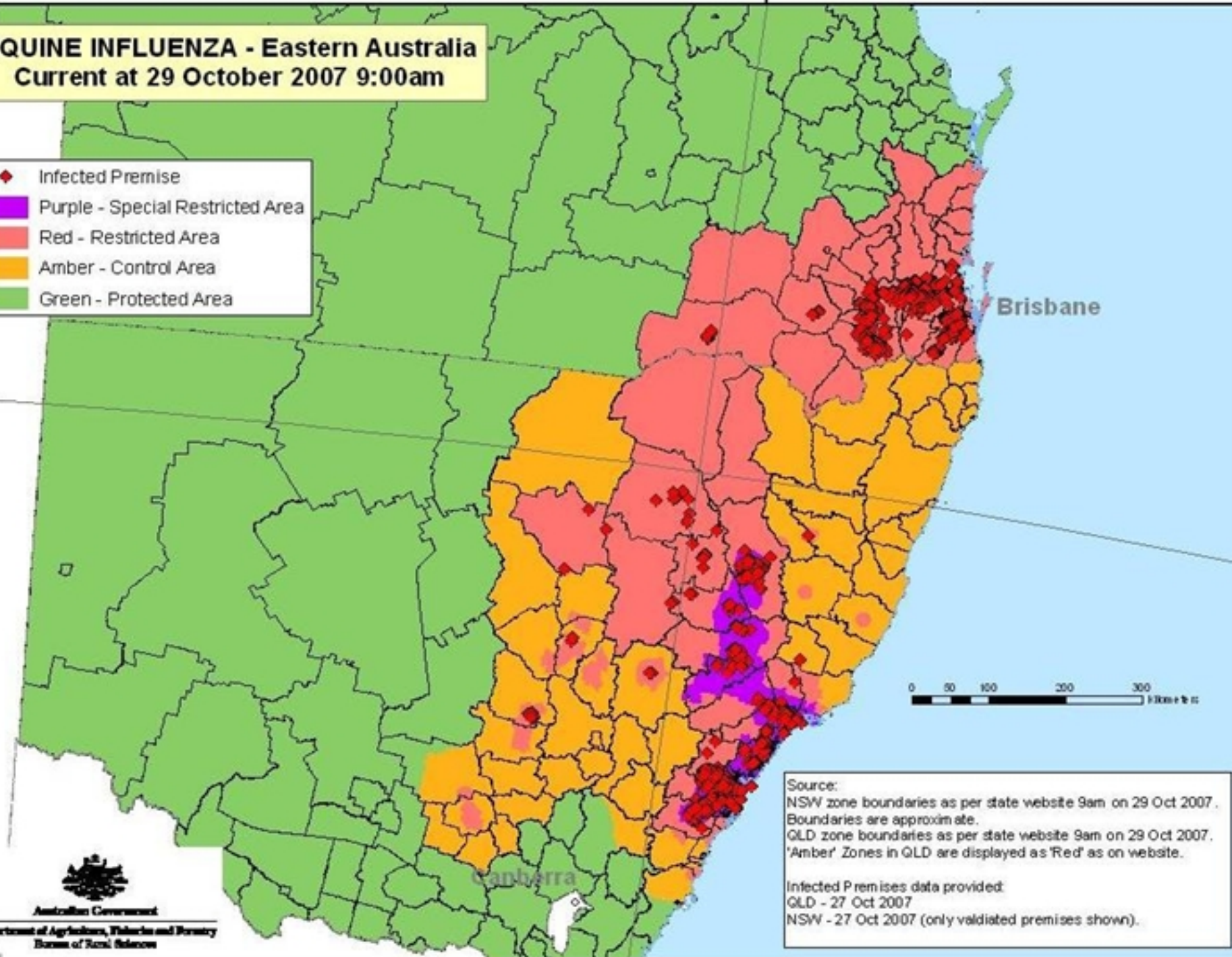
# EI timeline and Facts (2)

- 21 September – zoning (Green, Amber, Red and Purple)
- 22 September – Peak of infected properties in NSW – 5895
- 24 September NSW Peak number of new cases on 1 day – 225
- 29 September – Vaccination starts
- 1 October Qld Peak number of new cases on 1 day -106 total IPs outbreak -3061

# EQUINE INFLUENZA - Eastern Australia

Current at 29 October 2007 9:00am

- ◆ Infected Premise
- Purple - Special Restricted Area
- Red - Restricted Area
- Amber - Control Area
- Green - Protected Area



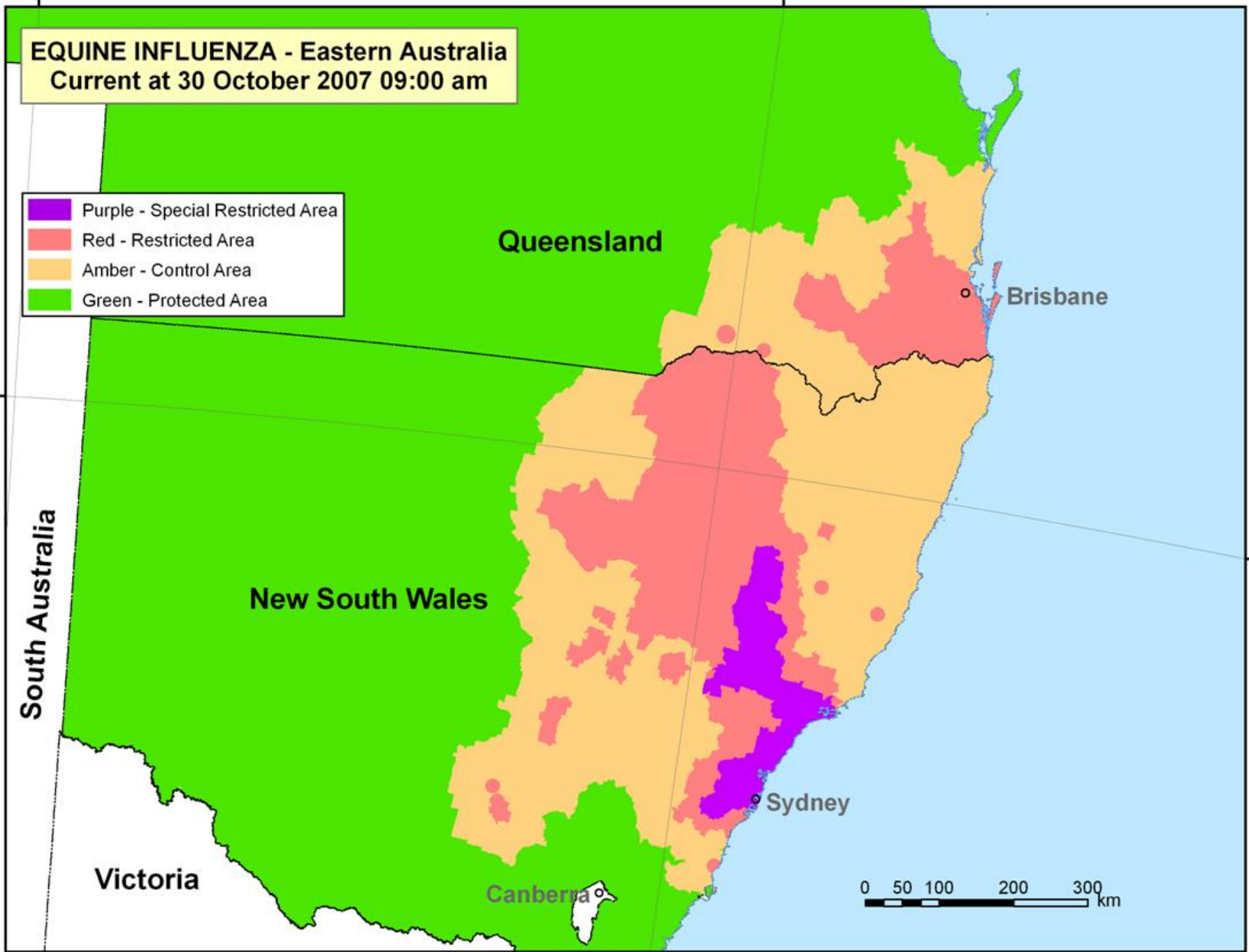
0 50 100 200 300 Kilometres

Source:  
NSW zone boundaries as per state website 9am on 29 Oct 2007.  
Boundaries are approximate.  
QLD zone boundaries as per state website 9am on 29 Oct 2007.  
'Amber' Zones in QLD are displayed as 'Red' as on website.

Infected Premises data provided:  
QLD - 27 Oct 2007  
NSW - 27 Oct 2007 (only validated premises shown).

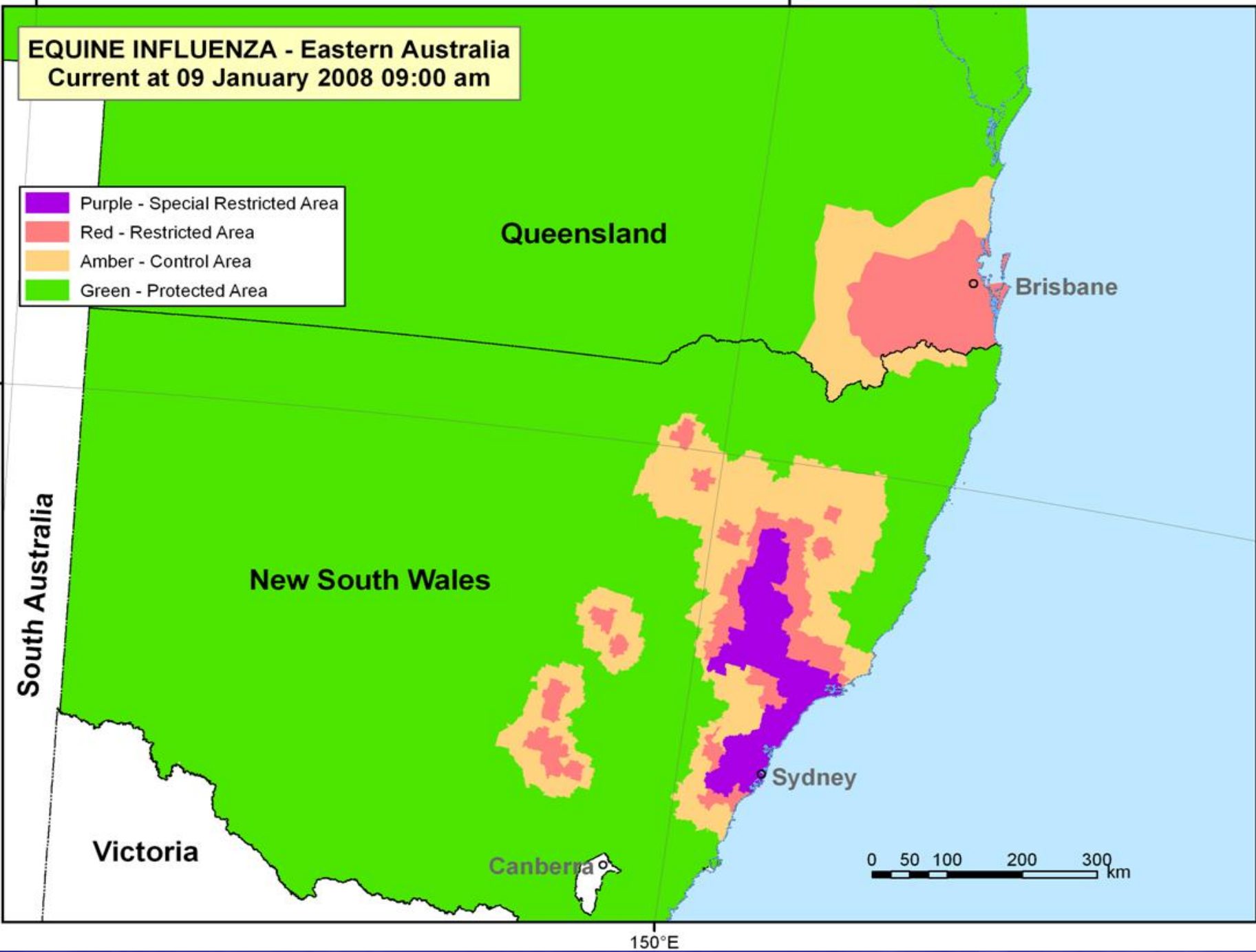
**EQUINE INFLUENZA - Eastern Australia**  
Current at 30 October 2007 09:00 am

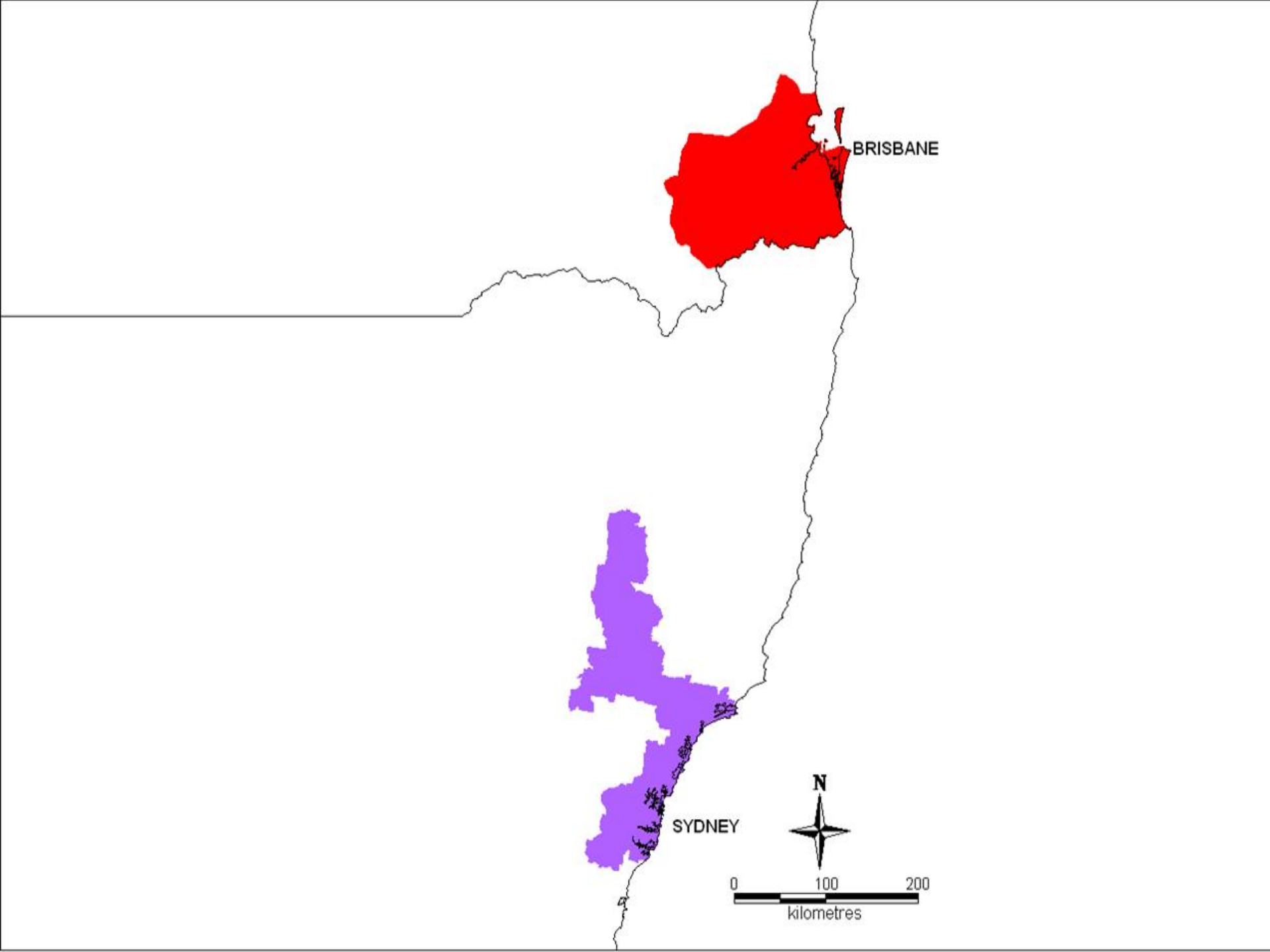
- Purple - Special Restricted Area
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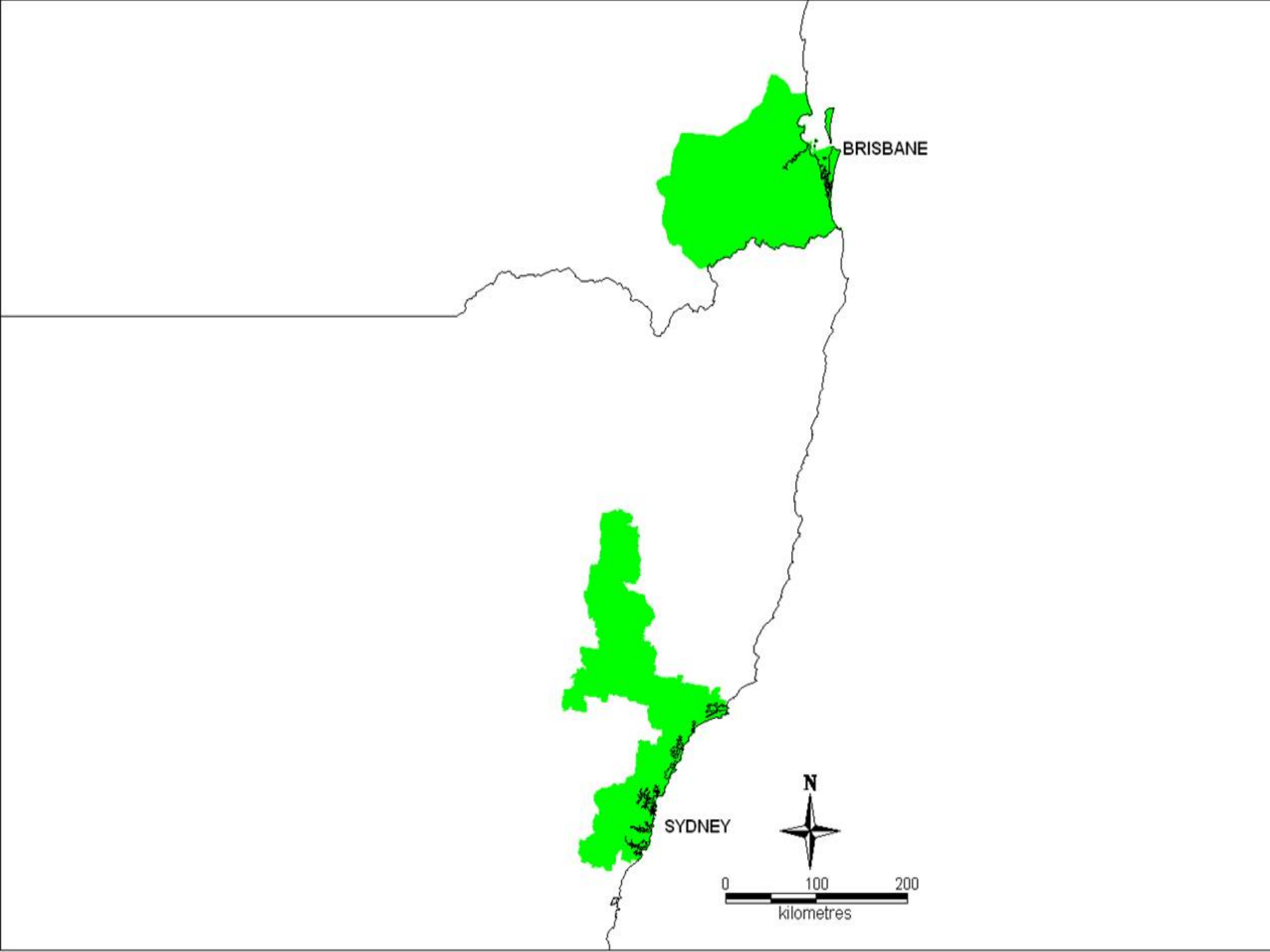


**EQUINE INFLUENZA - Eastern Australia**  
**Current at 09 January 2008 09:00 am**

- Purple - Special Restricted Area**
- Red - Restricted Area**
- Amber - Control Area**
- Green - Protected Area**







# EI timeline and Facts (3)

- 9 December 2007 – last property infected in NSW
- 25 December 2007 – last property infected in Queensland
- 28 February 2008 – control and eradication program complete, all Restricted Areas revoked
- 14 March 2008 – Australia declares provisional freedom
- 30 June 2008 – Australia FREE of EI

# EI timeline and Facts (4)

- Approx. 10,651 Infected Properties
- Approx. 76,000 infected horses
- 3% of Australia infected (approx 280,000 km<sup>2</sup>)
- Direct operating costs Approx. \$Aus 96 million

# Emergency Spectrum

**Emergency**

“Routine”



**Crisis**

“A place we haven’t been before”

- System Optimised
    - against good understanding of what is needed
    - SOPs, Scripts, plans, relationships, Structures, training.
  - High experience environment
  - Expert driven
  - Relatively Routine
- Significant Novelty
  - Novelty easy to miss
  - Uncertainty
    - Outputs
    - outcomes
    - solution
  - Exceeds existing capacity
  - Political

**Understand – Design – Execute**

**Hazard Based Planning  
Planning**

**Capability Based**

# Reasons for success (1)

- Early detection
  - Excellent reporting and surveillance
- Laboratory capacity and capability
  - World recognised staff
  - New rapid laboratory tests
  - Specimen capacity throughput more than doubled



# Reasons for success (2)

- We had plans!!!
  - AUSVETPLAN  
([www.animalhealthaustralia.com](http://www.animalhealthaustralia.com))
  - Emergency Animal Disease Response Agreement (EADRA)
  - State Disaster Plan (Displan)

## Disease Strategies

For example:

African Horse sickness

Avian influenza

Bluetongue

Classical swine fever

Foot-and-mouth disease

Newcastle disease

Rabies

## Management Manuals

For example:

Control Centres

Laboratory preparedness

State Standard Operating  
Procedures for example: DPIE  
VETPLAN, NSW Exotic Animal  
Disease Control Manual

## Operational Procedures Manual

For example:

Valuation & compensation

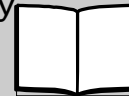
Destruction & disposal

Decontamination

Wild animal control

# AUSVETPLAN

The Australian  
Veterinary Emergency  
Plan



*Summary Document*

## Enterprise Manuals

For example:

Artificial breeding centres

Feedlots

Saleyards

Veterinary practices

## Agency Support Plans

For example (police, local government)

NSW Animal Health Emergency  
Sub-plan

Other state/Territory support plans

## Training Resources

Training Manual

Videos

## Diagnostic Resources

Exotic Animal Diseases of  
Australia:

A Field Guide for Australian  
Veterinarians

Diagnosis of Screwworm Fly

# Cost Sharing Agreement

- Emergency Animal Disease Response Agreement (EADRA) Agreement between Government & Industry
- 62 diseases covered
- 4 categories of cost sharing
  - 100% Government
  - 80% Govt 20% Industry
  - 50% Govt 50% Industry
  - 20% Govt 80% Industry
- EI 20% by government and 80% by industry

# Reasons for success (3)

- We had plans ... and they were flexible!!!
  - Standstill
  - Buffers
  - Vaccination
  - Zoning
  - Biosecurity precincts
  - Tailored quarantine and movement protocols

# Reasons for success (4)

- A coordinated national approach
  - Consultative Committee on Emergency Animal Diseases
  - National Management Group
  - Ministerial liaison

# Reasons for success (5)

- Preparedness
  - First Response team trained and ready
  - Access to whole-of-government resources through State Emergency Management Committees (SEMC)
  - Legislative framework
    - Emergency Diseases of Animals Act
    - Stock Diseases Act

# Reasons for success (6)

- Strong political leadership and support
- General horse industry support for eradication
  - National and State industry liaison
  - Ministerial Taskforce
  - Program flexibility to mitigate industry losses
- Individual horse owners and the public
  - Industry Liaison Officers
  - blogs
  - websites
  - community meetings

# Reasons for success (7)

- media management to reach widest audience with essential messages
- media liaison- NSW 318 press releases
- focus awareness of key messages e.g. observe standstill, report sick horses
- key spokespeople identified and briefed to keep the messages on track and consistent
- targeted advertising campaign used metropolitan, regional, rural and horse-specific newspapers and magazines

# Reasons for success (8)

- Strategic Vaccination

# Lessons for Australia (1)

- National Standstill
- Immediate vaccination strategy
- Registration of horse properties
- Strategic Protected Precincts
- Harmonised zones
- Pre-Agreed movement protocols
- Immediate joint planning meetings

# Lessons for Australia (2)

- Exotic diseases can be eradicated – our veterinary and emergency services did a magnificent job
- Industry cooperation is vital



# Thankyou

