



*Perspectives of Victory*

Geospatial Information &  
Technology  
in Equine Influenza  
NSW 2007-08

EICU Input

# Geospatial in Emergency Management Today

- There is no formally defined role for geospatial in AUSVETPLAN or its associated sub-plans;
- And no formally defined role for geospatial in state emergency plans;
- There is presently no one model for spatial reporting that fits all lead agencies or for all events;

**Note:** Other lead agencies have a spatial unit that usually report to the ICT function during peace time, however in emergencies ICT and Spatial tend to separate ... each with its own and different tasks.

## Geospatial Observations in EI SDCHQ

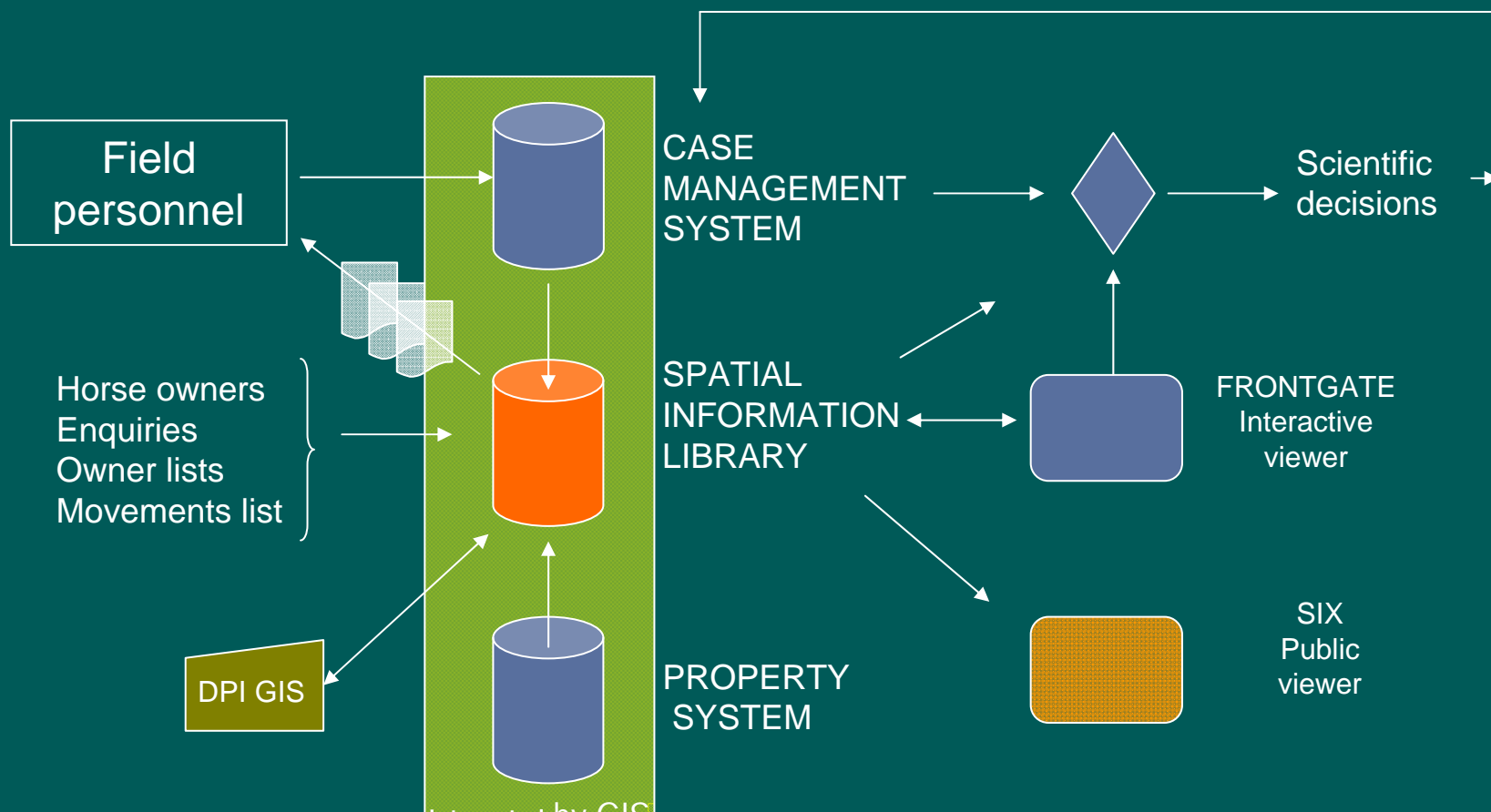
- **Lack of appropriate geospatial arrangements up front meant time was lost in getting the function performing to capacity.**
- **Once effective arrangements were in place the spatial teams were able to rise to meet the needs of any level of decision-making, as and when required.**
- **The ability of the spatial team to respond to so many requests and levels of demand for spatial was heavily reliant on the depth of GIS experience of DPI and EICU people and their prior experience and training in emergency environments.**
- **The ability to deliver spatial solutions was possible because the underlying systems were in place in DPI and well supported by the ICT arrangements.**

Frontgate was an important component of the information

# Geospatial Observations in EI LDCC

- **Different situation, required a different approach.**
- **The Director LDCC had already picked up the value of mapping & was now looking for more value from mapping services and analysis.**
- **He had a lot of science people who were new to GIS but some wanted to incorporate it into different reports and analyses.**
- **Leading the mapping team at LDCC was about GIS knowledge and extending it into field science at the one end, and integrating it into day to day operational decision-making at the other.**

# Information architecture



# Geospatial Observations in EI

During the event

**There were many information systems and processes operating concurrently .... with no overarching information architecture or control.**

**CONSEQUENTLY ...**

**There were different datasets and databases – many of unknown quality, currency and authority – being concurrently used in decision-making across different parts of the operation.**



and yet another shared operating picture ...

Department of Lands | Spatial Information eXchange - Microsoft Internet Explorer

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Channel : Equine Influenza Outbreak

Take me to a:

- Address
- Lot/DP
- Catchment Management Area
- Suburb
- Electoral District
- City / Town / Suburb
- Local Government Area
- Property

Show themes HIDE RESET

- Primary Industries Themes
  - Vaccination Buffer
  - Protection Plan
- Lands Themes
  - Points of Interest (Facilities)
  - Suburb
  - Roads
  - Cadastre
  - Local Government Authority
  - Catchment Management Authority
  - State Electoral District
  - State Border
  - Properties

Display images HIDE RESET

Transparency:

- Sydney Aerial photos (High resolution) - Ausimage
- Sydney CBD road directory - © Sydways Publish
- Sydney region road directory - © Sydways Publish
- Bathurst Aerial photo (High Resolution) - © Lands
- East Coast Aerial Photos (Med-High resolution) - ©
- Colour Satellite imagery (Med resolution) - via Rayt
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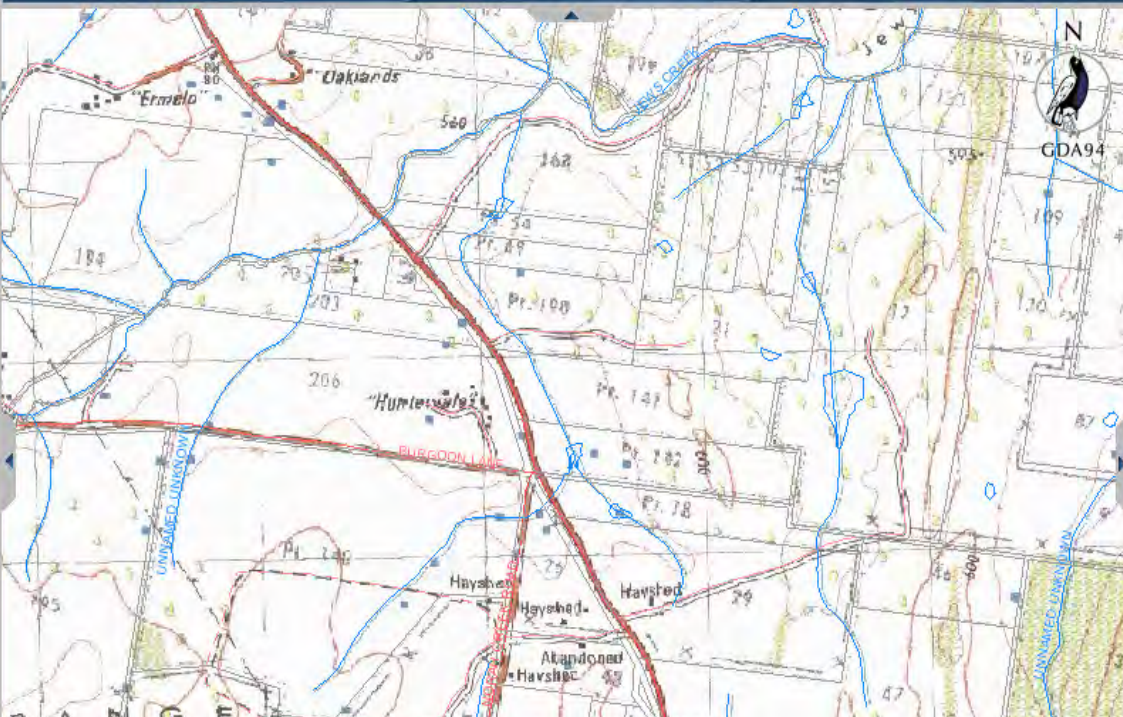
other shared operating picture ...

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LAYERS IMAGES LEGEND

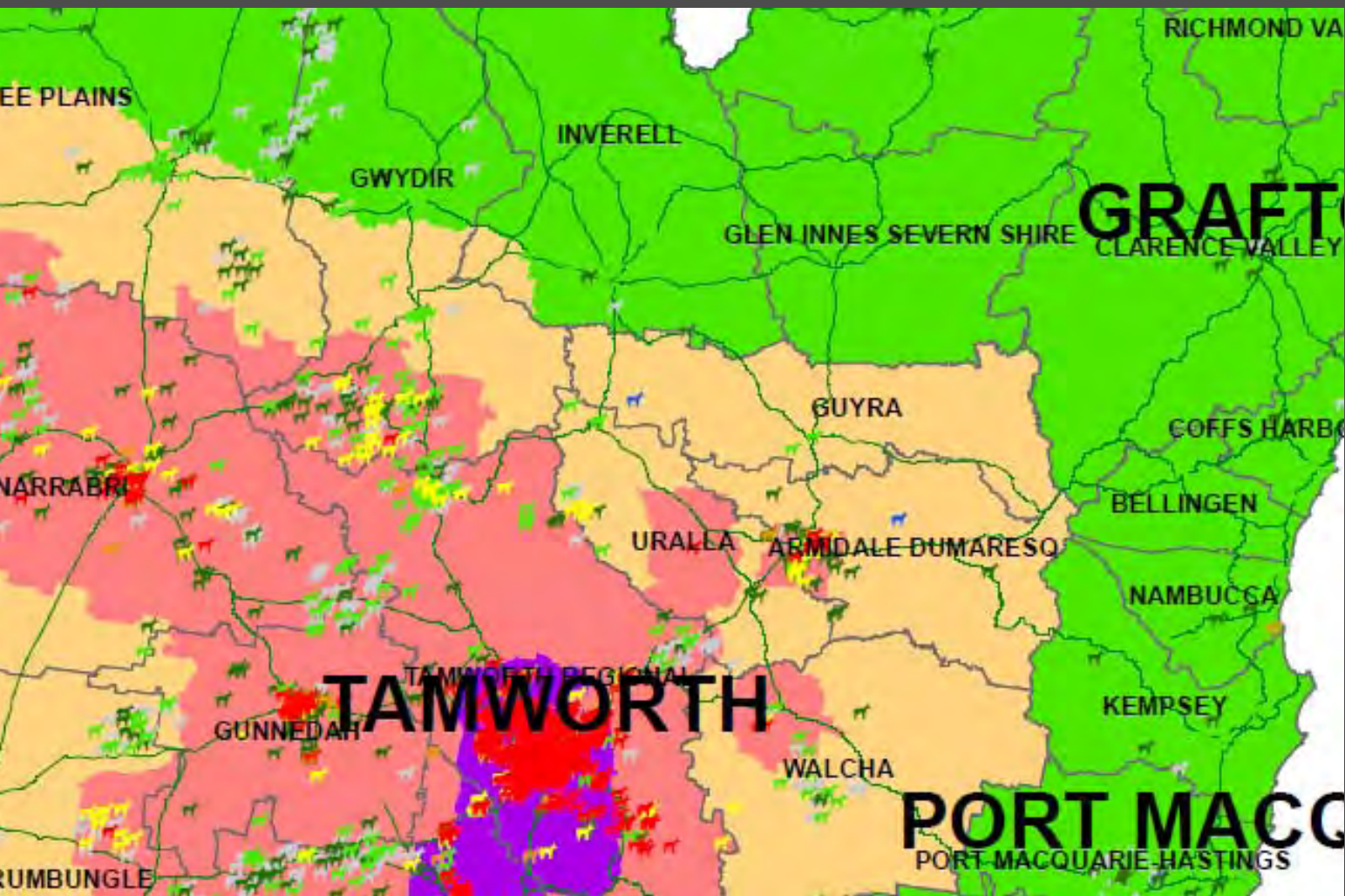
Fade: 84 %

- Orange DPI Head Office
- Spot 5 Satellite Image
- NSW Topographical
- Newcastle Flood Mosaic
- Maitland Flood
- Menangle Area
- Hi Resolution KUTH Image

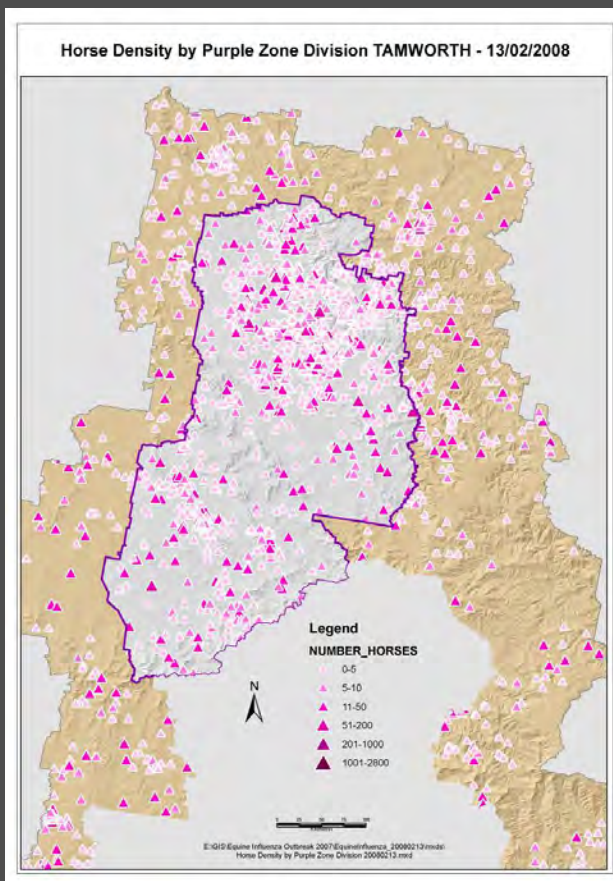
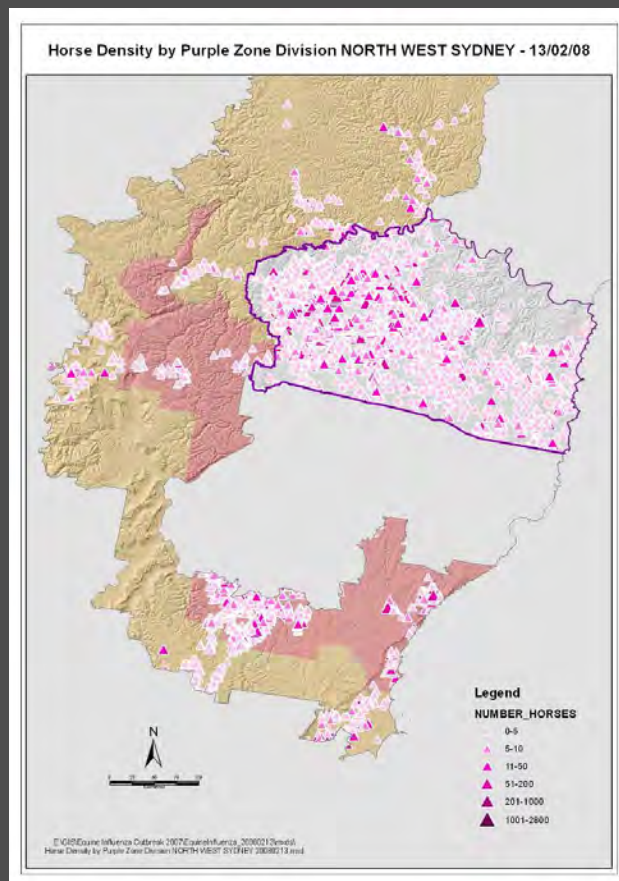
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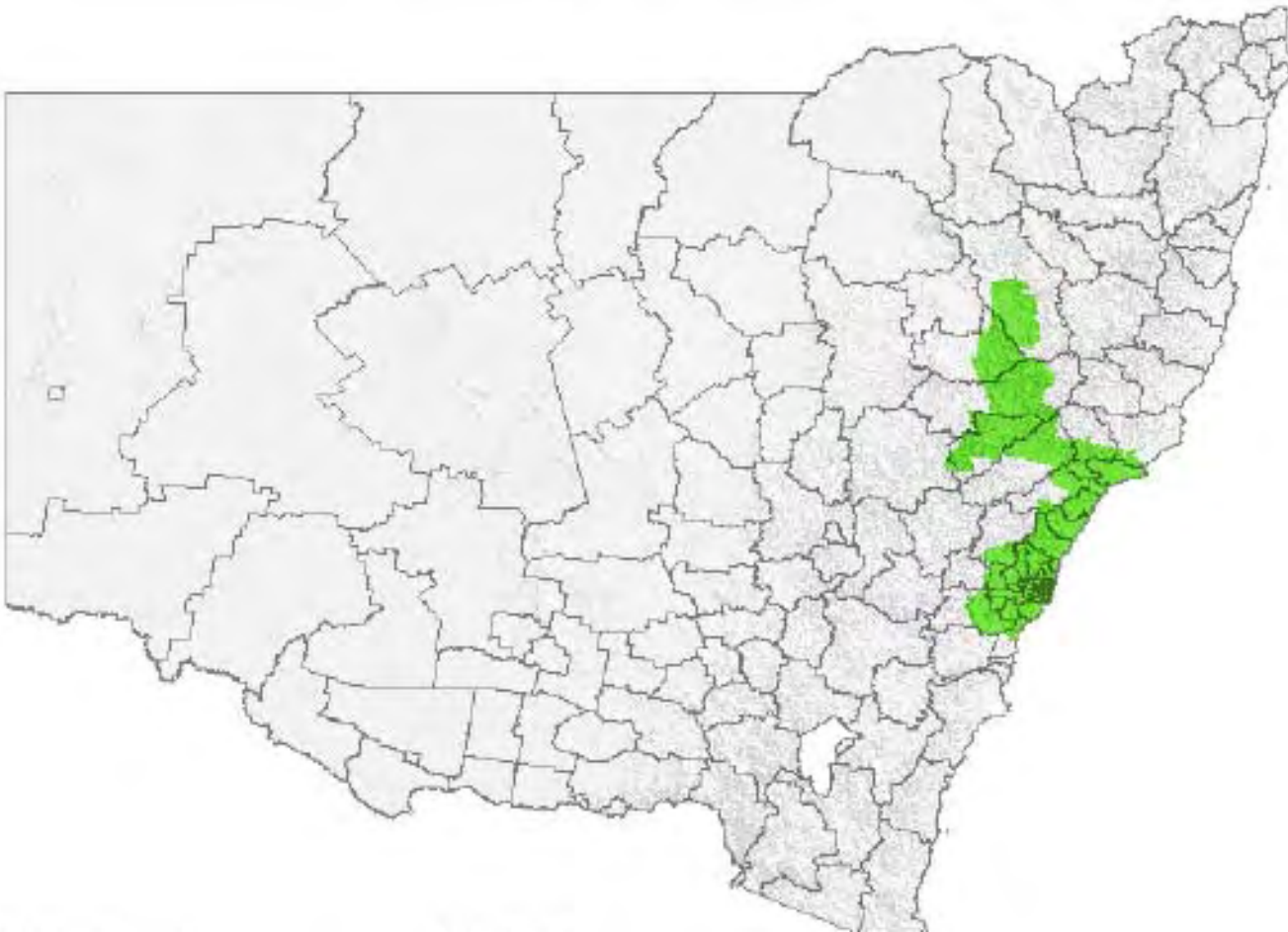
Other shared operating picture ...



and another shared operating picture ...



Progress of the campaign ...



## However ...

- All of the above shared operating pictures were derived by different methods and from different versions of data.
- There needs to be a common pool of data that can be shared by everyone.
- This would give a Common Operating Picture (COP) with as many views as necessary.
- Control of the COP, data and derived information needs to be the Information Manager responsibility in the operating framework.

A black and white photograph of a molecular model. The model consists of several spheres of varying shades of gray, connected by thin, dark rods. The spheres are positioned on a light-colored, textured surface, and their shadows are cast onto the surface below them. The word "Conclusion" is printed in a simple, sans-serif font in the lower right quadrant of the image.

Conclusion

## Main Geospatial task

To establish a Common Operating Picture (COP) across the organisation that is current, reliable, analyzable, reportable and available for all who need to use it in their activities and decision-making.

# Information in an emergency event

1. Take charge of the Information & Geospatial Arrangements
2. Design the Right Information Strategy for the given event
3. Establish a Spatial Information Library (though ideally have one before the event)
4. Establish an Information Sharing Network for sharing information up, across and down

## Information in an emergency event

5. Create a Common Operating Picture (so that everyone is making decisions on the same data, and sharing the same picture of the operation or event)
6. Understand the Emergency Arrangements (and your place in it)
7. Get the Information Products right for each decision-maker.

## ... some Lessons

- With the benefit of experience;
  - Implement definition of standard product and process timelines in the earliest stages of GI implementation
  - Have established system Training programs up front as part of induction processes, including stringent guidelines for “Handover Practices”.
  - Training should include EM procedures and protocol.
  - Compile a register of appropriately skilled operators which is maintained and can be used as a basis for developing rosters. Especially important is a dedicated pool of Leaders that can be called upon on a rotational basis to maintain consistency of operation.

# Pre-planning

Had the following data been available at the start of operations, the event would have required considerably less resources in most operational areas:

- A register of horse ownership
- A proper spatial register of rural and regional properties
- Access to the National Telephone lists for NSW (IPND).

## Wrapping Up

EICU experiences in the EI event have helped consolidate for EICU many of the concepts and practices for preparedness across all stages of Emergencies.

We hope the fore-going will promote some useful discussion leading to some strategies that can be implemented as a practical outcome.



Questions?