

Emergency Information Coordination Unit, Spatial Services

Who are the EICU and what we do?

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spatialservices.finance.nsw.gov.au

OVERVIEW

Emergency Information Coordination Unit (EICU)

Background; Objectives

Emergency Services Spatial Information Library (ESSIL)

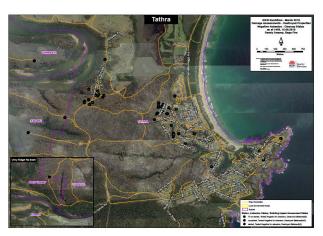
Spatial Information & Mapping System (SIMS)

Buildings & Infrastructure Database

Special Events

Operational Support







EMERGENCY INFORMATION COORDINATION UNIT (EICU)

Formed in LPI in 2002 to respond to the spatial information requirements of a Sep11 type event in NSW



Role later extended to provide spatial information to all emergency service organisations, functional areas and local, state & federal agencies.



GIS IN EMERGENCY MANAGEMENT

GIS in Emergency Management:

What role does it play and where is it used?

Minimise the impact of disasters on lives and properties

Preparedness

<u>Prevention</u>



Response Management

Recovery

HOW EICU OPERATES

Promoting and supporting the best practice use of geospatial technologies in emergency management, counter terrorism and critical infrastructure protection

1. DATA

- · ESSIL
- Best available information
- · Ready for use

2. EM SDI

 Infrastructure for collection, manipulation, distribution and use of information

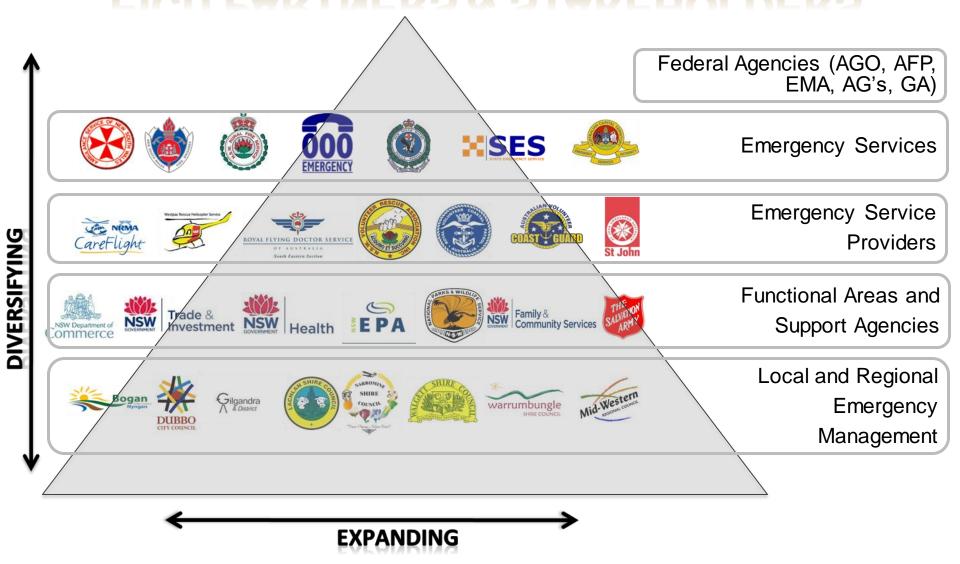
3. APPS

- SIMS
- Simplify use and access to information

4.SUPPORT

- Operations Centres
- Coordination Centres
- Planning
- Mapping

EICU PARTNERS & STAKEHOLDERS





EMERGENCY SERVICES SPATIAL INFORMATION LIBRARY

One stop shop for geo data... 350 seamless state wide layers...

Basemaps - Imagery & Topographic

Communications – Telephone exchanges & cables

Built Environment – Schools, Hospitals, Childcare, Buildings

Persons at Risk – Aged Care, Schools, Childcare

Hazards – Fire, Flood, Earthquake History,
Bushfire Prone Land

Emergency Management – Police, SES, RFS, FRNSW, VRA, Marine Rescue – Sites & Boundaries

Location – Points of Interest

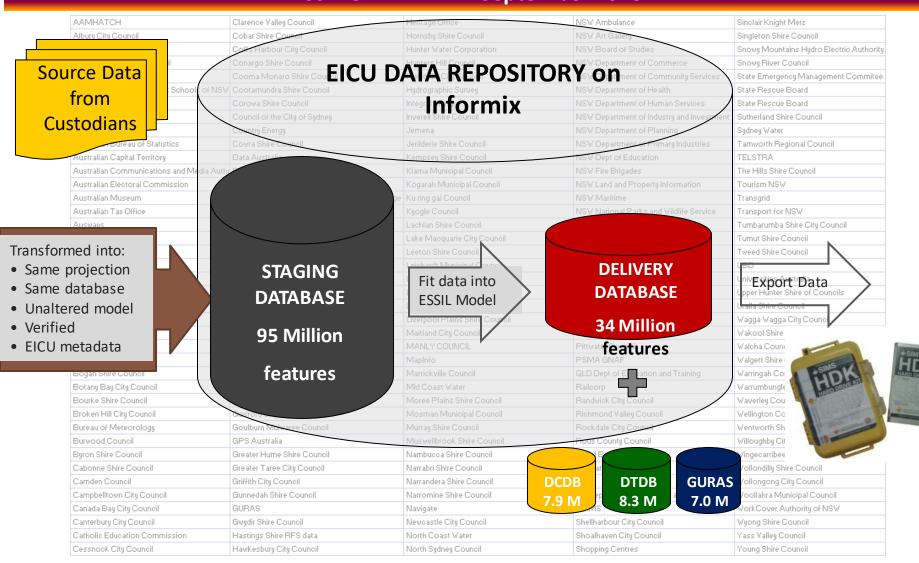
Transport - Air, Road & Rail

Environment – Vegetation, Soils, National Parks, State Forests

Utilities – Water, Sewer, Stormwater, Electricity & Gas

Up to date information from Source Agencies is extremely important. 6 monthly data supplies will benefit all users and the EM Sector

ESSIL OVERVIEW – September 2018





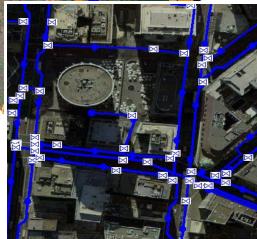
Water Treatment Plant

Water Main

Water Pumping Station

Water Structure





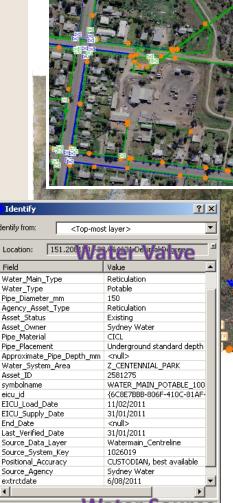
Water Storage

Water Hydrant

Leeton Shire Council Lismore City Council Liverpool Plains Shire Council Mid Western Regional Council Midcoast Water Moree Plains Shire Council Murray Shire Council Nambucca Shire Council Narrabri Shire Council Narrandera Shire Council Narromine Shire Council **Orange City Council Parkes Shire Council Richmond Valley Council Rous County Council** Shoalhaven City Council Singleton Shire Council **Snowy River Shire Council Sydney Water Tamworth Regional Council Tumbarumba Shire Council Tumut Shire Council Upper Hunter Shire of Councils** Wakool Shire Council Walgett Shire Council Warrumbungle Shire Council **Wellington Council** Wentworth Shire Council Wingecarribee Shire Council Wyong Shire Council **Yass Valley Council Young Shire Council**

Water Canal





COMMUNITY FACILITY

Emergency Facility

Ambulance Service of NSW **Association of Independent** Schools of NSW Catholic Education Commission Data.gov.au Department of Health and Ageing **Department of Human Services** Fire & Rescue NSW Geoscience Australia **Land and Property Information NSW Department of Education** and Training **NSW Department of Family and Community Services NSW Department of Health NSW Fire Brigade NSW Maritime NSW Police** QLD Department of Education and Training **Rail Corporation** Roads and Traffic Authority **State Emergency Service** State Rescue Board

Accommodation F
Public Facility
Recreational

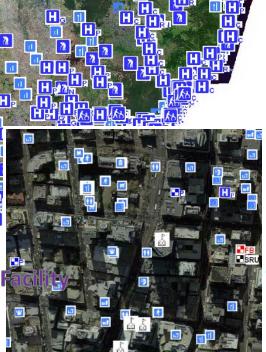
Universities Australia



Location: 151.20	5915 -33.876984 Decimal Degrees
Field	Value
service	Active Kids @ World Square
street_address	Level 11 650 George Street
suburb	SYDNEY
postcode	2000
state	NSW
license_number	CSSC1000178
max_license_no_day	70
max_lic_0_to_2	30
max_lic_2_to_3 max_lic_3_to_6	dcare Facility
max_lic_6_to_12	<null></null>
mon_open	07:00
mon_close	07:00
tue_open	07:00
tue_close	07:00
wed ppen	07:00
GUIEY	07:00
thu_open	07:00 Kitch
thu_close	07:00 KITCH
fri_open	07:00
fri_close	07:00
EICU_Supply_Date	18/07/2011
srclayer	Child_Care_Centres_No_Change
acility	Department of Family and Community 29/08/2011
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Education Facility

Health Facility

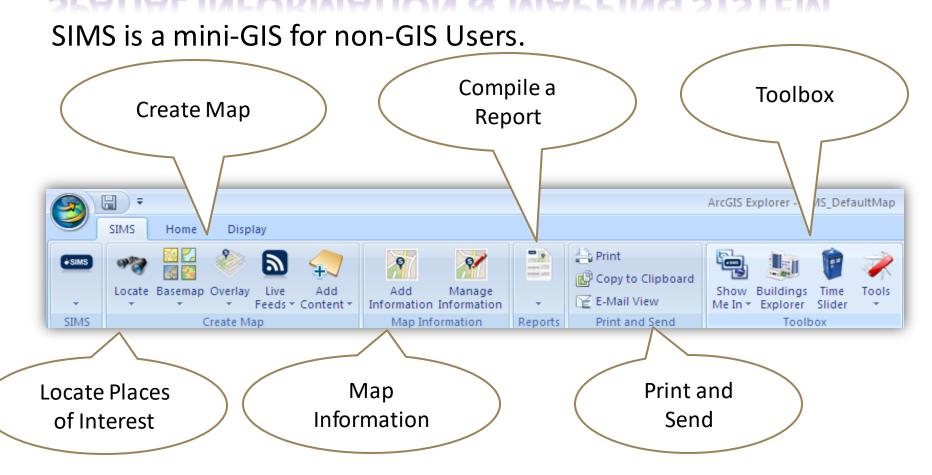


Ashfield Municipal Council Baulkham Hills Shire Council **Bega Valley Shire Council Bellingen Shire Council Bogan Shire Council Byron Shire Council** City of Newcastle **Conargo Shire Council** Council of the City of Sydney Gilgandra Shire Council Glen Innes Severn Council **Gosford City Council Greater Taree City Council Hawkesbury City Council Kempsey Shire Council** Kogarah Municipal Council Ku-ring-gai Council **Kyogle Council Leeton Shire Council Lismore City Council** Marrickville Council Mosman Municipal Council **North Sydney Council Richmond Valley Council Shoalhaven City Council Tumut Shire Council** Warrumbungle Shire Council **Waverley Council Wellington Council Wollongong City Council Woollahra Municipal Council Yass Valley Council**

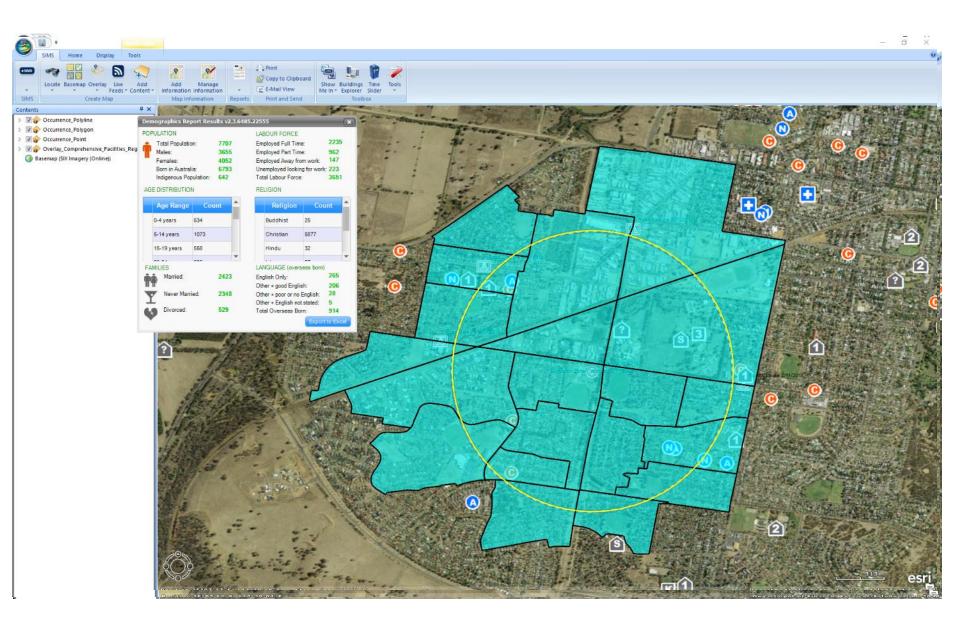
SIMS



SPATIAL INFORMATION & MAPPING SYSTEM



Training on SIMS takes three to four hours.



ESSIL & SIMS RECIPIENTS

- State Crisis Centre
- State Emergency Operation Centre
- Government Coordination Centre
- Emergency Service Organisations
- Police Counter Terrorism Command
- Regional Emergency Management Officers
- Local Emergency Management Officers
- AGO & Defence
- Attorney Generals (Federal)
- Geoscience Australia
- Australian Federal Police
- ACT Emergency Services Agency
- Emergency Functional Areas Health, Transport, Agriculture, Environment and Energy/Utilities.

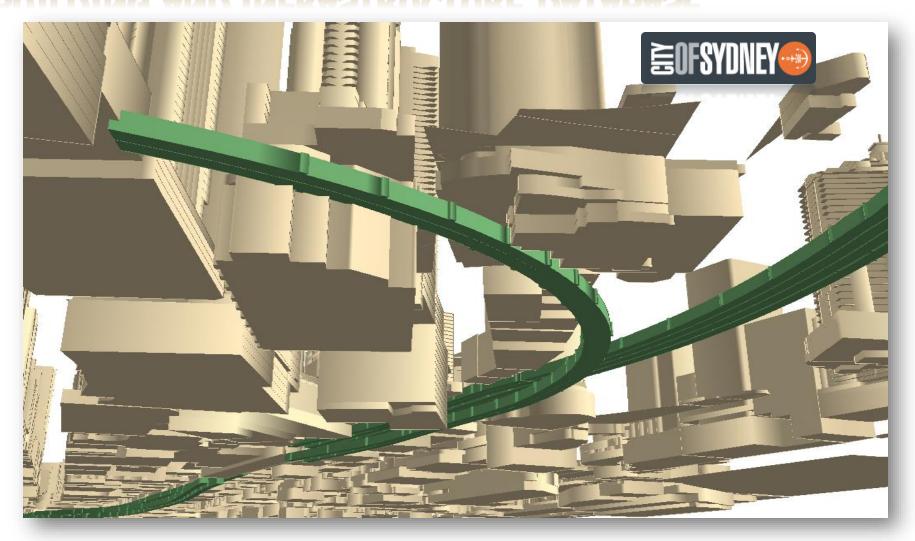


ESSIL DELIVERY

- ESSIL is provided to the Emergency Management sector/ Local Government Areas as an ESRI file geodatabase supplied on an external Hard Drive Kit (HDK) along with the EICU developed SIMS application and other associated data
- HDKs are updated on a 6 monthly basis
- EICU are continuously receiving data from source agencies, therefore the update of ESSIL is an ongoing process



BUILDING AND INFRASTRUCTURE DATABASE



Spatial Innovation Program





Sponsors

















Stakeholders

























Transport









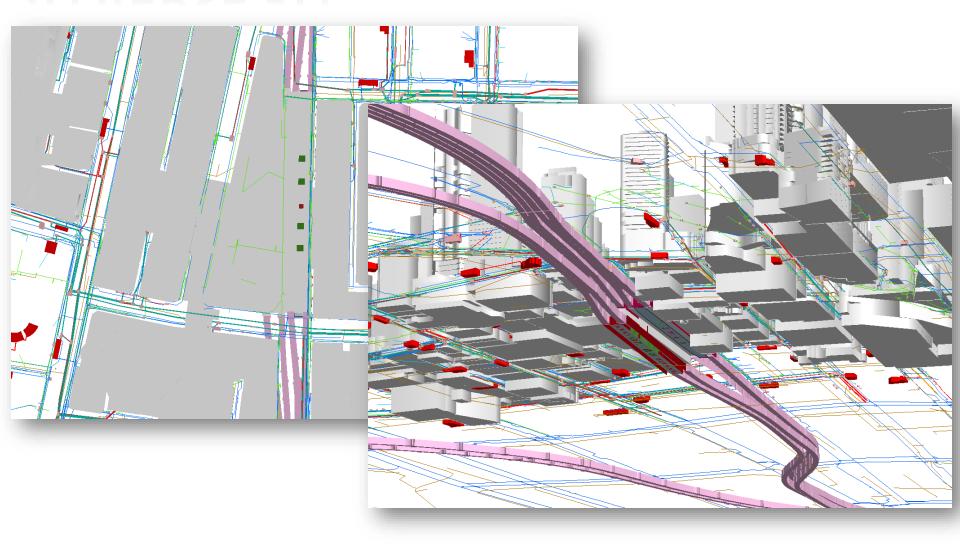


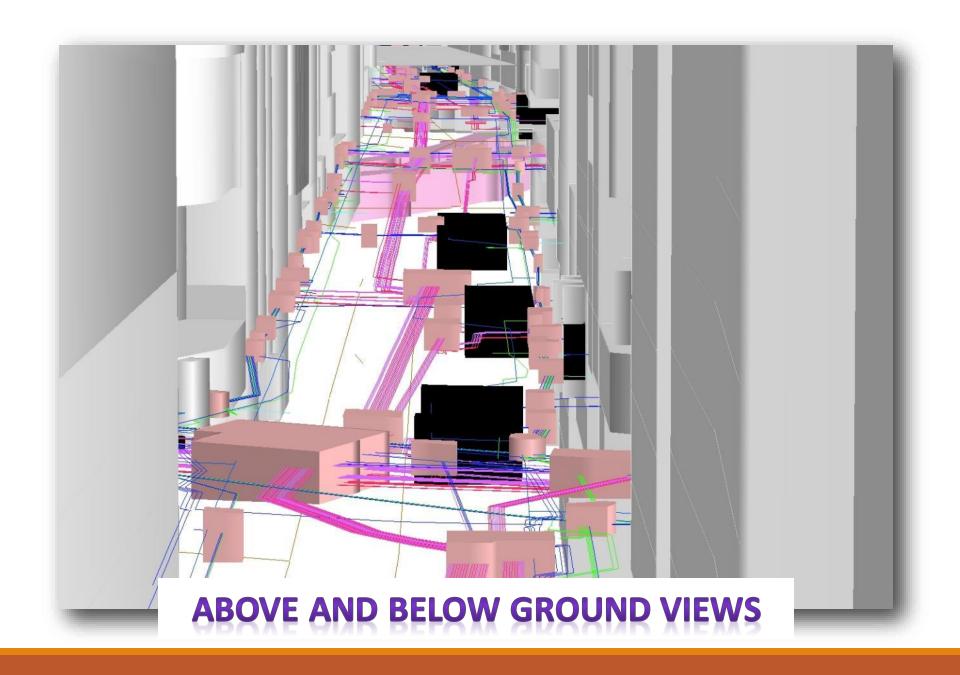




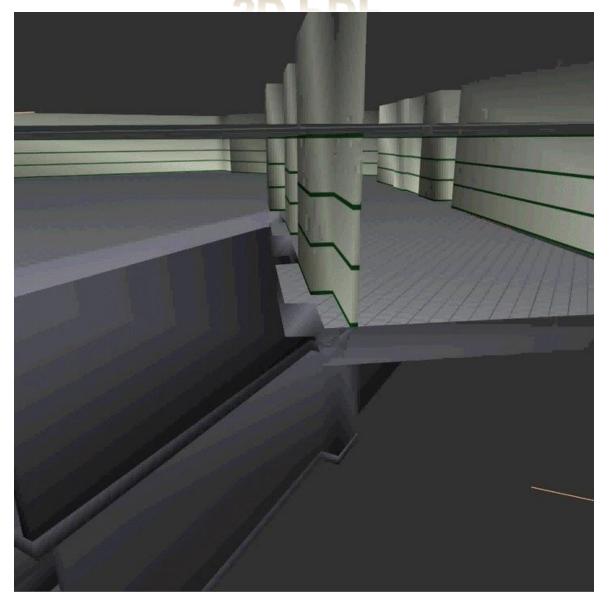


2D VERSE 3D

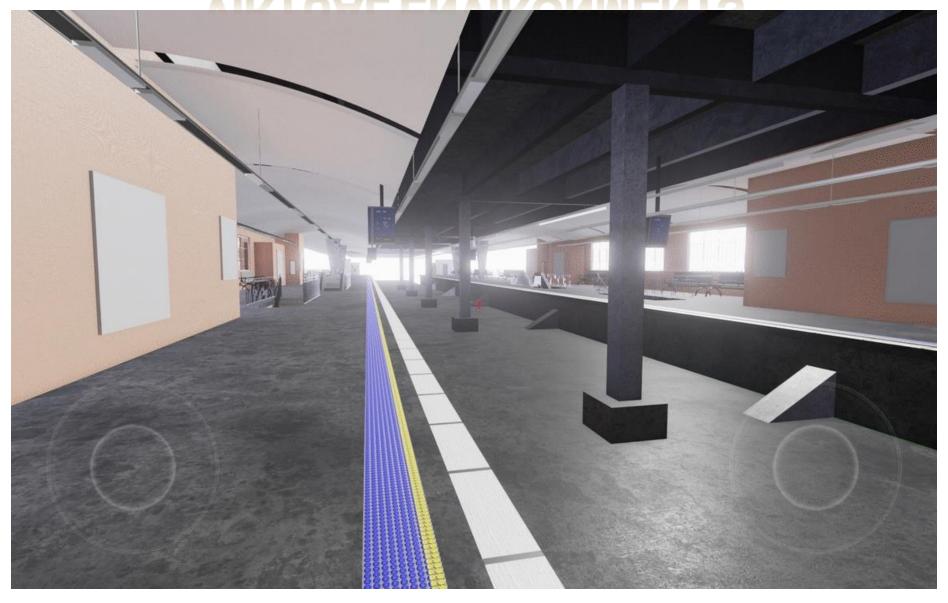




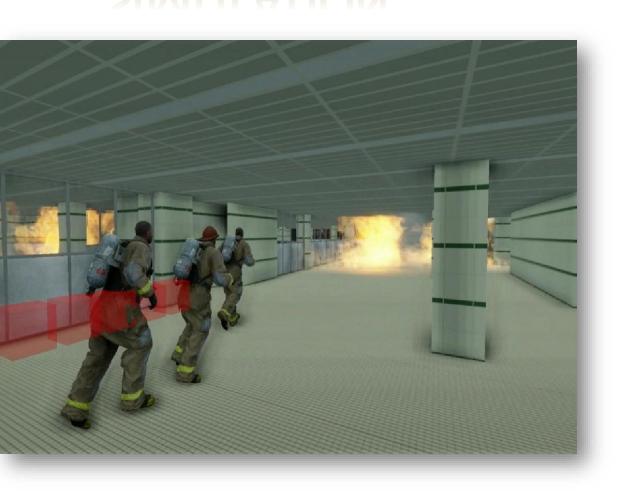
3D PDF



VIRTUAL ENVIRONMENTS

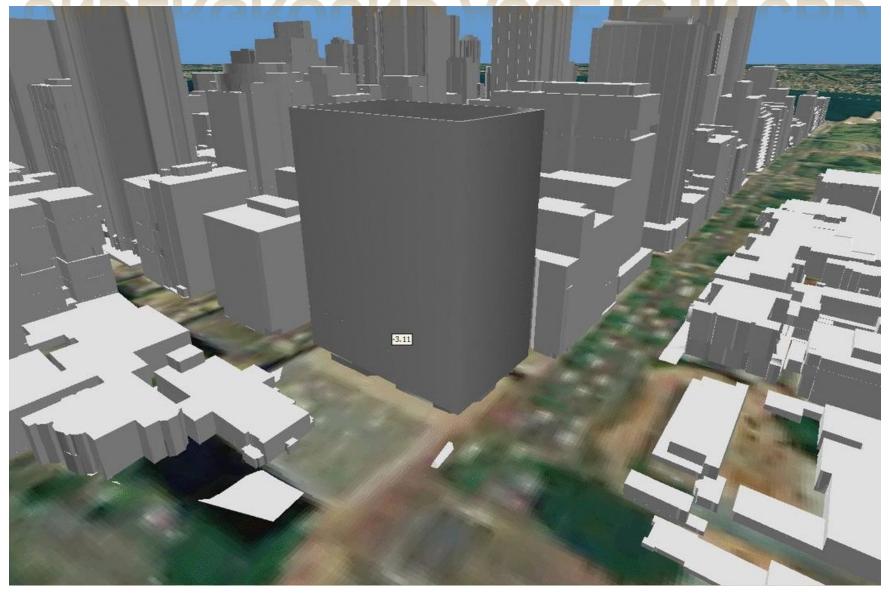


EMERGENCY EXERCISES SIMULATION



- Interactive
- Multi Player
- Scenarios
- Exercises
- Walk throughs
- Real time tracking

UNDERGROUND ASSETS IN CBD

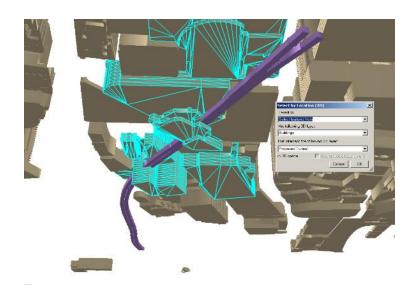


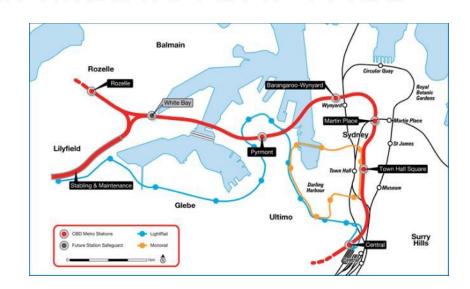
PLANNING NEW INFRASTRUCTURE

Identifying the best route for City Metro tunnels

3D building basements used in planning process









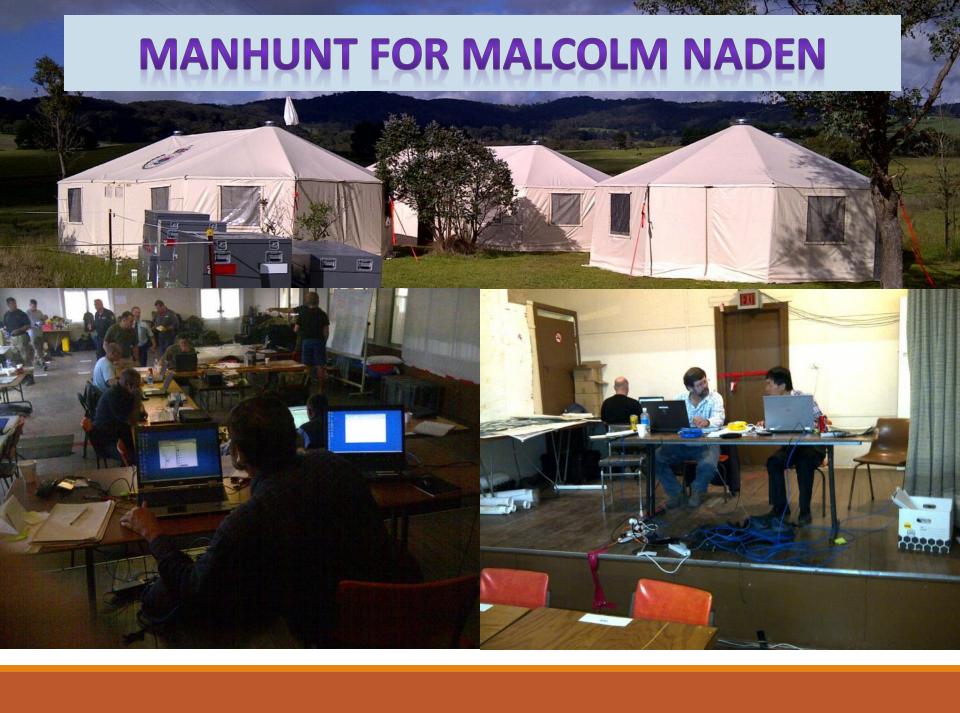
MINIMISE EXCAVATION ERRORS

Single point of reference where all data can be accessed

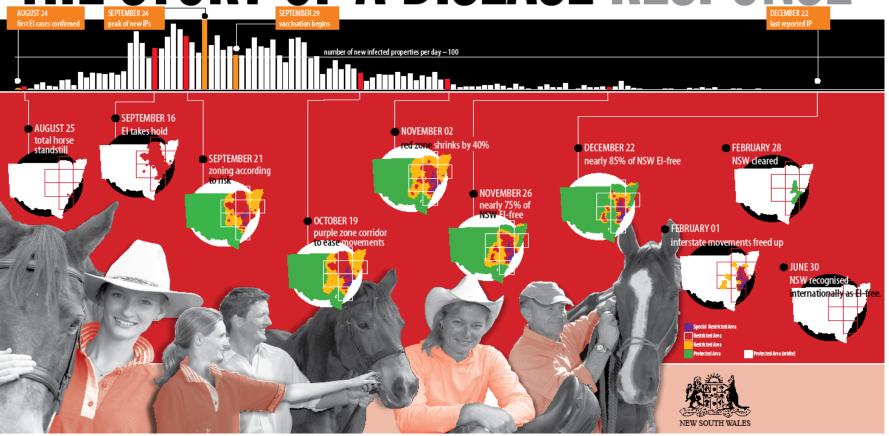
Data includes building basements and all tunnels

Data exchange incrementally improves the quality of the data





EQUINE INFLUENZA Control and eradication plan August 2007 – June 2008 THE STORY OF A DISEASE RESPONSE AUGUST 24 SEPTEMBER 24 SEPTEMBER 24 SEPTEMBER 25 Control and eradication plan August 2007 – June 2008 Control and eradication plan August 2007 – June 2008 EVENT AUGUST 24 CONTROL AND AUGUST 2007 – June 2008



ESSIL APPLICATION: EQUINE INFLUENZA 2007-08

MAPPING FOR MAJOR EVENTS

Assisting NSW Government Agencies in support of Major Events in NSW by utilising EICU's expertise in providing quality Spatial Services to the sector



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SPECIAL EVENTS



















Women in Super Mother's Day Classic Sunday 13 May, 2012



















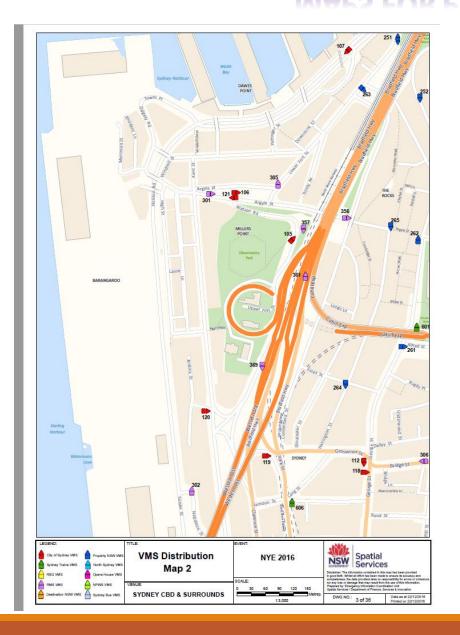
Sydney Harbour Bridge

– Resurfacing and Waterproofing



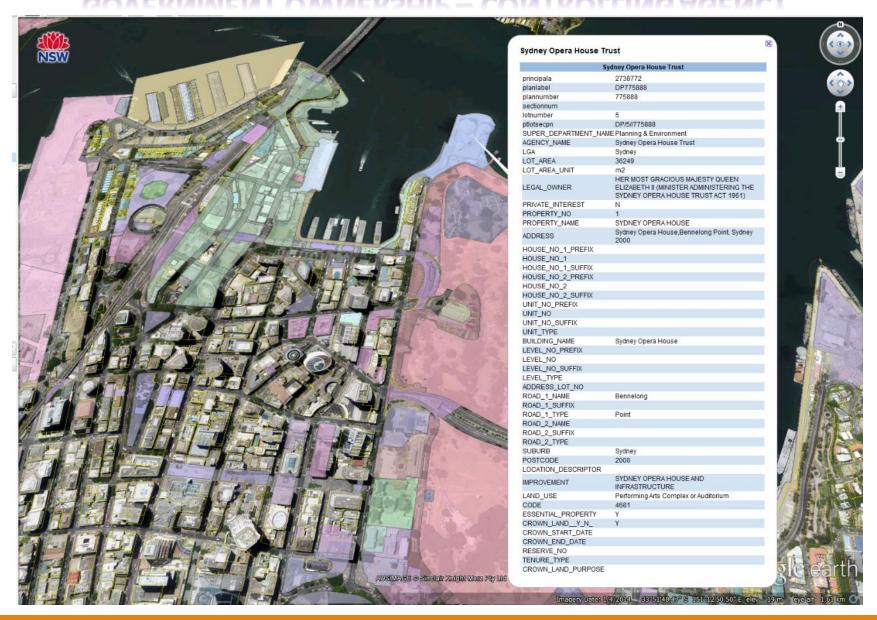
EVENTS

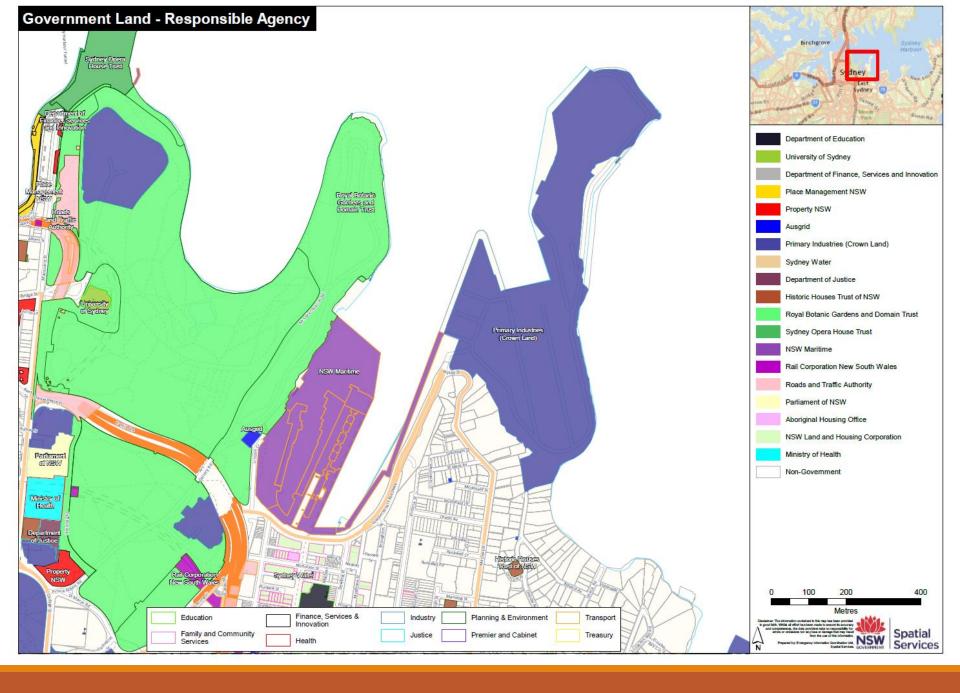
MAPS FOR PLANNING

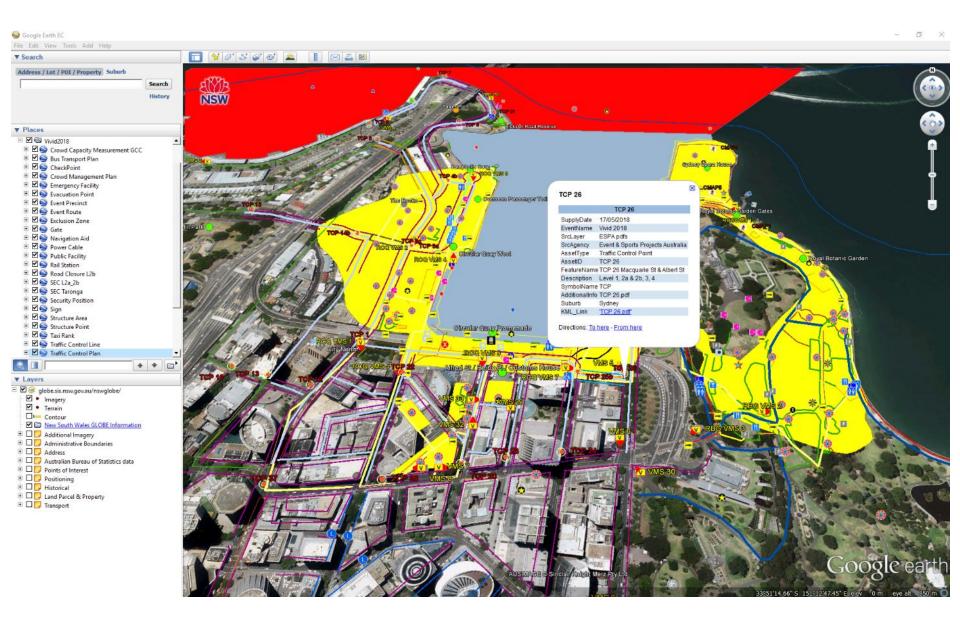


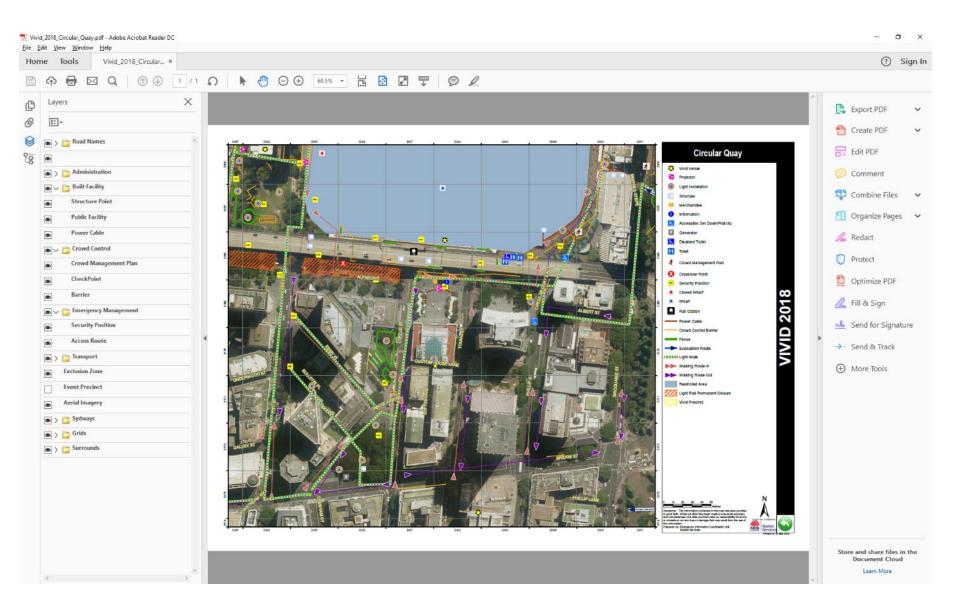


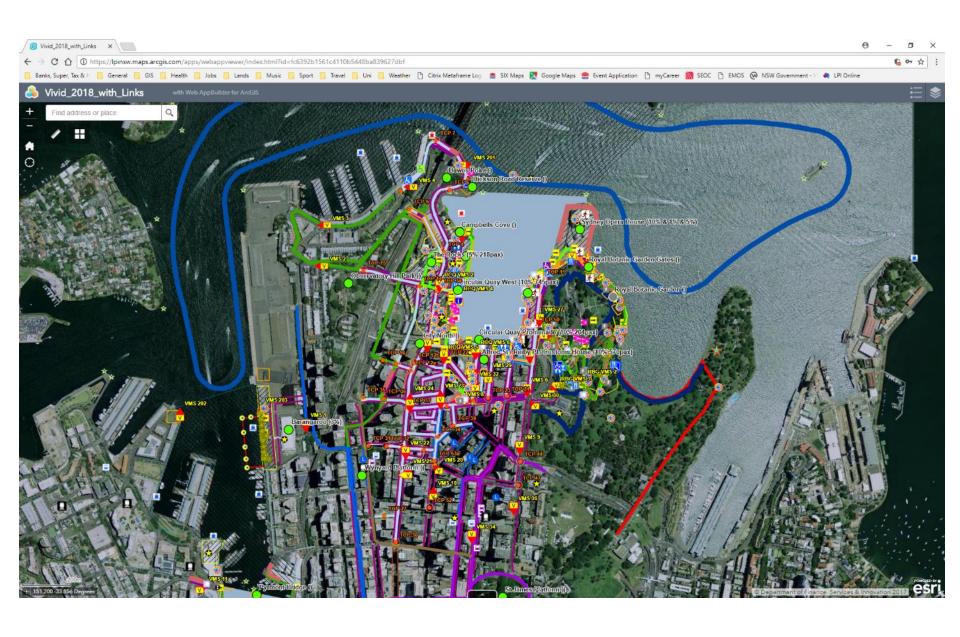
GOVERNMENT OWNERSHIP - CONTROLLING AGENCY



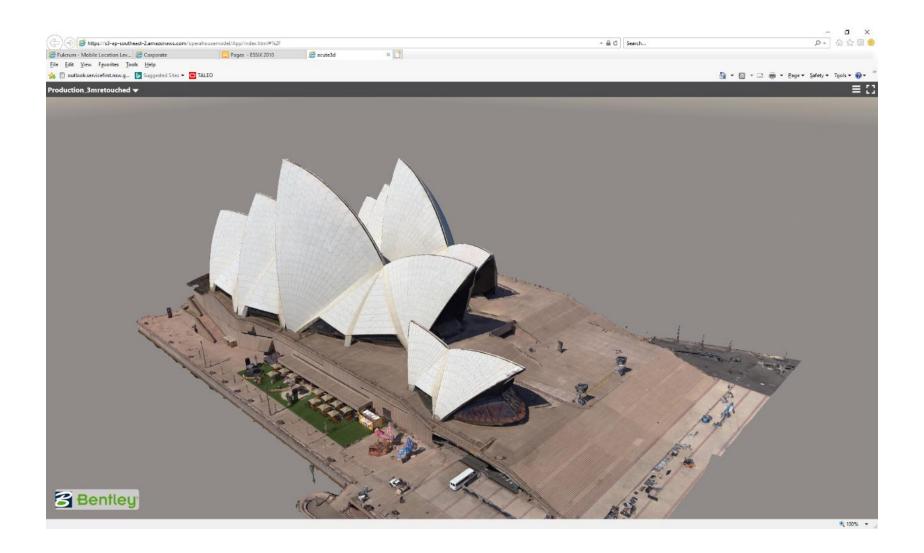


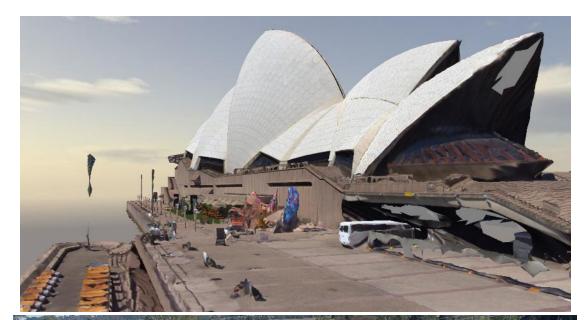






POTENTIAL FUTURE CAPABILITIES FOR EVENT MANAGEMENT

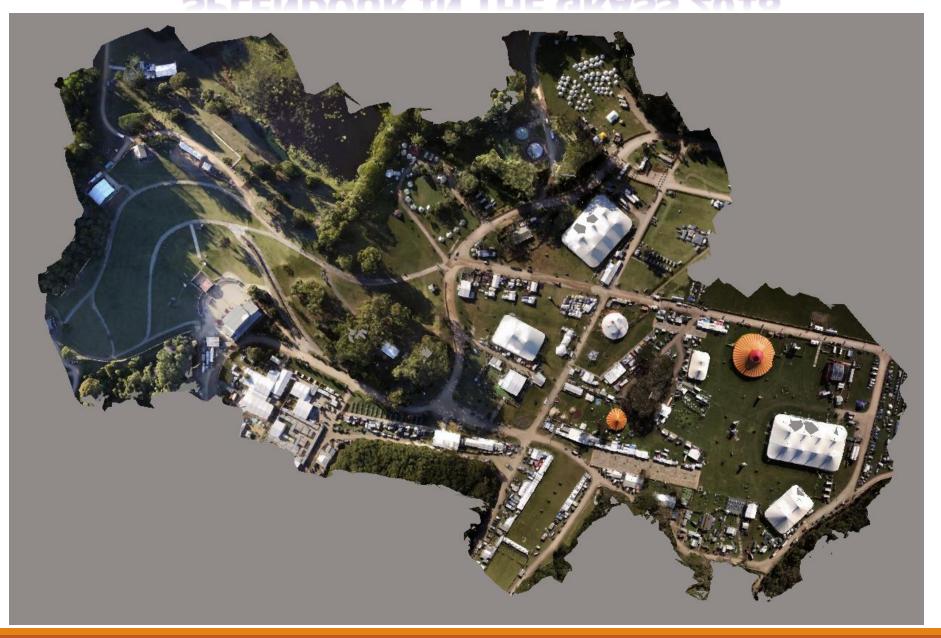








SPLENDOUR IN THE GRASS 2018



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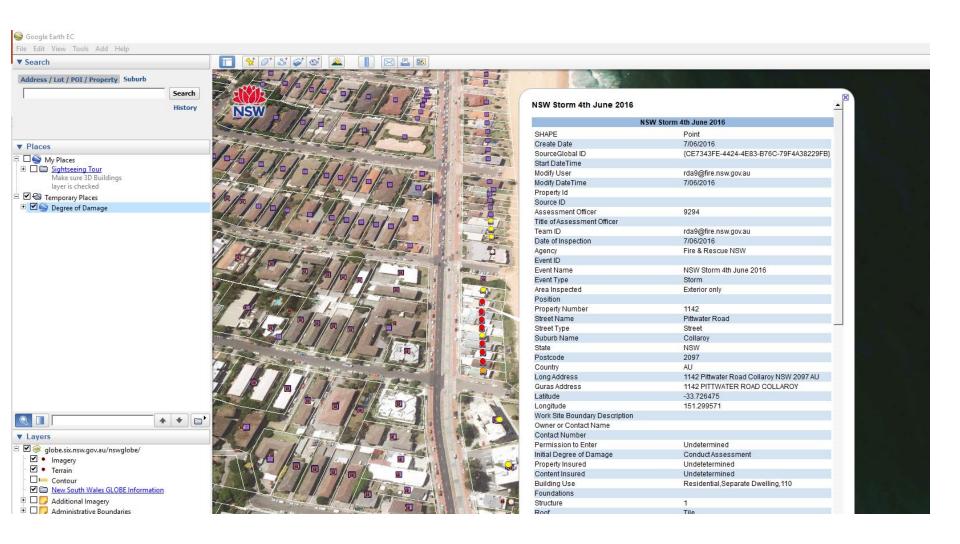


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OPERATIONAL SUPPORT



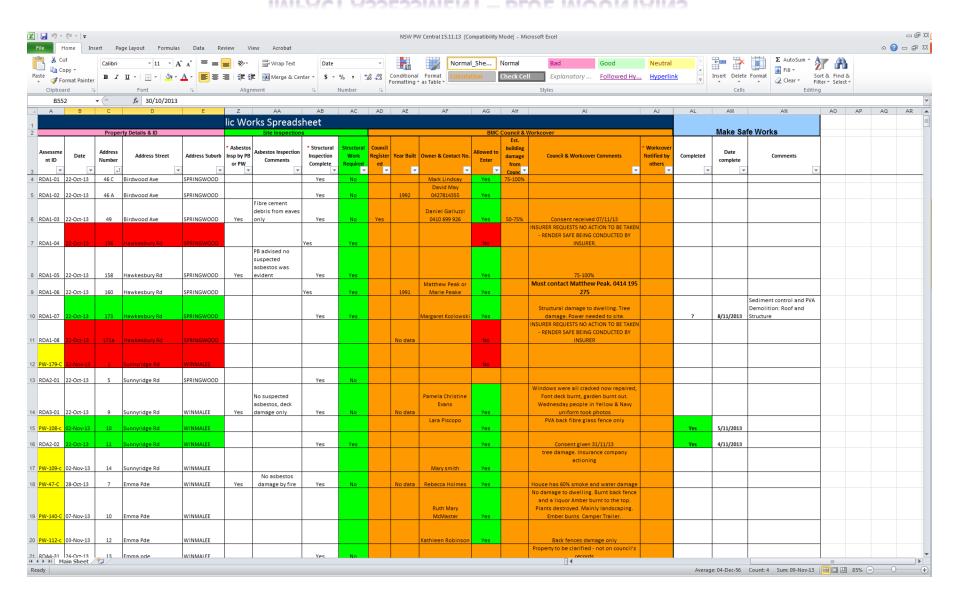
IMPACT ASSESSMENTS – RAPID DAMAGE ASSESSMENTS



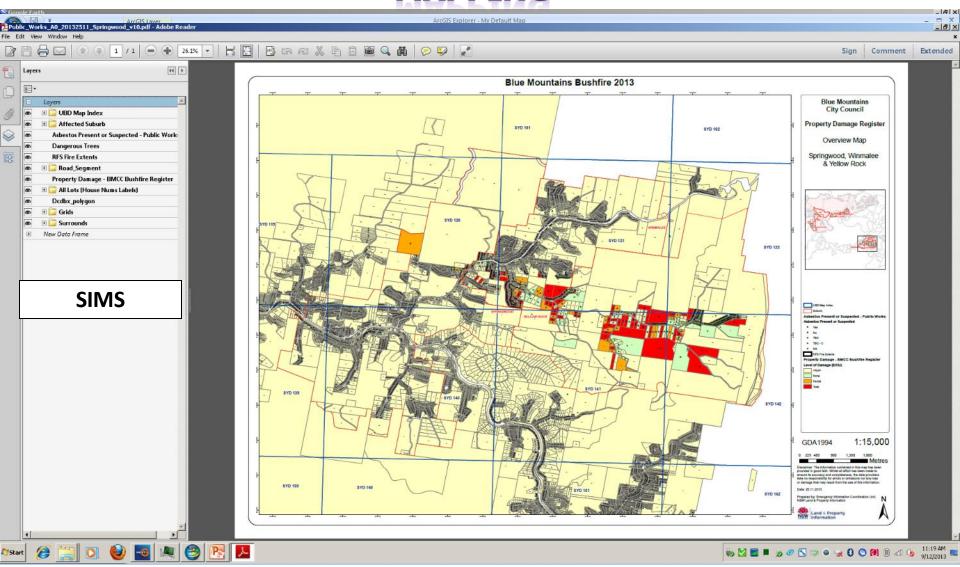
IMPACT ASSESSMENTS – RAPID DAMAGE ASSESSMENTS PROCESSING DATA

- Major Weather Event or Bushfire
- Widespread Impact on or Destruction of Property
- SERCON activates Impact Assessment Data Sharing Arrangements
- Once safe to do so, responding ESOs begin collection of data
- After day of collecting data, data fed into EICU, internet, email, carrier pigeon
- EICU process data and transform it using FME into 1 data schema
- EICU produces Maps, KML files, Excel tables, GIS data
- And repeat....
- For the recent Tathra Bushfire in March 2017, data updates were received daily until cleanup finished in June

IMPACT ASSESSMENT – BLUE MOUNTAINS



BLUE MOUNTAINS 2013 BUSHFIRE RECOVERY MAPPING



DAMAGE ASSESSMENT PRODUCTS

KMZ

Property Damage, Property Status,

Asbestos and Inundation

PDF

Excel Pivot Tables/Chart Map

Property Affected Cadastre Maps

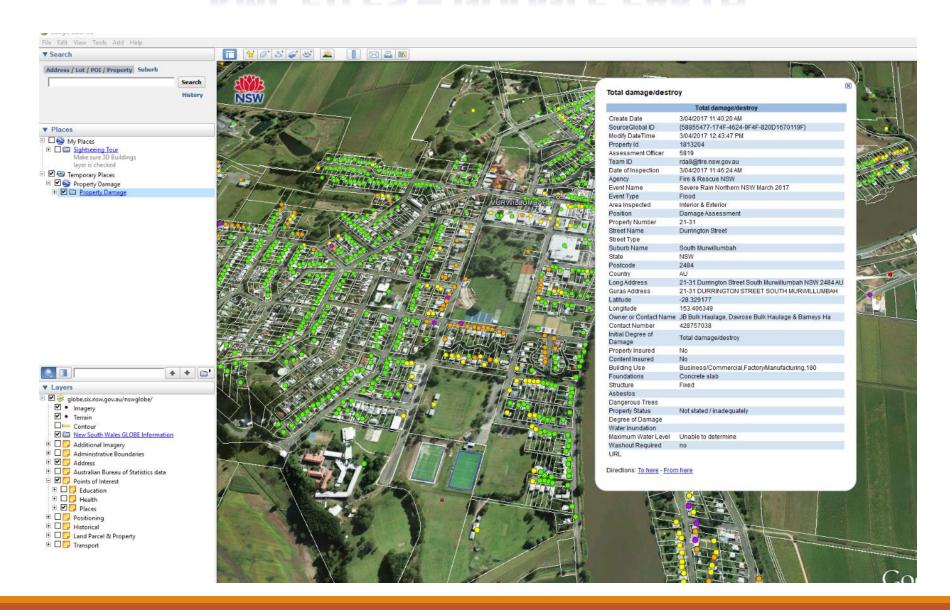
File Geodatabase/ Shape files/ Tab files



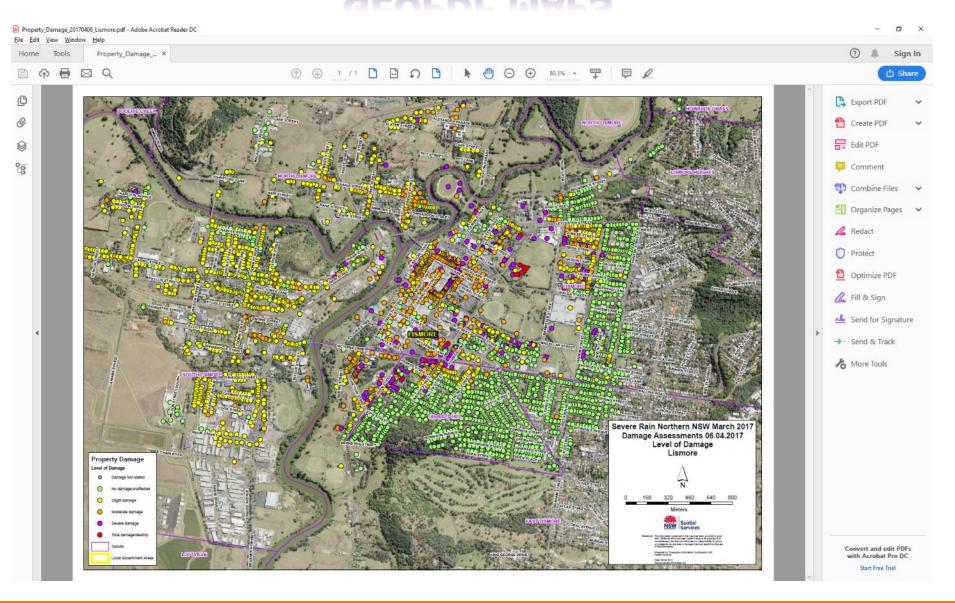




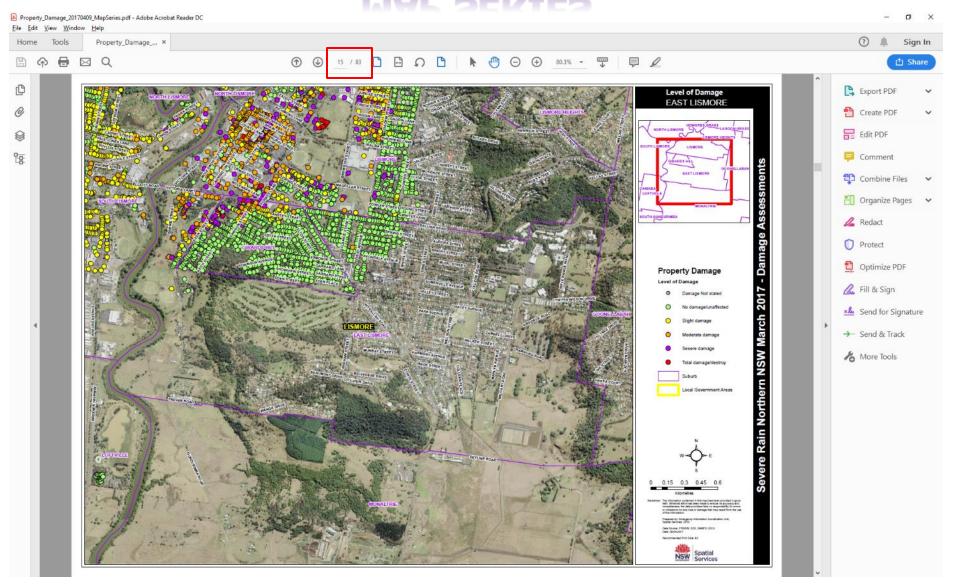
KML FILES – GOOGLE EARTH



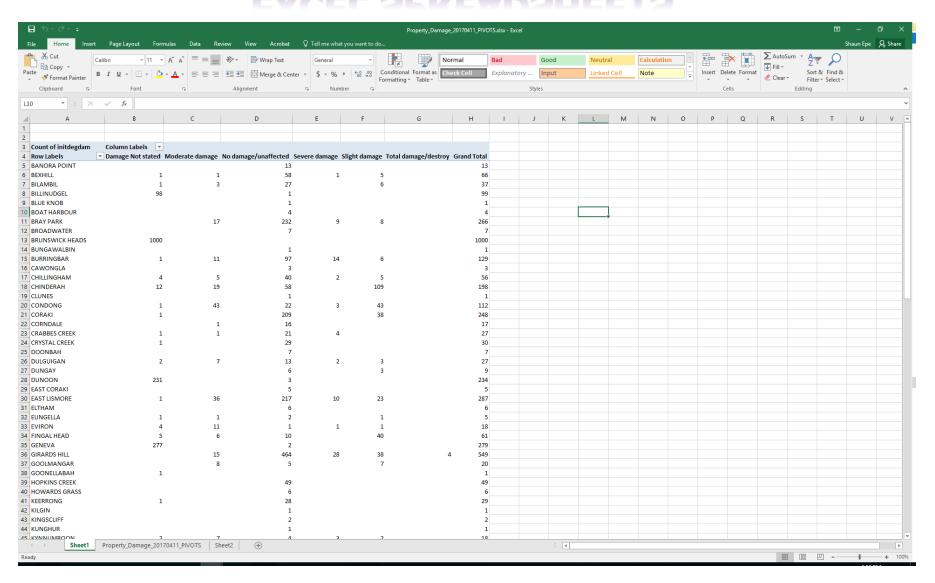
GEOPDF MAPS



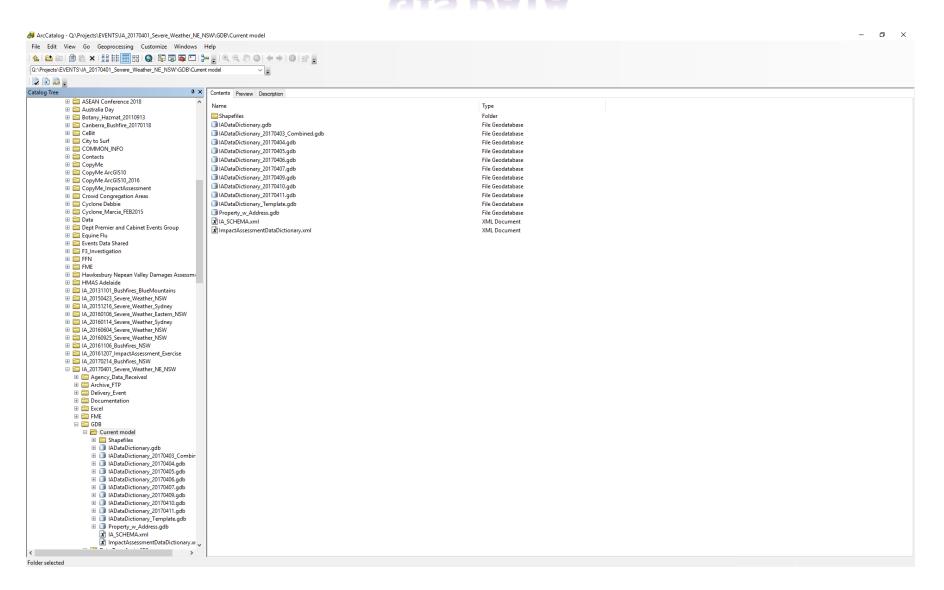
MAP SERIES



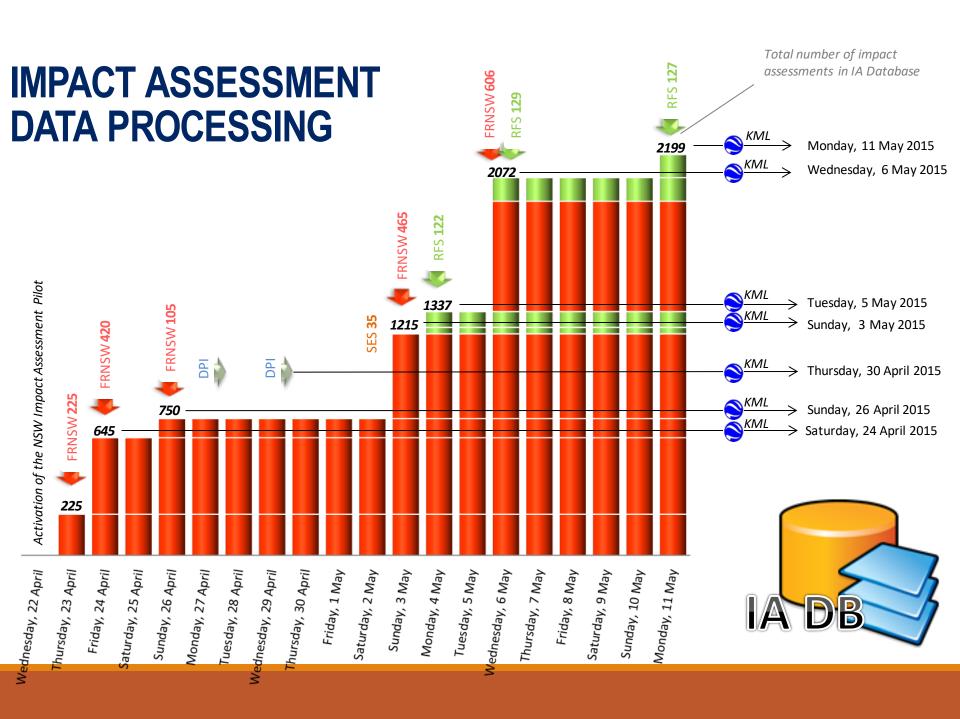
EXCEL SPREADSHEETS



GIS DATA



2/12/2018



QUESTIONS

