Office of Emergency Management

Building the resilience of Local Government’s critical infrastructure

emergency.nsw.gov.au
Office of Emergency Management

What do we do?

We partner with local councils, communities, and state agencies to build a stronger, safer, more disaster resilient NSW.

NSW Emergency Management capabilities
Disaster assistance funding & policy
Community disaster preparedness
Recovery resource coordination
Disaster Welfare support

eergency.nsw.gov.au
Role of OEM

- Sector leadership and coordination
  - State Emergency and Rescue Management Act
  - State Emergency Management Committee

- State-wide capability development
  - EM training & exercises
  - Grants programs (NPA on natural disaster resilience, Water safety, NGO rescue)
  - Get Ready resilience program

- Direct operations
  - Disaster welfare (immediate, relief / crisis intervention)
  - Recovery – on the ground support to councils and communities, Recovery Committees and Centres
  - State Crisis Centre/State Emergency Operations Centre

- Disaster funding policy and roll out to councils - $90 million
  - Management of NSW disaster funding policy and support to councils

- Policy coordination and advice for the Minister on portfolio issues:
  - Rural Fire Service, State Emergency Service, Fire and Rescue
Who do we collaborate with?

- NSW Office of Emergency Management
- LGNSW Water Management Conference 2019
- Roads & Maritime Services
- Public Works Advisory
- NSW Rural Fire Services
- NSW State Emergency Services
- NSW Police
- NSW Treasury
- Department of Premier and Cabinet
- Department of Primary Industries
- iCare
- Department of Aboriginal Land Councils
- Local councils
- Joint Organisations
- NSW  State Emergency Services
- Fire and Rescue NSW
- Transport for NSW
- State Forests
- Rural Assistance Authority
- Aboriginal Land Councils
- Department of Community and Justice
- Department of Lands
- Public Works Advisory
Operational disaster events

6 years
13 operations

Northern NSW Fires
Feb 2019: Tingha Plateau and Bruxner Highway

Tathra and District Fire
March 2018

Recent disaster events
Communities Recovering
Past event
Other declared natural disaster events

Declared disasters

- 16/17: 19
- 17/18: 25
- 18/19: 23

Included LGAs

- 16/17: 75
- 17/18: 31
- 18/19: 59
Natural disasters cost

Chart i: 2017-2050 forecast of the total economic cost of natural disasters, identifying costs for each state and territory

Source: Deloitte Access Economics analysis
Working together
Prevention & Preparedness

DRFA
Disaster Recovery Funding Arrangements

Community Resilience Network

Get Ready

Resilient Australia Award
Councils Business Communities People

Exercise funding
Up to $2.500

Regional DPP
Disaster Preparedness Program DPP:
- Critical infrastructure
- Lessons Management
- Training
- Workshops

EMOS review

NSW Office of Emergency Management | LGNSW Water Management Conference 2019
EM Capability & Planning

Training - delivered by the sector for the sector

<table>
<thead>
<tr>
<th>3175</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners enrolled in 2017/18</td>
<td>Face to face courses delivered in 2017/18</td>
</tr>
</tbody>
</table>

97%
Satisfied Learners

<table>
<thead>
<tr>
<th>5463</th>
<th>81</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners enrolled in 2018/19</td>
<td>Face to face courses delivered in 2018/19</td>
</tr>
</tbody>
</table>
EM Capability & Planning

Exercises Program

The State Emergency Management Committee (SEMC) supports emergency exercises on a State, Regional and Local level through:

- administering funding
- developing policy and supporting resources
- identifying themes and trends
- supporting innovation
EM Capability & Planning

Disaster Preparedness Program

- Bogan Shire
- City of Sydney
- Illawarra
- Snowy Monaro
- Queanbeyan Palerang
- Northern Rivers
- Hunter Central Coast Region (EM)

**Training**
- LEMC Awareness
- EMOS
- Risk Assessment Planning
- NDRRA Applications

**Tools**
- LEMC Handbook
- EM Plan Template
- Exercise Templates
- Surveys

**Resources**
- Information Repository
- EM Workshops
- Lessons Management
- Critical Infrastructure
EM Capability & Planning

Disaster Preparedness Program
Pilot Tools and Resources
EM Capability & Planning

Emergency Risk Management (ERM)

- State Level Emergency Risk Assessment (SLERA)
- Emergency Risk Management Implementation Program

2017 State Level Emergency Risk Assessment
A collaborative effort to build a NSW which is safer and more resilient to natural disasters

12 hazards that pose a risk to NSW communities have been identified in the State Level Emergency Risk Assessment.

- Bush fire
- Tsunami
- Flood
- Earthquake
- East Coast Low
- Landslide
- Infrastructure failure
- Storm
- Human Infectious Disease Outbreak
- Coastal erosion
- Heatwave
- Biosecurity
EM Capability & Planning

NSW Critical Infrastructure Resilience Strategy (CIRS)

- Critical Infrastructure Resilience Strategy
- Sector-specific
- Industry-specific
- Topic-specific
- resources developed
Critical Infrastructure

The assets, systems and networks required to maintain the security, health and safety, and social and economic prosperity of a community.

Critical Infrastructure is underpinned by the organisations and people that support it.
NSW Critical Infrastructure Resilience Strategy

CI Resilience is the ability to recover from disruption or adapt to a new normal.

We must integrate resilience into today’s infrastructure to provide for tomorrow’s prosperity.
Role of Essential Service Providers

Essential Service and Critical Infrastructure providers:

- Primary responsibility for managing hazard and threat risk to own assets
- Understanding the risks to infrastructure and ensuring provision of services during or soon after an emergency
- Meet or exceed existing legal, regulatory and business requirements

State Level
Liaise with and participate in Energy Utilities Services Functional Coordinator/Area meetings

Regional Level
Liaise with and participate in Regional Emergency Management Committees

Local Level
Liaise with and participate in Local Emergency Management Committees
## NSW Critical Infrastructure Resilience Strategy - Infrastructure

### Improving Infrastructure Resilience

<table>
<thead>
<tr>
<th>Infrastructure Planning</th>
<th>Infrastructure Design</th>
<th>Infrastructure Operations and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Integrated planning and investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Good data enabling good decision making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Locating infrastructure in less risk-prone locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Risk avoidance in the planning stage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hazard mitigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Resilience by design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Security by design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Maintenance resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Maintenance planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Remote sensors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Operations resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Faster service restoration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reconstruction resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Infrastructure betterment in restoration or reconstruction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LG User Resource

Priority 1: Partner
- Shared Responsibility

Priority 2: Prepare
- All Hazards Approach

Priority 3: Provide
- Infrastructure Resilience – Asset Management
- Interconnectedness and Interdependencies
- Organisational Resilience
- Integrated Planning and Reporting
Priority 1: Partner

External partnerships

- Trusted Information Sharing Network (TISN)
  - Federal Sectoral Groups
    - Energy
    - Banking & Finance
    - Comms.
    - Food & Grocery
    - Transport
    - Water
    - Health

- State-based Sectoral Groups
  - Education
  - Govt.

- Infrastructure
  - Owners & Operators

- State Cross-Sectoral Collaboration Groups

- Regional Cross-Sectoral Collaboration Groups
  - based on Regional Emergency Management Committees

- Local Cross-Sectoral Collaboration Groups
  - based on Local Emergency Management Committees
Priority 2: Prepare

All Hazards Approach

Acute shocks

Long term stresses
Priority 3: Provide

Infrastructure Resilience in Asset Management

<table>
<thead>
<tr>
<th>Resistance</th>
<th>Reliability</th>
<th>Redundancy</th>
<th>Enhancing Response and Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resistance</strong> is concerned with direct physical protection. It is CI’s ability to withstand shocks to continue operation (e.g. storm surge barriers built to withstand severe storms)</td>
<td><strong>Reliability</strong> is the capability of infrastructure to maintain operation in a variety of conditions (e.g. electricity networks designed to operate in extreme heat or extreme cold)</td>
<td><strong>Redundancy</strong> is the adaptability of an asset or network to cope with loss of individual components (e.g. a hospital with two physically separate water supplies)</td>
<td><strong>Enhancing Response and Recovery</strong> is infrastructure resilience designed to enhance a provider’s ability to recover from disruptions. (e.g. modular infrastructure for single part replacement)</td>
</tr>
</tbody>
</table>
## Priority 3: Provide

### Criticality

<table>
<thead>
<tr>
<th></th>
<th>State</th>
<th>Organisation</th>
<th>(LG) Local Government</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vital</strong></td>
<td>State-level impact, alternative unavailable within NSW, long-term impact to NSW</td>
<td>Organisation-wide impact, alternative unavailable within organisation, long-term impact to organisation function</td>
<td>LG-wide impact, alternative unavailable within LG, long-term LG impact</td>
</tr>
<tr>
<td><strong>Major</strong></td>
<td>State or Regional impact, major effort or assistance required to restore, medium-term impact to NSW</td>
<td>Impact across most of the business, major effort or assistance required to restore, medium-term impact to organisation function</td>
<td>Affects multiple functions of local government, major effort or assistance required to restore, medium-term impact to LG services</td>
</tr>
<tr>
<td><strong>Significant</strong></td>
<td>Local or Regional impact, additional assistance required from within NSW, short-term impact to NSW</td>
<td>Impact to one or more sections of the business, other business sections provide assistance, short-term impact to organisation function</td>
<td>Affects one or more significant functions of LG, assistance from other parts of the LG to restore, short term impact to LG</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>Local impact, additional assistance may be required from within NSW, minimal impact to NSW</td>
<td>Impact to one part of the business, assistance from other parts of the business may be required, minimal impact to whole of business function</td>
<td>Impact to one function of LG, assistance from other parts of the LG may be required, minimal impact to LG function</td>
</tr>
</tbody>
</table>
Priority 3: Provide
Interconnectedness & Interdependencies
Resilient Asset Management – Provide

Kyogle Flood Mitigation Works & Water Supply Augmentation

This case study demonstrates how resilience can be integrated into the planning phase of the asset management lifecycle to deliver quality outcomes, provide resilient water supply and solve a range of issues faced by Local Government in delivering critical infrastructure resilience.

Case Studies

➢ LG Action Plan & Self Assessment for Enhancing CI
# The Cost of Not Preparing
## A Lismore Case Study

<table>
<thead>
<tr>
<th></th>
<th>Business A</th>
<th>Business B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of flood risk to business</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Flood action plan, e.g. moving stock</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Stock storage location above flood water</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Flood-resistant shop fit-out</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Post-flood clean-up plan</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2 days</th>
<th>2 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business closure time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial impact</td>
<td>Minimal stock losses</td>
<td>Approx. $160,000</td>
</tr>
</tbody>
</table>
Success

Success will be achieved when we resilience is considered as part of business as usual, not as a separate concept.

➢ Pragmatic and Practical
➢ Infrastructure professionals educated in resilience
➢ Balanced and informed decisions
➢ Improved asset management
➢ Partner, Prepare, Provide
Thank you.

NSW Office of Emergency Management | LGNSW Water Management Conference 2019