

Queensland Emergency Risk Management Framework

The Queensland Emergency Risk Management Framework (QERMF) is a methodology to inform risk based planning across Queensland's Disaster Management Arrangements (QDMA).

The QERMF is underpinned by a multidisciplinary approach, and uses operational geospatial intelligence to undertake exposure and vulnerability analysis which can directly inform the State's multitiered disaster management planning.

The QERMF derives risk methodology from:

- ISO 31000:2009 Risk management – Principles and guidelines;
- SA/SNZ HB 436: 2013 Risk management guidelines – companion to AS/NZS ISO 31000:2009;
- SA/SNZ HB 89:2013 Risk management – Guidelines on risk assessment techniques;
- AS/NZS 5050: 2010 Business continuity – Managing disruption related risk; and
- National Emergency Risk Assessment Guidelines (NERAG) (Australian Emergency Management Institute, 2015).

In addition to the above international and national standards, the QERMF also upholds international best practice as championed by the United Nations Office for Disaster Risk Reduction (UNISDR) and the Global Facility for Disaster Reduction and Recovery (GFDRR) and seeks to literally enact the *Sendai Framework for Disaster Risk Reduction's* (Sendai Framework) "Priorities for Action".

The QERMF recognises the relevant elements within the *Emergency Management Assurance Framework* (EMAF) as published by the Office of the Inspector-General Emergency Management, Queensland.

Purpose

Whilst substantial challenges remain in fully assessing disaster risk there is a deeper understanding, that disaster risk management requires many partners working cooperatively and sharing information. The aim of QERMF therefore is to provide a consistent State-wide approach to assessing risk, which can in turn:

- be operationalised;
- facilitate greater stakeholder discussion and cooperation towards understanding and managing risk; and
- directly support risk based planning across all levels of QDMA.

It is designed to assist **Local, District** and **State** level practitioners to focus on risk assessment from the perspective of their roles and responsibilities within Queensland's Disaster Management Arrangements (QDMA). This three lens approach (Figure 1 overleaf) will assist linking residual risk including capability and capacity to planning between each level when and where it is appropriate.



Risk Based Planning Equation

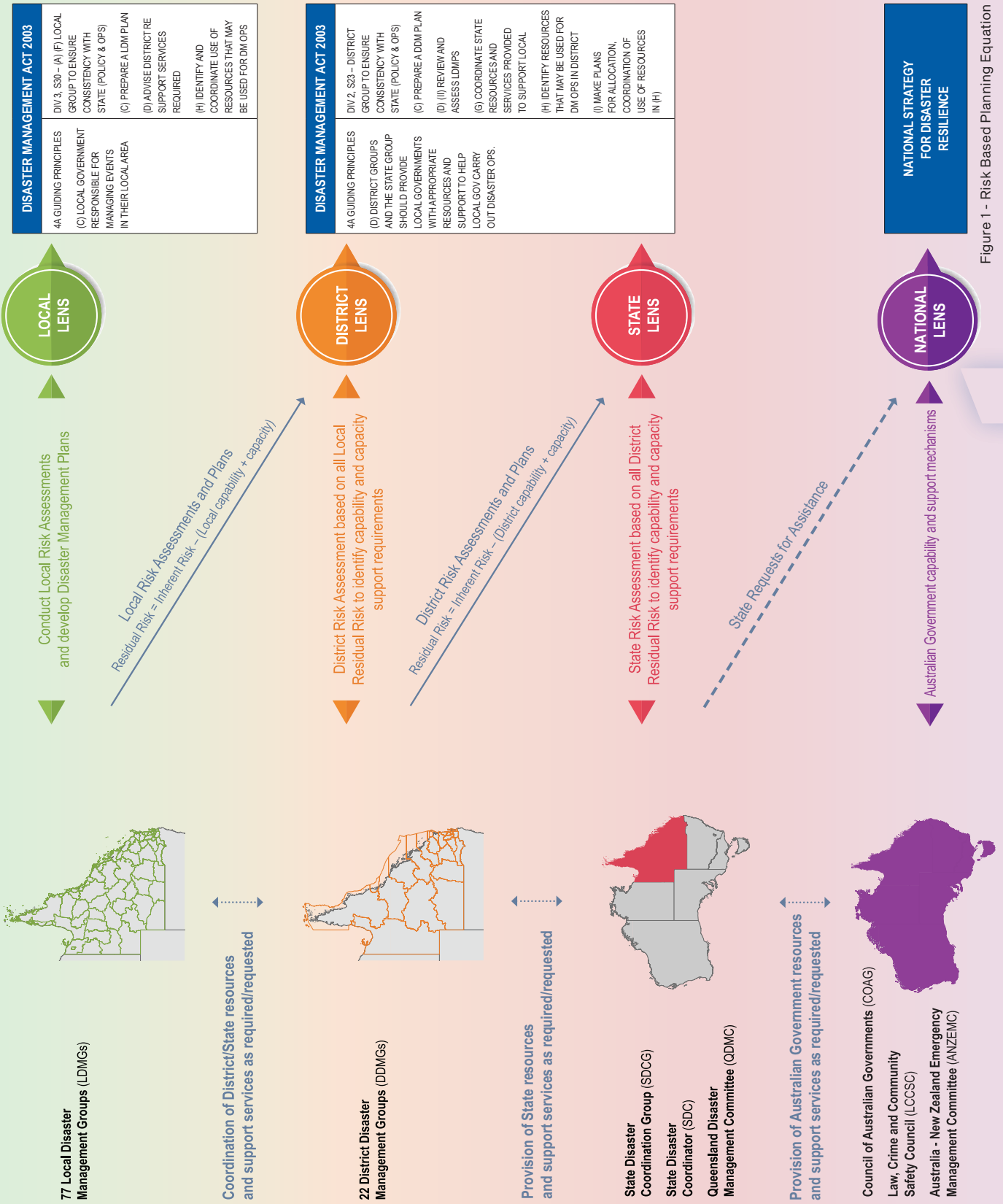


Figure 1 - Risk Based Planning Equation



Methodology

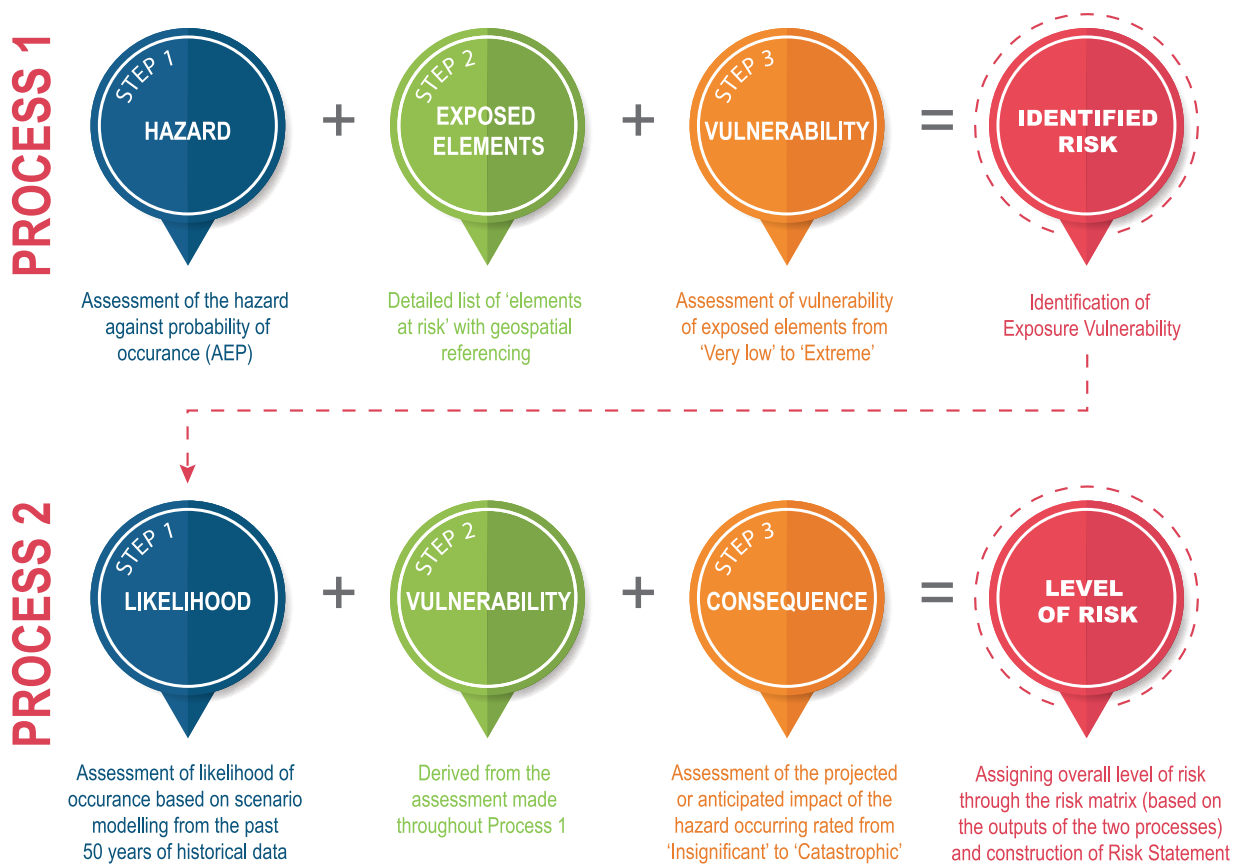


Figure 2 – Risk Assessment Process

Whilst the Framework is complimentary to ISO 31000:2009 and NERAG, there are distinctive additions and differences in the QERMF methodology including:

- The assessment of **probability** (Step 1, Process 1) considers the overall probability for a hazard to occur using the Annual Exceedance Probability (AEP). This is the starting point in an equation that identifies what may constitute risk in the geographic area of interest.
- Throughout Process 1, understanding the natural landscape and built environment through geospatial analysis of relevant geographical, environmental, built & community information and how the hazard may interact with that landscape, when they do manifest, is key. The ability to develop, access and use geospatial data and information is essential to providing the most cohesive representation of **exposed elements** (Step 2, Process 1) and the **vulnerability** of those exposed elements (Step 3, Process 1). This creates a comprehensive profile of risk for the area of interest.
- A deterministic refinement measure which assesses the more traditionally recognised **likelihood** has been included (Step 1, Process 2). This is the starting point in an equation used to determine the level of severity of the risks identified as a result of Process 1.
- Overall, this approach also makes risk assessments a fundamental enabler for effective pre-impact analysis and planning within disaster operations.



QERMF – Completion of the 2017 State Natural Hazard Risk Assessment

All Australian States and Territories were required by the Law, Crime and Community Safety Council to produce State level natural hazard risk assessments by 30 June 2017. Queensland Fire and Emergency Services had responsibility under the State Disaster Management Plan for the conduct of the State level assessment.

- The Queensland State Natural Hazard Risk Assessment 2017 was conducted using the QERMF.
- The Queensland Disaster Management Committee endorsed the 2017 State assessment report and the QERMF methodology.

Benefits

The application of the QERMF methodology within the assessment process enables the literal identification of risk via an analysis of exposure and vulnerability. This assists communities to tailor their planning to build appropriate mitigation strategies aimed at reducing residual risk. Application of this approach at all levels of QDMA enhances the ‘three lens approach’ to disaster risk reduction and can lead to enhanced supportive arrangements between disaster groups and support agencies to manage risk. Implementation of this framework will assist in District and State Disaster stakeholders positioning themselves to provide targeted support, upon requested/required, in a timely manner to the local level.

QFES are conducting a supported integration program by offering QFES facilitated risk management workshops in support of Local and District groups.

QERMF Risk Assessment Handbook

QERMF Risk Assessment Process Handbook is available through the following link: [disaster.qld.gov.au > Disaster Resources > Queensland Emergency Risk Management Framework](https://disaster.qld.gov.au/Disaster-Resources/Queensland-Emergency-Risk-Management-Framework)

Contact

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