# Australia's plans for tsunami ready implementation

Adrian Brannigan – Senior Intelligence Analyst Western Australia's Department of Fire and Emergency Services



\_\_\_\_\_



## Australian tsunami ready activities

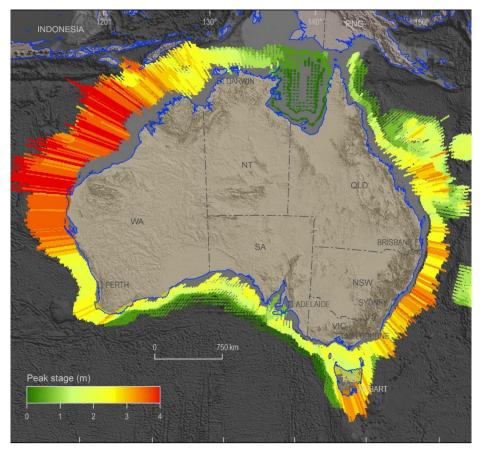
- Introduction to Australia
- Australian Tsunami Advisory Group
- Joint Tsunami Exercise on the east coast of Australia
- Publicly accessible tsunami evacuation mapping
- Western Australia Tsunami Inundation Modelling Project
- Indian Ocean (IO) Wave Exercise 23
- Future projects





#### Introduction to Australia

- Six States and two Territories
- The Joint Australian Tsunami Warning Centre (JATWC) is operated by the Bureau of Meteorology (Bureau) and Geoscience Australia (GA)
- JATWC detects, monitor, verify and warn the community of the existence of tsunamis in our region and possible threats to Australian coastal locations and offshore territories.
- States and Territories undertake tsunami response



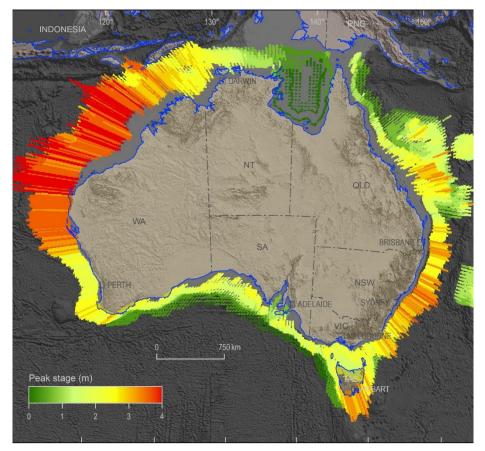
2018 Probabilistic Tsunami Hazard Assessment for Australia, Geoscience Australia





#### Australian Tsunami Advisory Group

- National leadership in the coordination of programs and projects relating to tsunami capability development, promoting research, information, knowledge management and education
- A representative from each Australian state and territory including offshore territories, and from Surf Life Saving Australia
- Representatives from each Australian Government agency including the Department of Home Affairs, GA, the Bureau, and New Zealand.



2018 Probabilistic Tsunami Hazard Assessment for Australia, Geoscience Australia

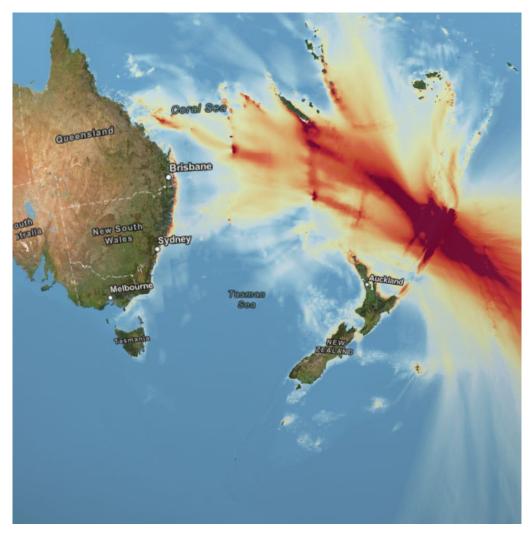




#### Joint Tsunami Exercise

Joint exercise in August 2022 with the National Emergency Management Agency (NEMA), Queensland Fire and Emergency Services (QFES) and New South Wales State Emergency Services (NSW SES), led by QFES.

About 50 participating agencies

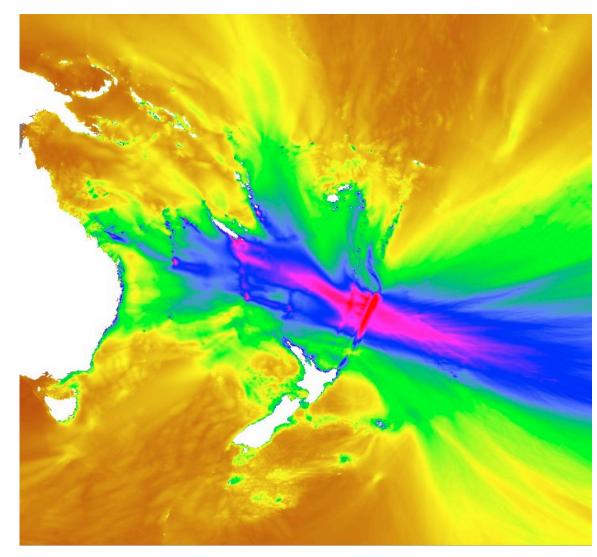


Storymap developed by QFES to visualise information provided by Geoscience Australia



#### Joint Tsunami Exercise Aim

Examined the impact of a tsunami along eastern Australia and explored the processes and challenges associated with this event during the response phase.



Source: Geoscience Australia



### Joint Tsunami Exercise Objectives

1. Identify the communication and coordination arrangements between disaster management entities (local-region, district, state, national and international) and triggers for state, national and international support, including coordination and governance arrangements



Storymap developed by QFES to visualise information provided by the Bureau



#### Joint Tsunami Exercise Objectives

2. Explore communication challenges and available methods for disseminating messages and warnings to the community, message construction and management of warning consequences.



Storymap developed by QFES to visualise information provided by the Bureau

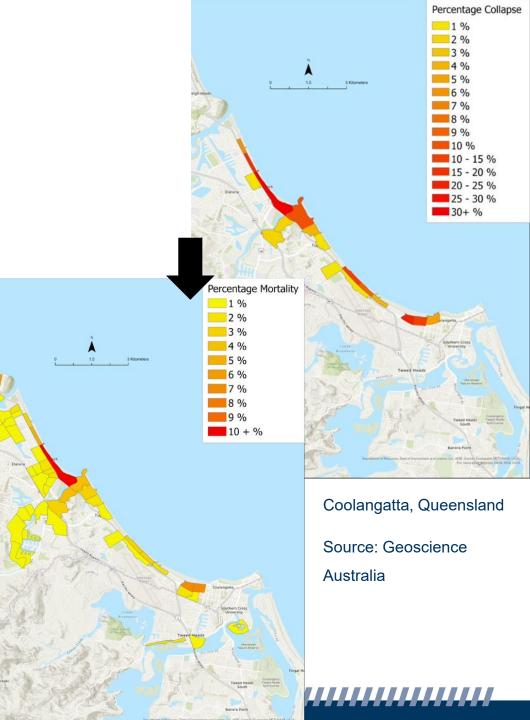


### Joint Tsunami Exercise Objectives

3. Identify and examine local-region, district, state and national **plans for responding** to a catastrophic east coast tsunami.

4. Examine plan activation and **request for assistance** (RFA) processes

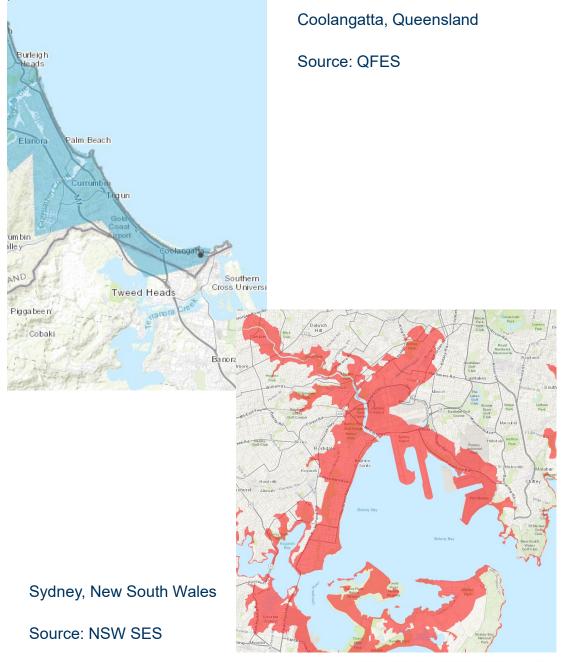
5. Explore solutions for key response challenges.





#### Publicly accessible tsunami evacuation mapping around Australia

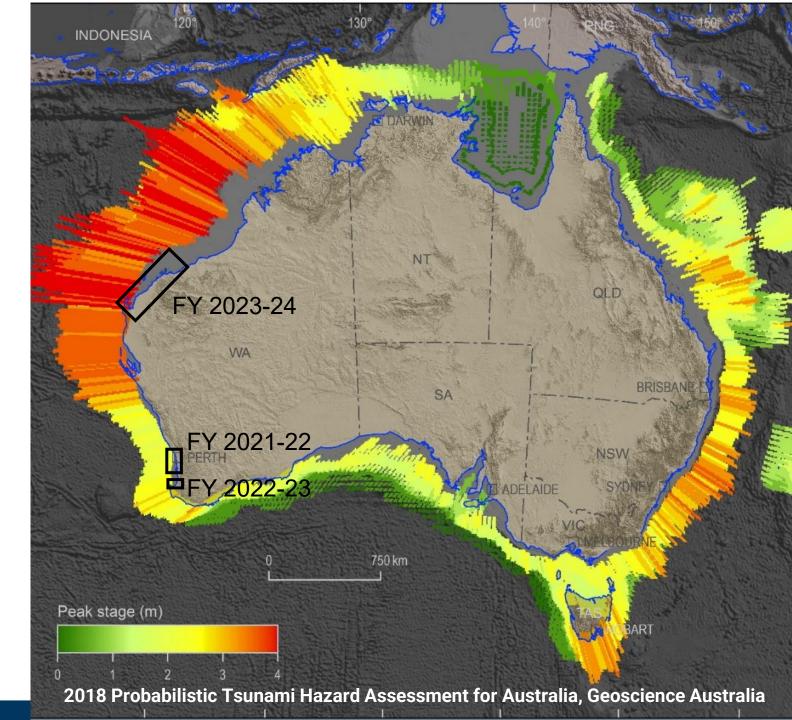
Preparedness and awareness-raising work is being undertaken across Australia and more investment is being done to fill in gaps and to understand the risk



.....



#### Western Australia (WA) **Tsunami** Inundation Modelling **Project**





#### Alignment with Tsunami Ready Indicators

mapped and designated tsunami hazard zones

 estimated the number of people at risk in the tsunami hazard zones

• identified economic, infrastructure, social and political resources

 started producing easily understandable tsunami maps

 co-operates with the DFES community preparedness branch to ensure that outreach and public awareness products are available and distributed





#### Alignment with Tsunami Ready Indicators

- will complete outreach and education activities by collaborating with Local Emergency Management Committees, together with DFES regional staff
- will develop community tsunami emergency response plans
- will enhance DFES's capacity to manage emergency response operations
- will exercise the receiving and disseminating tsunami alerts and warnings process in a reliable manner.





#### **Next steps**

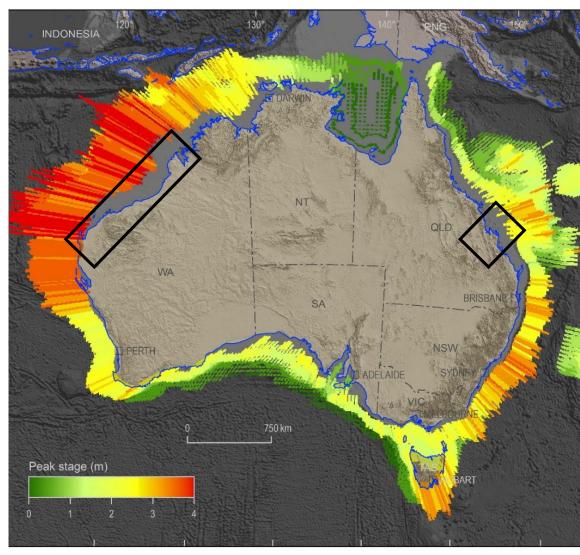
- Embedding in the Department of Fire Emergency Services through the IOWave23 Exercise
- Other Australian States may implement similar projects in the future





## **Future projects**

- High-resolution elevation data capture project in North-West Australia to provide a basis to undertake 2D inundation modelling in this area
- Tsunami project for Gladstone, Queensland

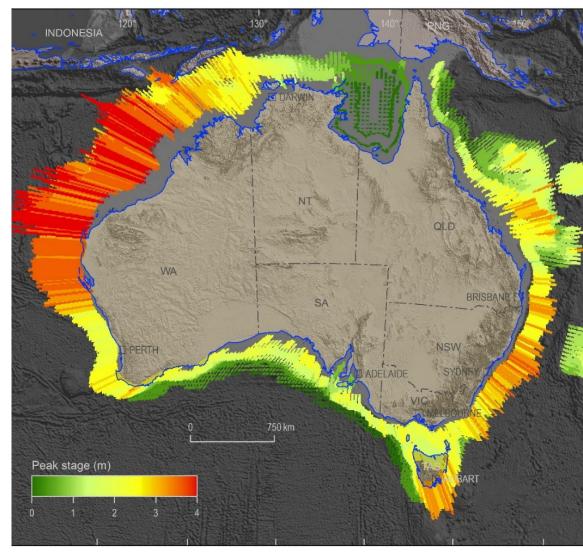


2018 Probabilistic Tsunami Hazard Assessment for Australia Geoscience Australia



## Thank you

- UNESCO
- Bureau of Meteorology
- DFES



2018 Probabilistic Tsunami Hazard Assessment for Australia Geoscience Australia