



Australian Government

Australian Government Response

to the review of the Bureau of Meteorology's capacity to respond to future extreme weather and national disaster events and to provide seasonal forecasting services

National Centre for Extreme Weather

Enhancing the Bureau's capacity to respond to extreme weather events

The Bureau's vital role in emergency management

The Bureau of Meteorology has critical responsibilities in the protection of life and property during extreme weather and natural disaster events. Its expertise and services assist Australians in dealing with extreme events such as drought, floods, fires, storms, tsunamis and tropical cyclones.

Greater demands for extreme weather services

In July 2011, the Government commissioned an independent review of the Bureau in response to growing demand for severe weather services. The announcement followed the series of extreme events over the 2010-11 summer, including near concurrent floods, tropical cyclones and bushfires.

Undertaken by Ms Chloe Munro, the *Review of the Bureau of Meteorology's capacity to respond to future extreme weather and natural disaster events and to provide seasonal forecasting services* (the Review), highlighted a significant gap between the demands being placed upon the Bureau, and its ability to meet those demands.

The Review found that while the incidence and severity of high impact weather events in Australia is increasing, the Australian community is also becoming more aware of the risks and the potential consequences of these events. This is driving increasing demand for the Bureau's services, particularly from emergency services organisations seeking to protect communities from the impact of severe weather and natural disasters.

Establishing a National Centre for Extreme Weather

As part of its response to the Review, the Government has provided funding for the establishment of a new National Centre for Extreme Weather. The \$58.5 million package will enhance the capacity of the Bureau of Meteorology, the National Centre will support the Bureau's ability to maintain its 24-hour, seven-day-a-week service during peak demand and to respond rapidly to emerging hazards across the nation.

Eight additional meteorologists will be engaged to establish the National Centre's operations and bring together the specialist skills and expertise required to:

- deliver the surge capacity needed to improve the Bureau's ability to handle extreme weather events and inform national emergency response efforts and the media;
- provide consistent national forecasting support during concurrent events (regardless of jurisdiction) by more effectively deploying 24/7 assistance during periods of sustained demand;
- accelerate the deployment of specialist prediction models including a new national flood forecasting system and an advanced storm tide prediction system;
- introduce nationally consistent standards for supporting emergency service organisations across all hazards; and
- scope and develop an integrated all-hazards decision system.

Next-generation flood forecasting

As part of the package to enhance the capacity of the Bureau of Meteorology, the Government is providing funding to increase the implementation of a next-generation flood forecasting system to produce more timely, accurate and effective flood forecasting services. The system, which has been proven internationally, will also enhance the Bureau's capability during extended flood events and will deliver against one of the top priority actions recommended by the Review.

The new flood forecasting system will automatically ingest the best available rainfall forecasts along with real-time radar, rainfall and river height data to provide higher quality flood forecasts than are currently possible. Improved modelling of river catchment conditions will allow the development of a new seven-day short-term flow forecasting service and a heavy rainfall risk guidance service to support both water and emergency management.

Enhancing storm surge prediction

Within the \$58.5 million package, the Government has provided funding for the Bureau to develop a new storm tide prediction system. With coastal population growth and rapid development, the Review found that many coastal communities are vulnerable to the impacts of extreme waves and surges arising from severe weather such as tropical cyclones and storms, which can be exacerbated by concurrent high tides. Future sea level rise caused by climate change will significantly increase the frequency and magnitude of coastal inundation.

The advanced storm tide prediction system will provide improved forecasts of storm surge probability and extent that will better inform citizens and emergency response agencies in low-lying areas, particularly along the Queensland coast. The combination of tropical cyclone forecasts and associated storm surge warnings are critical inputs to evacuation decisions for communities at risk, with lead time often the most critical factor in reducing casualties and property damage.

Investing in infrastructure

Funding of \$3.7 million in 2013-14 for vital infrastructure repairs and upgrades will reduce the risk of communications systems difficulties, such as those experienced during ex-tropical cyclone *Oswald*.

For further information about the Government's Response please visit www.bom.gov.au/governmentresponse



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