Office of the
Inspector-General of
Emergency Management

2023–24 Severe Weather Season Review

Report 1: 2024–25

Queensland Government

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Content disclaimer

The Office of the Inspector-General of Emergency Management has reviewed all relevant documentation and evidence provided by state agencies and other entities, the community, and sourced from media and other public reports. This review report is based on the information that has been supplied to the Office of the Inspector-General of Emergency Management as of 24 September 2024 and does not consider any other material that has not been provided or sighted by the Office of the Inspector-General of Emergency Management. It is therefore possible that some inconsistencies may be present despite the best efforts of the Office of the Inspector-General of Emergency Management to validate and align the raw data utilised throughout this report.

Cover image credit: Queensland Fire Department

Ref No: 2024/10282

24 September 2024

Queensland Government

Inspector-General of
Emergency Management

The Honourable Mark Ryan
Minister for Police and Community Safety
PO Box 15195
CITY EAST QLD 4002

Dear Minister

In accordance with instructions received from Government on 18 April 2024, I present the review report for the 2023-24 severe weather season, including bushfires, severe storms, rainfall, flooding, tropical cyclones and tropical lows that occurred between 1 October 2023 and 30 April 2024.

My Office assessed the effectiveness of preparedness, response, and transactional arrangements and activities undertaken by Queensland Government, relevant Local Government and other agencies in impacted local government areas, including the coordination and deployment of personnel and equipment. The timing and effectiveness of the new Australian Warning System was also assessed, along with communities' awareness and expectations of local disaster management plans and the State's disaster management arrangements.

As requested, in conducting the review the Office worked closely with stakeholders and impacted communities. It also considered previous IGEM reviews and relevant reports, including the IGEM's Review of Queensland's Disaster Management Arrangements (QDMA) — Report 2: 2022–2023.

The Office undertook extensive engagement with entities including Queensland Police Service, Queensland Fire Department, Queensland Reconstruction Authority, other state, local and commonwealth agencies, and relevant organisations including the Australian Red Cross and the Local Government Association of Queensland. Community members and stakeholders from the 66 affected local government areas were also consulted through 14 community forums and 118 public submissions.

The report and recommendations reflect the Standard for Disaster Management in Queensland, identifying enhancements to inform and ensure continuous improvement in Queensland's disaster management arrangements.

Yours sincerely

Alistair Dawson

Alistair Dawson APM
Inspector-General of Emergency Management

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Acknowledgement of Country

The Office of the Inspector-General of Emergency Management acknowledges Aboriginal peoples and Torres Strait Islander peoples as the Traditional Owners and Custodians of this Country. We recognise their connection to land, sea and community. We pay our respects to them, their cultures and to their elders past and present.

Acknowledgements

I would like to express my appreciation to all those who contributed to the 2023–24 severe weather season review.

To the community members who provided submissions and participated in community forums, thank you for sharing your time and your stories. I acknowledge the courage it takes to speak frankly about your experiences, and I greatly appreciate your willingness to do so.

I acknowledge and appreciate the support, guidance and assistance offered by Australian Red Cross staff, recovery officers from the Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts, and independent facilitators from Articulous. Your professionalism and compassion greatly contributed to the success of our community forums and the insights we received through them.

To the representatives of local, state, federal, and non-government organisations, thank you for your efforts in providing submissions and information quickly and openly, and for contributing to interviews in a thoughtful and considered manner. Your willingness to provide insights into the disaster management system is an endorsement of your commitment to the continuous improvement of the disaster management arrangements in Queensland.

To the emergency services personnel, disaster management practitioners and volunteers who responded to the events during the 2023–24 severe weather season, I thank you for your service and commitment.

Finally, I would like to recognise the members of the Office of the Inspector-General of Emergency Management, and those seconded to the agency, for their professionalism, support, hard work and inquiring minds in undertaking this review. Thank you for your dedication and collaboration in undertaking the review and producing this report, which have enabled us to identify enhancements to inform and ensure continuous improvements in Queensland's disaster management arrangements.

Alistair Dawson APM
Inspector-General of Emergency Management

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Executive summary

The 2023–24 severe weather season was a complex period, characterised by multiple compounding and cascading disasters. For the period of the review 1 October 2023 to 30 April 2024, 12 disaster events occurred, including 11 within a four-month period. Many events occurred simultaneously in different parts of the state, stretching resources and challenging local governments and State Government agencies, especially during the Christmas/New Year holiday period. Communities experienced bushfires, severe storms, cyclones and flooding. Some experienced rainfall and flooding far beyond expected levels, or swift-moving and intense bushfires, with many unprepared for the conditions and prolonged isolation and conditions. Twelve disasters were activated for funding assistance under the Disaster Recovery Funding Arrangements (DRFA). Of the 77 local government areas and one town authority (Weipa) in Queensland, 66 were activated for DRFA.

Several other factors contributed to the operating conditions and overall complexity of the 2023–24 severe weather season. Heatwave conditions were prevalent across much of the state, exacerbating the impacts of severe weather and often impeding response operations. Additionally, Queensland's disaster management arrangements were in reform across the sector. There were consequential changes to the machinery of government in December 2023, followed by the local government elections in March 2024.

On 18 April 2024, the Minister for Police and Community Safety tasked the Inspector-General of Emergency Management (IGEM) to conduct the 2023–24 Severe Weather Season Review (the review). The review included any significant weather events, such as severe storms, tropical cyclones, tropical lows, flooding and bushfires, between 1 October 2023 and 30 April 2024.

In line with the terms of reference (Appendix B), the review assessed the effectiveness of preparedness, response and transitional arrangements and activities, the timing and effectiveness of new Australian Warning System (AWS) messaging that were issued to the community during the events, communities' awareness of their local disaster management plans (LDMPs) and the anticipated and/or expected activities of the state's disaster management arrangements, and the coordination and deployment of personnel and equipment. The terms of reference and the widespread impacts of the season resulted in this review being one of the most complex reviews ever undertaken by the IGEM. To satisfy the terms of reference and ensure the final report could be provided by the due date, five focus weather events were selected for in-depth assessment and analysis based on severity of impact on communities, geographic spread, community profiles and the mix of hazards.

The Office of the IGEM worked closely with local, state and Commonwealth agencies, impacted communities and other relevant stakeholders to obtain information and data to assist in the review. The magnitude of the 2023–24 severe weather season is clearly evident through their experiences. Despite the challenging circumstances, the review revealed many instances of effective disaster management practices and community efforts during the season, which reflect the Standard for Disaster Management in Queensland (the Standard) and highlight the value of a shared responsibility model. Such instances were facilitated by Queensland's existing disaster management arrangements and structures, including the key

role performed by executive and elected positions within local government. Some examples of effective practices have been shared throughout this report. These examples highlight the efforts undertaken by people, in paid or volunteer positions across different departments, agencies and entities, to help Queenslanders in need, sometimes when they too had been affected by an event. Many of these people, along with members of the impacted communities, are likely to face ongoing trauma and fatigue following this season.

The review gathered insights from community members and developed an understanding of communities' experiences, awareness and expectations around disaster management. While the views of community members varied, many positive stories emerged about community-led actions. The review found that some community members considered the community has a shared responsibility for disaster management, while some had limited investment, interest, engagement, understanding or recognition of their own risks and responsibilities during severe weather events. Common themes heard from community members included a perceived lack in some of overall coordination and communication by some entities, confusion in regard to evacuation, including in a few cases the sense of being left behind or ignored, mixed levels of preparedness and risk reduction activities.

The review identified opportunities for enhancements to inform and facilitate the journey of continuous improvements in Queensland's disaster management arrangements. These included opportunities to strengthen community resilience by communicating more effectively, educating communities about disaster management and promoting key approaches, including the role and shared responsibility of individuals.

Limitations in capacity and capability, which impacted preparedness, response and transitional arrangements and activities, were evident during the 2023–24 severe weather season. Some of these limitations were a result of the season's complexity, the timing of events and the extent of impacts on communities, which often exceeded expectations. The review identified opportunities to strengthen Queensland's disaster response capabilities, with a recommendation made regarding the importance of local resilience action plans. The report presents additional insights into the value of effective planning that considers disaster management responsibilities, resourcing and staff deployments. This includes a need for disaster management responsibilities and resources to be incorporated into the Business Continuity Plans of all entities.

Capacity and capability were also affected by gaps in shared understanding around disaster management arrangements, protocols, terminology and roles and responsibilities across the disaster management sector and the community. The review identified opportunities to increase guidance and clarification across several key areas in Queensland's disaster management arrangements. The review makes a recommendation to address these opportunities through the review and renewal of the Queensland State Disaster Management Plan (SDMP) and Prevention, Preparedness, Response and Recovery Disaster Management Guideline (PPRR DM Guideline). Another recommendation is made to establish a framework to clearly define the intersect between self-evacuation and emergency shelters.

The review identified further opportunities to improve collaboration and information sharing between state agencies and disaster management groups, with recommendations made to establish protocols and formalise inter-agency arrangements. This recommendation will strengthen the ability of the disaster management sector to maintain a commitment to the principles in section 4A of the *Disaster Management Act 2003* (Disaster Management Act), including that disaster management is locally led with support from district, state and Commonwealth levels.

Additional opportunities exist to improve outcomes through experience, enhanced knowledge, training and collaboration across the sector, with a recommendation for a whole-of-state disaster management training and exercise strategy, a co-designed governance framework, and an all hazards Queensland warnings strategy.

The review considers that the implementation of these recommendations, along with the additional insights presented throughout the report, will facilitate improvements across preparedness, response and the transition to recovery and enhance the community's understanding of Queensland's disaster management arrangements and their role in disaster management.

The IGEM considers that, as the recommendations aim to achieve long-term and sustainable outcomes across Queensland's disaster management arrangements, no recommendations require commencement and/or completion prior to the start of the 2024–25 severe weather season.

Recommendations

Recommendation 1: The Inspector-General of Emergency Management recommends that by October 2025 the Queensland Police Service, as part of the 'State Disaster Management Plan (SDMP) and the Prevention, Preparedness, Response and Recovery Disaster Management Guideline (the Guideline) Review and Renewal Program', provide clarity in the following key areas of the doctrine:

- evacuation terminology and procedures
- audience and purpose of local disaster management plans
- parameters for sharing of personal information during and after disasters
- transitional arrangements — roles and responsibilities when moving from response to recovery operations
- relief terminology.

Recommendation 2: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead a review to establish a framework to clearly define the intersect between self-evacuation and emergency shelters, including but not limited to places of refuge, evacuation centres and public cyclone shelters, ensuring roles and responsibilities are clearly articulated.

Recommendation 3: The Inspector-General of Emergency Management recommends that the Queensland Reconstruction Authority continues to engage with councils in the development of their local resilience action plans including to identify local needs with respect to communication, connectivity, and power in suitable hubs.

Recommendation 4: The Inspector-General of Emergency Management recommends that the Queensland Fire Department engage with each council and local disaster management group (LDMG) and consult with the Local Government Association of Queensland to establish protocols for:

- locally led activation of LDMGs for bushfire events
- sharing of relevant bushfire intelligence
- identification of relevant local triggers
- communication and engagement arrangements.

The protocols are to be established by 1 August 2025.

Recommendation 5: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead and co-design a whole-of-state training and exercise strategy.

Recommendation 6: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead the establishment of a co-designed governance framework to achieve objectives that enhance the understanding of Queensland's disaster management arrangements within all disaster management entities, government, non-government, and the community.

Recommendation 7: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead the co-design of an all hazards Queensland warnings strategy. The strategy will establish the governance framework for the Warnings Community of Practice and implement a model of continuous improvement for governance, doctrine and processes, including the procurement of a common publishing platform to create and publish warnings.

Recommendation 8: The Inspector-General of Emergency Management recommends that for the recommendations arising from this review, the Office of the Inspector-General of Emergency Management is involved in consultation prior to the finalisation of the government action plan, to align intended actions with the intent of the recommendations.

Recommendation 9: The Inspector-General of Emergency Management recommends that this review report be returned to the Office of the Inspector-General of Emergency Management to monitor, evaluate and report on progress and implementation of the recommendations that are accepted in whole or in part by government.

2023–24 severe weather season

The 2023–24 severe weather season began amid challenging bushfire conditions. Prior to 1 October 2023, some communities had already experienced high temperatures and extreme fire danger conditions, which continued in some areas through to December 2023. Tropical Cyclone Jasper impacted most of Far North Queensland after it crossed the coast at Wujal Wujal on 13 December 2023. Possibly the wettest tropical cyclone in Australian history (Emanuel 2024), it brought destructive flooding and landslides across the region, with record-breaking daily rainfall in many areas (Bureau of Meteorology 2024e). In January 2024, the Bureau of Meteorology (Bureau) reported hot and humid conditions across Queensland with a series of heatwaves occurring between the periods of rain, while the extreme humidity exacerbated conditions.

The season continued with a procession of severe storms as well as subsequent Tropical Cyclone Kirrily, which brought heavy rainfall and widespread flooding, the likes of which were unexpected and never experienced by many of the impacted communities. Many events occurred simultaneously in different parts of the state, stretching resources and challenging local governments and State Government agencies, especially during the Christmas/New Year holiday period. Some communities experienced rainfall and flooding far beyond expected levels, or swift-moving and intense bushfires, with many unprepared for the prolonged isolation and conditions.

By the end of the season, Queenslanders had faced more than 7,500 bushfires, including more than 100 significant bushfires from 1 August 2023 to 30 April 2024, severe storms, tropical cyclones, tropical lows, flooding and heatwaves (Figure 1).

Affected areas

Of the 77 local government areas and one town authority (Weipa) in Queensland, 66 were activated for DRFA. Almost half of those (33 local government areas) experienced two or more severe weather events during the season, and many have experienced multiple events during the past five years (QRA 2024a).

Disaster Recovery Funding Arrangements (DRFA)

The DRFA is a jointly funded program between the Australian Government and state and territory governments, through which the Australian Government provides financial assistance to support state governments with disaster recovery costs. The DRFA can be activated when an event meets the definition of an eligible disaster, to provide funding and support to Queensland communities (QRA 2024a).

Appendix C provides a full list of the local government areas which were activated for assistance under DRFA during the review period. Other weather events also affected Queensland in this period, including frequent heatwaves from October to December 2023 and Tropical Cyclone Lincoln, which affected northern Australia in February 2024. While not resulting in the activation of DRFA, these events further limited the availability of resources and compounded the impacts on communities.

Timeline of events

Figure 1 provides an overview of the DRFA-activated severe weather events during the season. Response activities may have commenced prior to the activation of DRFA and continued after the DRFA activation period ended.

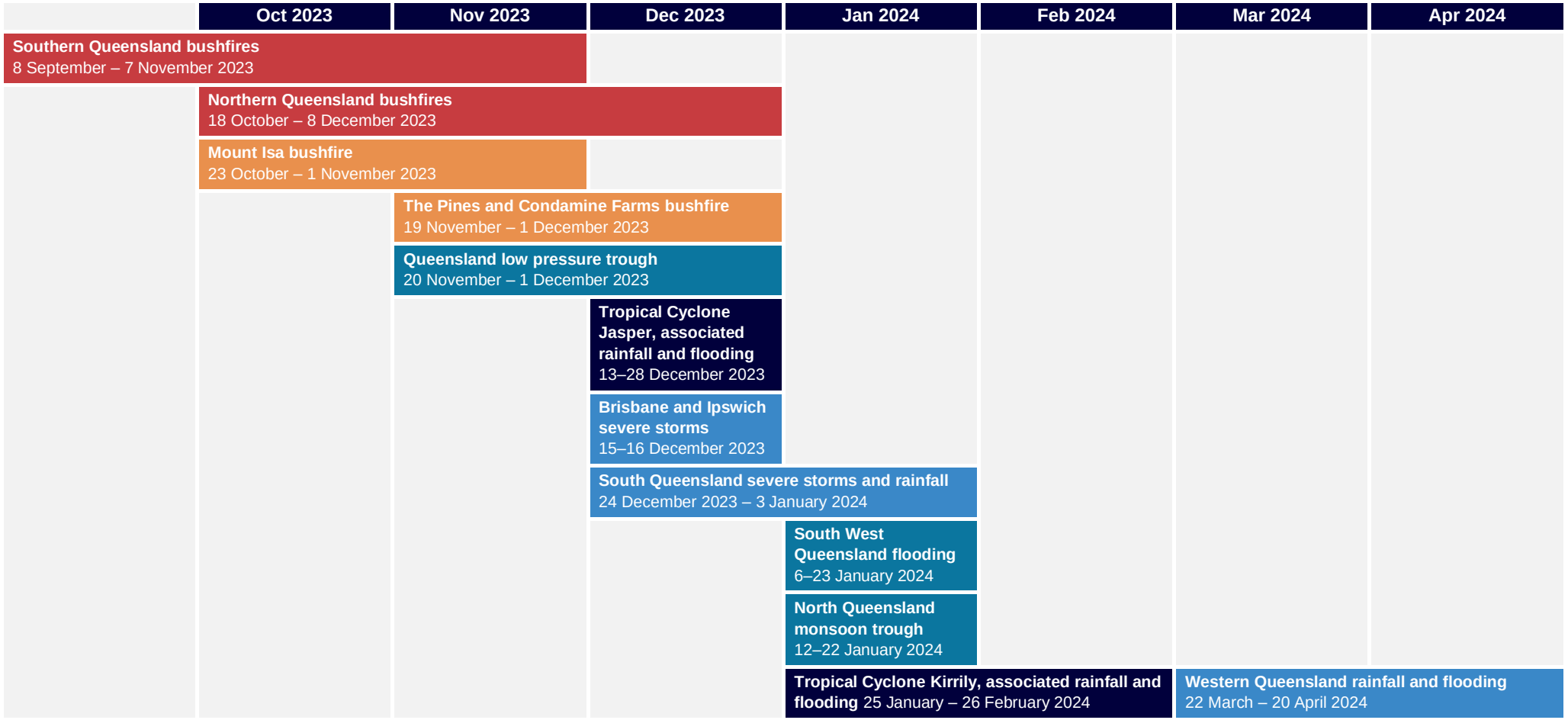


Figure 1: Timeline of DRFA-activated severe weather events

Southern Queensland bushfires: 8 September – 7 November 2023

Hot, dry and windy conditions from September 2023 led to extreme fire danger, multiple fast-moving bushfires and the evacuation of hundreds of residents (QRA 2024b). The Queensland Reconstruction Authority (QRA 2024e) reported:

> The fires caused significant destruction in areas including the Carnarvon Gorge region between Maranoa and Central Highlands, Tara in the Western Downs, Wallangarra and Dalveen in the Southern Downs and a fire in the Miriam Vale region spanning Gladstone and North Burnett.
>
> Fires destroyed more than 60 homes with hundreds of residents evacuated. Power supply to properties was disrupted, schools and roads were closed, and hospital services were impacted because of staffing interruptions. Communities also suffered major stresses because of animal welfare and the loss of life of companion animals and livestock.

DRFA assistance measures were activated for 17 local government areas (Appendix C).

Northern Queensland bushfires: 18 October – 8 December 2023

Far North Queensland faced similar hot, dry and windy conditions, leading to multiple simultaneous bushfires from mid-October. Properties and crops were destroyed, and DRFA assistance measures were activated for the Cook, Flinders, Mareeba, McKinlay and Tablelands local government areas. The Tablelands Regional Council said five properties were lost and others damaged across the local government area, and people living in tents or bushland required evacuation.

Three lives were lost when a firefighting aircraft contracted by Queensland Fire and Emergency Services (QFES) crashed in the McKinlay Shire Council area, south of Cloncurry, on 4 November 2023. It is noted this matter is subject to ongoing investigation.

Mount Isa bushfire: 23 October – 1 November 2023

Residents, visitors and mine staff were evacuated as bushfires burnt throughout the Mount Isa City Council area towards the end of October 2023. The fires destroyed bushland and damaged rural stations and mine assets. There were no reports of loss of life or homes.

The Pines and Condamine Farms bushfire: 19 November – 1 December 2023

A week of high fire danger and low-intensity heatwave conditions contributed to fires impacting communities from the Pines and Condamine Farms in the Toowoomba region. Almost 100 properties were subject to evacuation (QRA 2024e).

Queensland low pressure trough: 20 November – 1 December 2023

A low-pressure system brought intense rainfall across the state, and several locations recorded their highest November total rainfall (Bureau 2023a). Persistent rain and thunderstorms led to localised river rises and flooding in remote areas of southern Queensland (Bureau 2024a). DRFA assistance measures were activated for Balonne, Bulloo and Maranoa, along with Etheridge in northern Queensland.

Tropical Cyclone Jasper, associated rainfall and flooding: 13–28 December 2023

Tropical Cyclone Jasper affected most of Far North Queensland after it crossed the coast at Wujal Wujal as a Category 2 cyclone on 13 December 2023 (Figure 2). The cyclone then weakened quickly but continued to bring heavy rain, resulting in widespread flooding, flash flooding, landslides, road closures and riverine flooding across the Daintree, Mossman, Barron, Murray, Mulgrave and Herbert rivers (Bureau 2024e).

Communities were inundated by floodwaters, with widespread impacts on homes, agriculture, animal welfare, small business and tourism. Power, telecommunications, roads and water supply infrastructure all sustained damage. Ergon Energy (2023) reported approximately 40,000 people were without power. Water supplies, wastewater treatment plants, sewerage and waste disposal were also affected. Some small businesses reported inundation, while ongoing road closures prevented producers from supplying markets and some businesses were inaccessible. Major roads were cut between Cairns, Cooktown, Port Douglas and Cape Tribulation, preventing access and impacting communities in the Bloomfield Valley and surrounding areas. Sixteen homes were destroyed and 163 severely damaged. One person remains missing. DRFA assistance measures were activated for 18 local government areas (Appendix C).

Brisbane and Ipswich severe storms: 15–16 December 2023

A series of dangerous storms brought destructive wind gusts, large hailstones and heavy rainfall across Brisbane and Ipswich. Wind gusts brought down trees and powerlines and damaged properties. In the Brisbane local government area, the roofs of three homes were fully or partially blown away. Approximately 19,000 properties lost power in the affected local government areas.

South Queensland severe storms and rainfall: 24 December 2023 – 3 January 2024

In late December 2023 and early January 2024, a series of storms impacted South Queensland. The Bureau (2024e) reported severe thunderstorms and a tornado that ‘left a trail of destruction’ on Christmas night (25 December 2023), impacting the Gold Coast, Logan, Redlands and Scenic Rim. Strong winds caused powerlines and trees to fall on homes and vehicles, and across roads. Intense rainfall caused extensive flooding, landslips, road closures, isolation and damage to many properties. Communities experienced widespread power outages, and telecommunications and internet were down for several days and weeks in some areas. Other communities across the Banana, Brisbane, Moreton Bay and Murweh local government areas also experienced impacts from the storms in December and January, including flash flooding, large hail and damaging winds (Bureau 2024e).

Seven people died as a result of the storms and rainfall across South Queensland, five homes were destroyed and 133 were severely damaged. DRFA assistance measures were activated for eight local government areas (Appendix C).

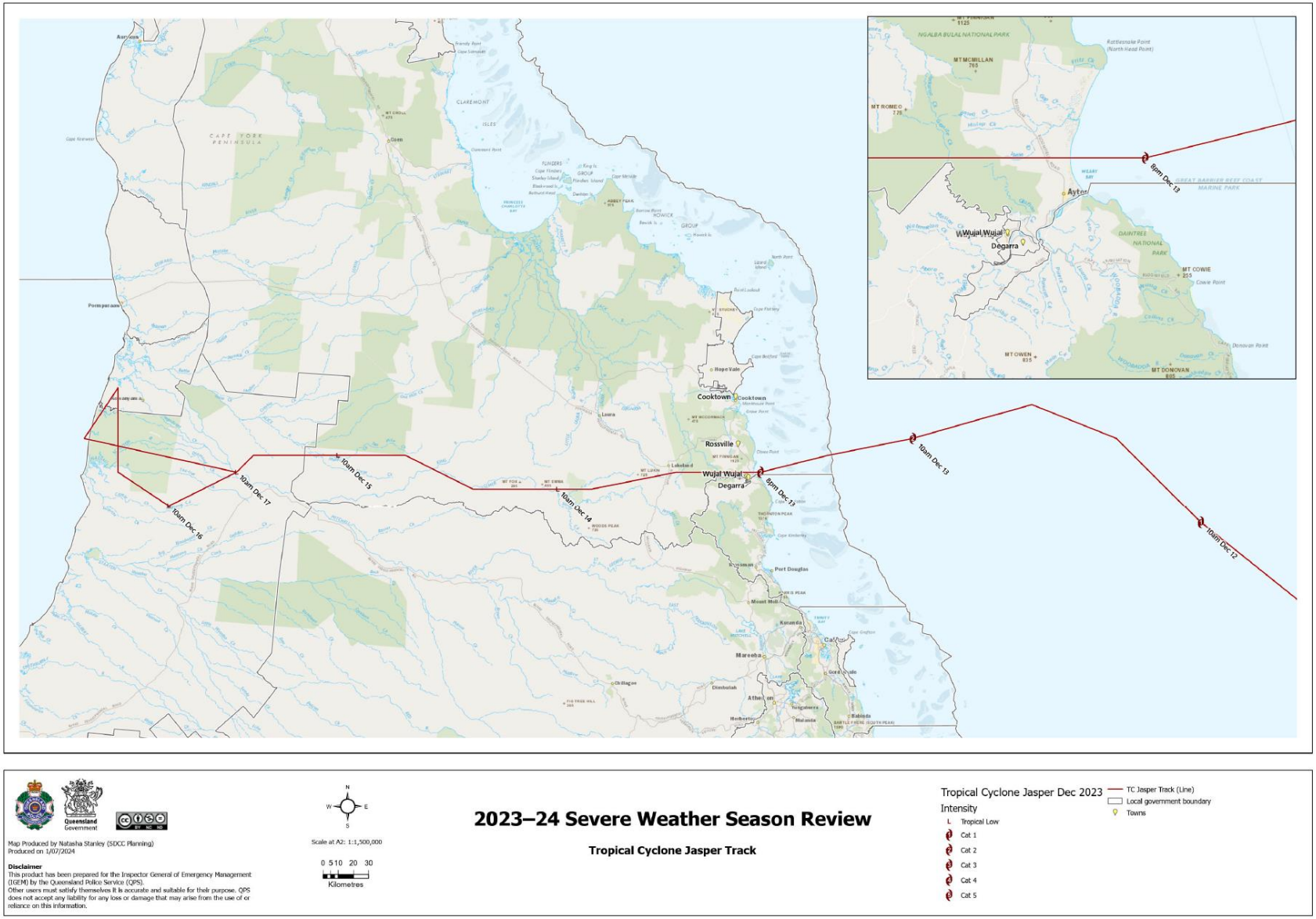


Figure 2: Tropical Cyclone Jasper track

South West Queensland flooding: 6–23 January 2024

Severe thunderstorms, heavy rainfall and damaging winds tracked through inland Queensland between 6 and 23 January 2024. Flooding cut roads and bridges and isolated communities throughout the Bulloo, Boulia, Diamantina, Paroo and Quilpie local government areas.

North Queensland monsoon trough: 12–22 January 2024

A late monsoon event brought heavy rain, causing flooding, damaging roads and isolating communities in the Etheridge Shire. The eastern abutment of Routh Creek Bridge was damaged, cutting the Gulf Developmental Road from Georgetown to Mount Surprise. The Gulf Developmental Road is a major North Queensland road link from south-west of Cairns to south of Normanton near the Gulf of Carpentaria, and the damage left motorists without a viable alternative link for nine days.

DRFA assistance measures were activated for Etheridge Shire Council (Appendix C).

Tropical Cyclone Kirrily, associated rainfall and flooding: 25 January – 26 February 2024

In late January 2024, a tropical low in the central Coral Sea developed into Tropical Cyclone Kirrily. It crossed the coast north of Townsville on 25 January 2024 as a Category 2 cyclone, following the track shown in Figure 3, bringing damaging wind gusts and heavy rainfall. Widespread power outages affected about 66,000 customers, and localised flooding affected thousands of residents in the greater Townsville area. Initial damage to property was minimal and no loss of life was reported.

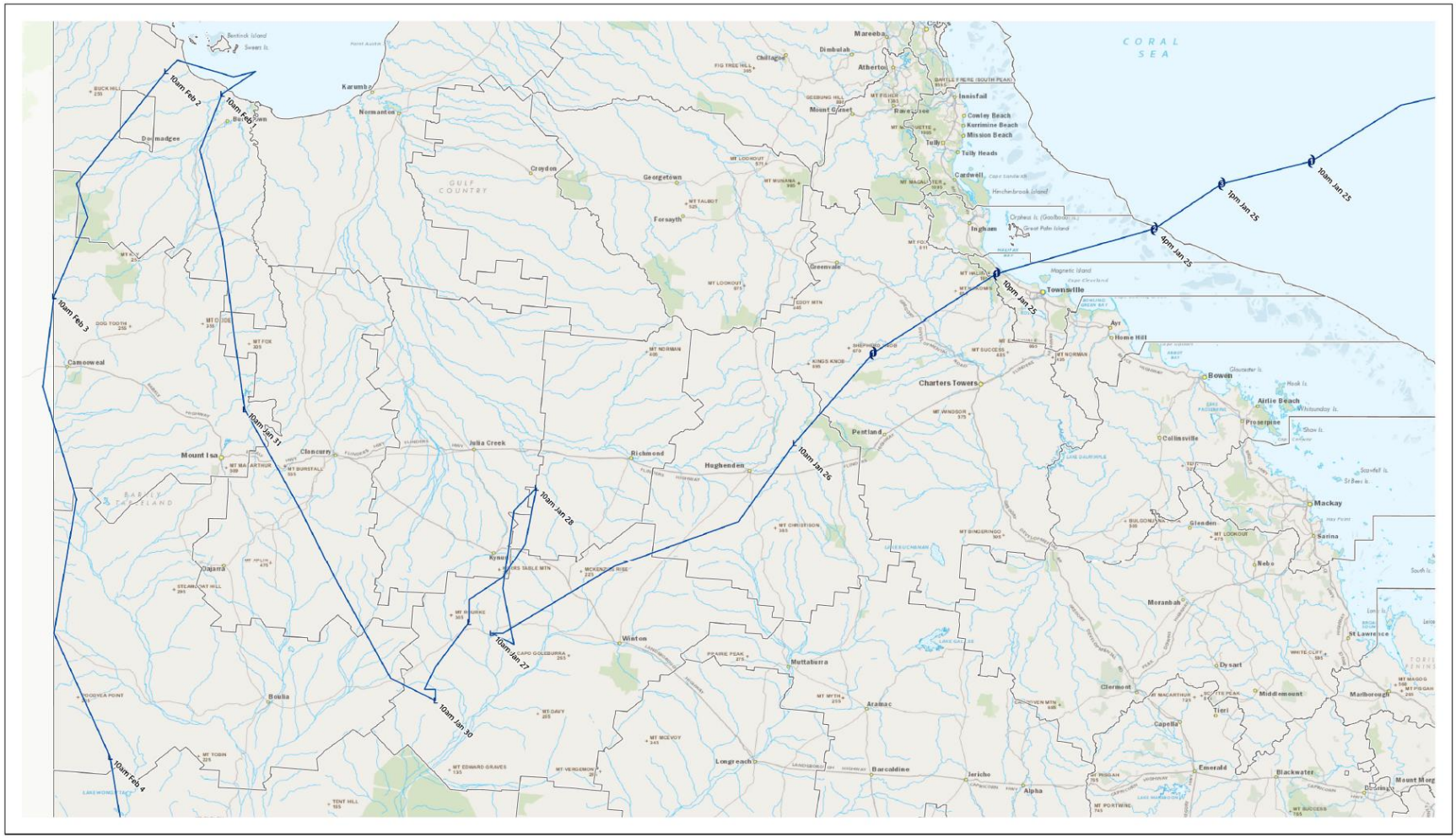
As the system weakened and travelled inland, other areas of Queensland experienced heavy rainfall and widespread flooding. Towns including Kynuna and McKinlay in north-west Queensland and Warra in south-west Queensland were evacuated ahead of floodwaters. Heavy rainfall isolated towns and homesteads in the Diamantina region. Tropical Cyclone Kirrily was a slow-moving and long-lived weather system which affected parts of south-west Queensland up to 1,500 kilometres away from where it first crossed the coast, with impacts including flash flooding, road closures and landslides. By the time it dissipated, the system had affected more than half of the local government areas in Queensland.

DRFA assistance measures were activated for 41 local governments (Appendix C).

Western Queensland rainfall and flooding: 22 March – 20 April 2024

Heavy rain and storms experienced in Balonne, Barcoo, Bulloo, Flinders, Goondiwindi, Maranoa, Murweh and Richmond led to extensive flooding in parts of Western Queensland and along the Warrego River. Towns throughout Western Queensland were affected by the closure of numerous roads, including the Mitchell and Warrego highways. Murweh Shire Council closed its flood levee gates for three days on the Sturt Street Bridge to protect the Charleville community from inundation. Several communities were temporarily isolated.

DRFA assistance measures were activated for eight local government areas (Appendix C).



Map Produced by Natasha Stanley (SDCC Planning)
Produced on 1/07/2024

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Scale at A2: 1:2,500,000

0 10 20 40 60
Kilometres

2023–24 Severe Weather Season Review

Tropical Cyclone Kirrily Track

Tropical Cyclone Kirrily Jan-Feb 2024
Intensity
- L Tropical Low
- Cat 1
- Cat 2
- Cat 3
- TC Kirrily Track (Line)
- Local government boundary

Figure 3: Tropical Cyclone Kirrily track

Changes and other complexities

A number of factors contributed to the operating conditions and overall complexity of the 2023–24 severe weather season.

Heatwaves

Heatwaves are the deadliest natural hazard in Australia, and they pose additional dangers for older people, young children and people with vulnerabilities (Bureau 2024b). A heatwave is defined by unusually hot maximum and minimum temperatures over three days, compared to the local climate and past weather. Heatwaves can affect individual and community health, as well as essential infrastructure such as transport and energy (Bureau 2024b, 2024g).

The Bureau reported there were 62 days with heatwave warnings in Queensland during the 2023–24 summer, 22 of which were for extreme heatwave conditions.

Under Queensland's AWS implementation model, Queensland Health is the agency responsible for issuing AWS warnings for extreme heatwaves. During the 2023–24 severe weather season, Queensland Health issued four AWS extreme heatwave warnings on:

- 30 November 2023, for the Peninsula and Northern Tropical Coast and Tablelands districts
- 26 December 2023, for the Gulf Country district
- 4 January 2024, for Far Northern Queensland
- 29 January 2024, for the Tropical North Coast and Tablelands districts.

Disaster and emergency services reform

Queensland's disaster management arrangements were in a transitional state during the 2023–24 severe weather season due to the implementation of reforms resulting from the:

- Blue Water Review into volunteer marine rescue organisations (Darby 2018)
- 2020 Darby Review of the State Emergency Service (SES)
- 2021 KPMG Review, an independent review of QFES
- IGEM's Review of Queensland's Disaster Management Arrangements (QDMA) — Report 2: 2022-2023.

These reforms included:

- establishing a new Queensland Fire Department (QFD), in place of the former QFES
- shifting primary responsibility for functions of disaster management from QFES to the Queensland Police Service (QPS)
- expanding the QPS to incorporate additional disaster management functions, including the SES and the newly established Marine Rescue Queensland (MRQ)
- formalising the role and functions of the State recovery policy and planning coordinator (SRPPC) in the Disaster Management Act (Qld Government 2024a)

- boosting capability and capacity for the QRA to improve resilience.

Note: QFES became the QFD on 1 July 2024. This report refers to QFES in relation to events that occurred within the timeframe of the review, namely 1 October 2023 to 30 April 2024.

Review of Queensland's Disaster Management Arrangements (QDMA) — Report 2: 2022-2023

On 26 October 2022, the Queensland Government announced its Good Jobs and Better Fire and Emergency Services to Support Queensland's Great Lifestyle response (the Government Response) to the 2021 KPMG review, an independent review of QFES. On 14 December 2022, consistent with the recommendations of the independent review, the Government requested the IGEM to conduct a review of Queensland's disaster management arrangements to inform any changes to the arrangements, legislative reforms, or updates to the SDMP and to inform the transition of disaster management functions to the QPS and other relevant agencies. In undertaking this review, the Office of the IGEM considered the past, present and future of Queensland's disaster management arrangements. It made 10 recommendations to draw together the components of prevention, preparedness, response, and recovery, as well as resilience, under the arrangements.

The reforms were achieved through the Queensland disaster and emergency management reform bills that became law on 2 May 2024, with the final legislative amendments taking effect on 1 July 2024 (Qld Government 2024b). However, the reforms were planned and implemented progressively from November 2022 to June 2024, including a series of administrative and functional changes during the 2023–24 severe weather season. During the review period, most of the changes had not been reflected in disaster management plans or guidelines.

Queensland Cabinet and machinery of government changes

A new Premier of Queensland was sworn in on 15 December 2023 and consequently assumed the position of chairperson of the Queensland Disaster Management Committee (QDMC) under section 4 of the Disaster Management Regulation 2014 (Disaster Management Regulation). The change of premier resulted in changes to the machinery of government and the appointment of several new ministers to the Queensland Cabinet on 18 December 2023.

Among the changes, a new Minister was appointed as Minister for Fire and Disaster Recovery and Minister for Corrective Services. This was a newly created portfolio, with principal ministerial responsibilities including but not limited to:

- fire and rescue services
- rural fire services
- State Emergency Service (while with QFES)
- recovery and reconstruction of Queensland following natural disaster and other significant events and improving the resilience of communities for potential natural disaster events.

The new Minister assumed responsibility for QFES and the QRA. The former Minister for Police and Corrective Services and Minister for Fire and Emergency Services was given a new portfolio, as Minister for Police and Community Safety. A new Minister for Transport and Main Roads and Minister for Digital Services was also appointed (DPC 2023, 2024a; Gazette 2023).

Further changes included the appointment of a new Director-General of the Department of the Premier and Cabinet (DPC) on 21 December 2023 (Gazette 2023).

Local government elections

Local government elections took place on 16 March 2024, after the notice of election was published on 19 January 2024 (ECQ 2024). This meant all local governments were in caretaker mode during this period, placing limits on procurement activities and major policy decisions. Following the election, the Local Government Association of Queensland (LGAQ) advised that there was a high turnover in elected officials across the state, as shown in Table 1. This included approximately 20 per cent of elected members, some with many decades of disaster management experience, who did not seek re-election, namely 17 mayors and 111 councillors (LGAQ 2024).

Table 1: Elected officials in 2024 Queensland local government elections (excludes Weipa Town Authority)

	Newly elected	Returned to role	Total	Turnover
Mayoral positions	43*	34	77	56%
Councillors	236	265	501	46%

* includes 18 councillors who were promoted to the position of Mayor.

Implementation of Australian Warning System

The AWS is a national approach to warning people before, during and after natural disasters. The AWS was in place for QFES-issued bushfire warnings from 2021. On 1 November 2023, the AWS was also implemented for other hazards in Queensland, including storm, flood and cyclone warnings to be issued by local governments. The complexities of implementing the AWS are discussed in the Warnings section of this report.

Timeline of key events

Table 2 provides a timeline of key events in relation to the reforms, as well as other government changes that affected disaster management in Queensland during the 2023–24 severe weather season.

Table 2: Timeline of reforms, government changes and related events

January 2019	Blue Water Review report released. The report recommends a single integrated marine rescue service in Queensland.
March 2020	The 2020 Darby Review report, SES Review: Sustaining the SES - Partnering for Change was delivered to the Queensland Government.
July 2021	Queensland Government commissions an independent review of QFES and its associated volunteer services, undertaken by KPMG International Limited (KPMG). The final report was delivered in November 2021.
October 2022	Release of the Queensland Government's response to the KPMG review, accepting in principle all recommendations except for legislating an SES levy. The Government announced the

	formation of a Reform Implementation Taskforce to coordinate the implementation of reforms. The taskforce continued its engagement and transition planning throughout the reform period.
April 2023	Delivery of the IGEM's Review of QDMA.
May 2023	Queensland Government accepts the IGEM's recommendations in principle. Marine Rescue Implementation Program joins the Reform Implementation Taskforce under the QPS umbrella.
June 2023	The Reform Implementation Taskforce reports that the team has been exploring the possible early transition of some disaster management functions to QPS, with an in-principle transition date of 30 October 2023 agreed by QFES, QPS and QRA.
August 2023	The Reform Implementation Taskforce announces that its steering committee has endorsed the transition of operational disaster management functions by 30 October 2023.
October 2023	**The severe weather season, as defined for the review, begins on 1 October 2023.** Bushfires are already underway in southern Queensland. Responsibility for disaster management transitions to the newly formed Emergency Management and Coordination Command within QPS on 30 October 2023. Administration of the Disaster Management Act transfers from QFES to QPS. The chief executive under the Disaster Management Act changes from the QFES Commissioner to the QPS Commissioner. QFES retains some disaster management functions, including warnings, under transitional arrangements. QFES continues to coordinate and manage Fire and Rescue Service (FRS), Rural Fire Service (RFS) and the SES.
November 2023	AWS implemented for storm, flood and cyclone warnings.
December 2023	New Premier of Queensland sworn in on 15 December 2023. Cabinet appointments on 18 December 2023 include a new Minister for Fire and Disaster Recovery and Minister for Corrective Services, and a new Minister for Transport and Main Roads and Minister for Digital Services.
January 2024	Newly established QPS Public Information and Warnings Unit (PIWU) begin shadowing their QFES counterparts. Notice of election for 2024 local government elections published on 19 January 2024.
March 2024	Disaster Management and Other Legislation Amendment Bill 2024 introduced on 7 March 2024. Local government election day held on 16 March 2024.
April 2024	**The severe weather season, as defined for the review, ends on 30 April 2024.** Disaster recovery continues for many communities.
May 2024	Passing of legislation: • Emergency Services Reform Amendment Bill 2023 • Marine Rescue Queensland Bill 2023 • State Emergency Service Bill 2023

	• Disaster Management and Other Legislation Amendment Bill 2024. Provisions commence over the coming months, up to and including 1 July 2024. The AWS transitions to QPS.
June 2024	The *State Emergency Service Act 2024* and *Marine Rescue Queensland Act 2024* commence on 3 June 2024. Provisions of the *Emergency Services Reform Amendment Act 2024* commence on the same date. The Minister for Police and Community Safety takes formal ministerial responsibility for the SES. The SES transitions to QPS as an independent entity, and MRQ is established as an entity within QPS. The Queensland units of the Volunteer Coast Guard and Volunteer Marine Rescue have been invited to join in a staged process commencing July 2024. The State Disaster Management Group (SDMG) is formally established through amendments to the Disaster Management Act.
July 2024	Provisions of the *Disaster Management and Other Legislation Amendment Act 2024* commence on 1 July 2024. The Queensland Fire Department is established, replacing QFES. Queensland Fire and Rescue (QFR) and Rural Fire Service Queensland (RFSQ) are established as distinct fire services under the *Fire Services Act 1990*, which is renamed from the *Fire and Emergency Services Act 1990*. Amendments to the Disaster Management Act clarify the role of the QPS Commissioner as chief executive. Release of an addendum to the Queensland SDMP to reflect legislative and machinery of government changes.

About the review

On 18 April 2024, the Minister for Police and Community Safety tasked the IGEM to conduct the 2023–24 Severe Weather Season Review (the review). The review included any significant weather events, such as severe storms, tropical cyclones, tropical lows, flooding and bushfires, between 1 October 2023 and 30 April 2024.

Section 16C of the Disaster Management Act outlines the legislated functions of the Office of the IGEM. The review was conducted in accordance with those functions.

Purpose

The purpose of the review was to assess the effectiveness of preparedness, response and transitional arrangements and activities, understand the communities' awareness and understanding of their local disaster management arrangements, and identify enhancements to inform and ensure continuous improvements in Queensland's disaster management arrangements. The scope of these enhancements was bound by the Standard for Disaster Management in Queensland (the Standard) and other relevant doctrine.

Standard for Disaster Management in Queensland

The Standard establishes the outcomes to be achieved by all entities involved in Queensland's disaster management arrangements. It consists of shared responsibilities, outcomes, accountabilities and indicators to support continuous improvement. The Standard focuses on outcomes rather than setting a minimum standard, and it moves away from a traditional compliance tool and towards enhancing performance and achieving shared system-wide goals set by the sector. The Office of the IGEM developed and maintains the Standard under sections 16C(d) and 16N(1) of the Disaster Management Act.

Scope

The scope of the review included any significant weather events in Queensland between 1 October 2023 and 30 April 2024. These included:

- the 12 events during the period for which DRFA was activated
- additional severe weather events that affected Queensland communities that the review became aware of, including extreme heatwaves and Tropical Cyclone Lincoln.

The terms of reference (Appendix B) directed that the review assess:

1. the effectiveness of preparedness, response and transitional arrangements and activities undertaken by Queensland Government (including government-owned corporations and statutory bodies), relevant local governments, Commonwealth and other agencies engaged in operations in all of the Local Government Areas
2. the timing and effectiveness of new Australian Warning System (AWS) messaging that were issued to the community during the events

3. the communities' awareness of their local disaster management plans and the anticipated and/or expected activities of the state's disaster management arrangements (locally led, regionally coordinated, State facilitated, and Commonwealth supported activities)
4. the coordination and deployment of personnel and equipment.

Out of scope

The scope of the review did not include:

- weather events outside the period
- communities not impacted by the severe weather events
- prevention/mitigation
- recovery, beyond the transition from response to recovery
- assessment of the effectiveness of the operations of Commonwealth agencies
- disaster recovery funding policies, processes and arrangements
- insurance
- land use planning
- building codes.

Methodology

The review brought together the intent of the Queensland Disaster Management 2016 Strategic Policy Statement and the principles of the Emergency Management Assurance Framework, and aligned analysis to the Standard and the terms of reference. The methodology outlines the minimum requirements for IGEM reviews.

The review was conducted according to Queensland's disaster management doctrine as it existed during the 2023–24 severe weather season. Some aspects of the doctrine have since been updated, reflecting the transitional state of Queensland's disaster management arrangements during and after the season.

The report contains observations, insights and recommendations, as described below.

- **Observation:** a record of a noteworthy fact or occurrence that someone has heard, seen, noticed or experienced as an opportunity for improvement or an example of good practice and shared with the review.
- **Insight:** A deduction drawn from analysis of the data gathered. It suggests further consideration to contribute to reinforcing positive behaviour or changing practices. It defines the issue not the solution.
- **Recommendation:** A proposed course of achievable action to either reinforce good practice or address an area for improvement.

Monitoring of the implementation of accepted recommendations occurs through the Office of the IGEM's monitoring, evaluation and reporting program, discussed later in the report.

Lines of inquiry

From the terms of reference (Appendix B), the review developed three lines of inquiry in relation to the 2023–24 severe weather season.

1. **Preparedness, response and transitional arrangements:** This line of inquiry assessed the effectiveness of preparedness and response by governments and other agencies in affected local government areas, including the coordination and deployment of personnel and equipment. It also assessed transitional arrangements and activities. For the purpose of this line of inquiry, 'transitional arrangements and activities' was scoped to include the transition of responsibilities between agencies (intra-level and between levels of Queensland's disaster management arrangements), focusing on the transition from response to recovery.
2. **Warnings:** This line of inquiry assessed the warnings that were issued to community members and the effectiveness of those warnings. Although the terms of reference focused on the AWS, the review also considered other warning delivery methods and communication channels that were used during the 2023–24 severe weather season, including the Emergency Alert (EA) system, disaster dashboards and opt-in messaging systems.
3. **LDMPs and community understanding and expectations:** This line of inquiry assessed the impacted communities' awareness of their LDMPs as prepared by local governments in accordance with section 57 of the Disaster Management Act, and the communities' anticipated and/or expected activities of the state's disaster management arrangements.

The data collection and analysis activities of the review were prioritised and coordinated through these lines of inquiry. Throughout the review process, it became clear that many of the issues arising from the 2023–24 severe weather season were complex and overlapped across multiple lines of inquiry. In such instances, efforts have been made to acknowledge the overlap while including the discussion in the most relevant section or sections of the report.

Selection of focus events

DRFA was activated in response to 12 events during the severe weather season (Figure 1). From those, the following five focus events were selected based on the severity of impact on communities, geographic spread, community profiles and the mix of hazards:

- Southern Queensland bushfires
- Northern Queensland bushfires
- Tropical Cyclone Jasper, associated rainfall and flooding
- South Queensland severe storms and rainfall
- Tropical Cyclone Kirrily, associated rainfall and flooding.

The review determined that the focus events would provide data, information and observations that would be relevant and applicable to all the DRFA-activated disasters. The focus events were used to identify the priority locations for data collection activities including community forums and disaster management

practitioner and stakeholder meetings. Importantly, submissions were sought from all impacted areas as well as the non-impacted local governments that may have provided support.

Engagement

The review team travelled a total of 11,700 kilometres to meet with practitioners, government representatives and community members.

The Office of the IGEM engaged and communicated with key stakeholders in ways that:

- were **locally focused**, working closely with local governments and local stakeholders to ensure communications worked best for their communities
- incorporated **different perspectives**, through engagement with state and Commonwealth agencies and entities
- involved **two-way processes**, through which stakeholders could easily contact the Office of the IGEM and receive a timely response.

Community and stakeholder submissions

The review invited submissions from those involved with, or impacted by, a significant weather event during Queensland's 2023–24 severe weather season. The submissions process was open to individuals, community groups, non-government organisations (NGOs), not-for-profits, government-owned corporations and statutory bodies, elected officials, all local governments, and state and federal agencies and departments. The review actively encouraged submissions through community forums, social media and direct correspondence. A total of 345 letters were sent to provide all potential stakeholders with information about the review, the terms of reference and how to lodge a submission. In total, 118 submissions were received (Table 3). The submissions portal was closed at 5pm on Friday 30 August 2024.

Table 3: Submissions received

Source	Number of submissions
Community members	50
Local governments	18
Queensland Government entities	15
Australian Government	4
Other — not-for-profit, industry, business, community groups	31
Total	**118**

Stakeholder meetings

The Office of the IGEM consulted practitioners, executives and other representatives of:

- 15 local governments
- three district disaster management groups (DDMGs)
- five Queensland Government agencies
- Australian Red Cross, LGAQ and Volunteering Queensland.

Executive consultation included meetings with members from the QPS, QFD, DPC, QRA and LGAQ.

Community forums

The Office of the IGEM held 14 community forums in 12 disaster-impacted local government areas. While all local governments were formally advised of the intention to conduct the community forums, the locations for these events were selected based on consultation with local governments of those most affected by the five focus events. Table 4 provides details on the forum locations and dates and the relevant severe weather events.

Table 4: Community forums

Location	Local government area	Date	Severe weather event/s in local government area
Jimboomba	Logan	24 June 2024	Southern Queensland bushfires South Queensland severe storms and rainfall
Helensvale	Gold Coast	1 July 2024	South Queensland severe storms and rainfall
Mount Tamborine	Scenic Rim	2 July 2024	Southern Queensland bushfires South Queensland severe storms and rainfall Tropical Cyclone Kirrily, associated rainfall and flooding
Cape Tribulation	Douglas	8 July 2024	Tropical Cyclone Jasper, associated rainfall and flooding
Degarra	Douglas	10 July 2024	Tropical Cyclone Jasper, associated rainfall and flooding
Knowledge Tree, Wujal Wujal	Wujal Wujal	11 July 2024	Tropical Cyclone Jasper, associated rainfall and flooding
Rossville	Cook	12 July 2024	Tropical Cyclone Jasper, associated rainfall and flooding Northern Queensland bushfires
Tara	Western Downs	15 July 2024	Southern Queensland bushfires Tropical Cyclone Kirrily, associated rainfall and flooding
Wallangarra	Southern Downs	17 July 2024	Southern Queensland bushfires Tropical Cyclone Kirrily, associated rainfall and flooding
Millmerran Downs	Toowoomba	18 July 2024	Southern Queensland bushfires The Pines and Condamine Farms bushfire Tropical Cyclone Kirrily, associated rainfall and flooding
Mossman	Douglas	5 August 2024	Tropical Cyclone Jasper, associated rainfall and flooding
Mareeba	Mareeba	6 August 2024	Tropical Cyclone Jasper, associated rainfall and flooding Northern Queensland bushfires
Holloways Beach	Cairns	7 August 2024	Tropical Cyclone Jasper, associated rainfall and flooding
Innisfail	Cassowary Coast	29 August 2024	Tropical Cyclone Jasper, associated rainfall and flooding

Attended by a total of 355 people, these forums aimed to provide an opportunity for disaster-affected people to tell their stories and express their views in a safe and respectful environment. Attendees were empowered to share how the severe weather events impacted them as individuals and as a community. The forums also provided an opportunity for attendees to share their experiences and insights about their awareness of disaster management plans, the effectiveness of the new AWS messaging and the effectiveness of preparedness, response and transitional activities. This allowed the review team to

consider the effectiveness of disaster management in Queensland from a community sentiment perspective.

Every forum was facilitated by an independent provider who recorded attendee registrations, managed discussions to ensure the conversation was directed towards the review's terms of reference and that all voices were heard, kept an account of the discussion, identified key themes and concerns. Each forum was also attended by representatives from the Australian Red Cross, who provided psychological first aid and psychosocial support to attendees, as well as Community Recovery staff from the Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts (DTATSIPCA) who assisted community members with information and referrals to available support services. The QRA also supported some of the forums to assist attendees seeking further information relating to disaster recovery support arrangements from government.

The community forums were promoted through a range of approaches, including paid radio, digital and print media advertising in the target communities, along with social media posts on the Office of the IGEM's channels (Facebook and LinkedIn) and council channels. Each council received a communications kit that included social media text and tiles and a fact sheet, poster and flyer, and councils were encouraged to promote the forums within their communities. All communications directed community members to an Office of the IGEM webpage with additional information about the review and forums and a digital form for forum registrations.

No recordings or identifying photographs were taken at community forums, to help encourage open discussion in a safe environment. Critically, the IGEM attended all community forums, emphasising the importance of attendees' contributions, providing assurances of their anonymity, and encouraging them to make submissions to the review. The insights presented by the attendees can be found in the Community insights section.

Research

Research commissioned for the review included:

- community sentiment research into communities' understandings and actions in relation to weather warnings and their LDMPs, which involved 802 telephone interviews of community members
- linguistic analysis of messaging for warnings and alerts.

An overview of the community sentiment research objectives and methods is provided at Appendix D. The results have been considered throughout the review and incorporated into the report, with the key themes detailed in The impacted communities. The linguistic analysis is detailed in the Warnings section of the report, with guidance for practitioners at Appendix E.

Other reviews and reports

The review also considered other relevant available reviews and reports, such as the:

- after action review report prepared by Forge Consulting for the Cairns Local Disaster Management Group and Cairns Regional Council
- After Action Review of Australian Warning System implementation in Queensland Report, facilitated by the National Emergency Management Agency (NEMA)
- Australian Government's National Defence: Defence Strategic Review 2023.

Queensland's disaster management arrangements

Queensland's disaster management arrangements are established in accordance with the Disaster Management Act. They are characterised by, and implemented through, strong partnerships between government, government-owned corporations, NGOs, not-for-profits, industry and communities. The arrangements recognise and promote collaboration to ensure a comprehensive approach to disaster management through the effective coordination of disaster risk planning, services, information and resources across four phases (prevention, preparedness, response and recovery). This ensures a balance between the reduction of risk and the enhancement of community resilience, while ensuring effective response and recovery capabilities. The arrangements take an all hazards approach, which assumes that the functions and activities used to manage one event are likely to be applicable to a range of events.

Locally led disaster management is recognised as the best approach across Queensland's disaster management arrangements, where local governments are best placed to know the hazards and risks for their area, their communities' needs, local networks and locally available resources. District and state disaster management groups provide resources and support to help local governments carry out disaster operations.

The QPS has primary responsibility for state disaster management functions. This responsibility progressively shifted from QFES to QPS during and after the 2023–24 severe weather season as a result of several reviews and subsequent reforms. Details of the transition and other reforms are discussed in the section on Changes and other complexities that affected the severe weather season. The information below outlines the arrangements that were in place during the season.

Legislation, plans and guidelines

The Disaster Management Act forms the legislative basis for disaster management in Queensland, in conjunction with the following:

- the Disaster Management Regulation
- the Queensland Disaster Management 2016 Strategic Policy Statement
- the Standard, last updated in June 2021
- the SDMP, released in 2018 with an interim update released in April 2023
- the PPRR DM Guideline, dated January 2018
- district and local disaster management plans
- any other relevant disaster management guidelines and toolkits.

An overview of each document is provided at Appendix F. Other relevant legislation, policies and plans are listed at Appendix G.

A review of Queensland's disaster management doctrine, which incorporates the SDMP and PPRR DM Guideline (and its related toolkits), began in May 2024. The QPS is leading the SDMP and PPRR DM

Guideline Review and Renewal Program, with input from other relevant entities and stakeholders across the state. The updated documents are due for release in October 2025.

Recommendation 1: The Inspector-General of Emergency Management recommends that by October 2025 the Queensland Police Service, as part of the 'State Disaster Management Plan (SDMP) and the Prevention, Preparedness, Response and Recovery Disaster Management Guideline (the Guideline) Review and Renewal Program', provide clarity in the following key areas of the doctrine:

- evacuation terminology and procedures
- audience and purpose of local disaster management plans
- parameters for sharing of personal information during and after disasters
- transitional arrangements — roles and responsibilities when moving from response to recovery operations
- relief terminology.

Disaster management structure

Queensland's disaster management arrangements allow for progressive escalation of support and assistance as depicted in Figure 4.

A local government, through its local disaster management group (LDMG), has primary responsibility to manage a disaster at the community level. Each local government is responsible for preparing an LDMP, with the support of the LDMG.

Queensland has 23 disaster districts, shown in Figure 5. Each disaster district comprises one or more local government area. Section 22 of the Disaster Management Act establishes a DDMG for each disaster district. The DDMG provides coordinated support when requested by a local government through its LDMG.

Similarly, if district capacity is exceeded, requests for assistance can be escalated to the state via the State Disaster Coordination Centre (SDCC). Disaster response coordination, including coordinated and efficient deployment of State Government resources, is provided through the SDCC and State Disaster Coordination Group (SDCG). The SDCC and SDCG carry out activities in line with the strategic leadership and decisions provided by the QDMC. The QDMC is established by section 17 of the Disaster Management Act. This committee provides senior strategic leadership in relation to disaster management across all phases and facilitates communication between the Premier, relevant Ministers and Directors-General before, during and after disasters.

A fourth level, the Australian Government, is also included in the arrangements, recognising that Queensland may need to seek Australian Government support in times of disaster. If state resources prove insufficient or inappropriate, support from a range of Australian Government agencies can be sought through the NEMA (National Situation Room), within the Department of Home Affairs.

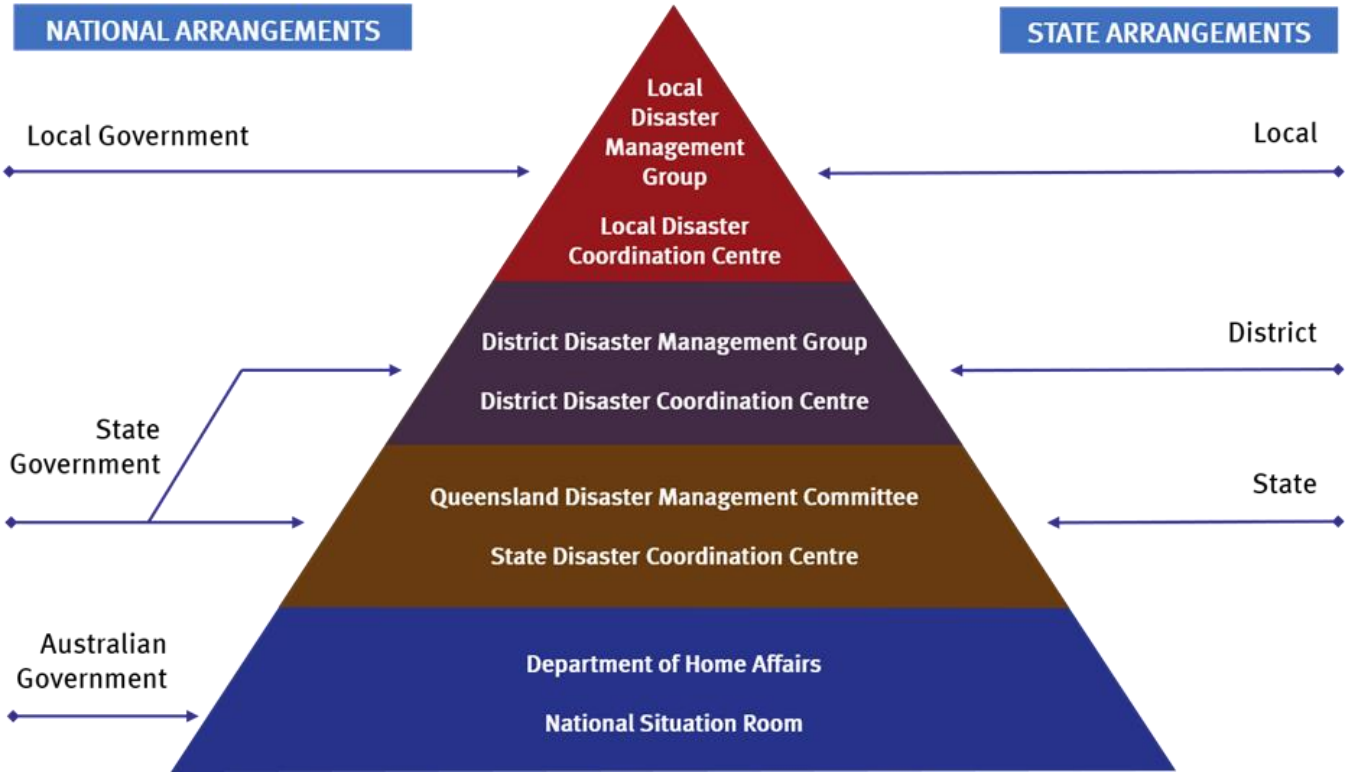

Figure 4: Queensland's disaster management structure

The PPRR DM Guideline details the management and coordination structures within Queensland's disaster management arrangements:

- **disaster management groups** that operate at local, district and state levels and are responsible for the planning, organisation, coordination and implementation of all measures to mitigate/prevent, prepare for, respond to and recover from disaster events
- **coordination centres** at local, district and state levels that support disaster management groups in coordinating information, resources and services necessary for disaster operations
- **disaster management plans**, developed to ensure appropriate disaster prevention, preparedness, response and recovery at local, district and state levels
- **functional lead agencies** through which the disaster management functions and responsibilities of the State Government are managed and coordinated
- **hazard-specific primary agencies**, responsible for the management and coordination of combating specific hazards
- **specific-purpose committees**, either permanent or temporary, established under the authority of disaster management groups for specific purposes relating to disaster management.

Figure 5: Queensland local government areas and disaster districts

Disaster management groups and functions

The Disaster Management Act outlines the functions of disaster management groups (local, district and state), local government and the Queensland Police Commissioner (known as the 'chief executive' under previous versions of the Disaster Management Act, prior to 1 July 2024).

Table 5 provides a general overview of disaster management groups at each level. A full list of these functions is provided at Appendix H. More information about the roles, responsibilities, members and procedures of each group is available in the PPRR DM Guideline and supporting toolkit, noting that these documents are under review with updates due to be released in October 2025.

Table 5: Disaster management groups in Queensland

Local disaster management groups (LDMGs)	An LDMG supports and coordinates disaster management activities for the respective local government area. This group is a requirement under section 29 of the Disaster Management Act, with specific functions around: • effective disaster management, disaster operations and planning • adherence to state policies and procedures • community awareness • communication with the relevant district group and other local groups. These functions are listed in Appendix H and section 30 of the Disaster Management Act. The LDMG chair must be a local government councillor, appointed by the relevant local government under section 34 of the Disaster Management Act and prescribed by section 10 of the Disaster Management Regulation. LDMG members are appointed under section 33 of the Disaster Management Act. Members should have the necessary expertise or experience and delegated authority to assist with a comprehensive, all hazards, all agencies approach to disaster management. In addition to the legislated members, LDMGs may appoint members or advisors to ensure adequate capability and capacity for specialist functions of disaster management.
District disaster management groups (DDMGs)	DDMGs are responsible to the State Government, through the QDMC, for all aspects of disaster management capabilities and capacity for their district. A DDMG has specific functions for its disaster district, similar to those of an LDMG for its local area. These functions are outlined at Appendix H and in section 23 of the Disaster Management Act. DDMG members, appointed under section 24 of the Disaster Management Act, are predominantly: • representatives of State Government agencies responsible for the hazards and functions of disaster management • representatives from local government within the district. The chairperson of a DDMG is appointed by the Police Commissioner under section 25 of the Disaster Management Act and section 6 of the Disaster Management Regulation. Temporary DDMGs may also be formed in specific circumstances. Under section 28A of the Disaster Management Act, if the chairperson of the QDMC is satisfied that a disaster event has happened, is happening or is likely to happen, in two or more adjoining disaster districts, the chairperson may, after consulting with the police commissioner, establish a temporary DDMG. The temporary DDMG is responsible, as directed by the chairperson, for the management of the disaster for the districts.

Queensland Disaster Management Committee (QDMC)	Section 17 of the Disaster Management Act establishes the QDMC to provide strategic leadership for disaster management and disaster operations for the state and to coordinate State and Commonwealth assistance for disaster management and disaster operations. The full functions of the QDMC are set out in Appendix H and section 18 of the Act. The QDMC is chaired by the Premier of Queensland and comprises a core group of Ministers, supported by assisting officials. Members are appointed under section 19 of the Disaster Management Act and prescribed by section 2 of the Disaster Management Regulation.
State Disaster Management Group (SDMG)	On 3 June 2024, the SDMG was formally established by section 21F of the Disaster Management Act, after a recommendation in the IGEM's Review of QDMA. The role of the SDMG is to provide rapid and agile strategic leadership in early disaster management issues, when the QDMC is not convened. It is not intended to disrupt the existing disaster management groups under the Disaster Management Act, but rather to complement and support the QDMC. In circumstances where a significant disaster event is likely to occur or has occurred, the Chairperson of the QDMC may decide to convene the QDMC rather than the SDMG. The SDMG has the following functions in early disaster management when QDMC is not stood up: • to provide timely strategic oversight of, and support for, disaster management and disaster operations for the State • to consider strategies and policies for managing a disaster and to give advice to the QDMC about implementing the strategies and policies • other functions given to the group under the Act. An interim group, based on the recommended functions and governance of the SDMG, met twice during the 2023–24 severe weather season, before being formally established.
State Disaster Coordination Group (SDCG)	The SDCG was originally established to implement, where practical, strategic decisions of the QDMC. Following a review of Queensland's disaster management arrangements in 2023, the IGEM recommended the SDCG focus on response and the aspects of preparedness for, and resilience in, response. The SDCG is responsible for coordinating operational response activities for disasters in Queensland at the state level. The SDCG also coordinates preparedness and resilience activities for disaster response operations, including support for local and district disaster management groups. Members and standing invitees must have a clear understanding of their agency's capabilities and hold authority to make high-level decisions and commit resources on behalf of their agency or the ability to seek a rapid decision from their chief executive.
State Recovery and Resilience Group (SRRG)	An interim SRRG began operating during the 2023–24 severe weather season, after the IGEM's Review of QDMA recommended that an SRRG 'be established … to focus on disaster management functions outside of response'. Terms of reference for the group were approved on 8 July 2024. The SRRG supports the QDMC in its recovery efforts and resilience building of Queensland communities. The SRRG is chaired by the QRA Chief Executive Officer (CEO). Membership includes Directors-General of the five Functional Recovery and Resilience Groups, the QPS Commissioner, the State disaster coordinator (SDC) and State recovery coordinator (SRC), if appointed. Senior representatives from other state agencies and authorities can be invited on an as-needs basis, depending on the type of disaster experienced and the recovery requirements of the impacted communities (QRA 2024d).

The impacted communities

Approximately 85 per cent of Queensland's local government areas and their communities were impacted by disasters in the 2023–24 severe weather season. 'Safeguarding people, property and the environment from disaster impacts, and empowering and supporting local communities to manage disaster risks, respond to an event and be more resilient' are the objectives of the Queensland Disaster Management 2016 Strategic Policy Statement. Accordingly, all of the Standard's shared responsibilities are relevant when entities, including the community, must prepare for, respond to, or recover from a disaster.

In undertaking this review, it is noted that the experiences of the community were as wide ranging as the disasters that impacted the state itself. Individuals' experiences were dependent on a large number of factors including past experience, education and awareness, access to information before, during and after the event, type of event, severity of event, and skills and experience of local disaster management practitioners and other stakeholders. This review has considered those experiences and identified learnings that can be used to inform and enhance the operation of the Queensland disaster management system.

Community experience

Through the review, community forum attendees were able to share, first-hand, their experiences in the disasters which affected them and their communities during the season. In the far north of Queensland that faced the impacts of Tropical Cyclone Jasper and associated rainfall and flooding, the review heard of multiple communities inundated with floodwaters. In Rossville and its nearby communities, water rose quickly, trapping people on roofs and in houses. One forum participant spoke of 18 people who were stranded on the roof of a local hotel and were 'panicking and thought they would drown', while two others clung to trees.

Participants at the Cape Tribulation community forum advised that there were major landslides which cut off road access to communities for 66 days, with others isolated for up to 115 days. Community members reported injuries, illness and running out of medication, and they relied largely on private operators to bring in food by boat. While in Degarra, the review heard of experiences where people were trapped overnight by floodwaters. One resident said she lost her clothing and clung to a palm tree frond on top of her roof all night. Community members praised the efforts of a local fisherman who braved the raging waters in search of residents stuck in or around their homes, saving many lives.

Across the Douglas Shire forums, long-term residents said the impacts were like nothing they had experienced. Some evacuated residents were unable to return home for months, internet and telephone services remained patchy, and some said their power was only restored in June 2024, six months after the event.

The Wujal Wujal community was severely affected by Tropical Cyclone Jasper and the subsequent flooding in December 2023. Like other communities, Wujal Wujal was prepared for the cyclone but not the unanticipated flooding and devastation of their town. Floodwaters trapped people on roofs without food as homes and buildings were inundated, and the Australian Defence Force (ADF) was deployed to evacuate

residents by air. Residents were displaced for up to four months, and they spoke of being unable to return to their town to help clean up their homes.

In Cairns and Innisfail, community forum attendees recounted similar experiences about the flooding after Tropical Cyclone Jasper. Many attendees commented that they felt they were prepared for the cyclone but not the amount of rain and subsequent flooding.

In the City of Gold Coast area, the community of Helensvale was among those affected by severe storms and rainfall between 24 December 2023 and 3 January 2024, resulting in severe property damage and disruption to services. Similarly, attendees at the Jimboomba and Mount Tamborine community forums spoke of the intensity of the storms which took many residents by surprise. Here, many community members contributed to immediate response efforts, helping to clear roads, supporting their neighbours and setting up their own place of refuge in a local hall. Many attendees said they would like to see more official or agency 'boots on the ground' to help with clean-up and recovery processes.

The review heard of the bushfires that threatened communities in both the north and south of the state. In Mareeba Shire, dangerous fires threatened Mutchilba on several occasions, with residents advised to seek shelter. Staff and students sheltered at schools when it became too dangerous to leave. Other affected communities in the shire included Irvinebank, Watsonville, Mareeba, Dimbulah and Biboohra. Meanwhile, participants at the community forums in Tara, Millmerran Downs and Wallangarra, in the Western Downs, Toowoomba and Southern Downs respectively, described the intensity of the bushfires which moved swiftly, causing confusion and panic. Tara was among the communities most affected by the southern Queensland bushfires in 2023, which tragically resulted in loss of life. Some attendees mentioned that some landowners chose to stay at their properties instead of evacuating, as they feared they would not be allowed to return for weeks.

Community insights

In line with the terms of reference, the review team engaged 'with impacted communities' to hear community members' experiences of what happened to them, so their views could be considered as part of the review. The communities' views are reflected in this section. As participants spoke about their experiences, insights were gathered and an understanding of the communities' expectations was developed by the review. The review notes that these community insights reflect the perspectives of community members engaged in the community forums and also those shared through written submissions.

Preparedness

Long-term residents of the impacted areas said they prepared for the expected effects of the disasters based on their past experiences of other cyclones, floods and bushfires. The Cape Tribulation community, for example, mentioned they were well prepared for the cyclone but not for the excessive amount of rain that followed or the extended loss of access via road, ferry or boat. Similar sentiments were echoed by other communities throughout Far North Queensland including Rossville, Degarra, Mareeba, Mossman,

Cairns (Holloways Beach, Machans Beach and Yorkeys Knob) and Innisfail. Some members of the communities accepted that it was not possible for the Bureau to provide comprehensive warnings about the level of rain experienced and that it would be impossible to adequately prepare for it.

Across communities affected by bushfires in the 2023–24 severe weather season, frustrations were expressed about the ability and/or willingness of landowners to carry out bushfire mitigations. Community members raised concerns about conflicting expectations between government and community, a perception of overly restrictive government policies and processes (often referred to as 'red tape'), and environmental protection. Communities said these factors made it more difficult for them to prepare land for the bushfire season. Some community members said they wanted to do more risk mitigation on their properties, such as hazard reduction burns and clearing trees from around their homes, access roads or driveways, but were told they could not or were given conflicting information from their local rural fire brigade, the RFS and council.

In some cases, no preparation took place at all, with some community members making a conscious decision not to alter vegetation or prepare their land for bushfire season. Some communities acknowledged the need for semi-rural and rural properties to be self-sufficient and recognised that many of the properties that were saved from fire were those where mitigation measures had been carried out.

Warnings

Some community members advised that they did not receive warnings, or the warnings received were untimely, confusing, irrelevant or conflicted with other messages. The review team heard concerns from many community members across the state, impacted by different hazards, that in their view they did not receive accurately or timely warnings. Some people told the review there were no warnings, while others said the warnings came too late or too early. For example, in the flooding that followed Tropical Cyclone Jasper, residents advised that their homes were already flooded before they received any warning to evacuate, while some received no warnings to evacuate. The review team heard similar accounts of not receiving warnings in relation to other events.

One community member told the review that the warning text messages they received on their mobile phone from two different sources, a local government opt-in system and EA, contained conflicting information. The community member said they received the messages at a similar time, making it hard to know which was correct and which to act on. They said the different sources and conflicting information eroded trust, and they believed many people would ignore warnings via text message in the future.

Telecommunications and power

Some community members indicated that they 'struggled' to receive warnings, access information or call for help. Difficulties were exacerbated when battery-powered devices went flat and mobile phone towers ran out of back-up power. The review heard community members, particularly those who had lost power and were isolated due to floodwaters or blocked roads, could not access online information or inform others about the impacts in their area. When bushfires started in the Wallangarra area, community members who

still had phone service called each other and neighbours to tell them to evacuate, but they were unable to contact everyone.

Some communities said the limited infrastructure in the area made things more difficult. In Millmerran Downs, the community advised that the single mobile phone tower in their area was insufficient during a disaster and they thought that its capability was impacted by the thick smoke of the nearby bushfires.

In multiple locations, several residents reported that during heavy rain and flooding, satellite phones were the only way to communicate with the 'outside world' to request rescues:

> *"18 people were trapped on the Lion's Den Hotel. All would have perished if not for a backpacker's satellite phone leading to relatives in Scotland or others posting on social media, while calls to local emergency services went unanswered.*

Community members raised the limited telecommunications coverage as a reason for not receiving warnings in some areas. Some more rural and remote communities raised concerns about what would happen to their mobile phone coverage when the 3G network is turned off later this year, which they believe is more reliable than 5G in their area.

Evacuation

Residents reported that some evacuation shelters were locked during severe weather events, with some people setting up community shelters at alternative locations. Additionally, the review heard in a community forum that there was insufficient planning for animals, with misinformation that animals were not allowed in shelters causing many people to leave pets behind or leave the shelter, only to return to the shelters soon afterwards when contrary advice was given about the evacuation of pets.

Some communities said they received mixed messaging in relation to evacuations. The review heard of confusion in one local government area when the council advised that no evacuation was necessary, although an elected official undertook door-knocking that suggested people do evacuate.

Residents of one flood-affected community said more needed to be done to identify and assist people with disability to evacuate early, as disability support workers, family and carers were unable to reach the people they cared for once roads were cut:

> *"There was a gentleman in a wheelchair waist deep in water [who was only helped] after grassroots action. No one was door knocking to check on residents.*

Coordination and communications

Multiple communities identified a lack of central coordination and communication in response and early recovery measures during the 2023–24 severe weather season. Communities that had been isolated for

extended periods gave examples of receiving supplies without notice or receiving only partial information about incoming support. In one community isolated by floodwaters, residents said they were told a helicopter was coming but they did not know where or when it would arrive, or who to contact for this information. They also commented that when the initial helicopters arrived, there were no supplies onboard.

Another isolated community spoke of receiving 140 drums of fuel that arrived on a barge with little notice and with no one in authority to lead or coordinate the unloading. They said four members of the community then spent nine hours unloading the drums in waist-deep water. The community said they recognised that the scale of the event was beyond the capabilities of council to manage, given the impacts across the local government area at the time. The community expressed they needed somebody 'on the ground' to help with operations and act as a conduit for the community. The community said they were told they would be provided with someone to assist, but this support never eventuated.

Several communities described feeling forgotten or abandoned by emergency services, local government, State Government agencies or support services. Residents spoke about needing to advocate strongly for recognition and aid, as they felt that resources were directed elsewhere, leaving them without necessary support. Some residents reported being aware of assistance being provided to neighbouring communities, causing confusion as to why the same support was not available to them. Perceived gaps in coordination and communication, particularly about access difficulties, further contributed to a sense of abandonment among some communities.

Several communities expressed frustration with the timing of support, highlighting a widespread expectation for immediate assistance from agencies. This delay further exacerbated their feelings. Some community members were also disappointed by some response efforts that they felt were not obviously directed to support the community. Other residents spoke to alleged commitments made during visits that they said went unfulfilled.

Other communities said they wanted more information from local government about what do before, during and after severe weather events. The review heard that one council addressed only those members of the public who were capable of attending the library or who had access to the internet and could review the disaster dashboard and social media, leaving many residents without sufficient information.

Many residents perceived police assistance to be unsympathetic and focused more on maintaining order than providing support. This lack of empathy was reflected in instances where locals said they were treated as potential criminals rather than as victims needing support, such as when a resident was searching for their belongings. Residents also reported seeing police carrying firearms during traditional ceremonies and feeling that they were being monitored rather than supported. The review acknowledges that the carriage of accoutrements by officers is an important and integral part of their everyday equipment for their safety and that of the community, however it is important that the perception raised by some community members is raised for information.

Some community members felt that government agencies and external organisations failed to provide adequate support and communication. Some communities experienced further disconnect between

authorities and the local population, reporting that accommodation and vehicles were available for emergency services, while the local community were left without essential infrastructure or resources.

Insight 1: Documented communication protocols between LDMGs/local governments and the community will help improve information flow and community support.

Community-led actions

In all community forums, positive stories emerged about neighbours helping neighbours. Some community members appeared to support an approach of shared responsibility that involved them directly in disaster response, acknowledging that 'disaster resilience is a responsibility shared by individuals, households, businesses and communities, as well as governments, and is not solely the responsibility of emergency services'. Some participants identified an additional desire for the government to provide tools and resources to support community-led efforts, but the levels of willingness and the understanding of the shared responsibility model varied across the state.

One community forum participant highlighted that governments at all levels talked about building resilience but noted this did not align when 'financial handouts are the first course of action' in a disaster. A council member echoed this mixed-message sentiment:

> *"We spend all this money trying to build resilience but, at the end of the day, we say 'but here's your handout'.*

Insight 2: The education and promotion to the community about what to do after a disaster will better prepare the community and facilitate community-led actions.

Community expectations around disaster management

Shared responsibilities underpin disaster management in Queensland. They are the interconnected responsibilities that collectively make up the disaster management system in Queensland. These responsibilities overlap with the role of the community to collectively contribute to their safety through local capability, capacity and community self-reliance. When communities understand these roles and responsibilities, including expectations about the support that is available to them, they can make informed choices and act on those choices. Of the outcomes in the Standard, those most relevant to the community's shared responsibility in disaster management include:

- Managing risk
    - Outcome 1 — There is a shared understanding of risks for all relevant hazards
    - Outcome 2 — Risk is managed to reduce the impact of disasters on the community

- Community engagement
    - Outcome 5 — Entities proactively and openly engage with communities
    - Outcome 6 — The community makes informed choices about disaster management, and acts on them
- Capability integration
    - Outcome 7 — Resources are prioritised and shared with those who need them, when they need them
- Operations
    - Outcome 9 — Response operations minimise the negative impacts of an event on the community and provide the support needed for recovery
- Collaboration and coordination
    - Outcome 12 — Entities proactively work together in a cooperative environment to achieve better results for the community
    - Outcome 13 — A collaborative culture exists within disaster management.

The review heard of many community expectations, some were realistic, while others were either unrealistic or unachievable under the prevailing conditions. For example, there was an expectation that there would be a reliable presence and support from emergency services and the ADF during disasters. In some locations this was not readily available due to restricted access caused by road closures due to landslips and washouts, ongoing severe weather and restricted resource availability capable of being able to gain access.

Other community expectations, based on the feedback presented during the community forums included:

- clear and consistent communication from councils about actions to take before, during and after a disaster
- central coordination, communication and command in response and recovery efforts
- reliable and uninterrupted power and telecommunications services
- provision of necessary resources, such as satellite phones and accessible evacuation shelters
- appropriate services available at evacuation centres and/or places of refuge
- early identification and assistance for people with vulnerabilities, such as those with disability, to ensure safe evacuation
- consideration of local resources and capacity when planning evacuations and relocations
- immediate post-event information to help with decision-making regarding rebuilding, insurance and property management
- equitable distribution of resources and assistance across all affected areas
- effective coordination and storage for community donations, including furniture, food and clothing
- fulfilment of promises from government and council for assistance, especially for clean-up and recovery efforts.

Community expectations of local and state government

Community sentiment research commissioned for the review explored community expectations of assistance from local and state governments before, during and after extreme weather events. The following highlights the most common responses:

- **Before an event:** Warnings (56%), general information (44%) and preparedness advice (31%) were the most widespread expectations from respondents for how government should help them prepare for severe weather. Expectations for physical items or practical support were limited to around one in 10 respondents. These included sandbags and equipment to protect properties (15%), physical help to prepare house and/or yard (10%), food and water supplies (6%), free items for emergency kits (5%) and financial help to prepare properties (4%).
- **During an event:** Expected assistance from local or state government during severe weather was general information and updates (41%) and emergency services help (34%). Other support services included evacuation shelters (28%) and warnings and/or weather predictions (23%).
- **After an event:** When asked what support they expected to receive after severe weather, respondents were most likely to mention tree-lopping and waste removal or clean-up (39%), help for residents cleaning up their own properties (37%), emergency funding (36%), infrastructure repairs (29%), and advice on how to clean up (23%). This varied between regions, for example, 51 per cent of respondents from Townsville expected clean-up help from government, whereas only 8 per cent of respondents from Warwick had the same opinion. Meanwhile, 30 per cent of respondents from the Gold Coast expected emergency services support after an event, however no respondents from Bundaberg mentioned this, and only 5 per cent in Innisfail.

Community understanding of disaster management arrangements

While the review heard of differing levels of awareness of LDMGs, it was consistently raised by local governments and confirmed in community forums across the state that people in Queensland are generally unaware of the structure of Queensland's disaster management arrangements and the role the Australian Government plays in the most significant events. One council said their residents were likely to be aware that local government takes the lead role, but not the details around additional support mechanisms. It was further indicated that the level of understanding may also be limited when it came to the correct process for requesting ADF personnel.

Many councils said there was not a wide understanding among the community of the LDMG and local government's role in disaster management. They noted a misalignment between community expectations and reality, even among those who were aware of the LDMP and Queensland's disaster management arrangements. One council member said they believed their community did not differentiate between levels of government but that they tended to see government as one entity. Another said their community focused more on expectations than understanding:

> *"I believe that they expect that we're the ones that are organising helicopters to go and pick people up off roofs and swiftwater rescue and those sorts of things. Also, a lack of understanding as to what our resources are and believing that the LDMG has all these physical resources when the actual fact is all we're doing is coordinating agencies who have the resources.*

From the community sentiment survey, 51 per cent of respondents rated their knowledge of disaster management arrangements as extensive (10%) or good (41%), while 31 per cent felt they had a limited understanding and 17 per cent felt they had no knowledge at all. It is reasonable to conclude, therefore, that if there is limited to no understanding of LDMPs, LDMGs and their role in responding to disaster, community members are even less likely to understand state or federal disaster management arrangements.

Observation: Many local governments do not think their communities understand the disaster management arrangements.

Community awareness of local disaster management plans

The review assessed impacted communities' awareness of their LDMPs and communities' anticipated and/or expected activities of the state's disaster management arrangements.

The Standard establishes the need for a shared understanding of how the impact of disasters will be managed and coordinated, and notes that plans and planning are most effective when communities are included in the process and have access to the final products. The Standard includes four outcomes that directly relate to the plans and planning:

- Outcome 3 — There is a shared understanding of how the impact of disasters will be managed and coordinated
- Outcome 4 — Plans outline and detail how the impact of disasters on the community will be reduced
- Outcome 5 — Entities proactively and openly engage with communities
- Outcome 6 — The community makes informed choices about disaster management, and acts on them.

In accordance with section 57 of the Disaster Management Act, 'a local government must prepare a plan (a ***local disaster management plan***) for disaster management in the local government's area'. Section 58 of the Disaster Management Act states that an LDMP 'must be consistent with the disaster management standards and disaster management guidelines', while under section 60(1) of the Disaster Management Act, a local government must ensure a copy of its LDMP is available for inspection, free of charge, by members of the public at the local government's head office and on its website. While local governments must make their LDMPs publicly available, neither the Disaster Management Act nor the PPRR DM

Guideline specifies the community as the audience of an LDMP or states a need for it to be written in a way that is suitable for the community.

LDMPs may incorporate sub-plans that address specific vulnerabilities to the area as identified during risk assessments, and methods and protocols relating to particular supporting activities. Sub-plans could include a communication plan, resupply plan, evacuation plan, transport plan and recovery plan.

Overall, the review revealed low levels of awareness about LDMPs among community members. Most local-level practitioners involved in the review believed few community members were aware of the LDMP, which resonated with comments from participants at community forums and results from the community sentiment research. This research found that:

- 26 per cent of survey respondents reported they had read their LDMP
- readership of the plan was higher among respondents in Cairns, Townsville, and those affected by Tropical Cyclone Jasper
- readership was higher among those who rated their knowledge of disaster management arrangements as good or extensive.

The review suggests that community members see themselves as an audience of their LDMP. In the community research conducted, 86 per cent of survey respondents expected the LDMP to be relevant or have information of use to individual residents. However, views about its usefulness were more mixed. Of the respondents who had read the plan, 75 per cent said the LDMP was helpful to them in preparing for the severe weather event they experienced. Public submissions were more critical.

The review received four public submissions that criticised LDMPs for lacking important information for the community. One community member said that while they were familiar with the LDMP, it lacked evacuation details, including where to go. Another community member reported that their LDMP did not identify local risks or list priorities, and that some parts of the plan were not available to residents. One community group said the quality of their LDMP was poor when compared to the LDMPs of neighbouring areas and that it lacked information for isolated communities. They explained that the LDMP directed community members to a website to read the shelter management sub-plan, which was branded as a document ‘not for public release’.

Most local governments involved in the review process believed their LDMP was written for the LDMG and/or the agencies involved in disaster management, not the community:

> *“The LDMP is a plan for agencies dealing with the disaster, not for the community. There is little value in getting the community to have input into the plan, because they get their information from community engagement information, and [by] creating expectations on what government will do and timeframes, you dilute resilience.*

Some local governments reported that they do not think their community understands the LDMP, including its purpose and how to use it.

Some local-level practitioners considered their LDMP to be a legislative requirement with little practical purpose, with comments including that it is 'just a legislated requirement' or that it 'ticks requirement boxes and that's it'. Many local government practitioners reported that they are more likely to use LDMP sub-plans during a disaster. One council said this was because the LDMP was a large document with a lot of information and messaging that became 'white noise', while the sub-plans were more relevant and easier to use.

Other local governments and practitioners believed their LDMP was not written in a format suitable for the community but acknowledged a need to clearly communicate its contents. Some local governments make the contents of their LDMP more accessible through their disaster dashboards that are accessed via the council's website, sub-plans, simple brochures and information sheets, or a community-friendly version of the plan.

In contrast, some local governments believe the LDMP is for the community and the LDMG, and they prepare their LDMP accordingly:

> *"The audience for the LDMP is everyone — the community first and foremost. It's a local level document that covers our LDMG response to natural disasters, gives an indication of what our risks are, and informs people what a local response will look like.*

One council said that based on the guidance in the PPRR DM Guideline, they published their sub-plans for the community to access, including evacuations, sheltering and bushfire. Another council suggested a concise 'plan on a page' would best cater to their community's needs.

Several local governments are taking steps to make their LDMPs more helpful for the community, saying they saw the importance of involving the community in updating their LDMPs and developing community-centric products. The review heard that this would involve creating interactive, specific community location plans, community resilience action plans to enhance local-level resilience and feelings of ownership, as well as conducting community awareness surveys. More broadly, LDMGs informed the review they were working to enhance their community's understanding of their LDMPs through community engagement activities, including Get Ready Queensland events.

Burdekin's community-friendly LDMP

The Burdekin Shire Council has developed and implemented an Emergency Action Guide to help their community understand the roles and responsibilities for local disaster management. The guide distils the local government's LDMP into plain language and includes focused content to make it more relevant and accessible to the public.

The guide helps community members to:

- understand the role of the LDMG, coordination centre and other relevant groups and functions
- understand risks
- understand warnings
- make a plan to stay or leave during a disaster
- pack a kit
- prepare property
- find information during a disaster.

The Emergency Action Guide is available on council's website and disaster dashboard. The Guide is also used and distributed via schools.

Burdekin Shire Council said the aim of the guide is to build awareness and support household resilience and self-reliance.

The review understands that QPS, as the state's lead agency for disaster management, is aware of the conflicting audience and use of LDMPs, along with a similar lack of clarity around district disaster management plans (DDMPs). It is also understood that QPS intends to provide guidance on the matter through the SDMP and PPRR DM Guideline Review and Renewal Program. The updated documents are due for release in October 2025.

Further, annual disaster management plan assessment processes provide additional opportunities to clarify the intended audience of LDMPs and ensure their ongoing suitability. Under section 59 of the Disaster Management Act, a local government must review the effectiveness of its LDMP at least once a year. The Office of the IGEM coordinates an annual process for LDMGs and DDMGs, pursuant to its function under section 16C(b) of the Disaster Management Act 'to regularly review and assess the effectiveness of disaster management by district groups and local groups, including district and local disaster management plans'. In the 2023 disaster management plan assessment process, the disaster management team within the Office of the IGEM sought feedback on the intended audience of these plans and concluded that the audience and purpose of the LDMP should be consistent and clearly defined in disaster management doctrine.

Observation: Communities in the impacted areas appear to have limited knowledge of their LDMP, and some local government practitioners seek clarity about the purpose, target audience and community suitability of their LDMP.

Insight 3: Greater guidance on the purpose and audience of LDMPs in the SDMP and PPRR DM Guideline will provide better clarity to those for whom they are intended.

Community role and investment in disaster management

Outcome 12 of the Standard requires that entities proactively work together in a cooperative environment to achieve better results for the community. One of the indicators is that entities work in partnership with community groups and leaders.

The review heard details from practitioner meetings and community forums across impacted communities that there were a wide range of self-mobilised community responses to disasters that were experienced. The resilience of individuals and communities were highlighted from responses from the community and local governments throughout the review process.

The review team heard from local governments that many communities were disinterested in learning about their disaster risks and unwilling to take responsibility for their own preparedness:

> *"During disaster events, the community is more concerned with immediate actions and outcomes rather than the underlying structures of disaster management [and] efforts to educate the community during non-disaster periods are challenging with low engagement and interest.*

This lack of community investment was further evidenced by reports of numerous unoccupied properties without any preparedness measures in place. Several local governments discussed that the low level of understanding and investment in their risk can be explained by the number of new residents who are unfamiliar with the area and types of disasters to expect. Population movement as a result of COVID-19 and northern migration from southern states to Queensland is considered a primary factor by some communities. Longer-term residents better understood the risk of different hazards and what to do, such as having a generator, fuel, food, water, torches and a radio.

One council reported that some areas were much more prepared for the 2023 bushfires than they were in 2019. This was likely due to lessons learned and the lived experience during the severe bushfires that burnt through the area five years ago, subsequent disaster resilience funding, and efforts from land management and environmental groups. The council said the number of long-term residents in the area had also stayed relatively consistent, influencing ongoing community bushfire preparedness.

In other instances, however, the impacts of weather events, including isolated and extended periods without power, exceeded the expectations and capabilities of the community and LDMGs. The review team heard that people in the Far North were prepared for a low Category 3 cyclone, and that severe storms were common in South Queensland, but both regions were overwhelmed:

> *"We were well prepared for the cyclone, to be cut off during the wet season for up to three months, with stockpiles of food, water and fuel for generators, but no one was prepared for the level of flooding — 7 metres above previous flood levels that swept through overnight. We woke up to rising water and had to climb onto roofs, clinging on for hours.*

Observation: Some community members who attended the community forums consider the community has a shared responsibility for disaster management, while some have limited investment, interest, engagement, understanding or recognition of their own risks and responsibilities during severe weather events.

Observation: Some community members who were affected by the disaster events were well prepared for the impacts of severe weather based on previous lived experiences, but they were exposed when events exceeded their experiences.

Any acknowledgement of disaster risks and responsibilities may occur at any stage of the disaster cycle: before, during or after an event. Increasingly, an individual and/or a community may be engaged in simultaneous actions for disaster prevention, preparedness, response and recovery as cascading and/or concurrent events occur, such as flooding or bushfire during a heatwave. Any individual, group, organisation or agency may instigate the engagement, whether from government, non-government, the private sector or from other communities across Queensland.

Effective community engagement for disaster resilience enables individuals, communities and partners to develop an understanding of local risks and the actions required and share and use diverse local information to better understand the assets, strengths and capabilities of the community.

Insight 4: Community resilience can be strengthened by raising awareness of hazards and risks and promoting the role and shared responsibility individuals play in disaster management.

Preparedness, response and transitional arrangements

Disaster management in Queensland is built on a comprehensive and integrated approach including the four guiding principles outlined in section 4A of the Disaster Management Act. Section 4A(a) of the Disaster Management Act states that disaster management should be planned across the following four phases:

- prevention
- preparation
- response
- recovery.

These phases are not linear or independent. Rather, these phases overlap, are interdependent and support each other, as demonstrated in Figure 6.

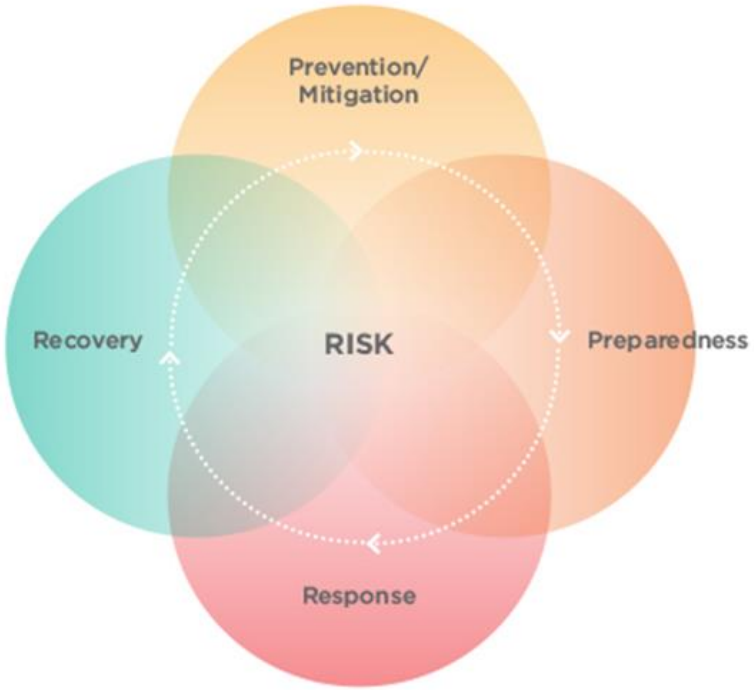

Figure 6: Phases of disaster management
© State of Queensland (QFES) 2017 — PPRR DM Guideline

In line with the terms of reference, the review assessed the effectiveness of preparedness, response and transitional arrangements and activities. Prevention/mitigation and recovery, beyond the transition from response to recovery, were outside the scope of the review.

Preparedness

The preparation phase of disaster management is described in section 4A(a)(ii) of the Disaster Management Act as 'involving the taking of preparatory measures to ensure that, if an event occurs, communities, resources and services are able to cope with the effects of the event'.

Disaster preparedness is a critical element in minimising the consequences of an event on a community and ensuring effective response and recovery. Preparedness builds on existing community and individual awareness of risk and participation in disaster management activities to enhance resilience.

Queensland's preparedness activities are centred on three key elements:

- planning
- capability integration
- community engagement.

In the lead-up to the events of the 2023–24 severe weather season, preparedness activities were carried out across various levels of Queensland's disaster management arrangements.

State preparedness campaigns

Get Ready Queensland

The Get Ready Queensland program is a year-round, all hazards resilience-building initiative and public awareness campaign coordinated by the QRA to help communities prepare for natural disasters.

It provides non-competitive grant funding to all Queensland's local councils and the one town authority to support locally led disaster preparedness activities. The program also involves preparedness communications in the immediate lead-up to severe weather events. For example, during the 2023–24 severe weather season, Get Ready Queensland supported critical safety and preparedness messaging through its Facebook and Instagram channels to provide timely, practical advice and help audiences stay prepared. Messaging was informed by a range of inputs, including the Bureau's forecasts and warnings, SDCC reports and the Queensland Government Crisis Communications Network. The team identified regions at risk and tailored messaging accordingly, providing actionable tips on how to prepare and endure impending extreme weather.

Ultimately, the campaign encourages the adoption of key preparedness behaviours such as:

- understanding risk
- making a plan
- packing a kit
- checking insurance
- undertaking home maintenance.

The QRA commissions statewide research every two years to assess levels of community preparedness over time, with results used to inform future Get Ready Queensland campaigns. Most recently this research was undertaken in May 2024. Results are provided in Appendix I.

The QRA also undertook an evaluation of the 2023 Get Ready Queensland Campaign. The evaluation indicated the campaign left a positive impression on Queenslanders, with 86 per cent of respondents observing that the campaign made them feel like they could prepare. In terms of the campaign's capacity to influence action, 78 per cent of respondents said they either had prepared or intended to prepare a kit.

The results of both the statewide preparedness research and the 2023 campaign evaluation are being used to inform the 2024 campaign.

If It's Flooded Forget It campaign

The If It's Flooded Forget It campaign shifted from QFES to the QRA in August 2023 as part of the reforms to Queensland's disaster management arrangements. The campaign was informed by research undertaken by the QPS Forensic Crash Unit and ran from 19 November 2023 to 7 April 2024 across several platforms including television, replay television, radio, outdoor advertising, social media and digital advertising. The social media advertising was translated into the eight languages most spoken outside of English in Queensland.

The campaign strategy was developed to be responsive to severe weather events, providing clear and direct messaging about the unpredictable nature of weather, the importance of planning ahead and the dangerous nature of driving through floodwater. More than 5,000 commercial and community radio spots were bought across Queensland for severe weather events forecast between November 2023 and April 2024.

Bushfire Preparedness campaign

The QFD undertakes community engagement activities ahead of the bushfire and severe weather seasons to encourage community awareness and preparedness. The QFD delivers an annual Bushfire Preparedness campaign, which aims to raise the community's awareness of their bushfire risk and encourage action to prepare themselves and their property. The 2023 campaign ran from June to September, and included advertising on television, digital and social media, billboards, online video and search engine marketing.

The 2023 campaign was complemented by QFES' Australian Fire Danger Rating System (AFDRS) campaign, which encouraged Queenslanders to proactively check for fire danger ratings and risk levels to stay safe. Communication materials for the bushfire safety advertising campaign and the AFDRS advertising campaign, including brochures and postcards, were developed in 12 languages to support culturally and linguistically diverse communities.

Australian Warning System campaign

Ahead of the 2023–24 bushfire season, during May and June 2023, there was a short social media campaign supporting the transition of the AWS, to remind the community about bushfire warnings and how they should be used.

Local and district preparedness

Local governments, LDMGs and DDMGs considered themselves well prepared for the 2023–24 severe weather season. Prior to the 2023–24 severe weather season, many local governments, LDMGs and DDMGs facilitated or participated in exercises including QFES pre-season bushfire briefings, local and district-coordinated exercises, education campaigns and staff and agency training. Other preparedness activities included:

- the review and assessment of disaster management plans
- the development of sub-plans for isolated communities
- community events, training, advertising and social media activities
- distribution of preparedness information to the community.

Some of these activities formed part of the localised Get Ready Queensland activities.

Be Ready Central West

The five Central West Queensland councils worked proactively and collaboratively in their distribution of localised disaster preparedness information to residents. The group, made up of Winton Shire Council, Richmond Shire Council, Barcoo Shire Council, Barcaldine Regional Council and Longreach Regional Council, provided practical, informative communications free-of-charge to households across their local government areas.

Winton Shire Council hosted their annual Meet and Greet, where welcome packs containing advice and information about preparing for relevant natural hazards were provided to new residents. At the Winton Show, council also distributed carry bags with a:

- Be Ready Central West flip book
- emergency contact information fridge magnet
- emergency kit fridge magnet.

The Be Ready Central West flip book was developed in partnership with the other four councils, which also developed the 2024 Be Ready Calendar. The calendar, which was given to all homes, businesses and grazing properties, provided important contact information, tips and lists to help households and businesses get ready for extreme weather events. In addition, all five councils have implemented a web-based disaster dashboard, and every grazing property has been provided with information advising of the resupply process for flood-isolated properties.

For some, the sense of preparedness was based on the actions and planning undertaken to implement learnings from past events. As one local government practitioner reported:

> *"Planning as a result of the March 2023 flood meant the LDMG was in a good position to respond to flooding in the 2023–24 season. The LDMG had implemented improvements identified from community consultation. The community's awareness and willingness to act early was greater due to experience from the previous flood.*

In some instances, however, the events of the 2023–24 severe weather season exceeded expectations.

Early preparedness activities of some local governments were based on the Bureau's early long-range forecast for a hot dry summer, while in general the season proved to be hot and wet.

The Bureau serves as Australia's national agency for weather, climate, oceans and water. Its comprehensive suite of products and services supports informed decision-making by governments, emergency services, industry and the community. The Bureau offers a wide range of observations, forecasts, warnings, analyses and advice, covering various aspects of Australia's atmosphere, water, ocean and space environments. These include long-range weather forecasts, among other support for preparedness activities.

The Bureau's long-range forecast before the 2023–24 severe weather season correctly indicated an intensely dry period from August to late November 2023, followed by a tendency during December and January towards typical to above-average rainfall conditions in eastern Australia, including parts of southern and central Queensland. Its long-range forecast for December to January, issued on 23 November 2023, indicated the likelihood of typical seasonal rainfall, tending to a higher likelihood of above average rainfall in parts, across much of Australia. An increased likelihood of below-average rainfall was forecast for the northern tropics for the wet season.

The Bureau advised emergency services, Australian Government partners and the community that the October 2023 to April 2024 severe weather season would see the potential for fewer tropical cyclones than normal (but not an absence of tropical cyclones, since they will occur in northern Australia in any given year) but to expect a typical summertime risk of severe thunderstorms and riverine flooding.

Bureau support for preparedness

Before the 2023–24 severe weather season began, the Bureau reported that it undertook numerous activities targeted specifically to support the effectiveness of preparedness for Queensland emergency services, industry and state government. These included:

- delivering more than 50 seasonal long-range forecast briefings to emergency management customers across all levels of government, and to relevant partner agencies and industry, which highlighted potentially drier and warmer conditions and an increased risk of bushfires in the months preceding the wet season, with storms, cyclones and flooding possible from November onwards
- delivering a 2023–24 higher risk weather season outlook to 250 crisis management, response and recovery specialists at the inaugural NEMA-hosted National Preparedness Summit
- participation in more than nine local preparedness exercises
- delivering fire weather training to QFES, Queensland Parks and Wildlife Service (QPWS) and other state and local government agencies. This training aims to support fire agencies to undertake weather related operations during the fire season.

The Bureau also carried out a range of activities to inform Queensland communities, and to support their decision-making regarding their preparedness activities. These included:

- issuing eight Get Ready Queensland posts and 55 educational posts about the severe weather season for Queensland via Bureau social media channels
- issuing 44 social media posts referring to the long-range forecast
- undertaking community engagement through Get Ready Queensland and Emergency Services Expo during Get Ready Week from 9–15 October 2023
- increasing reach through a public safety education campaign from 275,230 (2022–23) to 577,670 (2023–24).

In addition, the Bureau continuously responded to severe weather events as they affected Queensland between 1 October 2023 and 30 April 2024, issuing more than 2,500 warnings and supporting the dissemination of its information via briefings, responses to media requests and publication of social media posts.

During the review, some local governments said they had planned for a hot, dry summer and extended fire season based on the Bureau's early extended forecast advice and had planned staffing arrangements accordingly, particularly for the summer holiday period. The view that less staff would be needed for a drier season led some local governments to be more complacent when planning resources to support disaster management. Two councils in Far North Queensland reported that their planning had been skewed by the early forecasting, which then meant they were less prepared for the impacts of Tropical Cyclone Jasper and its associated rainfall and flooding.

While the long-range forecasts cited a lower probability of above-average rainfall for the tropics over the wet season, the review highlighted a need for local governments to consider how heavily they rely on long-range forecasts to guide their planning. Each long-range forecast issued by the Bureau notes there is greater accuracy closer to the forecast period and users are to refer to the Bureau's weekly updates. Forecasts three months ahead of a period cannot predict the amount of rainfall from individual tropical cyclone systems, and long-range forecasts of rainfall are not proxy forecasts for high impact weather risk. It is important that, as the season approaches and Bureau information is updated, plans at all levels are reviewed, amended accordingly and disseminated.

Tropical Cyclone Jasper further challenged preparedness in December 2023. Local governments, State Government agencies and communities in Far North Queensland considered themselves prepared for the forecast impacts of Tropical Cyclone Jasper. However, they did not expect the prolonged intense rainfall that followed, which exceeded previous December records in many locations (Bureau 2024), and were unable to adequately prepare for the consequences of prolonged flooding, landslides, road closures and isolation for many communities.

Several local government practitioners in Far North Queensland spoke to the scale and extent of flooding impacts. Limited capacity, fatigue, access and the pace and ferocity of events were all cited as major contributing issues. Some LDMGs and DDMGs reported that the impacts of the post-cyclone events exceeded expectations and in some cases capability. Some had not planned for or experienced that extent of flooding, while others were of the opinion that information from the Bureau about the rainfall and movement of Tropical Cyclone Jasper came too late.

On one occasion, a local government stood down their response crews following an uneventful Tropical Cyclone Jasper crossing, only to be caught out by subsequent rainfall which they said had not been predicted. This same local government identified ‘considerable human, social, economic, road and transport impacts’ from the flooding and reported that limited meteorological and hydrological monitoring networks in these remote areas led to challenges in measuring rainfall and river heights.

Training

It is vital that all entities engage in preparedness and undertake training, to ensure they have a clear understanding of their roles and the roles of other entities within Queensland’s disaster management arrangements. Disaster management training is a key component of capability development of the sector and aligns with one of the Police Commissioner’s functions under section 16A(c) of the Disaster Management Act, ‘to ensure that persons performing functions under this Act in relation to disaster operations are appropriately trained’.

The Standard at Outcome 8 identifies that: ‘Entities develop integrated capabilities and shared capacity to reduce the impact of disasters on the community.’ Indicators for the outcome include that training and exercising programs are:

- determined by needs, roles and responsibilities
- informed by evidence, risk and doctrine
- developed in collaboration with relevant entities
- coordinated across and involve all relevant entities
- developed and conducted by the appropriate entities
- consistent with recognised methodology.

Training interfaces across other aspects of the Standard. In one of five accountabilities, ‘People’ refers to ‘the relationships and networks, training, skills and experience that enable the individuals who undertake disaster management to do so effectively’.

The review heard concerns among practitioners that they perceived a lack of knowledge and understanding of roles and responsibilities within Queensland's disaster management arrangements. Subsequently, the following points around adequate, appropriate levels of training and improving situational awareness were raised by practitioners:

- enhancing the understanding of the arrangements, particularly the role of local government
- a need for clarity around roles and responsibilities across government and other agencies such as NGOs
- the issuing of warnings and information
- the provision of situational briefings to personnel being deployed to areas where they do not normally work
- clarity of the provisions of defence force aid to civil communities
- requesting and provision of Disaster Relief Australia (DRA)
- clarity in respect to the sharing of information and privacy considerations
- continuing update on the working relationships and responsibilities across the arrangements
- effective relationship management.

Observation: Persons performing functions under the Disaster Management Act in relation to disaster operations must be appropriately trained to improve outcomes.

Insight 5: Greater sector-wide knowledge of Queensland's disaster management arrangements (QDMA) will be achieved by all entities ensuring their personnel attend QDMA training every two years to maintain their currency of awareness.

The Queensland Disaster Management Training Framework (QDMTF) outlines the training Queensland disaster management stakeholders undertake to support effective performance in each key role. Training for Queensland's disaster management arrangements is mandatory for all stakeholders. Completing this training helps give key stakeholders consistent, statewide foundation-level knowledge.

Insight 6: Expanding who can deliver training under the QDMTF beyond Emergency Management Coordinators (EMCs) would help deliver disaster management training to more practitioners.

Bushfire preparedness and community engagement

Bushfire prevention and preparedness is a shared responsibility in Queensland. The QFD is the hazard-specific lead agency for bushfire and works with stakeholders and partners to reduce the impact of fire on communities.

The QFD and its partners have moved to a year-round, three-year rolling program of mitigation, known as Operation Sesbania. Operation Sesbania is the annual bushfire mitigation component of Program Grasstree, through which QFD partners with land management agency partners such as the Department of Environment, Science and Innovation (QPWS), Department of Resources, local governments and HQ Plantations (Queensland's largest plantation forest company) as well as other landowners and managers across the state undertake mitigation activities to prepare for the coming bushfire season. The overall priority of Operation Sesbania is the protection of Queensland's communities from the impact of bushfires. Activities undertaken as part of Operation Sesbania to support preparedness include mitigation burning, mechanical fuel management (e.g. slashing), firebreak management and community engagement activities.

In delivering Operation Sesbania activities, the QFD, as the lead agency for bushfires, actively engages with communities to help them understand the bushfire risk and how they can prepare. The QFD also informs the community and landowners about the risk of bushfire in their areas through proactive media messaging, social media and bushfire preparation education in local communities by RFSQ brigades and QFR crews.

Between 1 July 2023 and 14 May 2024, more than 450 completed activities were reported by QFES and its partners as part of Operation Sesbania.

Multi-agency exercise to prepare for bushfire response

As part of the 2023–24 program of bushfire preparedness activities, QFES conducted a multi-agency state-level bushfire response exercise on 27 July 2023. Exercise Ignis was developed to explore the arrangements described in the Queensland Bushfire Plan in relation to a catastrophic bushfire. The exercise involved 144 representatives from 41 different government and non-government agencies. The 16 lessons identified from Exercise Ignis included an observation that, 'Many entities are involved in a catastrophic bushfire response and recovery. Even though their firefighting roles are clear, the consequences management roles and responsibilities are complex and diverse.' The lessons have been considered by the QFD and incorporated into Operation Sesbania activities in preparation for the 2024–25 bushfire season.

The QFD works with partner agencies to deliver bushfire preparedness sessions to communities, which include:

- attendance at community events, with emergency services displays and resources for attending community members
- emergency services open days
- emergency preparedness sessions delivered to distance education students
- presentations to aged care facilities, service clubs, schools and other community groups

- disability inclusive risk reduction and Person-Centred Emergency Plan (PCEP) workshops for people living with disability, in partnership with the Queenslanders with Disability Network engagement with local governments.

QFES also worked with Neighbourhood Centres Queensland to supply 'Get your kit together'. The materials for the kits were provided through the Suncorp–SES Principal Community Partnership before this initiative transitioned to SES on 1 May 2024. Materials are distributed by SES volunteers at local events, school visits and other community engagement activities to provide awareness and easy action tools.

Vegetation management for disaster mitigation

Bushfire and other disaster risks can be reduced through a range of mitigation activities that include vegetation clearing, trimming trees, moving or removing excess flammable materials. Some of these mitigation activities also support preparedness for other severe weather events such as storms, during which fallen trees may damage properties.

QFD continues to work with key partners and landowners to encourage mitigation activities and support mitigation burns where needed. Reducing risk associated with hazards is a shared responsibility of the community and entities within Queensland's disaster management arrangements. Risk reduction starts with disaster management groups conducting a risk management process to underpin their disaster management plans. The risk-informed plans include preparedness activities and are complemented by community education programs to help communities understand their disaster risks and take informed actions before a disaster occurs.

The Queensland Bushfire Plan provides that Area Fire Management Groups (AFMGs) and LDMGs coordinate across their areas to ensure bushfire risk is managed effectively. Bushfire Risk Mitigation Plans prepared by AFMGs identify the areas of bushfire hazard within a local government area and include the planned mitigation activities and the risk that will remain after completion of the activities. At the start of the mitigation season, AFMGs formally table the mitigation plans, which enable the LDMGs to understand the potential level of danger and prepare seasonal community messaging to use if a bushfire starts in their area.

In Queensland, clearing of native vegetation is regulated through the *Vegetation Management Act 1999* and the *Planning Act 2016*. The Department of Resources recommends landholders request a free vegetation management report which contains property-specific information about the vegetation type to help determine the relevant approval pathway. The department also encourages landholders to consult the relevant local government before clearing native vegetation (Department of Resources 2023).

In addition to the vegetation management framework, clearing activities may also be regulated under other Queensland Government legislation, Australian Government legislation and local government requirements. For example, the *Wet Tropics World Heritage Protection and Management Act 1993* (Qld) and the requirements under the Wet Tropics Management Plan 1998 apply to the Wet Tropics World Heritage Area, and emergency management permissions are required to disturb vegetation during recovery

actions. These locally relevant obligations should also be part of any disaster planning and training in these areas.

Landholders seeking to reduce their fire risk can perform certain activities without an approval or notification under the vegetation management framework. These activities include clearing a necessary fire management line to a maximum width of 10 metres or making a necessary firebreak to protect buildings and other structures to a width of up to 1.5 times the height of the tallest vegetation (for example, a width of 15 metres where the tallest vegetation is 10 metres) or 20 metres (whichever is greater; in this example the firebreak would be 20 metres). Landholders can also remove dead timber and overhanging branches without approval, providing it does not kill the vegetation. Fuel reduction burns can be undertaken to reduce hazardous fuel loads if the landholder has a fire permit obtained through local fire wardens.

The vegetation management framework also allows for clearing of vegetation necessary to remove or reduce any imminent risk that the vegetation poses of serious personal injury or damage to infrastructure, which would assist landholders contending with the imminent risk of a flood or cyclone event. In addition, the 'self-assessable' Accepted Development Vegetation Clearing Code for Necessary Environmental Clearing allows for clearing within the banks of a watercourse to mitigate flood risk in areas that have been subject to previous flood events which have threatened human health, land productivity and infrastructure.

Veg Hub, the vegetation hub of the Department of Resources, provides advice about vegetation management if a landholder is uncertain about the approval process. Last year, Veg Hub received 4,986 requests for advice. The department participated in 89 workshops, which included large events such as AgGrow, FarmFest and Beef Week, and conducted several workshops in partnership with the Queensland Fire and Biodiversity Consortium, mostly in South East Queensland. Community engagement is beneficial in educating landholders about the shared responsibilities in managing disaster risk.

Observation: Landowners who attended the community forums would benefit from clarity around legislation, policies and processes for vegetation management, which impacts their disaster risk reduction activities.

Insight 7: The promotion of the Department of Resources vegetation hub has the potential to increase community awareness and understanding of Queensland's vegetation management framework and consequently increase mitigation activities by landowners.

Response

The response phase of disaster management, as described in section 4A(a)(iii) of the Disaster Management Act, involves 'the taking of appropriate measures to respond to an event, including actions taken and measures planned in anticipation of, during, and immediately after an event to ensure that its effects are minimised and that persons affected by the event are given immediate relief and support'.

Examples of responding to a disaster are provided in the Dictionary of the Disaster Management Act, which states that responding to a disaster includes, for example:

- issuing warnings of a disaster
- establishing and operating emergency operations centres
- conducting search and rescue missions
- providing emergency medical assistance
- providing emergency food and shelter
- planning and implementing the evacuation of persons affected by disasters
- establishing and operating evacuation centres
- carrying out assessments of the impact of a disaster.

Response often involves multiple organisations simultaneously engaging in response functions. In accordance with section 4A of the Disaster Management Act, local governments are primarily responsible for responding to disaster events in their local government area, with district and state levels providing appropriate resources and support.

The PPRR DM Guideline notes that:

> The aim of response operations is to save lives, protect property and make an affected area safe. Accordingly, response is the operationalisation and implementation of plans and processes, and the organisation of activities to respond to an event and its aftermath.

Staff availability

Outcome 4 of the Standard requires that 'plans outline and detail how the impact of disasters on the community will be reduced' and includes an indicator that disaster management plans 'identify redundancies for people and resources'.

Under section 30(h) of the Disaster Management Act, the functions of an LDMG include 'to identify, and coordinate the use of, resources that may be used for disaster operations in the area'. Under section 80(1)(a), the functions of a local government include 'to ensure it has a disaster response capability'. Section 80(2) of the Disaster Management Act states that:

> In this section— ***disaster response capability***, for a local government, means the ability to provide equipment and a suitable number of persons, using the resources available to the local government, to effectively deal with, or help another entity to deal with, an emergency situation or a disaster in the local government's area.

Many of the local governments that participated in the review reported staffing shortages during the 2023–24 severe weather season, with key personnel taking leave or being unavailable at various times during this period. The review heard perceptions of similar issues across some disaster management groups and Queensland Government agencies, with some key personnel unavailable during the disaster

response period. The SDCC and SDCG were fully staffed during the season, and QPS ensured key personnel were available throughout the state.

Several severe weather events, including Tropical Cyclone Jasper and the severe storms in South Queensland, coincided with a time of year when non-frontline staff typically take leave or are otherwise unavailable due to public holidays and workplace closures. The 2023–24 severe weather season encompassed:

- the summer school holiday (9 December 2023 to 21 January 2024 for Queensland state schools, with additional dates for some schools and year levels)
- mandatory closures for local governments and Queensland Government agencies (with varying dates, typically lasting 1–2 weeks)
- public holidays on Christmas Day (25 December 2023), Boxing Day (26 December 2023), New Year's Day (1 January 2024) and Australia Day (26 January 2024).

In some areas, flooding or road closures prevented access for the limited staff who were available, meaning they were unable to reach the necessary locations or carry out required work, at times with no additional staff available to fill their position or provide relief for fatigue management purposes. The challenges were further exacerbated in some instances by a lack of availability and/or willingness of volunteers to support response activities, due to the time of year.

The unavailability of staff affected response operations and the activation of disaster management arrangements. Some LDMGs and DDMGs reported challenges around staffing disaster coordination centres and managing fatigue with limited team members, particularly where severe weather events lasted a long time or where the community experienced multiple severe weather events. The review heard of similar concerns at a state level, with some Queensland Government departments struggling to access available staff as quickly as usual, noting the compulsory closure arrangements over the Christmas period for the public service. However, this applies only where departmental requirements permit the absence of employees and allow the implementation of limited staffing arrangements in some areas of departments to meet essential government and public needs.

Observation: Ensuring appropriate numbers of personnel are trained and available within each entity contributes to the successful application of Queensland's disaster management arrangements.

Insight 8: Noting that disasters can happen at any time, it is good practice that disaster management responsibilities and resourcing be incorporated into the Business Continuity Plans of all entities.

Evacuation

The Australian Institute for Disaster Resilience defines evacuation as:

> a strategy used to reduce loss of life or lessen the effects of a hazard on a community, before or during a disaster. It involves the movement of people threatened by a hazard to a safer location and their safe and timely return.

Outcome 2 of the Standard requires that risk is managed to reduce the impact of disasters on the community and includes an indicator that entities encourage and enable the community to help manage their own risks. For example, in the first instance, community members are encouraged to seek shelter with family and/or friends rather than at an evacuation centre.

Evacuation management is a core responsibility of LDMGs, as evacuations are considered most effective when locally managed, with locally based staff who know the community. The Evacuation: Responsibilities, Arrangements and Management Manual, part of the PPRR DM Guideline support toolkit, notes that local government, in close consultation with the LDMG, are best placed to conduct evacuation planning prior to the onset of an event through their local knowledge, experience, community understanding and existing community relationships. District and state support is available on request. Assistance from the DDMG to effectively conduct evacuation to a safer location or evacuation facility may be identified during LDMG evacuation planning.

Decision-makers analyse event-specific information and intelligence and make an assessment on the necessity to evacuate. Voluntary evacuation may be coordinated and implemented by the LDMG in close consultation with the district disaster coordinator (DDC). For hazards such as bushfire, where the LDMG is not the lead, the timely sharing of intelligence about the potential consequences of the hazard is critical. After a disaster is declared under either section 64 or 69 of the Disaster Management Act, the decision to order a directed evacuation lies with the DDC and should be made in consultation with the local disaster coordinator (LDC) and based on the evacuation sub-plan. The LDMG/LDC has no legislative power to direct an evacuation, however it may recommend this action to the DDC. Individual community members can choose to self-evacuate before an announcement of a recommended voluntary evacuation or a directed evacuation.

The stages of evacuation, shown in Figure 7, are:

- decision to evacuate
- warning
- withdrawal
- shelter
- return.

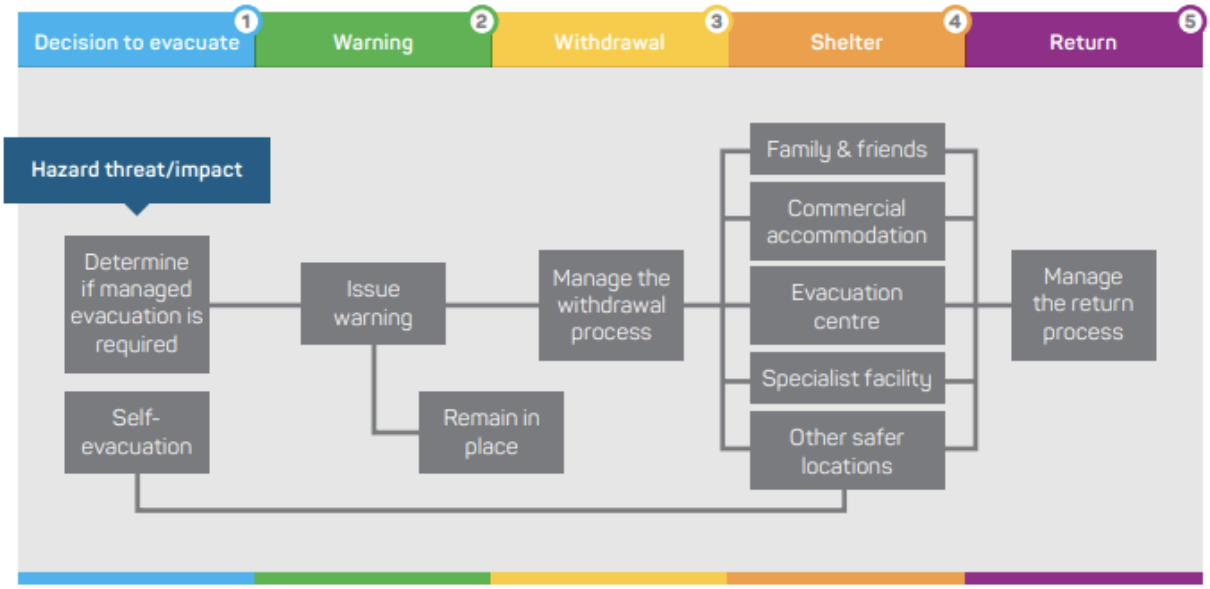

Figure 7: Stages of the evacuation process

Obtained from the Australian Institute for Disaster Resilience, © Commonwealth of Australia 2017 — Evacuation planning

During an evacuation, additional support is available from organisations such as the Australian Red Cross. The Australian Red Cross can be activated by QPS, the DTATSIPCA, Queensland Health, the state Australian Red Cross manager and local governments.

The Australian Red Cross has 17 memorandums of understanding with local government authorities with its services written into disaster plans across the state, reflecting the willingness of the Australian Red Cross to provide support in an emergency evacuation activity. The Australian Red Cross supports these arrangements where possible, though resourcing limitations mean this may not always be possible, even with significant interstate help such as that received during the 2023–24 severe weather season. The Australian Red Cross also has a standing offer arrangement with the Queensland Government, through DTATSIPCA, to provide a range of services in recovery hubs and evacuation centres including programs to support people's basic and psychosocial needs. Additionally, the Australian Red Cross coordinates trained volunteers to provide these relief services.

For an evacuation to be effective, it must be appropriately planned and implemented and clearly communicated to affected community members. The Evacuation: Responsibilities, Arrangements and Management Manual recommends that plans for evacuation management clearly outline the coordination and management for meeting basic human needs of evacuees while in the centre. The effectiveness of plans including local and district disaster plans should be reviewed annually, such as through activation or exercising. Reviews of these plans should ideally include evacuation plans, which are then amended where necessary. During the 2023–24 severe weather season, evacuations were initiated across numerous impacted communities in response to bushfires, floods and severe high wind events. In some impacted communities, residents believed that evacuation procedures were inadequate and poorly communicated to the community, and that communications around evacuation shelters need to be improved.

Evacuations are challenging for anyone who experiences them; however, First Nations people and communities have distinct and unique needs (AIDR 2023). They may face additional risks and new

vulnerabilities throughout the evacuation processes. For example, residents of one community spoke of additional angst after evacuation when they were not permitted to go back to their community to clean their space, and said they were not able to conduct Sorry Business from start to finish.

In some communities, aged care facilities were not prepared for evacuation. Decisions about evacuations requiring help from agencies must be made early. In some cases, aged care facilities were hesitant to make that decision. When they did decide to evacuate, it was then too late, as roads had already been cut. This highlighted a need for specific planning for aged care facilities in vulnerable geographical areas, such as low-lying areas exposed to flood or storm tide surge risks or areas with high bushfire risk.

When evacuations did occur, communities experienced further confusion with their expectations of services and the operations of the evacuation facilities. Some communities did not appear to differentiate between or understand the different types of evacuation facilities, with an expectation that all facilities would be staffed by local government personnel with NGO support services. This suggests there may be a need to raise awareness about evacuation facilities among communities.

Different types of evacuation facilities are described in the PPRR DM Guideline. The guideline defines an evacuation centre as a building 'located beyond a hazard to provide temporary accommodation, food and water until it is safe for evacuees to return to their homes or alternative temporary emergency accommodation'. A place of refuge is defined in the PPRR DM Guideline as 'a building assessed as suitable to provide protection to evacuees during a cyclone but is not a public cyclone shelter. These are typically opened when the capacities of other evacuation facilities have been exceeded'. Cyclone shelters are purpose-built buildings. Their primary purpose to provide protection to people in the community who are vulnerable to the event (for example, from storm surge), need to evacuate, cannot move away from a severe tropical cyclone impact area, and have no other accommodation options.

The review revealed further miscommunications and confusion around roles and responsibilities in evacuation among local government practitioners and others involved in disaster management, which may have added to community confusion. For instance, the review heard that Cook Shire Council did not expect, and were not prepared for, the entire town of Wujal Wujal to be evacuated to Cooktown, resulting in 300 extra people in the town during the Christmas period. The review heard also from Cook Shire Council and a supporting organisation that there were challenges establishing an evacuation centre due to limited information from assisting agencies, and there were no resources (e.g. pillows, blankets, towels, soap) initially available for the evacuated people. Afterwards, the supporting NGO reported confusion at local and state levels about who was responsible for the costs associated with the evacuation, including the provision of food and essential items. Despite this initial confusion regarding roles and responsibilities, the evacuation centre supported displaced residents with temporary accommodation, ongoing food supply, and a Christmas lunch with support from NGO partners.

The Australian Red Cross is embedded at both local and state levels of Queensland's disaster management arrangements, providing evacuation centre management at the local level and psychosocial support at the state level. During the 2023–24 severe weather season, the Australian Red Cross was

activated by both local and state agencies, operating simultaneously in the one location, which demonstrated its capacity, While the Australian Red Cross is clear about the scope of its roles and responsibilities under each arrangement, the Australian Red Cross has suggested that these simultaneous activations may have caused some confusion among partner agencies and the community.

Observation: Many communities impacted by the floods, cyclones and bushfires were confused about when to evacuate, where to go, how to get there and their ability to return home afterwards.

Insight 9: Improving evacuation terminology and procedures in the SDMP and PPRR DM Guideline will support greater community understanding of local evacuation processes by helping ensure consistency in local-level processes across the state.

In contrast to the experiences above, the review heard that evacuations in some communities were well-implemented and communicated effectively. At times, this was due to the community's awareness and willingness to act early due to experiences with previous severe weather events. For example, in the Burke Shire, approximately 60 people were evacuated to Mount Isa airport, with support from the DDMG. The local government reported that the EMC provided advice and acted as a conduit between the state and local governments, and that the DDMG trusted that locals 'knew their patch' while providing support where necessary.

In Tara, 350 people evacuated to the homes of friends or family members, the Dalby or Chinchilla evacuation centres and the Tara Showgrounds in response to dangerous bushfires. To provide emergency relief as part of the immediate disaster response, the Queensland Government's Department of Housing, Local Government, Planning and Public Works (DHLGPPW) activated its Temporary Emergency Accommodation Plan to ensure severely affected Tara residents would keep a roof over their head. Initially, the DHLGPPW transitioned displaced people, potentially facing homelessness, into commercial accommodation such as hotels and motels. In early November 2023, a convoy of 23 caravans rolled into Tara to provide temporary accommodation for vulnerable locals at risk of prolonged homelessness and distress. Tara Showgrounds morphed into a central emergency hub for the town's displaced residents, offering a secure and private place to recover, and access to onsite amenities including bathrooms and laundry facilities. In February 2024, the final cohort of residents requiring accommodation support transitioned from the showgrounds site to the Tara Recovery Accommodation Park, the site of a disused caravan park, owned by the Western Downs Regional Council. This facility was completely redeveloped to create a longer-term accommodation option, using a mix of housing products to provide safe, secure and stable accommodation support.

The experiences of communities during the 2023–24 severe weather season indicate a need for more effective local evacuation planning and evacuation centre management. The LGAQ's position is that evacuation planning in consultation with LDMGs would also reduce concerns that community could become complacent with warnings relating to evacuations. An evacuation plan specific for the community and the

context of the disaster event needs to incorporate a process for the timely and effective communication of evacuation decisions to key organisations and stakeholders with responsibility for the five stages of evacuation as per the Evacuation: Responsibilities, Arrangements and Management Manual. The Evacuation: Responsibilities, Arrangements and Management Manual advises that communication with all relevant stakeholders and support agencies occur to increase consistency, ensure resource continuity, enhance community partnerships and minimise the potential for confusion and time delays during an event requiring evacuation.

The evacuation process needs to identify the resources required for all phases of the evacuation, from where they will be sourced and how they will be activated. Of critical importance at the decision phase is the capacity to mobilise sufficient and appropriate resources including transport logistics, the establishment of an evacuation centre, communication and essential services, through to people returning to their community and continuing their recovery. In undertaking practitioner meetings and community forums across impacted regions, it was evident that community representatives can provide valuable local knowledge and context, especially if they have lived experiences in emergencies and evacuations and good knowledge of community networks, facilities and resources.

Evacuation training and appropriate resourcing is important to enhance evacuation planning and procedures. At the local government level the LGAQ has identified gaps in personnel trained to staff evacuation centres. The LGAQ expressed that a long-term strategy to address this gap must be developed by councils, QPS, the DTATSIPCA and the Australian Red Cross.

Recommendation 2: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead a review to establish a framework to clearly define the intersect between self-evacuation and emergency shelters, including but not limited to places of refuge, evacuation centres and public cyclone shelters, ensuring roles and responsibilities are clearly articulated.

Temporary and emergency accommodation

The DHLGPPW is an active partner in local and district disaster management groups and recovery and resilience committees. The department activated its Temporary Emergency Accommodation Plan. Initially, DHLGPPW transitioned 543 households (approximately 1,200 people) from the Cairns, Douglas, Cook and Wujal Wujal local government areas requiring assistance with emergency accommodation, potentially facing homelessness, into commercial accommodation such as hotels, motels and caravan parks.

In February 2024, to supplement short to medium-term recovery outcomes, the DHLGPPW also accommodated some displaced individuals through the additional deployment of 49 caravans and associated amenities through its preferred supplier arrangement, to locations including Cooktown, Degarra, Ayton and Bloomfield. These caravans were deployed to the Peninsula Caravan Park, Bloomfield Cabins and Camping and several private residential locations. This action included the establishment of an

exclusive rental agreement for a period of four months with Bloomfield Cabins and Camping, starting from 1 March 2024, including full-access use of caravan sites, cabins and amenities.

As at Monday 16 September 2024, the DHLGPPW continues to support 23 residents through the deployment of temporary mobile accommodation solutions on private land. These solutions include caravans, portable toilets, generators and potable water tanks and come with maintenance and replenishment support. These solutions will be supported while the DHLGPPW, DTATSIPCA and local government authorities develop pathway plans for residents with more complex housing recovery issues.

Community response

Community members invariably become first responders in a disaster event. The PPRR DM Guideline describes two primary types of volunteers who offer their time and skills during an event:

- trained volunteers, who are individuals formally affiliated with an emergency service organisation or NGO, such as the SES, Salvation Army or Australian Red Cross
- spontaneous volunteers, who are 'individuals or groups who are not skilled or trained to perform specific roles in disasters and are often not affiliated with an emergency or community organisation but are motivated to help'. While they are not aligned to a recognised community group, they are critical to boost local capacity with response and recovery efforts.

The Standard includes six outcomes that directly relate to community response:

- Outcome 1 – There is a shared understanding of risks for all relevant hazards
- Outcome 2 – Risk is managed to reduce the impact of disasters on the community
- Outcome 6 – The community makes informed choices about disaster management, and acts on them
- Outcome 9 – Response operations minimise the negative impacts of an event on the community and provide the support needed for recovery
- Outcome 10 – Relief operations minimise the negative impacts of an event on the community and provide the support needed for recovery.

In instances where access and resourcing challenges delayed the provision of timely emergency services during the 2023–24 severe weather season, many community members became their community's first responders, stepping up to check on and support each other during crisis. Repeated stories emerged around 'neighbours helping neighbours because no one else could come or took too long'.

In these situations, residents took immediate action, drawing on local resources and knowledge to protect lives and property. Community members organised mutual aid, shared essential supplies and communications, and set up makeshift evacuation centres and shelters to care for those in need. Residents used backyard hoses, buckets and other tools to put out fires, while those with boats and jet skis were crucial in rescuing stranded people during floods. In one instance, a member of the community used his own helicopter to lift people to safety from the roof of their flooded home in Far North Queensland. Community-led road-clearing efforts were also common, with residents forming informal groups and using

chainsaws and other equipment to restore access to isolated areas or clearing routes for energy workers to access and repair damaged infrastructure:

> *"I, and neighbours, set about partially clearing the public road of fallen trees with chainsaws and our own machinery. I have the only large tractor in the vicinity and spent several hours that day assisting around a dozen property owners clear their roadways sufficiently for access.*

Observation: In the immediacy of emergency response operations, community members invariably became first responders and actively helped each other.

Some communities have advocated for Queensland's disaster management arrangements to better integrate and support grassroots initiatives, emphasising the value of local knowledge in disaster planning and response. Some community members, older people, people with disability and people without access to transport, often rely heavily on these grassroots initiatives, underscoring the need for targeted support and inclusion in disaster planning.

These community members also stressed the importance of government agencies recognising and empowering local initiatives:

> *"There are trusted community members that step up to lead in events. The official response needs to put a bit more trust in community and resource [the] community … and not wait for the LDMG. They're not in the area to make response happen. Community should be empowered. The community did [step up] in this event and are clearly capable.*

Some members of the community suggested measures such as equipping local trusted leaders with communication tools (e.g. satellite phones) and entrusting them with the keys to facilities to ensure that shelters are accessible during emergencies:

> *"If there is shared responsibility, then there are shared resources. [We are] happy to take responsibility but need resources, funds and platforms.*

Mount Tamborine's community-led response

In response to the severe storms and rainfall that impacted the Scenic Rim between 24 December 2023 and 3 January 2024, the Mount Tamborine community, like many others, demonstrated strong solidarity and self-reliance.

The severe weather caused extensive property damage, but the community's quick and collective response played a crucial role in the immediate response efforts. Neighbours came together to support each other, highlighting the strength of shared responsibility in disaster management.

Community members reported neighbours checking on and helping each other, aged care workers checking on clients who were without power, community members with chainsaws volunteering time to remove fallen trees, and people volunteering to buy generators from the Gold Coast and deliver them to those in need.

Community members have indicated they would like to continue their community-led response but would seek council support as part of a shared responsibility. The community expressed interest in a pilot program that would focus on educating and empowering residents to lead future responses while still receiving the necessary support from local government.

Despite their effectiveness, community-led efforts often faced significant challenges. In some cases, residents had to rely on alternative communication methods, such as satellite phones and social media to stay informed during power and telecommunications outages. While volunteer efforts are well-meaning and often essential, they can also carry risks, particularly when untrained individuals engage in hazardous activities, such as clean-up and clearing operations, potentially putting themselves and others in danger.

It is important to note that this type of volunteering will occur, regardless of support from the local government. In many community forums it was heard that local volunteers provided help and that more volunteers were needed, with some volunteers having a poor attitude to their task. The need for additional volunteers was reiterated by the Australian Red Cross which, due to low numbers of Queensland-based volunteers being available due to the time of the year, prior commitments or the type of the tasks being offered in evacuation centres, called on volunteers from interstate to support their operations.

Some communities acknowledged their shared responsibility for responding to a disaster, particularly where governments and service providers were unable to access the area. However, some people also felt unsupported or ignored, with inconsistent expectations around response.

Community response in Jimboomba

In Jimboomba, residents reported very limited support and services until a week after a severe storm during the 2023–24 Christmas and New Year period. Community members reported that locals had to clear roads, help neighbours and set up an emergency shelter to help those in need. Supplies such as food and water were provided by locals and a Rotary club. Local knowledge and connections played an important role in the early response phase.

Jimboomba community members reported that their first official contact with government agencies occurred eight days after the event. The lack of immediate support left some feeling forgotten, particularly

given perceived media and political attention provided to popular tourist areas such as the Gold Coast and the Scenic Rim.

As natural disasters become increasingly frequent and severe, communities expect more from their local, state and federal governments.

The experiences and sentiments shared by disaster-affected communities highlight the importance of communication, coordination and responsiveness from all levels of government and emergency management agencies. The recurring themes of confusion, perceived abandonment and inadequate support demonstrate gaps in disaster response. To address these issues, it is important for governments and disaster practitioners to ensure clear communication channels, consistent and accurate messaging, timely assistance and an empathetic, culturally aware and community-centred approach.

Communications

Under the Standard, Outcome 6 requires that the community makes informed choices about disaster management, and acts on them. This includes an indicator that entities provide the community with information that enables them to prevent, prepare for, respond to, and recover from the impact of disasters.

Multi-agency disaster management structures may lead to confusion and inefficiency in communication when roles and responsibilities are not clear or are intertwined in the volatile, uncertain, complex and ambiguous environment. Several community members expressed the view that a central point of contact would have the potential to facilitate a more streamlined and efficient flow of information between the community, emergency services and support networks, help to alleviate confusion, enable swift dissemination of directives and provide reassurance to residents. For example, the review is aware that the elected officials in one local government area have received training in QDMA and the QDMTF's Recovery 1 Module, enabling them to understand disaster management operations and keep their communities informed accordingly.

When seeking assistance during disasters, communities often turn to their local governments as the primary source of support and information. This reliance is likely due to the proximity and visibility of local councils, who have primary responsibility for managing events in their local government area. However, residents indicated they find it challenging to understand and navigate the structure of Queensland's disaster management arrangements, especially when trying to identify the responsible agency for their inquiries when they were impacted by an event. Many residents reported relying on personal contacts in the absence of clear official communication channels while acknowledging that their local government should be their primary source of information.

Observation: Some communities in the flood and cyclone-impacted areas seek a single point of contact to act as a communications conduit between themselves, emergency services, support and early recovery services.

Insight 10: Providing training to elected officials under the QDMTF will help support a mutual understanding of Queensland's disaster management arrangements and improve information flow between officials, LDMGs/local government and the community.

Although response often involves multiple organisations simultaneously engaging in response functions, the LDMG's legislated functions under the Disaster Management Act include 'to ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster' (s 30(e)). Local governments are likely the most appropriate and best-placed entity to develop a plan to educate their community about who they need to contact in a disaster. The IGEM's South East Queensland Rainfall and Flooding February to March 2022 Review identified the important role that some local councillors had to support the flow of information to a disaster management group by sharing community sentiment and community intelligence during an event. Similar examples were identified in this review including local councillors being provided training in Queensland's disaster management arrangements and ultimately leading local recovery groups. The information flow between LDMGs and the community would be assisted by protocols across all local governments for their councillors to be more formally involved in the disaster management arrangements at a local level.

Loss of power and telecommunications

Power and telecommunications outages were common during the severe weather events of the 2023–24 season, due to infrastructure damage or measures to preserve infrastructure. After the severe storms in South Queensland cut power to 130,000 Energex customers, outages lasted up to 13 days in some areas. In other locations, such as Far North Queensland, some communities affected by Tropical Cyclone Jasper and the associated rainfall and flooding advised power and telecommunications outages continued for months. In its review submission in May 2024, Energy Queensland said all customers in the area impacted by Tropical Cyclone were supplied via network or generation by the evening of 24 December 2023, where it was safe for them to reconnect. This did not include the community of Wujal Wujal, which was entirely evacuated due to the extent of damage and isolation from assistance. Ergon Energy advised it had worked with the local government and recovery authorities to restore essential services to the community, and it was continuing to progressively reconnect individual premises as they were repaired and became safe to reconnect.

The outages impacted telephone and internet services during and after severe weather events. This made it extremely difficult to access or share reliable information so that residents were aware of their situation and to take actions accordingly. Local governments and other agencies were not easily able to gather intelligence to inform their response and warnings. Practitioners also advised that when communications went down, warnings were often delayed, causing confusion when community members eventually received them.

Residents in some communities said the only way to find out what was happening was through ABC radio and community Facebook pages. The ABC has an emergency team that works with state and federal

agencies, the Bureau and local authorities to ensure timely delivery of warnings, alerts, information and news about disasters, emergencies and severe weather. This information is broadcast on television, radio, online and on mobile platforms.

Substantial social media activity continued, primarily facilitated by private access to Starlink, a satellite internet system that is advertised as providing fast and reliable internet to rural and remote areas. This enabled some ongoing information-sharing among community members, though this tended to be more effective in smaller, discrete communities and relied on individual subscriptions to the service. At least one community hall provided connection via Starlink. However, the EA system relies on the terrestrial network (cell tower triangulation) to deliver warnings, so those using satellite internet did not receive EA warning messages. One community also noted that satellite internet connectivity often dropped out as generators ran out of fuel.

The large number and different types of events across large geographical areas highlighted the importance of having resilient communication and telecommunications networks. To improve connectivity during disasters before the next severe weather season, some community members suggested that telecommunications companies should do more to provide additional mobile towers with back-up generators. Some also suggested that satellite phones should be made available at official and community evacuation centres to ensure people could request medical and other assistance during a disaster. However, it is noted that satellite phones may not work well during some severe weather conditions.

Some residents and disaster management practitioners called for community buildings to be established as pre-nominated places of refuge and community meeting places for use in disasters. Here, information could be more easily shared and satellite internet access made available. The community of Rossville has already established one such hub, which proved very effective during the 2023–24 severe weather season.

Community hub in Rossville

The Rossville community in Far North Queensland experienced power and telecommunications outages after Tropical Cyclone Jasper and the associated rainfall and flooding. Outages included the loss of ‘flood-proof’ landlines, the reduction or loss of AM and FM transmitters and intermittent mobile service. The community relied on Starlink for mobile communications, which dropped out as generators ran out of fuel.

Residents said the Rossville Community Hall was central to bring the community together and allowed them to coordinate response and recovery efforts. The hall had access to power and communications after a Cook Shire Council grant had enabled solar power and a Starlink connection to be installed weeks before the cyclone and flooding.

The Queensland Government Customer and Digital Group (QGCDG) has announced a program to provide satellite equipment, installation and service to remote First Nations communities (DPC 2024b). The Rapid Low Earth Orbit Satellite Deployment Program, a partnership with the LGAQ, is being delivered in 17

Indigenous councils. The review considers that this program has the potential to enhance the ability of these communities to access and share information during disasters.

Observation: Communities that congregated in a safe community facility and had access to reliable telecommunications and power were able to maintain communications with emergency services.

Recommendation 3: The Inspector-General of Emergency Management recommends that the Queensland Reconstruction Authority continues to engage with councils in the development of their local resilience action plans including to identify local needs with respect to communication, connectivity, and power in suitable hubs.

Other considerations mentioned across community forums included ways for individuals to plan ahead and increase self-reliance. Suggestions included:

- avoiding reliance on a single type of communications technology
- considering alternative communication means when mobile, landline and internet services are not available
- putting a portable radio with a spare set of batteries in emergency kits
- keeping mobile phones charged and having a backup power source, such as a battery pack
- when power is available, monitoring local ABC and commercial radio and television stations, as well as local emergency service websites and social feeds, for up-to-date warnings and information.

Observation: Prolonged power and telecommunications outages in the flood, cyclone and storm-impacted areas hampered reliable information sharing.

Across multiple levels of the disaster management arrangements, practitioners also reported information-sharing hurdles, with the loss of power and communications presenting some of the biggest challenges to communities and councils. Some councils adapted to the loss of power throughout their communities, arranging regular in-person meetings and communication, but similar approaches were not possible in communities where access was more widely affected.

Sharing information during Gold Coast power outages

The City of Gold Coast Council equipped their outreach teams with updated information to share with the communities they visited every day during the severe storms that hit the area in late December 2023 and early January 2024. The outreach teams were debriefed each afternoon to capture intelligence identified in the field. The intelligence then informed the next day's public information strategy to ensure people living in areas without power were kept updated and informed.

Divisional councillors were also used as a source of information in and out of the Local Disaster Coordination Centre (LDCC), because many were active and visiting recovery hubs in areas without power. Councillors were given the day's information to share with their communities. Daily meetings were held with the LDC, Local Recovery Coordinator (LRC), CEO, the Mayor and councillors enabling the sharing of gathered intelligence and the timely escalation of issues.

These meetings also helped to inform council's communications strategy to people who did not have access to the online and broadcast platforms that the City of Gold Coast Council used during severe weather events.

Information privacy

Challenges arose around sharing the addresses of properties without power due to perceived privacy concerns. Provisions of the *Information Privacy Act 2009* (Qld) (Information Privacy Act) enable the collection, sharing and use of personal information in an emergency, including to lessen or prevent a serious threat to life, health, safety or welfare. A better understanding of the Information Privacy Act, coupled with supporting entity policy and training, would reduce perceptions that privacy concerns are a barrier to sharing information during disasters.

Insight 11: Greater direction in the SDMP and PPRR DM Guideline on information sharing of relevant privacy legislation supported by training through the QDMTF will support the safe and timely sharing of individuals' information during a disaster.

Bushfire response

Outcome 12 of the Standard requires that entities proactively work together in a cooperative environment to achieve better results for the community and includes an indicator that entities understand the information requirements of other entities.

While state agencies have responsibility for managing some specific hazards, local governments retain responsibility for managing the potential adverse effects. The QFD is the hazard-specific lead agency for bushfire and works with stakeholders and partners to reduce the impact of fire on communities. AFMGs interact with disaster management groups, including LDMGs, to facilitate effective bushfire management across all phases.

Activation of LDMG for bushfires

In line with the PPRR DM Guideline, activation of response arrangements occurs when there is a need to:

- monitor potential hazards or disaster operations
- support or coordinate disaster operations being conducted by a designated lead agency
- coordinate resources in support of disaster and recovery operations at local or district level

- coordinate statewide disaster response and recovery activities.

Activation does not necessarily mean disaster management groups must be convened but may entail providing information to members of those groups about the risks associated with the impacts of a pending hazard. The decision to activate disaster management arrangements, including the disaster management groups and/or disaster coordination centres, depends on multiple factors including but not limited to the perceived level of impact to the community. Activation of response arrangements should occur in accordance with the activation processes detailed in the relevant plans.

Information received during the review with respect to bushfire-related activities reveal a lack of knowledge or understanding among LDMGs about when they should be activated in response to bushfires. Review submissions and meetings with local governments highlighted a lack of situational awareness and understanding of bushfire hazard, and sharing information about its impact to the community, as a result of a lack of sufficient coordination and communication between QFES and key agencies. This included a lack of understanding about disaster management activation triggers. Section 4A(d) of the Disaster Management Act states ‘local governments should primarily be responsible for managing events in their local government area’. Across LDMGs, there appears to be a lack of understanding of the application of this section, which means that decisions about activation are the responsibility of a local government as the LDMG is responsible for managing the consequences that result from a hazard such as bushfire.

The review heard from one local government that it directly asked the Incident Control Centre (ICC) if it should activate its LDMG, as information of the risk was not provided. Additional local practitioners reported that the level of information sharing from QFES may have contributed to hesitancy about whether or not to activate. Consequently, challenges were experienced setting up evacuation centres when QFES issued ‘leave immediately’ warnings without informing the relevant council of the need to prepare evacuation centres. It is noted, however, that some developments have taken place or are underway that are likely to enhance clarity about the activation of LDMGs in response to bushfires.

The Local Fire Ban and State of Fire Emergency arrangements were reviewed ahead of the 2024–25 bushfire season. The new arrangements require the RFSQ Area Manager to notify LDMGs of any fire ban declarations made to assist with preparedness and situational awareness. In addition, RFSQ uses Bushfire Preparedness Levels (BPL) to determine actions based on seasonal conditions and heightened days of fire danger. These arrangements are currently under review and are likely to include information regarding LDMG liaison. In addition, the Queensland Bushfire Plan remains under review, with an anticipated completion date of 30 June 2025.

For hazards where a state agency is identified as the primary agency, communications protocols for the activation of LDMGs would clarify responsibilities and the principles for the release of information and warnings. In addition to bushfire, such hazards would also include animal and plant disease and chemical incidents. Protocols should be developed in conjunction with disaster management training, in accordance with the QDMTF. Training needs to include the protocols around trigger points for LDMG activations and

their responsibilities around their plans. This links with the planned reviews of the QDMTF and the feedback sought on opportunities for improvement of the training, content, objectives and pathways.

Observation: Some local governments that were impacted by bushfire lack clarity about activating their LDMG for bushfires.

Bushfire intelligence

Outcome 7 of the Standard requires that resources are prioritised and shared with those who need them, when they need them and includes an indicator that entities source, verify and share relevant intelligence products with other entities.

Local and district disaster management groups in bushfire-affected areas spoke of their need for information about the current impacts and projected consequences of a bushfire on their communities, so they could plan to support both the lead agency and the community. State Government agencies further expect that local governments will share predictive flood products in times of disaster to help coordinate response activities and plan accordingly, as all agencies have a shared responsibility to ultimately support the community in times of disasters.

The availability and sharing of bushfire predictive modelling is mentioned in Queensland disaster management doctrine.

The SDMP states:

> … predictive modelling services are available via the SDCC from key agencies relating to natural hazards such as flooding, coastal inundation and bushfire to support coordination and planning decisions.

The PPRR DM Guideline states:

> Other information to decision makers includes predictive modelling for a range of hazards, in particular bushfire and flooding. This modelling assists decision makers by providing an indication of the direction and extent of the hazard that is or may impact an area. Where LDMGs do not have access to locally produced modelling products, this information is available from the SDCC to disaster management groups via the request for assistance process.

In 2018, the Office of the IGEM became aware of the predictive capabilities of QFES through the Predictive Services Unit, including its Fire Behaviour Analysts (FBANs) and their tools such as:

- Simulation Analysis-Based Risk Evaluation (SABRE), a decision support framework containing a suite of bushfire monitoring, prediction and analytical tools
- Phoenix RapidFire (Phoenix), a tool to simulate the spread of fire.

The 2018 Queensland Bushfires Review (Report 2: 2018-2019) highlighted these products and their usefulness. The review made recommendations about building this capability:

- Recommendation 10 — Building capacity in fire simulation and predictive capabilities, including the capability of people to read and interpret these products through training, should be investigated and considered.
- Recommendation 11 — The outputs of these capabilities should be shared and actively inform the disaster management sector, including response operations and the creation of warnings and public messaging.

Local governments impacted by bushfire raised concerns in respect to the sharing of information and intelligence products by QFES during the 2023–24 severe weather season. This included access to predictive modelling/mapping, intelligence or situational awareness products and information about current bushfire situations. Some councils said they received information too late or marked as 'not for distribution', which made it difficult to keep the LDMG informed.

One local government advised:

> *"QFES initially shared intelligence products with the Local Disaster Coordinator who then shared them with the LDMG. The LDC was then advised against sharing the information with the 'cast of thousands on the LDMG'. The LDC argued the point but … reports were then marked as not for distribution. This effectively tied the LDC's hands and made it challenging to keep council staff and LDMG agencies up to date with where the fire was and what assets it might impact. The QFES ICC never engaged council to seek understanding if council staff or contractors might be in direct line of impact and at risk.*

They also advised they often found bushfire warnings on Facebook by chance.

The review heard of many agencies deploying staff to the QFES ICC, saying this was the only way they could get intelligence during bushfire events. The appointment of liaison officers is not unusual practice, with QPS often deploying liaison officers to ICCs to better inform themselves from an information and intelligence-gathering perspective.

Observation: Local and district group practitioners from the bushfire-impacted areas seek the sharing of bushfire intelligence products from the QFD.

In response to local governments' concerns, the QFD advised that during activations the primary customer was the State Operations Centre (SOC, since renamed to State Fire Control Centre) or Regional Operations Centre (ROC, since renamed to Regional Fire Control Centre), not the local government. The review was advised that predictive modelling products are not shared, due to the number of caveats associated with a prediction and the limited capacity of the small Predictive Services Unit within the QFD. The QFD said local and district groups needed to access this information through the protocols of liaison officers, as someone from the QFD would need to interpret the products.

The review was given an indicative example of a predictive product (Figure 8) and had access to the products supplied from the 2018 bushfires. The predictive maps show a level of uncertainty as to where the bushfire may spread based on no suppression, or worst-case scenario. Providing timely bushfire intelligence to LDMGs would support decision-making and planning for potential outcomes.

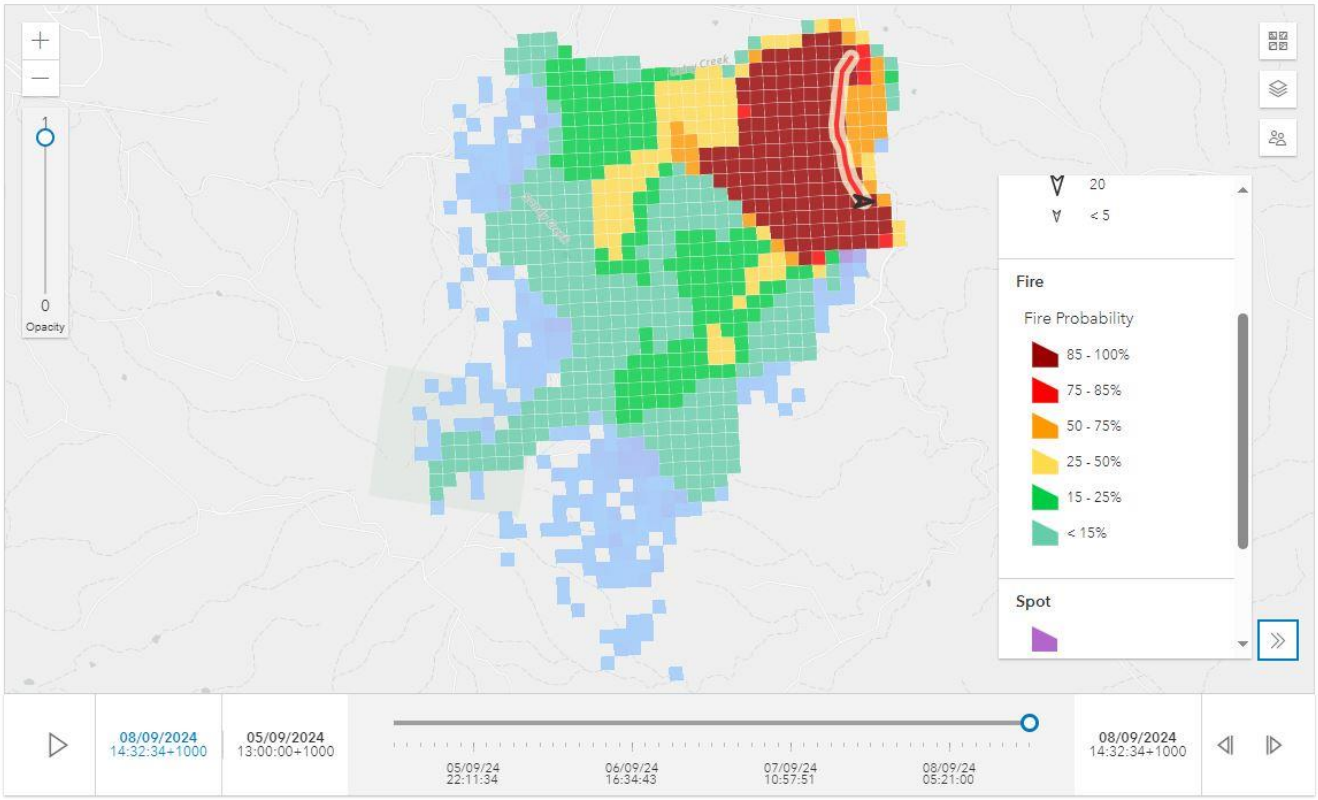

Figure 8: Indicative example of a bushfire predictive product

Damage assessment data

Many local governments expressed further concerns about access to or usability of damage assessment data. As one of its disaster response functions listed in the SDMP, the QFD undertakes initial damage assessments after the impact of events to gather information about the number of homes and other buildings, such as commercial structures, damaged and the nature of the damage. Some local governments said they did not receive damage assessment data from QFES, and some said that if they were provided with the data, it was not in a suitable format they could use, particularly for Geographic Information System (GIS) purposes, such as mapping.

Discussions with the QFD suggest the issue is not due to an unwillingness to share the data, as the data is available to local governments through the QDMA Data Sharing Group, but rather a lack of a suitable process for informing local governments or LDMGs how to access the data and who to contact about problems. The current process appears to rely on a QFD liaison officer for the LDMG. However, this process does not appear to be working as intended, and it does not allow for situations where the LDMG is not activated.

Insight 12: Planning for the deployment of staff should determine and capture where liaison officers are to be deployed.

It appears that the challenges around initial damage assessment data could be improved through protocols for local governments or LDMGs to be informed about:

- the timing of the conduct of initial damage assessments
- where the data can be accessed
- when fieldwork has been completed
- when data has been cleansed and validated
- who to contact if there is an issue.

Recommendation 4: The Inspector-General of Emergency Management recommends that the Queensland Fire Department engage with each council and local disaster management group (LDMG) and consult with the Local Government Association of Queensland to establish protocols for:

- locally led activation of LDMGs for bushfire events
- sharing of relevant bushfire intelligence
- identification of relevant local triggers
- communication and engagement arrangements.

The protocols are to be established by 1 August 2025.

Transitional arrangements and activities

Transition can be defined as a 'passage from one position, state, stage, etc., to another' (Macquarie Dictionary). Disaster management encompasses a range of transitions, including the transition of responsibilities between agencies (intra-level), differing levels of Queensland's disaster management arrangements (inter-level) and the transition from response operations to recovery operations. The review assessed the effectiveness of the arrangements and activities associated with these transitions.

The review heard some examples of the challenges to transition responsibility for response operations between levels of Queensland's disaster management arrangements. One local government advised of challenges and uncertainty when it attempted to pass the responsibility for temporary and emergency housing for 14 residents from local government to the appropriate State Government agency, after flooding associated with Tropical Cyclone Jasper. Therefore, the review has focused on the transition from response to recovery at the state level.

The Standard includes six outcomes that directly relate to transitional arrangements and activities:

- Outcome 3 — There is a shared understanding of how the impact of disasters will be managed and coordinated

- Outcome 4 — Plans outline and detail how the impact of disasters on the community will be reduced
- Outcome 6 — The community makes informed choices about disaster management, and acts on them
- Outcome 9 — Response operations minimise the negative impacts of an event on the community and provide the support needed for recovery
- Outcome 10 — Relief operations minimise the negative impacts of an event on the community and provide the support needed for recovery
- Outcome 11 — Recovery operations minimise the negative impacts of an event on the community and provide the support needed for recovery.

Transition from response to recovery

The transition from response to recovery relates to the transfer of the coordination role from the lead response agency to the lead recovery agency. The timing of this is influenced by many factors such as the nature of the event and requires a degree of flexibility and agility. For example, the Queensland Recovery Plan (QRP) notes that 'transition from response to recovery in large-scale or geographically dispersed events may be staged, with response and recovery operations being undertaken concurrently'.

At the state level, the SRPPC or the State Recovery SRC works with the SDC to ensure a smooth transition from response operations to recovery operations. The SDC should keep the SRPPC/SRC informed about response operations, including damage and impact assessments. As detailed in the PPRR DM Guideline, the transition to recovery is to occur at a time agreed by the SDC and the SRPPC/SRC, through a formal briefing which provides a comprehensive account of all relevant issues. The SDCG Secretariat, with support from the QRA, develops a transition report. Transition is considered complete with the endorsement of the formal handover brief from the SDC to the SRPPC/SRC, advising the impacted LDMG and DDMG chairpersons accordingly.

Transition from response to recovery is often interpreted as a linear process in which recovery does not begin until response has ended. The 2023–24 severe weather season clearly demonstrated that this is not the case. Recovery efforts, particularly those led by the community, began immediately on or just after the impact of the severe weather events. When compounding and cascading disasters occurred, many communities returned to response efforts due to a subsequent event, although recovery operations had already commenced for a previous event. This made it more challenging for state agencies to coordinate services and supports to councils, noting that some were still in the response phase while others were ready to transition to recovery. Consequently, transition at the state level was almost cyclic in nature, or short circuited, as the SDC and SRC led the respective coordination of response and recovery operations to overlapping events (refer to the timeline of events).

Observation: The compounding and cascading events that characterised the 2023–24 severe weather season exacerbated vulnerabilities within communities and strained existing resourcing, making the transition to recovery difficult.

The difficulties experienced transitioning to recovery were exacerbated by the nature of the functions of the recovery agencies that generally support both response and recovery operations. For example, DTATSIPCA, which chairs the Human and Social Functional Recovery and Resilience Group (FRRG), coordinates the delivery of community services and supports very shortly after the impact of the disaster right through to the completion of recovery efforts.

Practitioners across all levels of the disaster management arrangements raised concerns about the transitional arrangements and actions undertaken during the season. One example came from a local-level practitioner who believed that the transitional arrangements were not as strong as those of previous years and that a recovery officer from the QRA was not available. While QRA Recovery Officers and Regional Liaison Officers were made available to impacted communities across Queensland during the season, compounding and overlapping events meant that resources were stretched and shared across multiple, far-reaching locations. This reflected the complexity of so many disaster events in a short period of time across the state. Another local practitioner said their transition to recovery began while they were still responding to the disaster (flooding). The start of their recovery operations and the associated transition from response were delayed because of the continued rainfall in the shire and the closure of roads and restricted access to impacted residents.

An independent after-action review was conducted for the LDMG and council of a local government area that was severely impacted by Tropical Cyclone Jasper and its associated rainfall and flooding. In the after-action review, it was identified that transitioning from response to recovery for such a large-scale disaster was complex because resources, including personnel, were either already deployed, exhausted or stranded due to road and airport closures and that the span of leadership and responsibility expanded as more agencies provided support. The review noted that the transition was not well planned and that recovery efforts were delayed or overlapped with response operations, and that the pending local government elections exacerbated friction during the transitional period.

Some local-level practitioners and communities perceived a reluctance for their LDMGs to shift the focus from response to recovery. It was suggested that the primary factors behind this reluctance were a lack of understanding around transition, lack of experience with Queensland's disaster management arrangements, and limited understanding of recovery working in parallel with response. The latter of these was exacerbated in at least one local government area by the cascading events of a subsequent cyclone and flooding that were experienced.

Local practitioners from one local government area, however, indicated that their transition from response to recovery was well implemented, even with the challenges of staffing and resourcing due to the time of year and associated annual leave and mandatory shut-down periods. In this case, the council is now looking to address resourcing for future events. These practitioners identified that a recovery cell was

required in their LDCC as soon as the LDMG was at Lean Forward for the event (severe storm). Recovery 'sitreps' were developed soon after the event to capture recovery information as early as possible, which allowed the LDCC to know what to expect before they reached transition. The practitioners realised that they were always undertaking response and recovery at the same time, meaning that transition was not readily apparent.

Compounding disasters also influenced transitional arrangements in most disaster districts and inhibited the smooth transition from response to recovery. One DDMG representative commented that their DDMG was 'light on' with representation from key State Government agencies for recovery and that this was likely due to a focus on other impacted locations, although their district had been seriously affected.

Another district-level practitioner observed a need for greater understanding about the simultaneous nature of response and recovery, commenting, 'There is much emphasis on when you move from response to recovery, which causes a degree of confusion.'

Several members of the SDCG also identified that the compounding, cascading nature of the 2023–24 severe weather season events influenced the transition from response to recovery at the state level, and that it was an area that could be improved. Within this group, challenges to a smooth transition included difficulty drafting agency transition reports while damage assessments were still being undertaken. Further, a lack of clarity on governance arrangements that were still being formalised during the transition phase proved challenging, with recovery activities being discussed at SDCG meetings while the SRRG was still to be formed. To improve clarity of the arrangements for the transition from response to recovery, the SDCG has subsequently updated its terms of reference. The SRRG terms of reference were endorsed by the QDMC on 8 July 2024.

One State Government agency noted that a clear delineation between response and recovery was effective to clarify reporting requirements through the SDCC reporting platform, Event Management System (EMS), for either the SDC or the SRC to determine how to address outstanding actions. The agency indicated, however, that the current arrangements for transition from response to recovery may require further clarification and further processes, particularly in relation to the timing of the involvement of the QRA, individual agencies and the FRRGs in recovery operations. This agency also observed that in the case of Tropical Cyclone Jasper and the associated rainfall and flooding, essential services and road access had not been restored to all areas when the decision to hand over to the QRA was made, resulting in, 'some loss of clarity for some recovery efforts with agencies continuing their restoration efforts albeit independently of other activities'.

Transitional arrangements

While the compounding and cascading disasters during the 2023–24 severe weather season made the transition from response to recovery difficult, the review also identified gaps in understanding of transitional arrangements, activities and terminology.

Observation: The current transitional arrangements, activities and terminology in some cases are not well understood across Queensland's disaster management arrangements.

In addition to the six outcomes relevant to transitional arrangements and activities outlined in the Standard, Outcome 14 is applicable to transitional terminology, namely that 'common language is used by all entities within Queensland's disaster management arrangements'.

The arrangements and associated activities for the transition from response to recovery can be found in the Disaster Management Act, the PPRR DM Guideline, the SDMP and the QRP. Since the end of the season, work has begun to review and renew the PPRR DM Guideline and SDMP, and amendments to the Disaster Management Act have set out the roles and functions of the SRPPC at sections 21CA and 21CB. The appointment and functions of the SRC for a disaster are provided at sections 21D and 21E respectively.

Insight 13: The transition from response operations to recovery operations would be enhanced by updating the SDMP and PPRR DM Guideline to give clearer guidance and direction of the transitional arrangements, including roles, responsibilities, activities and terminology.

Appointment of the State recovery policy and planning coordinator and the State recovery coordinator

Since 24 June 2016, the CEO of the QRA has been appointed by the Premier to the role of the SRPPC and effectively the standing SRC, pursuant to a written authorisation. Under this authorisation the role of the SRC was considered an event specific SRC. The appointment and functions of the position of the SRPPC were not formalised in legislation until 1 July 2024. These functions, current for the season, are described in Table 6.

The effect of these appointments is that during the review period, the CEO of the QRA was required to undertake three roles simultaneously, namely:

- the role and functions of CEO
- the role and functions of the SRPPC
- the role and functions of the SRC.

All three roles are complex in nature but are entwined through elements of a common purpose and have interdependencies.

The appointment process for SRCs is established pursuant to section 21D of the Disaster Management Act. Since 1 July 2024, the chairperson of the QDMC (the Premier) may appoint a person as the SRC for a specific disaster where satisfied that the appointment is necessary, and that the person has the necessary expertise or experience to perform the functions. The legislation clearly articulates the process for the appointment of an SRC, noting there is no limit on the number of SRCs that can be appointed. This means, for example, in the case of more than one disaster, more than one SRC may be appointed.

Following the progression of legislative amendments effective from 1 July 2024, the legislation now formally establishes the position of SRPPC (the CEO of the QRA) pursuant to section 21CA of the Disaster Management Act. Further, where it is determined that it is necessary for an SRC to be appointed, the legislation now requires that the Premier must consult with the SRPPC.

Table 6: Appointment and functions of the SRC and SRPPC, as of 1 October 2023

Note: The QDMC is abbreviated to 'State group' in the version of the Act that was current at the time.

Position	Appointment	Functions
State recovery coordinator, legislated under the Disaster Management Act	**21D State recovery coordinator** (1) The chairperson of the State group may appoint a person as the State recovery coordinator for a disaster if the chairperson is satisfied that— (a) it is necessary for a State recovery coordinator to be appointed; and (b) the person has the necessary expertise or experience to perform the functions of the State recovery coordinator. (2) The appointment must be in writing and may only be terminated in writing. (3) The chairperson of the State group must terminate the appointment if the chairperson decides that it is no longer necessary for a State recovery coordinator to coordinate disaster operations for the State group. (4) The chairperson must advise the State group of the termination of the appointment.	**21E Functions of State recovery coordinator** (1) The State recovery coordinator has the following functions— (a) to coordinate the disaster recovery operations for the State group; (b) to report regularly to the State group about disaster recovery operations; (c) to ensure, as far as reasonably practicable, that any strategic decisions of the State group about disaster recovery operations are implemented; (d) to provide strategic advice on disaster recovery operations to government agencies performing disaster recovery operations. (2) In this section— ***disaster recovery operations*** means the phase of disaster operations that relates to recovering from a disaster.
State recovery policy and planning coordinator, as outlined in the QRP	The Chief Executive Officer (CEO) of the QRA is the SRPPC, as appointed by the Premier.	The SRPPC: • fulfils the role of the standing SRC • engages collaboratively with all stakeholders to ensure recovery activities provide the best outcomes for the people of Queensland in terms of timeliness, quality of service and advice to government • ensures better preparedness of government entities and the community for recovery operations • leads recovery planning, policy and recovery capability development to ensure effective recovery operations and coordination • oversees the effective delivery of relief and immediate recovery operations until a SRC is appointed • facilitates provision of local recovery planning and operations support, when requested by the impacted LDMGs/LRGs

Position	Appointment	Functions
		• escalates risks and issues to the FRGs (now known as FRRGs) and Leadership Board Sub-committee (Recovery) (now the SRRG) where appropriate • ensures continual improvements in disaster recovery policies, procedures and planning • oversees state-level preparedness for recovery operations • manages and resources a newly appointed SRC and is available for consultation with the SRC/Deputy SRCs throughout the duration of their appointment • in the lead up to a disaster (if possible), and during disaster response operations attends QDMC and SDCG meetings, and liaises with the SDC • works with the SDC to ensure smooth transition from response operations to recovery operations • works with stakeholders to collaboratively implement the delivery of resilience building measures and continuous improvement • provides ongoing reporting on the effectiveness of recovery progress • ensures a review of disaster recovery operations is conducted after an event.
State recovery coordinator (SRC) as outlined in the QRP	The appointment of a SRC is legislated under section 21D of the Disaster Management Act. The chair of the QDMC will appoint and terminate this position in writing only. Following severe or widespread events, deputy recovery coordinators may be appointed for a disaster event if, after consulting with the SRPPC and the SRC, the chair of the QDMC is satisfied the appointments are necessary.	The SRC: • coordinates the recovery and reconstruction efforts of government and non-government agencies in the affected areas to support local recovery objectives • ensures, as far as reasonably practicable, that any strategic decisions about disaster recovery operations made by the QDMC are implemented • provides strategic advice on disaster recovery operations to government agencies performing these operations • escalates risks and issues to the FRGs and Leadership Board Sub-committee (Recovery) where appropriate • Reports regularly to the Leadership Board Sub-committee (Recovery) on progress of recovery operations • reports regularly to the QDMC on progress of recovery operations. The State Recovery Coordinator Guide provides further information on the roles and responsibilities of the SRC and the associated induction program.

Appointment of Deputy State recovery coordinators

The appointment process for the position of Deputy SRC is not articulated in the Disaster Management Act or the QRP. The State Recovery Coordinator Guide (QRA 2019) is the only document in which the appointment and functions of Deputy SRCs are found. Developed under the authority of the QDMC, this guide states that, 'In severe or widespread events, Deputy SRC/s may be appointed to support the SRC.' Any such appointment will be made in writing by the chair of the QDMC, in consultation with the SRC. Deputy SRCs report to the QRA CEO to support the QRA to carry out its legislated function.

Two Deputy SRCs were appointed during the 2023–24 severe weather season:

- QFES Deputy Commissioner Mike Wassing AFSM was appointed on 20 December 2023 to assist in coordinating disaster recovery operations, provide strategic advice to government agencies, give

regular updates about recovery operations and oversee recovery operations for communities impacted by ex-Tropical Cyclone Jasper.

- QPS Assistant Commissioner (AC) Ben Marcus was appointed on 31 December 2023 to assist in coordinating disaster recovery operations, provide strategic advice to government agencies, give regular updates about recovery operations, and oversee recovery operations for South East Queensland communities impacted by severe storms on Christmas night. Subsequently, AC Marcus's responsibilities were expanded to include communities affected by Tropical Cyclone Kirrily in late January and most of February 2024.

When regard is had to the number, location and impact of severe weather events across the state, the appointment of two Deputy SRCs was necessary and appropriate.

As already stated, the Disaster Management Act clearly articulates the appointment process for the SRC, but it does not contemplate the appointment of a Deputy SRC. It is accepted that the *Queensland Reconstruction Authority Act 2011* (QRA Act) includes a provision for the QRA CEO to seek additional resourcing to increase capability, pursuant to section 27 stating the QRA CEO may:

> arrange with the chief executive of a department, a local government, a government entity or a government owned corporation, for the services of officers or employees of the department, local government, entity or corporation to be made available to the authority.

It remains unclear whether this is the basis on which appointments of Deputy SRCs are made. While the position of Deputy SRC is contemplated in both the QRP and the related policy document, the State Recovery Coordinator Guide, neither document articulates the basis on which the Deputy SRC appointment is made. When regard is had to the intent of section 27, which focuses on using the skills, experience and abilities of external personnel to increase the capability of the QRA, along with the functions of the SRC/Deputy SRC and the policy documents supporting this role, it is difficult to identify how Deputy SRC appointments are made.

Given the changing legislative landscape, the obligations required to be undertaken by an SRC and the likelihood of future complex disaster events, it is considered appropriate that the appointment process for both SRCs and Deputy SRCs be considered and reviewed and that the QRP and the State Recovery Coordination Guide be updated to reflect that process.

Insight 14: Given the likelihood of increasingly complex high-risk weather events and following the recent legislative amendment whereby the QRA CEO formally holds the role of SRPPC, opportunity exists for the QRA to obtain greater clarity with respect to the appointment process of both SRCs and Deputy SRCs. This may be achieved through either legislative amendment or the development of an appropriately endorsed framework for appointment.

State Recovery and Resilience Group

As a consequence of the IGEM's Review of QDMA, the new formalised SRRG was proposed. To be chaired by the QRA, the SRRG would operationalise strategic direction and provide advice on outcomes and any emerging strategic issues as they relate to resilience, prevention, preparedness and recovery. The SRRG was to complement the SDCG, which would focus on response and preparedness for response. The proposed SRRG objectives were to:

- provide collaborative input from member agencies to inform the development of recovery and resilience in Queensland
- provide guidance on preparedness, prevention and recovery capability needs and development opportunities
- manage and coordinate activities, emerging issues and solutions to cross-cutting issues across the FRRGs
- ensure preparedness, prevention, recovery and resilience activities are coordinated and implemented for the benefit of Queensland communities through the FRRGs
- ensure recovery and resilience activities are monitored and reported on to ensure objectives and outcomes are achieved.

The new organisational structure aimed to enable a collegiate relationship between the SDC and the SRPPC.

Action to establish the SRRG in Queensland's disaster management arrangements began before the 2023–24 severe weather season, while the terms of reference for the group were not approved until 8 July 2024, two months after the end of the season. In the meantime, an interim SRRG was established to fulfil the objectives of the group, with interim terms of reference drafted and endorsed by members of the interim SRRG.

The interim SRRG met eight times during the season, with three different structures, as follows:

- ordinary meeting — 24 November 2023 and 21 February 2024
- extraordinary meeting (Director-General) — 23 December 2023, 2 January 2024, 17 January 2024 and 7 February 2024
- extraordinary meeting (officer level) — 27 December 2023 and 10 January 2024.

These variations in structure of the interim SRRG may have contributed to a lack of clarity of governance arrangements and procedures during the transition phase, with recovery activities being discussed at SDCG meetings while the SRRG was still to be formed. When the interim SRRG was established and meeting, members of the SDCG who were also members of the interim SRRG expressed that they were required to attend and provide detailed briefings at the meetings of both groups. These members sought mechanisms for efficiency relating to the duplication of meeting attendance and reporting requirements.

On 10 June 2024, a debrief on the 2023–24 high risk weather season was held with the interim SRRG agency members. The debrief reviewed the five largest disaster events of the season, which are also the

focus events for this review. The debrief focused on recovery operations after transition from response to recovery had occurred. The purpose of the debrief was to reflect on strategic and systems-level lessons learned from the season and to improve recovery coordination and oversight into the future.

During the debrief, the interim SRRG members identified that establishing a formal process for situational awareness, such as a recovery reporting process similar to the Queensland Emergency Management Report (a daily report issued by the SDCC to provide information of significant events, major infrastructure outages and interruptions, emergency management operations and activation levels of LDMGs, DDMGs and the SDCC) would be beneficial to inform the transition from response to recovery. Currently, when an event transitions to recovery, each agency generates their own recovery dashboard, with no commonality. The process could include measures to promote accurate information, such as referencing, ensuring data is sourced from the agency responsible for it, and requiring endorsement by the responsible agency before wider distribution. Reporting requirements could also be streamlined to minimise workforce fatigue. The debrief also identified that clarifying when the SRRG stands up and interfaces with the SDCG to counter duplication would facilitate a seamless transition between response and recovery operations.

Emergency Relief Subcommittee

The IGEM's Review of QDMA recommended that an Emergency Relief Subcommittee (ERSC) of the SDCG and the SRRG be established to reflect a strong partnership arrangement to address all aspects of emergency relief. It was further recommended that arrangements for the chair and deputy chair of this subcommittee should be discussed between the QPS, QRA and the Department of State Development, Infrastructure, Local Government and Planning, and that these three agencies should develop a joint strategy for the provision of emergency relief. This subcommittee should comprise State Government agencies, NGOs, industry representatives and utilities to give both cause and effect to emergency relief tasks. This would enable emergency relief to move to a model reflecting a strong integrated partnership.

On 27 December 2023, the QRA advised the SDCG that it was standing up the ERSC to focus specifically on coordination of the provision of complex relief and delivery of recovery in Wujal Wujal, as well as the challenging areas in Douglas Shire. At the time, it was agreed for the QRA to be the lead agency for the formulation of the Emergency Relief Sub Committee. This resulted in the ERSC being left to scope elements that could have been undertaken at the district level, such as identification of regional priorities, regional coordination of activities, coordination of resupply and coordination of non-traditional access means and points. Lead responsibility subsequently transferred to the QPS for stand-up during response, and the QRA for stand-up during recovery.

Within the approved SRRG Terms of Reference, the ERSC was renamed as the Emergency Relief Working Group (ERWG). The ERWG is a working group that supports the SDCG and the SRRG. Its purpose is to manage complex, diverse and or challenging relief needs requiring immediate multi-agency coordination and collaboration during disaster events to preserve life. Under these terms of reference, the ERWG can be stood up by either the SDCG or the SRRG, depending on the relevant phase of disaster operations and the

needs to be addressed. The ERWG will operate under a co-chair arrangement, with the QPS and QRA chairing during disaster response and disaster recovery operations respectively.

The introduction of the ERSC may have inadvertently placed an emphasis on 'relief' as a specific phase of disaster management in Queensland, with this phase being undertaken between response and recovery. Language and the use of the correct terminology is important to ensure all participants and practitioners within the disaster management phases are clear. By way of example, when asked by media about the timeframe for recovery and reconstruction for Bloomfield, *The Cairns Post* (17 January 2024) quoted, 'We are still in emergency relief, we are not into truly what we call recovery.' This injection of 'relief' into the recognised arrangements potentially created a level of confusion among practitioners that impacted the transition from response to recovery.

In accordance with the guiding principles at section 4A of the Disaster Management Act, Queensland's disaster management should be planned across four phases: prevention, preparation, response and recovery. Here, the provision of immediate relief and support after an event to ensure that the effects of the disaster are minimised is shown as a component of response operations. In Queensland's SDMP, relief is shown as services and supports that are provided or delivered. While the QRP also presents relief as services and supports that are provided or delivered, as well as an operation within stage 1 of the recovery phases, relief is contrarily defined in the QRP and the Queensland Disaster Management Lexicon as 'efforts to meet the needs of persons affected by a disaster, to minimise further loss through the provision of immediate shelter and basic human needs'. The use of relief in the PPRR DM Guideline is consistent with the QRP, with Chapter 6 of the guideline referring to the term as both services and supports and also operations to provide these measures. Of note, the Australian Institute for Disaster Resilience (AIDR) Community Recovery Handbook 2 tends to use relief in both ways, but it is predominantly shown in relation to the services and supports delivered 'to save lives, alleviate suffering, provide information, prevent outbreaks of disease and meet the basic emergency needs of the affected population, such as shelter, food, clean water and medical services'.

The impact of the unfamiliar concept of relief as a phase in the disaster management arrangements and a frequent referral to 'resupply' rather than 'emergency relief' by government staff was most evident for those communities affected by Tropical Cyclone Jasper and for the agencies involved in both the delivery of response and recovery efforts. These inconsistencies in the definition and use of 'relief' contributed to some confusion during the transition from response to recovery in a season that was challenged by cascading and compounding events.

Observation: The term 'relief' is not a specific phase of disaster management in Queensland.

Coordination and deployment of personnel and equipment

While local governments have primary responsibility to manage a disaster at the local level, Queensland's disaster management arrangements allow for progressive escalation of support and assistance at district, state and federal levels. This means that, during the response to a single disaster, personnel and equipment may be deployed across all levels of the arrangements. The PPRR DM Guideline outlines the requirements for activating responses at different levels, deploying resources, and for seeking logistics support and/or resources to meet operational requirements that are beyond local or district capacity and capability. The PPRR DM Guideline outlines that if an event exceeds the capacity or capability of an LDMG to manage, support can be requested from the DDMG. If district resources are inadequate or inappropriate, the DDMG can request support from the SDCC. Finally, if state resources are inadequate or inappropriate, the SDCC can request support from the Australian Government.

The Standard includes six outcomes that directly relate to the coordination and deployment of personnel and equipment:

- Outcome 3 — There is a shared understanding of how the impact of disasters will be managed and coordinated
- Outcome 4 — Plans outline and detail how the impact of disasters on the community will be reduced
- Outcome 7 — Resources are prioritised and shared with those who need them, when they need them
- Outcome 8 — Entities develop integrated capabilities and shared capacity to reduce the impact of disasters on the community
- Outcome 9 — Response operations minimise the negative impacts of an event on the community and provide the support needed for recovery
- Outcome 10 — Relief operations minimise the negative impacts of an event on the community and provide the support needed for recovery.

The review assessed the coordination and deployment of personnel and equipment during the 2023–24 severe weather season, within and across the levels of Queensland's disaster management arrangements.

Australian Government support and resources

The state sought support from the Australian Government and subsequently a number of local government areas received assistance from the ADF and DRA following the severe weather events, including Tropical Cyclone Jasper and associated rainfall and flooding, and the severe storms and rainfall in South Queensland. In the 2023–24 severe weather season DRA deployed response teams to assist with the clean-up operations in South East Queensland in December 2023 and in Far North Queensland in January 2024.

Disaster Relief Australia (DRA)

DRA is a veteran-led non-profit disaster organisation which utilises the skills and experience of military veterans and other volunteers to help communities prepare for and recover from disasters. DRA responds to requests of local and state government agencies to provide volunteers to communities in need. The Australian Government has committed $38.1 million over four years to DRA to cover the costs to uplift recruitment, with a target of more than 5,000 new volunteers to the organisation, deployment, equipment and training. This funding commenced in 2022–23.

The review received mixed reports in submissions and community engagement forums that, in some instances, Australian Government resources were not requested by the LDMG, in line with Queensland's disaster management arrangements. One local government described the request for assistance process as being reverse engineered, in that it was top-down, rather than locally requested. This resulted in a staff member removed from their response coordination activities to facilitate the tasking of Australian Government resources, which were apparently reported as being unable to be completed due to strict tasking orders.

Further frustrations were reported by another local government who indicated that there was a lack of communication and transparency, misreporting of tasks completed, and allocated tasks that remained incomplete. Similar to experiences from other local governments, they found working with these resources to be very time consuming and diverted local resources away from local response operations.

In contrast, the review heard praise for the support from Australian Government agencies in other areas, where agencies came with swags and food and were relatively self-sufficient. At one point, Humanihuts — emergency shelters with off-grid capability, their own power, potable water and wastewater storage — were deployed. However, the community considered that the huts had been placed in unsuitable locations (for example, wet, soggy ground in proximity to crocodile-infested waters).

It is important to also note the community's expectations around the deployment of Australian Government resources, namely the ADF. The review heard from community members of their frustration that the 'government and army' did not sufficiently coordinate and communicate the evacuation of residents in Wujal Wujal. The community reported helicopters evacuating people while critical relief supplies such as food and water were not provided for those remaining, causing distress.

The ability of Australian Government agencies to offer local governments support and resources was acknowledged, but in some cases the top-down approach did not align with the disaster management arrangements and may not have fully considered community-level requirements and practical usage. Multiple local governments reported challenges tasking ADF and DRA resources as their scope of activities was limited. One local government commented that DRA resources did not have the experience or capability to complete the tasks required for the local community. In another instance, the ADF were deployed to repair a road already being repaired by local crews. Local governments were also unsure of how DRA was tasked, and in some cases local governments said they did not receive feedback about activities or tasks DRA completed within the local government area.

At the district level, a DDMG indicated that DRA personnel were self-generating tasks which were not requested, confirmed or coordinated through the LDMG. These tasks provided additional risks and confusion which showed a lack of understanding of Queensland's disaster management arrangements. Another LDMG reported that DRA did not meet their expectations. This was due to a very restricted scope, and costs were incurred. The LDMG reported they discovered that the council was expected to pay for accommodation and travel expenses for the DRA. The LDMG was not aware of this cost until after the DRA arrived.

At the local level, multiple LDMGs described what they considered a delay in the deployment of Australian Government resources, specifically the ADF. The review heard that, on a number of occasions, personnel arrived after the jobs they were tasked to undertake were completed.

The restricted scope of work and unknown, inconsistent tasking for Australian Government resources resulted in challenges for LDMGs that are responsible for coordinating the response to disasters. There are different understandings of how support and resources are deployed to disaster-impacted communities. The deployment of Australian Government support and resources should integrate with Queensland's disaster management arrangements and in harmony with the principle of local leadership.

> *"Such resources must be responsive to local community need and integrate with the state's established frameworks to bolster capabilities without confusing roles and responsibilities.*

In contrast, the review heard that DRA embedded a liaison officer in an LDCC to assist in response to the South Queensland severe storms and rainfall. This liaison officer worked closely with the LDCC in identifying and prioritising tasks. The LDMG reported that this approach worked extremely well and was a great success. However, neighbouring LDMGs who did not have an embedded liaison officer reported mixed levels of success. This was reflected in advice from DRA.

The Defence Assistance to the Civil Community (DACC) Initiative is well publicised (Department of Defence 2022) and is available on the internet. The arrangements clearly explain the responsibilities and expectations at both a Commonwealth and state level. The arrangements reflect the commentary in the National Defence, Defence Strategic Review 2023, in particular page 41 sections 5.3 to 5.5 (Department of Defence 2023). It is important that those operating within Queensland's disaster management arrangements are familiar with these publications.

Observation: There needs to be a greater understanding of the 2023 DACC arrangements.

Insight 15: Better integration of Australian Government resources in the QDMA is required, including documenting capabilities and constraints to establish a common understanding of roles, responsibilities and coordination arrangements.

State and local government support

State agencies also deployed personnel and equipment to support communities during the 2023–24 severe weather season. For example, the QFD maintains the AUS-1 Disaster Assistance Response Team (DART), also known as the Queensland Urban Search and Rescue team, which is available for deployment to support communities after severe weather events and other disasters. DART functions as a self-sufficient field operations unit with capability for up to 14 days.

DART deployment after Tropical Cyclone Jasper

In response to Tropical Cyclone Jasper, DART personnel were among the 500 QFES personnel deployed to Far North Queensland. DART personnel trained in urban search and rescue undertook a range of activities to assist with the evacuation of residents and post-evacuation support, including 5,247 damage assessments across multiple local government areas. The DART personnel that operated in Wujal Wujal from 19 to 20 December 2023 supported the community through:

- searching for missing people
- planning for post-evacuation support and activities
- coordinating with the ADF and QPS
- resource management
- undertaking damage assessments in the township and surrounding areas.

Collaboration between agencies and local governments

The review heard some instances of state agencies and other groups working collaboratively with each other and local governments, within Queensland's disaster management arrangements, to deliver support to communities. Examples included Energy Queensland (via network providers Energex and Ergon Energy) working with local governments and state agencies to resupply electricity to customers impacted by severe weather events. Energy Queensland advised that it plans to also work with telecommunications companies to formalise a coordinated approach to preparedness and response in the future.

Examples from Energy Queensland

Southern Queensland bushfires

After bushfires destroyed infrastructure in the Tara and Kogan areas, Ergon Energy enabled a surge workforce of 64 additional crews from across South Queensland. Ergon Energy partnered closely with QFES to restore electricity supply to nearly 300 customers, while also providing information online about engaging a licensed electrician for those who needed to repair private assets.

South Queensland severe storms and rainfall

Severe storms left 130,000 Energex customers without supply across large parts of South East Queensland. To assist, Ergon Energy crews were mobilised from Cairns, Townsville, Mackay, Rockhampton, Hervey Bay, Bundaberg, Barcaldine and Toowoomba. They totalled nearly 1,000 field and substation crews and hundreds of support staff, such as network control, planning, job dispatch, call centre operations and logistics. Access issues were overcome by working closely with LDMGs to coordinate the restoration quickly and safely. Energex kept communities updated via media, community hall meetings and the online Energex Outage Finder Tool.

Tropical Cyclone Kirrily, associated rainfall and flooding

Tropical Cyclone Kirrily resulted in power interruptions to 66,000 customers in Townsville, Burdekin, Hinchinbrook and Charters Towers regions. Energy Queensland mobilised more than 650 crews from across Queensland to progressively restore electricity. The response was coordinated with local, district and state disaster management groups, alongside daily updates to the community and media.

The value of collaboration and coordination between State Government, local government and service providers was further demonstrated by collective efforts to restore drinking water supply in North Queensland after the flooding associated with Tropical Cyclone Jasper.

Collaboration to repair infrastructure in Far North Queensland

On 21 December 2023, the SDCC engaged the Department of Regional Development, Manufacturing and Water (RDMW) to assist Far North Queensland councils with repairing water and wastewater infrastructure. A Mutual Aid Coordination Cell (MACC) was established and operated under the Australian Water Sector Mutual Aid Guidelines, a framework to guide water utilities impacted by disaster and emergencies. The MACC was led by Urban Utilities, a statutory body based in South East Queensland. It included water sector representatives from:

- RDMW
- Seqwater
- Unitywater
- Queensland Water Directorate

- Townsville City Council
- Mackay Regional Council
- Cairns Regional Council
- Mareeba Shire Council.

The RDMW played a central role in the coordination of efforts, acting as the liaison between councils, contractors and the MACC. The RDMW:

- supported the QRA in managing drinking and wastewater efforts, with daily updates
- assisted the Wujal Wujal CEO by establishing the Recovery Coordination Centre and coordinating high-profile government visits
- led meetings, aligned recovery priorities and drafted social media messaging
- ensured safety by inducting contractors, visitors, and volunteers on site hazards and controls
- regularly checked in with site-based personnel, including QPS and Queensland Ambulance Service officers, to support mental health and wellbeing.

The coordinated response facilitated effective communication across agencies, deployment of southern Queensland resources to Far North Queensland, provision of equipment and supplies to councils and volunteers, and timely repairs to water infrastructure.

Following the stand-down of the MACC on 23 January 2024, RDMW went on to establish the NQ Water Sector Recovery Coordination Group. This group centralised communication, escalated issues and oversaw recovery plans in Wujal Wujal and Douglas Shire. It involved representatives from multiple departments and councils to ensure continued support for ongoing recovery efforts.

The LGAQ's Council to Council (C2C) support program also played a key role in coordinating the deployment of resources and personnel during the 2023–24 severe weather season, particularly in response to Tropical Cyclone Jasper and the South Queensland severe storms and rainfall.

Council to Council (C2C) support program

The C2C identified, coordinated and activated assistance from councils that were not affected by the severe weather. It facilitated the movement of council-managed resources, including the deployment of 33 council officers from 14 councils, to assist impacted areas. This included disaster managers, recovery specialists, media and communications experts and other personnel.

The program worked to ensure the support matched the needs of the impacted councils, so resources went where they were needed most. The C2C facilitated operational support and expertise sharing across councils, helping to build capacity and strengthen the network of local governments. This collaborative approach enhanced response efforts, highlighting the importance of coordination and resource-sharing when responding to disasters.

In these and other examples, the use of surge workforces and additional personnel from outside the impacted areas was often crucial to response efforts. The review acknowledges that, while these approaches are useful from a logistical perspective, they can also contribute to negative impacts on communities as discussed below.

Impacts on communities from external assistance

Outcomes 9 and 10 of the Standard require that response and relief operations minimise the negative impacts of an event on the community and provide the support needed for recovery. Both outcomes include an indicator for entities to conduct operations that minimise the likelihood of unintended consequences impacting the community.

External assistance, although well intentioned, sometimes caused additional damage and distress for residents due to a lack of understanding of local cultural identity and sensitivities. Following Tropical Cyclone Jasper and the associated flooding, there was an expectation from communities that emergency assistance would immediately be arranged and delivered. However, residents reported disorganised and sporadic aid efforts that lacked a unified command and created further distress and confusion. The assistance that did arrive was often from contractors and volunteers who did not have proper instructions or understanding of what was needed, leading to mishandling of personal items. In some cases, contractors and volunteers ignored residents' requests and proceeded with clean-up efforts that resulted in the destruction of property, personal belongings and cultural artefacts, again leading to increased anxiety and trauma within the community.

The exclusion of local people from the clean-up process prevented suitable guidance in respect to physical property but also inflicted psychological harm, as communities were unable to carry out culturally appropriate healing ceremonies according to their customs. There was a strong sentiment that more involvement of local community members, such as elders and rangers, in this process could have assisted in mitigating these issues and led to a more considered, respectful and effective response.

The community's frustration was heightened by a lack of disaster management knowledge among some of the deployed personnel. In some cases, staff lacked training in disaster management arrangements and procedures in the area in which they were operating, which limited their ability to respond effectively. For example, there were reports from some people of officials who were not adequately prepared to handle the complexities of the disaster, leading to less-than-optimal decision-making and hence a lack of or insufficient knowledge of disaster management for timely, appropriate action.

Some communities expressed the experience of a lack of central coordination and communication from emergency services, which caused significant frustration. It was reported that a number of agencies were operating independently without consulting each other and provided little to no assistance, while asking for regular updates from the community. In one instance, an LDMG reported not receiving timely information related to QPS disaster response operations, leaving them with a lack of situational awareness related to welfare checks and evacuations.

The review heard that, in some cases, deployed personnel who came from outside the local area often did not possess appropriate local, cultural or environmental awareness. This lack of awareness was reported in several instances, such as the failure to consult or collaborate with local residents who had intimate knowledge of the terrain, area, and specific needs of their community. In one community, residents expressed concerns around the lack of silt traps to protect World Heritage listed sites, as well as the lack of cultural monitoring.

The review was advised that a frequent rotation of emergency and support services staff, who in their opinion had not received an adequate handover, further affected the continuity and effectiveness of the disaster response. The regular changeover of personnel meant that each new team often lacked local knowledge, context and necessary information, leading to repeated mistakes and a sense of starting over every few days.

Insight 16: Expanding the training material to include engaging with traumatised communities, cultural considerations, local situation and Queensland's disaster management arrangements, and providing training under the QDMTF to all personnel being deployed into a disaster-affected area would facilitate better outcomes for the community.

Recommendation 5: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead and co-design a whole-of-state training and exercise strategy.

Recommendation 6: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead the establishment of a co-designed governance framework to achieve objectives that enhance the understanding of Queensland's disaster management arrangements within all disaster management entities, government, non-government, and the community.

Warnings

A warning provides point-in-time information about a hazard that is impacting or is expected to impact a community. It is a specific form of public information that describes the impact and expected consequences for communities and includes advice on what people should do to be safe.

Warnings are issued by local governments, state government agencies and/or the Bureau, depending on the hazard. They are then distributed to the public through a range of communication channels. Other types of public information might also be issued before, during and after a disaster. These might include, for example, information about community meetings, closed or restricted services resulting from the disaster, and other information to keep the community safe and informed.

Timely access to clear public information and warnings about imminent or current emergencies means communities can better understand their risk, consider their personal situation and take protective action.

The Standard includes two outcomes that directly relate to warnings:

- Outcome 5 — Entities proactively and openly engage with communities
- Outcome 6 — The community makes informed choices about disaster management, and acts on them.

The Standard also outlines that, among the indicators required for Outcome 6 to be achieved:

- communities must receive relevant, timely, consistent, easy-to-understand warnings
- entities must provide the community with information that enables them to prevent, prepare for, respond to, and recover from the impacts of disasters.

Although the terms of reference focus on the AWS, the review took a holistic view of warnings to also consider other warnings and communication channels used during the 2023–24 severe weather season.

Australian Warning System

Queensland uses the AWS, a national approach to severe weather warnings. This was implemented for:

- bushfire warnings in 2021
- extreme heat, storm, flood and cyclone warnings on 1 November 2023.

These are the nationally agreed hazards for the AWS. Plans are in place to include other hazards, such as tsunami, in the future.

The AWS is not a physical system or technology platform for accessing warnings. Rather it is a framework designed to deliver a consistent approach to community-focused warnings across the country, regardless of the hazard, location or issuing agency. Consistent warnings help reduce community confusion and, therefore, increase the likelihood that people will recognise, understand and follow a warning. This is potentially lifesaving.

About the Australian Warning System (AWS)

The AWS is a national approach to warning people before, during and after severe weather events and disasters. It uses consistent warning levels, colours and icons (Figure 9), supported by calls to action.

The three warning levels are:

1. **Advice (yellow)**: An incident has started. There is no immediate danger. Stay up to date in case the situation changes.
2. **Watch and Act (orange)**: There is a higher level of threat. Conditions are changing and you need to start taking action now to protect you and your family.
3. **Emergency Warning (red)**: An Emergency Warning is the highest level of warning. You are in danger and need to act immediately. Any delay will put your life at risk.

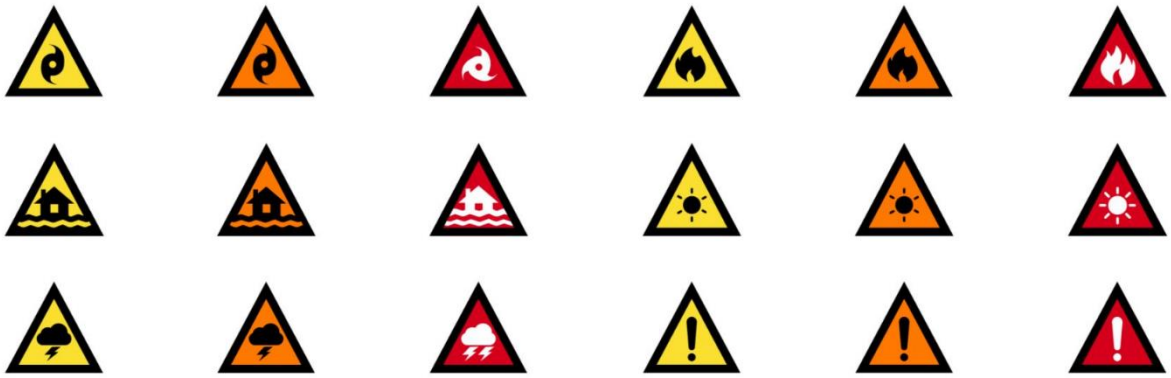

Figure 9: AWS hazard icons

Obtained from the Australian Institute for Disaster Resilience, © Commonwealth of Australia 2024

Agreed action statements tell people, in few words, what they need to do (e.g. stay informed, move to higher ground, prepare to leave, leave immediately). The calls to action can be used flexibly across the warning levels.

A warning is issued only when a protective action is necessary. Those responsible for issuing warnings under the AWS decide which warning to issue, for whom and when, based on a range of information about risk, community demographics, historical data, mapping, accessibility to a given area, time of year and/or time of day. Warnings are customised to the relevant area and hazard. They include expected impacts, specific actions to take and where to find more information, such as local government disaster dashboards or local radio station frequencies. They may include information such as evacuation centre addresses, places of refuge or sandbagging locations.

During the 2023–24 severe weather season:

- **QFES** was responsible for issuing bushfire and broad-area cyclone warnings, and supporting LDMGs when needed to issue local storm, flood and cyclone warnings
- **Queensland Health** was responsible for issuing extreme heatwave warnings
- **local governments**, through their LDMGs, were responsible for issuing local storm, flood and cyclone warnings, with state support available on request from QFES.

AWS responsibilities are not specified in the Disaster Management Act or the State Disaster Management Plan, but they were included in the updated PPRR DM Guideline.

Note: Since the lessons from Tropical Cyclone Kirrily and Tropical Cyclone Jasper were identified, broad-area cyclone warnings will no longer be issued. Local area cyclone warnings will still be issued. If a local government requests warnings support, this is delivered through the local EMC first, and then escalated to the SDCC Watch Desk staff if required. As the primary hazard agency for bushfire, the QFD remains responsible for all bushfire warnings in Queensland.

AWS implementation in Queensland

Implementing the AWS was a priority recommendation of the Royal Commission into National Natural Disaster Arrangements in 2020. In 2021, QFES was tasked with leading the implementation of the AWS in Queensland. The AWS was implemented for bushfire warnings in Queensland in 2021, and a multi-agency working group was then established to help guide implementation of AWS for other hazards.

In 2022, the IGEM's South East Queensland Rainfall and Flooding February to March 2022 Review included a recommendation that:

> … Queensland Fire and Emergency Services implement the Australian Warning System for all nationally agreed hazards by 1 November 2023. Implementation should include guidance and training to all local governments and agencies operationally involved in disaster management, with emphasis on those agencies with hazard specific responsibility.

After extensive statewide engagement across multiple sectors (Figure 10), QFES recommended that local governments take responsibility for issuing local warnings for storm, flood and cyclone, with state support on request. This model aligned with Queensland's disaster management arrangements and was supported by the LGAQ. In July 2023, senior members of QFES, QPS and the DPC considered the recommendation from QFES, along with feedback from the working group, and unanimously agreed on the recommended model, which was endorsed in August 2023.

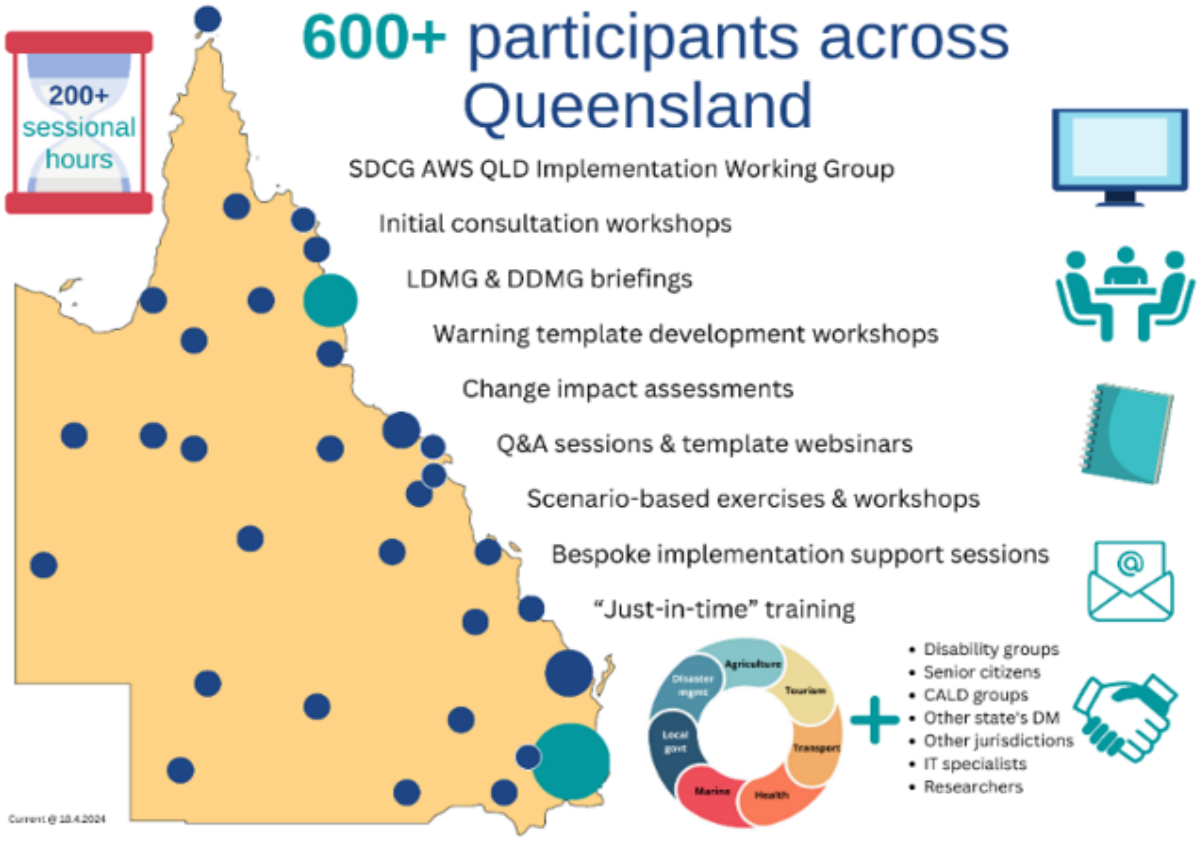

Figure 10: Summary of AWS Queensland stakeholder engagement by QFES between 2021 and 2023

QFES engaged with 600+ participants across Queensland through the SDCG AWS Queensland Implementation Working Group, initial consultation workshops, LDMG and DDMG briefings, warning template development workshops, change impact assessments, Q&A sessions and template webinars, scenario-based exercises and workshops, bespoke implementation support sessions and 'just-in-time' training.

Supplied by QFES

Bureau of Meteorology warnings

The Bureau remains responsible for weather alerts, updates and warnings. Under section 6(1) of the *Meteorology Act 1955* (Cth), its functions include 'the issue of warnings of gales, storms and other weather conditions likely to endanger life or property, including weather conditions likely to give rise to floods or bush fires'.

Importantly, warnings issued under the AWS do not replace or duplicate Bureau weather warnings. They are two different products that serve different purposes. Warnings issued under the AWS provide locally specific, action-based advice for people in the warning area, and information about the expected impacts. The Bureau's warnings focus on the likely weather and its impacts, such as rain, hail, wind speed, temperature, tide heights and river levels.

Agencies responsible for warnings use weather information from the Bureau as one form of intelligence to decide if a warning is required, for whom, and when.

Communication channels

Warnings are sent and shared through multiple communication channels. Figure 11, supplied by QPS, outlines the communication channels through which people may receive warnings. The diagram clearly depicts the diverse range of access points through which the community may receive information.

The review notes that this is a shifting space, and the representation in Figure 11 may change over time.

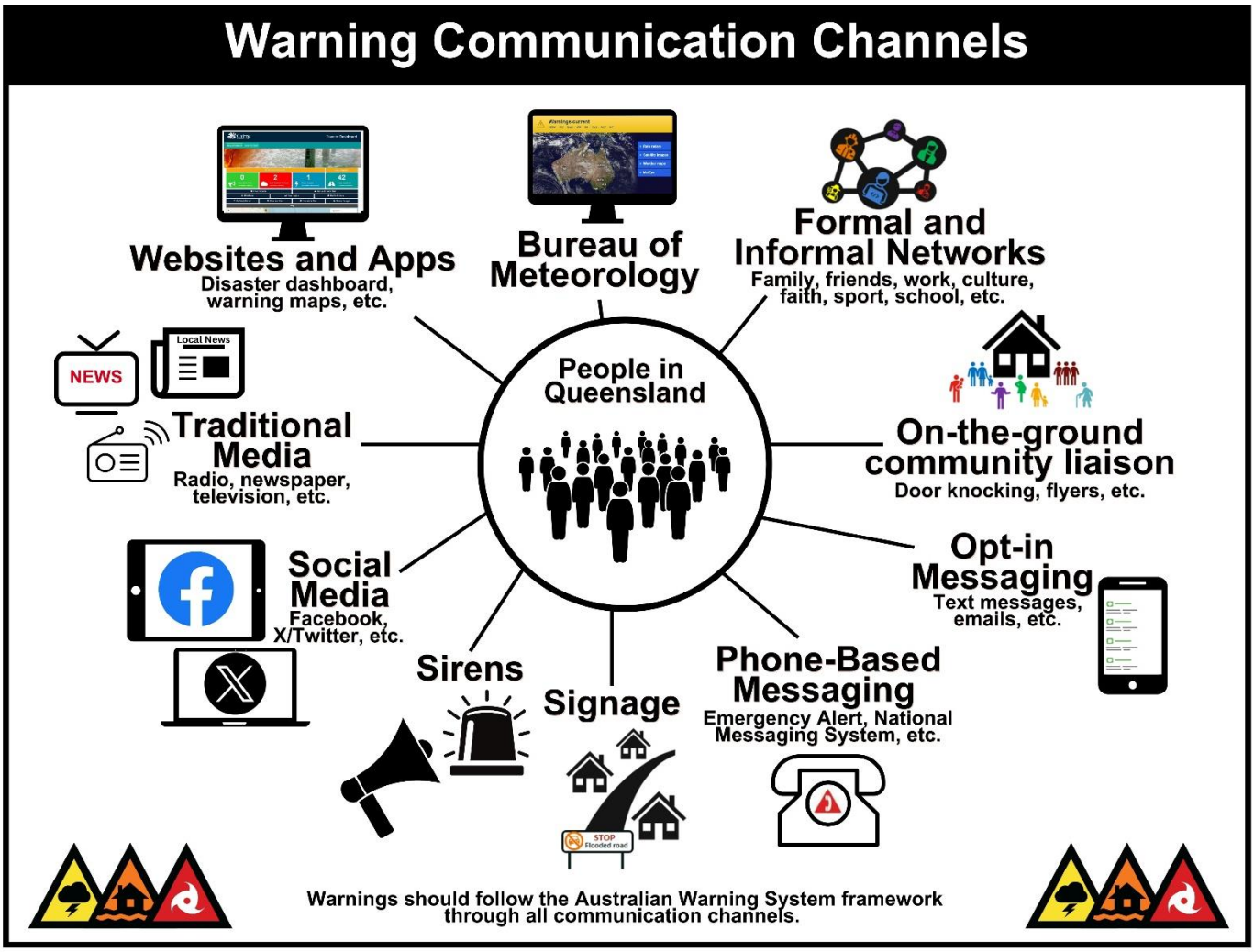

Figure 11: Warning communication channels
Supplied by QPS, adapted from QFES source, 2024

Emergency Alert

EA is a national telephone warning delivery system, shared with other Australian jurisdictions, which provides a platform for local and state agencies to issue warnings. It is a communication channel used to send voice messages to landline phones and text messages to mobile phones within a defined spatial area about a likely or actual disaster and/or emergency situation. EA complements other forms of public information and warning delivery.

The SDCC Watch Desk uses the EA system to send warning messages on behalf of other agencies. For bushfires, these are usually requested by the incident controller. EAs for storms, floods or cyclones are usually requested at the local level.

Under section 295V of the *Telecommunications Act 1997* (Cth), emergency management persons (known as authorising officers in Queensland) must approve EAs at the state level. During the 2023–24 severe weather season, emergency management persons were prescribed by the Telecommunications (Data for Emergency Warning Systems) Instrument 2020 (Cth).

Note: This instrument was repealed by the Telecommunications (Emergency Management Persons and Emergency Laws) Instrument 2024 (Cth) on 18 July 2024. The new instrument prescribes the current emergency management persons for Queensland and other jurisdictions.

Disaster dashboards and websites

Many local governments have disaster dashboards on their websites, which provide local warnings and other information, such as power outages and road closures.

Warnings and related information are also published on some Queensland Government websites. For example, during the 2023–24 severe weather season:

- severe weather, flood and cyclone warnings were published on the Queensland Government Disaster Management website
- bushfire warnings were published on the QFES website
- extreme heatwave warnings were published on the Queensland Health website
- maritime warnings were published on the Maritime Safety Queensland (MSQ) dashboard.

Opt-in systems

Many local governments have opt-in systems for community members to receive warnings and other public information, generally by text messages or email. Local governments use these services to:

- share Bureau weather warnings relevant to the area
- add local context to Bureau weather warnings
- communicate messages based on triggers such as river gauge heights
- remind subscribers of other important non-disaster-related information.

Some community members also receive messages through other opt-in systems. These could be through other agencies involved in disaster management, such as referable dam owners, or through insurance companies and other sources.

Social media

State agencies and many local governments also use social media platforms, such as Facebook and X (formerly Twitter), to distribute warnings.

Warnings issued during the 2023–24 severe weather season

The following tables set out:

- the number of AWS warnings issued in Queensland during the 2023–24 severe weather season, based on data provided by QFES (Table 7)
- the number of weather warnings issued by the Bureau for Queensland during the 2023–24 severe weather season (Table 8)
- the number of EAs sent during the 2023–24 severe weather season (Table 9).

At a state level, Queensland Health successfully issued four AWS warnings for extreme heatwaves during the 2023–24 severe weather season. MSQ published Australia's first AWS maritime warning, and Queensland, via Tablelands Regional Council, issued Australia's first AWS cyclone warning.

While the EA system is a communication channel rather than a type of warning, an EA may align with an existing AWS warning or may be requested separately, depending on the council, requestor and message.

Table 7: Number of AWS warnings issued from 1 October 2023 to 30 April 2024

Hazard	State-issued AWS warnings	State-supported AWS warnings	Local government-issued AWS*	Total AWS warnings
Bushfire	1,260	-	-	1,260
Storm	-	2	8	10
Flood	-	26	64	90
Cyclone#	18	6	40	64
Total	**1,278**	**34**	**112**	**1,424**

* approximate number due to local governments not being required to report on AWS warnings issued.

includes land and maritime cyclone warnings.

Table 8: Number of Bureau of Meteorology warnings from 1 October 2023 to 30 April 2024

Weather hazard	Bureau weather warnings
Severe weather warning	144
Severe storm warning	1,254
Flood warning	1,050
Cyclone warning	92
Total	**2,540**

Table 9: Number of Emergency Alerts sent, per warning level, from 1 October 2023 to 30 April 2024

EA warning level	Number of EAs
Advice	28
Watch and Act	100
Emergency Warning	61
Total	**189**

Use and understanding of warnings systems and processes

Local governments used the AWS for the first time during the 2023–24 severe weather season, with varied levels of uptake, success and perspectives. Some of the challenges local governments faced may be attributed to the short timeline for implementation of the AWS for storm, flood and cyclone warnings in some areas. Understanding of warnings systems and processes varies between practitioners and within levels of the disaster management arrangements, some of which is attributable to the limited timeframe for formal training around the AWS.

The review understands there were challenges in developing an implementation model that met the differing needs and perspectives of stakeholders, including differing views between local governments and between State Government agencies. These challenges led to delays in receiving the final endorsement of the implementation model for Queensland, leaving only three months for implementation.

AWS storm, flood, cyclone and extreme heatwave warnings were implemented on 1 November 2023, meeting the recommendation from the IGEM's South East Queensland Rainfall and Flooding February to March 2022 Review. However, the review was advised that the limited timeframe affected the ability of QFES to implement the AWS to their desired standard, with variations in the training undertaken by local governments.

The QDMTF outlines training to be undertaken by Queensland disaster management stakeholders to support the effective performance of each identified role. Module 1, Introduction to Warnings and Alerts was updated to include a new topic on AWS comprising five slides and an activity. The updated training materials were available for delivery from October 2023. Prior to implementation of the AWS, QFES also delivered AWS awareness sessions, including online webinars, scenario-based exercises and bespoke training sessions to local governments across Queensland. These sessions were not mandatory and not undertaken by all local governments. The review team heard that some local governments intended to do more bespoke training but were unable to do so before the start of the 2023–24 severe weather season. Additionally, some council staff who were AWS-informed were unavailable during severe weather events, which resulted in people unfamiliar with the AWS taking responsibility for warnings.

Most councils who participated in the review said they had limited time to implement the AWS, though some councils provided positive feedback on the training and guidance material available, which may be indicative of variations in training uptake, preparation and operationalisation. Feedback included:

- templates were straightforward and easy to use
- it was easy to publish warnings across platforms, like Facebook, disaster dashboard and opt-in messaging services
- AWS warnings worked well thanks to the significant preparation
- the guidance and workshops provided by QFES was well done.

Some local governments felt they implemented the AWS effectively.

AWS implementation in Townsville

The Townsville LDMG and Townsville City Council held a number of workshops, training days and exercises with key disaster management officers, the LDCC communications teams and QFES on the design and use of the AWS prior to its implementation on 1 November 2023.

All templates and social media tiles had been drafted and reviewed by QFES to ensure compliance with their guidelines. Townsville City Council reported that this work, prior to the high-risk weather season, ensured the Townsville LDMG was well prepared to take the lead for issuing warnings and alerts.

In response to Tropical Cyclone Kirrily, the Townsville LDMG issued a total of five EAs and eight AWS warnings. The LDMG issued four EAs to the entire local government area, each of which was followed up by an AWS message giving the same action statement. The LDMG issued an additional EA to Magnetic Island only, and four additional AWS warnings. All AWS messaging was published to the disaster dashboard and social media and followed by a press release. The messaging was also shared with QFES and published on the state warnings and alert platform.

As part of the governance process of the Townsville LDMG, the wording of the EA messages was read aloud to the LDMG, discussed and amended as required. A motion was then passed to approve the wording and to release the messaging to the community. All AWS messages and external communications were reviewed by the LDCC Media Lead, LDC and Chair of the Townsville LDMG before being signed for approval.

To assist in reaching all members of the community with its messaging and warnings and alerts, the Townsville Multicultural Support Group (Unify Australia) is an advisory agency to the Townsville LDMG. This group translated the warnings and sent them out through their internal communication channels.

QFES gave positive feedback on the Townsville LDMG's use of AWS and messaging. Townsville City Council noted that the timings for the delivery of messaging to the community was crucial for public confidence, and the need to balance making a timely decision and giving the community time to respond, while also being accurate and avoiding conflicting messaging.

Some local governments opted not to use the AWS during the severe weather events because they had not yet fully implemented it or they considered other methods of public information to be more appropriate for their communities and the hazard. For example, many local governments did not think the AWS was appropriate for severe weather warnings. Reasons included the limited time in which to issue a warning, not being able to add value to the Bureau's weather warnings, and councils not operating on a 24/7 basis. Two smaller councils in Far North Queensland, who had attended AWS webinars, found the AWS templates too challenging to use with the tempo of the severe weather events, so they reverted to familiar warning methods.

In contrast, some councils who did not attend any training or pre-season webinars found the framework straightforward, easy to use and effective and reported positive feedback and gratitude from communities.

Some councils also reported positive social engagement on their AWS warning posts, which indicated that many people in the intended area were seeing the warnings. The review also heard praise from many councils of the QFES PIWU, with continuous telephone support available to stakeholders during the 2023–24 severe weather season.

Councils were generally supportive of the AWS, but feedback, particularly for disasters that occurred early in the season, included:

- confusion about which call-to-action statement to use
- negative impacts on other messaging when trying to use a new warning framework
- perceptions that AWS warnings were alarmist
- concerns that AWS warnings were too long and should provide a link to more information.

Some confusion is evident around the purpose and use of the AWS. The confusion was exemplified in meetings with practitioners and review submissions from local governments. For instance, some practitioners referred to the AWS as a communication channel for warnings, rather than a framework or approach, and some lacked clarity about the ability to customise AWS templates, despite advice from QFES in newsletters and training webinars.

Observation: Understanding of the Australian Warning System, and related warnings systems and processes, varies between practitioners who contributed to the review.

The review considers the varying levels of understanding symptomatic of a new system, the tight time for implementation and the varying levels of training received. This aligns with the views of many practitioners, who reported a need for more training and guidance on the AWS for councils and hazard leads.

The review considers more training, awareness and exercising would overcome the concerns raised by councils and the confusion about the AWS and warnings options. It is understood that work to develop and deliver further training is underway by the QPS PIWU, which took on the AWS work for Queensland in May 2024. The QPS has rewritten the AWS training, conducted pilot training sessions and developed a supporting manual.

Insight 17: Ongoing AWS practitioner training will result in the community receiving more timely, accurate and consistent warnings.

Further misunderstandings are also evident among practitioners and across levels of the disaster management arrangements around the differences between the AWS and EA, the purpose of EA, and the roles and responsibilities of local government in respect to warnings being locally led.

The Queensland Emergency Alert Manual guides the EA protocol. Criteria for the use of EA include:

- a direct and likely threat to a community

- a potential for loss of life and/or a major threat to a significant number of properties or the environment
- the community needs to act in some way such as relocate to a safer area, prepare property and/or be aware of information
- adequate time to process and approve the use of EA to disseminate the community warning
- time of the emergency or disaster situation, such as a community needing to be warned and/or act urgently in a short period or in the night.

The review considers the above criteria for EAs to be broad for use in disasters. Criteria include that the community 'needs to act in some way', 'be aware of information' and 'a direct or likely threat for a community'. However, a threat that is considered direct and likely for one community, may not be direct and likely for others.

The broad nature of these criteria may contribute to the differing views about EA. One council considered EA to be the best way to warn and inform their community because the messages went to landlines and mobile phones, while some councils said EAs should only be used for important warnings when lives were at risk. Others are having ongoing discussions about how best to use EA in their district. One DDMG advised that due to negative public feedback on the frequency and content of EAs in the February 2022 floods, a more cautious approach was taken in their district during the 2023–24 severe weather season to avoid desensitising the public to EAs.

The differing opinions are highlighted by events during the 2023–24 severe weather season, with some local governments requesting EAs that were not approved or were delayed at state level.

> *"Excessive delays in sending Emergency Alerts via the Watch Desk caused by operational relationships and approvals process significantly impacted the issuing of timely warnings.*

It is acknowledged that limitations of the national EA system mean that concurrent events in Queensland require the prioritisation of EAs, while also noting that EA is one method of warning the community.

The review is aware of several local governments' requests for EAs about water conservation that were not approved, though the review understands that EAs for water conservation have previously been issued.

One local government expressed concern that an EA they requested was sent hours after the forecast of rain they considered life-threatening. Two EAs were reportedly delayed on New Year's Eve (31 December) 2023, with the EAs sent the following morning after refining the wording of the warning and narrowing the area in which to target the warning. Reasons for the timing included that initial EA warning area was too broad and the latest advice sought from the Bureau about likely timings of the weather event.

The review heard of additional delays in issuing EAs as a result of minor word changes requested by the SDCC Watch Desk. Local governments expressed concerns of 'State overreach':

> *[Queensland's disaster management arrangements] clearly state locally led response and yet on multiple occasions this proved not to be the case.*

Several councils advised that in the days before Tropical Cyclone Jasper crossed the coast, they received advice that local government AWS cyclone warnings had to wait until the State issued a broad-area warning across several local government areas, which meant some local government warnings were issued later than intended. Some local governments considered the broad-area warning was too late and ended up confusing their communities. One council worked around this by issuing their warning through a media release. Other examples of local government expressing State overreach included reports that some councils were directed to send all warnings to their district for approval. It is noted that QFES did attempt to rectify the miscommunication which led to this issue, by issuing a newsletter immediately following Tropical Cyclone Jasper, to remind local governments that templates could be flexible and fully customisable.

Observation: There is a need for greater clarity around the roles and responsibilities of local government in issuing warnings.

The review considers clearer guidance, more training and exercising will provide greater understanding of roles and responsibilities in warnings.

Flood forecasts

Responsibility for flood preparation, flood monitoring and the dissemination of warnings is shared between all levels of government, supporting the Bureau by providing relevant flood information in its possession. Local governments rely on flood forecast information from the Bureau and flood warning infrastructure to make decisions about issuing flood warnings. Several different types of flood warning infrastructure are used in Queensland, including automatic rain gauges, automatic rain and river gauges, manual rain gauges and manual river gauges. These are owned and operated by multiple entities including state and local government, the private sector and the Bureau.

During the 2023–24 severe weather season, existing flood warning infrastructure assets owned by councils and the Bureau were damaged. The review heard from many local governments that deficiencies in flood forecast information and a lack of flood warning infrastructure meant they could not always effectively warn their communities in time, and with enough reliability.

In addition to the operational impacts, some perceived deficiencies in forecasting and flood warning infrastructure ultimately impacted the ability of communities to make timely choices to protect themselves and their property. This can have ongoing impacts. As one council's review submission summarised, 'inadequate warnings can breed complacency in the preparation of unprecedented events'. Another council stated:

> *Disaster management groups must be fully equipped with sufficient, up-to-date flood intelligence data to fulfill their responsibilities for informed, real-time decisions, critical forecasting, and predictive planning. Without this essential intelligence, gaps in situational awareness become unacceptable, hindering decision-making and impeding efforts to enhance flood resilience.*

Bureau of Meteorology information

Numerous councils and practitioners raised concerns about the flood forecast information they received from the Bureau, including its timing, accuracy and relevance to local areas. Some attributed this to a lack of local knowledge and understanding. The LGAQ summarised the feedback it received from local governments, stating that 'during the tropical cyclones, tropical lows and heavy rainfall events, councils raised the lack of local knowledge of the catchments and weather patterns created delays in planning and subsequently the ability to issue timely warnings'.

One local government practitioner in northern Queensland said they called the Queensland office of the Bureau late at night to ask about the likelihood of a local river flooding, when they became concerned by the amount of rain in the area after Tropical Cyclone Jasper. The practitioner said they were told no flooding was expected, and they asked the Bureau to contact the council if the situation changed during the night. Before dawn the following day, the LDC became aware of significant flooding when a QFES staff member called to alert them to a flood rescue. The council said they did not receive a phone call from the Bureau.

The review heard from other councils that the lack of flood telemetry infrastructure meant the Bureau could only issue broad flood warnings, which affected the ability of local governments to issue locally specific AWS warnings, and that the Bureau 'was too unreliable'. One council said they relied on up to four other sources and a private weather company. Some North Queensland councils, in their opinion, considered the closure of the Cairns Bureau office had an impact on the accuracy of warnings in Far North Queensland because it led to a loss of local knowledge.

> *No one had time to prepare. Evacuations were not possible. This posed problems because staff couldn't get to work, the evacuation centre could not be staffed, the SES could not get to work. The [Bureau] had no data on the river or connecting rivers. The [Bureau] were always available for meetings; they just had no data relevant to our area.*

One council said the Bureau issued a major flood warning more than five hours after major flood levels had already been reached in the lower catchment, which they believe was due to a failure in flood intelligence and the Bureau's capacity at the time. The same council said they received:

> *… repeated advice that quite confidently indicated the low-pressure system and associated rain event was going to continue [to] shift southwest and have a reduced impact to [the area]. This*

advice continued through several LDMG meetings until advice shifted to a one in 100-year event which occurred well after water impacted households.

This occurred when flooding impacts were past the point of evacuation capability, which negatively affected the council's preparedness and response strategies and resulted in very late warnings.

Another council said in their opinion the Bureau was focused on flooding happening in other areas and overlooked their region, the Bureau had no data for their region, and by the time the requested data was provided back to council, the flooding had already peaked and then started to fall.

The QRA advised that the 2023–24 severe weather season highlights a need for more fulsome and contemporary understanding of flood behaviour across local government areas impacted in northern Queensland. While flood behaviour information was available in some locations, it was typically limited to more frequent flood likelihoods. In some areas, such as the Bloomfield River in Wujal Wujal, the flooding that occurred was the largest on record. This event highlighted a need to understand the full range of flood events, including the rare to extreme events, particularly in light of the increasing influence of climate change on the unpredictability, frequency and severity of flood events.

Current and future improvement plans for flood warning infrastructure

While every flood event is different, investment in flood warning infrastructure is needed to improve and enhance early flood warning capabilities to ensure more accurate and timely information is available to local governments and, therefore, the communities they serve. Investment in flood studies, flood warning systems, and community awareness will ensure communities in North Queensland are informed of the risk and can prepare for such events. It will also support recovery by providing future resilience. Investment in flood studies across these local government areas will be important to facilitate appropriate future development and will be necessary to inform future flood warning intelligence and response activities.

Plans are underway to implement improved flood warning infrastructure across Queensland, detailed in Appendix J.

Community reach and understanding of warnings

Some circumstances make it difficult to warn and inform all those intended. These often depend on timing, the nature of events, the audience and the available communication channels. Many of these circumstances were present during the 2023–24 severe weather season.

Nature and speed of events

The nature and speed of some severe weather events, like flash flooding, severe storms and some bushfires, often mean there is limited or no time to warn the community so they can take protective action. Even when warnings and messages are issued as quickly as possible, the information is often received too late. In communities affected by bushfires, the review heard that the fires moved so quickly that warnings were already out of date by the time community members received them. Community members and QFES

acknowledged that this is unavoidable at times, due to the speed of some bushfires. As one community forum participant said:

> *I don't think a quicker response or notifications were possible. [The bushfire] moved so fast, there was no time … One minute you see one tiny plume of smoke, and 20 minutes later, it's covering town.*

The review also heard from local government practitioners and community members that the speed and unpredictability of the severe storms and flash flooding in South Queensland meant warnings with specific, localised information were not possible. This was echoed by QFES, who said pre-season AWS information sessions, meetings and webinars with local government staff acknowledged that local governments were unlikely to be able to issue an AWS storm warning for their community prior to impact, but could use the AWS storm warning templates to focus on immediate post-event actions and recovery. Before the 2023–24 severe weather season, QFES also provided protective action information to the Queensland office of the Bureau to include in their warnings for severe storms with very dangerous cells.

Despite the acknowledged difficulties, the review continually heard that community members expect to receive warnings before any severe weather event, ideally directly to their mobile phone, with little responsibility taken at an individual level. When community forum participants were asked about the information they received before severe weather events, a common response was: 'But nobody told me.' One South East Queensland resident said:

> *[The Bureau] said they did warn us of a potential storm, but tornados are too hard to predict. Quite simply, the [Bureau] warning was completely inadequate, and their intent to do nothing to do better into the future is appalling.*

When considered in the context of a shared responsibility model, the community has an obligation to inform themselves of their risk exposure and assess their personal circumstances around actions that may be necessary for them to undertake in times of disaster. Communities are encouraged to read the Queensland Strategy for Disaster Resilience (QRA 2022).

Telecommunications coverage

Another factor that made it difficult for community members to receive timely information was the availability and stability of power and telecommunications services, which allow access to warnings on social media platforms, disaster dashboards, landlines and mobile phones. The implications of power and telecommunications outages are discussed in the Response section of the report. The impacts of these outages were heightened by poor mobile phone coverage, a common concern in the Far North and South West of Queensland, where residents reported patchy mobile phone coverage even short distances outside of a main town on fine days.

Warning fatigue

When communities did receive warnings, some experienced warning fatigue due to the volume of information they received through numerous communication channels, as represented in the diagram in Figure 11. During a significant and prolonged severe weather season like that experienced in 2023–24, many warnings and pieces of public information are sent or made available. This can lead to 'warning fatigue' or feelings of information overload. This was heard by the review across the state, with community members and practitioners saying there were sometimes too many warnings.

Community members seek and receive warnings and related information from numerous sources and through many different channels, some of which are described in the introduction to warnings earlier in the report. The community sentiment research, commissioned for the review, found that approximately half (49%) of the 802 survey respondents could recall receiving some form of warning prior to the event they experienced during the 2023–24 severe weather season. The sources from which they received warnings are shown in Table 10.

Table 10: Percentage of survey respondents who received warnings from each source

Source	Percentage of respondents
Local council	17%
Bureau of Meteorology	7%
SES or other emergency services	7%
TV or radio broadcast	5%
Other weather forecasters	3%
Queensland Government	2%
Friends or family	2%
Social media	2%
Insurance company	1%
Utilities provider	1%
Other	2%
Not sure/Don't remember	12%

Of the respondents who received warnings, 21 per cent received warnings from two or more sources.

At one of the community forums in an area impacted by flooding associated with Tropical Cyclone Jasper, community members expressed concern about the amount of text messages they received and saturated media coverage, which led to message fatigue. In situations where the community's experience did not align with the messages, some residents began paying less attention to the warnings and information, which they described as a case of 'the boy who cried wolf'. In other instances, people admitted to turning off their phone due to a feeling of being overwhelmed by the number of warnings and messages.

Some practitioners described the warnings space as cluttered with too many warning messages, creating distrust or confusion in the community. One practitioner said warnings were being over-complicated because there were too many warning levels and places to find warnings, which changed depending on the

hazard. They gave the examples of hazard-led warnings and local government-led warnings, all published via different online platforms. During a severe weather event, one local government opted not to issue any more warnings because they believed there was already an information overload due to the crowded information space. One local government advised that, due to the lengthy nature of the bushfires in the area, message fatigue definitely impacted their community.

Some local governments expressed concern about the frequency of AWS bushfire warnings. Higher-level warnings, at Watch and Act and Emergency Warning level, are updated more often than lower-level Advice warnings, which one local government said led to confusion and warning fatigue. QFES said bushfire warning update times aligned with the warning level and, therefore, the level of risk faced by the community. For example, leaving an 'Emergency Warning – Take Shelter Immediately' or 'Leave Immediately' warning in place and unchanged for several hours would potentially lead people in that area, whose lives are in danger, to feel forgotten. The approach by QFES also aligns with an expectation that regular updates during fast-changing and potentially life-threatening events will reduce the likelihood of community members filling the information void with invalid or incorrect information. Conversely, lower-level bushfire warnings, such as 'Advice – Stay Informed' are not updated as frequently because the level of risk to the community is lower and the situation at this warning level is unlikely to change quickly. However, QFES said every bushfire warning, regardless of level, is updated as soon as the situation and the actions people need to take to be safe changes.

An effect of warning fatigue is that people choose to unfollow or unsubscribe from warning services or platforms during prolonged disasters to reduce feelings of information overload. Both QFES and QPS said this was a common trend that usually resolves after an event, with people typically refollowing or resubscribing. This can be further exacerbated in Queensland due to warnings often going to people in a broader area than intended. However, the review understands that work is underway that may help to address this, including the National Messaging System (NMS) discussed under Current and future initiatives.

Community understanding of the AWS

Community members rarely understand the difference between the types of warnings, publishing platforms and communication channels used to provide information about severe weather events, including the AWS. Feedback from a number of practitioners indicate the community did not know about the AWS. This is to be expected given the AWS, and therefore the related public awareness campaign, was only implemented shortly before the first severe weather events of the season. One local government advised that feedback from their community was that they thought AWS was only for bushfires. This was based on the early promotion of AWS bushfire warnings. The community sentiment survey conducted for the review indicated that, on average, 31 per cent of respondents had heard of the AWS. These results varied by location, for example, as low as 20 per cent in Logan to as high as 51 per cent in Moreton Bay. Despite AWS-compliant bushfire warnings being used in Queensland since 2021 and a statewide public awareness advertising campaign in 2022, the survey results for locations impacted by bushfire were not any higher than others.

The review also heard from practitioners who advised that, due to the complicated warnings space, there was confusion in the community about the different warnings and communication channels. Local governments advised of the different approaches they had taken to educate their communities, including face-to-face engagement and making messages available on multiple platforms. The review was told there was a need for a comprehensive community education strategy to inform where to find warnings and what the warning levels and colours mean.

Insight 18: The education, promotion and greater public awareness campaigns of the Australian Warning System will help increase the communities' understanding of warnings and the actions they need to take to be safe according to the warning level, hazard and call-to-action statement.

Conflicting messages

Many community members reported that they received conflicting warnings and messages during the 2023–24 severe weather season. A DDMG also raised concerns that their communities were unhappy about conflicting warnings and which one to trust and which one to follow. Community members also expressed frustration regarding messages sent by council before an oncoming cyclone reminding them to put their bins out for collection, while at the same time asking them to shelter in place from the cyclone. Another local government advised they had received feedback from the community regarding confusion when there were several bushfires happening at the same time with different alert levels and thought they were being bombarded with multiple messages with different tones and requests.

A disaster practitioner from a local government on the state's border advised that in previous events, authorities on one side of the border had issued a warning to 'stay put' at the same time as authorities on the other side warned communities to 'leave now'. Additional challenges around conflicting messages were also evident in densely populated areas that cross local government borders. In these areas, it is common for warnings distributed by EA to reach more people than intended. This is further complicated when local governments have different warning thresholds (e.g. demographics, hazard, road access in or out, time needed to evacuate). The review understands this is a limitation of the current EA system and considers that cross-council communication and the NMS will help to address these issues.

The review was also made aware of conflicting information between AWS warning messages and EAs, and notes that the AWS implementation timeline was a likely contributing factor. Although the EA guidelines were updated to align with AWS warning language, QFES said that the time constraints between when these were released to the onset of the first severe weather event meant some councils did not have time to implement the EA changes into their preprepared messages. It is also possible that the use of different requestors and approvers for the AWS warning message and the EA may have contributed to variations.

Observation: Queensland has a complex warnings landscape due to the number of entities with responsibilities for warnings.

Insight 19: Updating the SDMP and PPRR DM Guideline to include warning roles and responsibilities will support greater understanding of warnings.

Audience

Some councils and agencies faced challenges around warning all those intended, particularly where some of their audience had low levels of literacy. One council advised that this was particularly challenging in their culturally and linguistically diverse region and highlighted that EAs are issued only in English. Similar challenges can apply when international visitors to Queensland are affected by severe weather events. The review acknowledges that the new NMS and work currently underway by QPS, initiated by QFES, to secure a common publishing platform (discussed under Current and future initiatives) should help to address some of these factors.

Local relevance of warnings

The review also heard cases where warnings received were irrelevant to what was happening 'on the ground' for communities, creating confusion. For example, practitioners in the Far North advised of one EA to evacuate immediately that was intended for people in two streets but instead went to a much wider audience area, causing community panic and upset.

Local governments raised concerns that the community could become complacent due to warning fatigue or lose faith in warnings if they were not contextualised, accurate and timely. They provided examples of bushfire warnings that followed shortly after another, and broad warning areas that included sections not directly at risk.

The review heard about specific need for bushfire warnings to be contextualised to the local community and local governments' desire to have input into warnings where possible. Concerns were raised in relation to the naming of bushfire warning titles. One example was that the warning title was the name of the location where the bushfire started, but this was still being used as the warning title even after it had spread into the neighbouring shire.

A local government advised that a 'Leave Now' warning was published on the QFES website and the Facebook page for a particular community, but the area where people needed to leave was about 25 kilometres away. The review heard this caused confusion and highlighted the need for clear and accurate messages corresponding to the localities under threat. This can be a challenge in remote or sparsely populated areas where, as QFES explained, the warning team uses the closest known location to the warning area because, while the warning content is localised and is informed and approved by the incident controller, warnings are published on statewide platforms and this approach helps people better understand where the warning area is.

Observation: Warnings could be improved with local government to ensure they are contextualised to the local community.

Linguistic analysis

Research commissioned for the review involved linguistic analysis of a range of messages for warnings and alerts sent during the review period. The resulting report (Bromhead 2024) noted that warnings can be more suitable and easier to understand when they use clear, explicit, translatable language (CETL) principles. The report explains:

> CETL is a linguistic technique used to make communication clearer and more accessible. It allows people to put ideas and messages in a simplified version of English that is easy to translate and interpret into other languages. Also, words that are readily translatable can resonate better with English speakers.

For the analysis, a sample of approximately 50 warnings and alerts was taken. Warning types tested included AWS social media tiles and long-form warnings that were published on disaster dashboards and on social media platforms such as Facebook. The sample encompassed fire, cyclone and flood warnings and spanned the three warning levels (Advice, Watch and Act, Emergency Warning). The warnings were issued by QFES and two LDMGs.

This work built on previous analysis that was commissioned in 2022 for the Office of the IGEM's South East Queensland Rainfall and Flooding February to March 2022 Review. The results of the 2024 analysis are outlined below. This report (Bromhead 2024) provides a clear reminder that, 'suggested adjustments cannot be exhaustive, and this report is not the final word on strengthening warnings. Best practice for hazard warnings is always a work-in-progress.' This underlines the importance of feedback across the sector on an ongoing basis to improve communication.

Results of linguistic analysis (Bromhead 2024)

The warnings in the sample follow the guidelines in the Queensland Emergency Alert Manual and the Australian Warnings System because they identify who issued the warning, the type of hazard and likely impacts. The warnings followed QFES templates, especially in terms of broad sections and headings, but there was still scope for improvement in this regard. The research advised more care be taken when assembling warnings from templates, so all parts cohere.

There was also variation in suitability of warnings between local government areas.

Some of the phrasing used in warnings from all authorities can be sharpened using CETL principles to make them more suitable for all people in Queensland, including culturally and linguistically diverse communities.

In terms of the difference between hazards, the flood warnings are judged to be, in the main, the clearest of all the types examined, with more potential for bushfire and cyclone warnings to be made more fit for purpose.

There is evidence that some CETL guidance as set out in the 2022 Aide Memoire to Practitioners based on flood text messages [included in the IGEM's South East Queensland Rainfall and Flooding February to March 2022 Review] had been implemented, with the following changes evident from the 2022 messaging reviewed:

- 'if you can' in place of 'if possible'
- 'if it is not safe' in place of 'if required'
- 'make sure' instead of more complex alternatives
- 'happening now' in place of 'occurring'.

The report on the linguistic analysis also includes examples of CETL in action and gives detailed guidance that can enhance messages for future events. Examples are set out in Table 11. The guidance for practitioners is included at Appendix D. The research said the suggested adjustments were not exhaustive, and the examples and guidance have the potential to improve emergency response.

Table 11: Examples of clear, explicit, translatable language (CETL) in action

Source	Avoid	Use	Why
Flood warnings	Evacuate if required.	Leave if it is not safe to stay.	'Leave' is simpler than 'evacuate'. 'If it is not safe to stay' unpacks 'if required.
Cyclone warnings	Do not drink all your water quickly, so you have some water later.	Limit how much water you drink to make supplies last longer.	What is meant by 'limit' is explained. What is meant by 'supplies' is explained. The sentence is easier to interpret or translate than the original.
Fire preparedness information	Every year Blaise Fire Service responds to fires that threaten people, property and the environment.	Every year we (Blaise Fire Service) fight many big fires – fires that are dangerous for people, houses, buildings, forests and animals.	'Fight' easier to interpret and translate than 'respond'. 'Dangerous' is easier to interpret and translate than 'threaten'. 'Forests' and 'animals' are easier to interpret and translate than 'the environment'.

Australian Fire Danger Rating System

A number of complaints about the AFDRS signs were received during the review process. In one case, a person said their local AFDRS signs were showing green as a moderate risk even though bushfires were occurring in the area. The AFDRS signs are not meant to be a bushfire warning, rather an indication of bushfire risk. The review heard from the QFD that the AFDRS ratings are managed and controlled by the Bureau and derived from a formula based on inputs such as grassland curing, vegetation curing rates, moisture rates, the ambient temperatures, wind strength and fuel type. The ratings apply to a Bureau forecast for the whole district based on the highest rating for that district. The QFD advised that while the AFDRS is a national system applied to district-wide area based on Bureau data, the QFD has the ability to forecast down to a local government area or fire weather sub-district. The review understands the QFD is working with the Bureau to improve the AFDRS risk system and encourages progress to improving the system. Increased and continuing community education is needed about the role of the AFDRS signs as a risk indicator and not a warning system.

Role of social media in warnings

Social media played a vital role in warning communities but sometimes lacked context and spread misinformation. The review heard from the community about the importance of social media as a distribution channel for warning the community. This view was shared by local governments, especially when social media was combined with other distribution channels such as disaster dashboards. The review heard social media was also an effective means to help communities prepare and, because they were prepared, warnings were successful.

One local government advised that they provided effective and timely messaging to the community to help prepare them for potential severe weather in January 2024. Social media posts and media releases provided advice on how to correctly use, store and re-use sandbags, and included links to the online fact sheets about sandbags. Due to the high number of sandbags supplied to residents and a resulting lower rainfall in the district than predicted, the latter communications helped mitigate potential community sentiment that council may have ‘overreacted’ and instead talked to being proactive during the summer storm season.

Using social media to reach more community members

One practitioner told the review that some of their community members were anti-government which made warning them difficult, regardless of the hazard, level of risk or who the warning is issued by. The council worked around this issue by sending warnings and public information to that community’s trusted Facebook group’s page administrator with whom they had established a trusting working relationship. However, as discussed earlier, the speed of a hazard can also reduce the time available to adequately warn a community, and in some instances, no warnings are possible prior to impact.

The review heard that community commentary on social media around warnings was a good indication that the messages were received and being discussed. At one community forum, a participant expressed the importance of social media and that their street regularly used Facebook to communicate, do check-ins and look out for each other.

Concerns were also raised by the community that social media could have a negative effect, by spreading misinformation when there was a lack of trusted information being provided to the community. The timing and audience of social media content also have the potential to cause harm, where posts that are no longer current are shared or posts are shared to a wider audience than the initial target group. For example, a local government reported that Advice-level bushfire warnings stayed on the QFES Facebook page even after the warning had been cancelled, which confused some community members whether the bushfire was still a threat. In another instance, a separate agency shared a local government's AWS emergency flood warning for a small, targeted area to a much wider audience on social media without the council's consent. This resulted in community confusion and friction between the agencies involved.

At one community forum, the review heard:

> *"You're never going to stop social media. We should be pushing people to the dashboard.*

Current and future initiatives

Several initiatives are in various stages of development, which the review considers will enhance the effectiveness of warnings in future severe weather events in Queensland.

National Messaging System

The Australian Government is funding the build of the NMS, which will deliver phone-based warning messages to compatible devices more quickly and with more accuracy than EA. The aim of the NMS is to send reliable public information to Australians in times of disaster, and to target specific affected areas and communities during emergencies with a high margin of accuracy in near real-time. The technology behind the NMS is proven, standards-based and used in more than 20 countries.

The review considers the NMS, when introduced in Queensland, will dramatically change the warnings landscape in the state through the inclusion of a highly targeted communication channel that can push out timely warnings. Although uncertain of when and how the NMS will be used in Queensland, the QPS PIWU said they saw the NMS having wider use than the current EA system, giving more flexibility to the types of warnings, including imagery, that could be issued.

All-agency, all hazards warnings website and mobile phone app

Throughout the review process, the review heard that some community members did not know where to find reliable, consistent and relevant warnings information. In the current Queensland warnings environment, the location of information varies depending on the hazard, responsible agency, local

government area, and the communication channels that the relevant council or agency chooses to use. This is especially difficult for tourists and transient populations. QFES and the QPS PIWU said they were aware of the complexity and community and agency confusion this situation caused.

The review acknowledges the work that QFES coordinated to inform and scope a common publishing platform to resolve this issue, which transitioned to the QPS PIWU in May 2024. This work is progressing as a matter of priority.

This includes a 'back-end system' where all entities responsible for issuing warnings using the AWS guidelines would log on to a whole-of-government platform to create a warning. This platform would then automatically publish the warning to one website and other online platforms as selected by the issuing agency. These platforms could include but are not limited to local government disaster dashboards and social media pages. An important addition to this solution is a free mobile phone app with push notifications that alerts users when there is a warning in the area. This would be particularly beneficial for tourists and transient populations who will be notified when they are entering an area with an active warning.

This approach is supported under the proviso that all agencies that have a warnings responsibility are involved in developing a single system, through consensus. There should also be autonomy for issuing agencies, particularly local governments, to publish their warnings without state-level approval.

The review considers the following features and functions of the future systems to be vital for the safety of people in Queensland:

- ability for warnings to be published to other communication channels as chosen by the issuing agency
- ability for people to choose the areas, hazards and communication channels (email or mobile phone app) they receive warnings for
- in-built language translation functionality.

The review supports the need for funding to be made available to allow QPS to deliver this IT project.

Warnings training and awareness

The review understands that the QPS PIWU, now the custodian of the AWS, has been and will continue to deliver warnings training incorporating AWS methodologies to councils, including reviewed and renewed training and a supporting manual. The QPS PIWU is also continuing to work on training related to EA.

The different levels of practitioners' understanding of the AWS and how to incorporate the AWS more broadly within their warnings methodologies have highlighted the need for more education, training and scenario-based exercises. After hearing that many entities were not equipped to warn the community due to complexities, the review considers that regular scenario-based warning exercising should be carried out by all entities responsible for warnings. Exercising should include complicating factors such as extended times without power, trained staff that are unavailable, systems failure and lost connectivity. Warnings agencies being 'prepared for the unexpected' should be part of warnings best practice.

Insight 20: The conduct of regular location-specific scenario-based warning exercises will improve the understanding of agencies' roles, responsibilities and warnings procedures.

As well as a need for greater practitioner education of AWS, the review considers there is a strong need for greater ongoing community awareness and education about warnings. An all hazards AWS advertising campaign should be strengthened and should also include a strong grassroots community engagement component. The review is supportive of added funding to support this public safety advertising campaign and considers the QRA's Get Ready Queensland campaign to be the suitable vehicle.

The review has been advised by the QPS PIWU that a community of practice has been established for warnings and considers that community awareness should be included in their terms of reference.

Insight 21: The continuous improvement of warnings governance, doctrine and processes needs a collaborative approach that includes all stakeholders that have a warnings responsibility.

Recommendation 7: The Inspector-General of Emergency Management recommends that the Queensland Police Service lead the co-design of an all hazards Queensland warnings strategy. The strategy will establish the governance framework for the Warnings Community of Practice and implement a model of continuous improvement for governance, doctrine and processes, including the procurement of a common publishing platform to create and publish warnings.

Monitoring and evaluation

In 2020, the Office of the IGEM established a formal monitoring, evaluation and reporting (MER) program to evaluate the progress and implementation of recommendations published in IGEM reviews. These recommendations are crafted following analysis of relevant information collected throughout the review process. This analysis forms observations, leading to insights and finally, where applicable, recommendations.

The monitoring and evaluation of recommendations is intertwined with lessons management. In a broad sense, lessons management refers to collecting, analysing, disseminating and applying learning experiences from events, exercises, programs and reviews. This review has made recommendations based on information collected and analysed as part of the review process.

Lessons, whether identified through review reports and presented as formal recommendations, or captured through interagency debrief or lessons management processes, offer opportunities for agencies to implement change and drive improvement across the agency and disaster management sector. The MER program supports lessons management processes across all lead agencies, providing a mechanism to track progress of recommendations through to implementation. The monitoring, evaluation and reporting on recommendations supports key agencies to embed these lessons (here identified as recommendations) and implement enduring change to improve and enhance outcomes in the disaster management sector.

Recommendation 8: The Inspector-General of Emergency Management recommends that for the recommendations arising from this review, the Office of the Inspector-General of Emergency Management is involved in consultation prior to the finalisation of the government action plan, to align intended actions with the intent of the recommendations.

Recommendation 9: The Inspector-General of Emergency Management recommends that this review report be returned to the Office of the Inspector-General of Emergency Management to monitor, evaluate and report on progress and implementation of the recommendations that are accepted in whole or in part by government.

Conclusion

The 2023–24 severe weather season was complex and challenging. Communities across Queensland showed their resilience as they responded to bushfires, severe storms, flooding and tropical cyclones. Neighbours helped neighbours, local governments and locally elected officials led disaster operations, and personnel from different departments, agencies and entities across the state mobilised to help Queenslanders in need.

Many people did not expect and could not have prepared for the scale, duration and impacts of the events that occurred during the season. Rainfall and flooding surpassed previous recorded levels in some locations, bushfires moved faster than anticipated, communities were isolated for weeks, and some people waited months to return home after evacuation.

The state was impacted by 12 disaster events from 1 October 2023 to 30 April 2024. Of note, 11 of these events occurred within a four-month period, including the festive season, from the South East to the Far North and communities in between. The increasing complexity of disasters through the cascading and compounding events is more than ever readily apparent. The state has Queensland's disaster management arrangements, which are constantly considered and where necessary adjusted to meet the needs of all communities regardless of where they live. The challenging conditions were heightened by power losses and telecommunication outages, yet the response to restore these services is a credit to the many technicians who responded to reinstate the services.

Future high-risk weather seasons are likely to bring more impacts to Queenslanders. AFAC's Seasonal Bushfire Outlook for Spring 2024 shows increased risk of fire for large areas in Queensland. The Bureau's forecast, made on 29 August 2024, indicates this year's northern rainfall onset is likely (60–75% chance) to be earlier than average in Queensland (Bureau 2024c). Looking further ahead, heavy rainfall, river floods and fire weather events are projected to increase throughout Australia (IPCC 2021). The number of tropical cyclones may decrease, but climate models suggest they could be more intense (Bureau 2024d).

The review has identified opportunities to strengthen Queensland's disaster management arrangements and enhance the resilience of communities to such events. The IGEM considers that no recommendation requires commencement and/or completion prior to the start of the 2024–25 severe weather season. Recommendations have been made to enhance doctrine, infrastructure and protocols, and to establish statewide strategies for training and warnings. The implementation of these recommendations will equip communities and disaster management entities with more clarity, understanding and capacity to prepare and plan for, respond to and recover from severe weather events.

We thank and acknowledge the efforts of all who, during all of these disaster events, have shown such great commitment and spirit.

Appendix A: Abbreviations

Table 12: Abbreviations used throughout this report

Abbreviation	Full term
ABS	Australian Bureau of Statistics
AC	Assistant Commissioner
ADF	Australian Defence Force
AFDRS	Australian Fire Danger Rating System
AFMG	Area Fire Management Group
AGCMF	Australian Government Crisis Management Framework
AIDR	Australian Institute for Disaster Resilience
AWS	Australian Warning System
BPL	Bushfire Preparedness Level
Bureau	Bureau of Meteorology
C2C	Council to Council
CATI	computer assisted telephone interviewing
CEO	Chief Executive Officer
CETL	clear, explicit, translatable language
DACC	Defence Assistance to the Civil Community
DART	AUS-1 Disaster Assistance Response Team
DDC	district disaster coordinator
DDMG	district disaster management group
DDMP	district disaster management plan
DHLGPPW	Department of Housing, Local Government, Planning and Public Works
Disaster Management Act	*Disaster Management Act 2003* (Qld)
Disaster Management Regulation	Disaster Management Regulation 2014
DPC	Department of the Premier and Cabinet
DRA	Disaster Relief Australia
DRFA	Disaster Recovery Funding Arrangements
DTATSIPCA	Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Community and the Arts
DTMR	Department of Transport and Main Roads
EA	Emergency Alert
ECQ	Electoral Commission Queensland
EMC	Emergency Management Coordinator
EMS	Event Management System
ERSC	Emergency Relief Subcommittee
ERWG	Emergency Relief Working Group
FBANs	Fire Behaviour Analysts
Fire Services Act	*Fire Services Act 1990* (Qld)

Abbreviation	Full term
focus events	the five events on which the review focused (southern Queensland bushfires; northern Queensland bushfires; Tropical Cyclone Jasper, associated rainfall and flooding; South Queensland severe storms and rainfall; Tropical Cyclone Kirrily, associated rainfall and flooding)
FRG	Functional Recovery Group
FRRG	Functional Recovery and Resilience Group
GIS	Geographic Information System
Information Privacy Act	*Information Privacy Act 2009* (Qld)
IT	information technology
ICC	Incident Control Centre
IGEM	Inspector-General of Emergency Management
LDC	local disaster coordinator
LDCC	Local Disaster Coordination Centre
LDMG	local disaster management group
LDMP	local disaster management plan
LGA	local government area
LGAQ	Local Government Association of Queensland
LRC	Local Recovery Coordinator
LRG	Local Recovery Group
MACC	Mutual Aid Coordination Cell
MCR	Market & Communications Research
MER	monitoring, evaluation and reporting
MRQ	Marine Rescue Queensland
MSQ	Maritime Safety Queensland
NEMA	National Emergency Management Agency
NFWINP	National Flood Warning Infrastructure Network Program
NGO	non-government organisation
NMS	National Messaging System
PCEP	Person-Centred Emergency Plan
Phoenix	Phoenix RapidFire
PIWU	Public Information and Warnings Unit
PPRR DM Guideline	Prevention, Preparedness, Response and Recovery Disaster Management Guideline
QDMA	Queensland's disaster management arrangements
QDMC	Queensland Disaster Management Committee
QDMTF	Queensland Disaster Management Training Framework
QFD	Queensland Fire Department
QFES	Queensland Fire and Emergency Services
QFR	Queensland Fire and Rescue
QFWCC	Queensland Flood Warning Consultative Committee
QGCDG	Queensland Government Customer and Digital Group

Abbreviation	Full term
QGISCF	Queensland Government Information Security Classification Framework
QPS	Queensland Police Service
QPWS	Queensland Parks and Wildlife Service
QRA	Queensland Reconstruction Authority
QRA Act	*Queensland Reconstruction Authority Act 2011* (Qld)
QRP	Queensland Recovery Plan
RDMW	Regional Development, Manufacturing and Water
REPA	Reconstruction of Essential Public Assets
review	2023–24 Severe Weather Season Review
RFSQ	Rural Fire Service Queensland
ROC	Regional Operations Centre
SABRE	Simulation Analysis-Based Risk Evaluation
SDC	State disaster coordinator
SDCC	State Disaster Coordination Centre
SDCG	State Disaster Coordination Group
SDMG	State Disaster Management Group
SDMP	State Disaster Management Plan
SES	State Emergency Service
SOC	State Operations Centre
SRC	State recovery coordinator
SRPPC	State recovery policy and planning coordinator
SRRG	State Recovery and Resilience Group
Standard	Standard for Disaster Management in Queensland

Appendix B: Terms of reference

Terms of Reference: 2023-24 Severe Weather Season Review

Purpose

Section 16C of the Disaster Management Act 2003 outlines the following functions for the Office of the Inspector-General of Emergency Management, including:

- to regularly review and assess the effectiveness of disaster management by the State, including the State disaster management plan and its implementation;
- to regularly review and assess the effectiveness of disaster management by district groups and local groups, including district and local disaster management plans;
- to regularly review and assess cooperation between entities responsible for disaster management in the State, including whether the disaster management systems and procedures employed by those entities are compatible and consistent;
- to identify opportunities for cooperative partnerships to improve disaster management outcomes;
- to report to, and advise, the Minister about issues relating to the functions above;
- to make all necessary inquiries to fulfil the functions above.

Approach

That the Inspector-General of Emergency Management conduct a review, in accordance with these functions, for the significant weather events, relating to the 2023-24 Severe Weather Season, commencing 1 October 2023 through 30 April 2024, including associated bushfires, severe storms, rainfall, flooding, tropical cyclones and tropical lows, noting that the review may consider any further significant weather events that may occur prior to the conclusion of the traditional severe weather season.

The Office of the Inspector-General of Emergency Management (the Office) will assess:

1. the effectiveness of preparedness, response, and transitional arrangements and activities undertaken by Queensland Government (including Government Owned Corporations and Statutory Bodies), relevant Local Governments, Commonwealth and other agencies engaged in operations in all of the Local Government Areas;
2. the timing and effectiveness of new Australian Warning System (AWS) messaging that were issued to the community during the events;
3. the communities' awareness of their local disaster management plans and the anticipated and or expected activities of the State's disaster management arrangements (locally led, regionally coordinated, State facilitated, and Commonwealth supported activities); and
4. the coordination and deployment of personnel and equipment.

The Office will work closely with relevant Local Governments, local, State and Commonwealth government agencies and entities, including the Bureau of Meteorology, and any other relevant organisations, agencies or entities.

The Review will identify enhancements to inform and ensure continuous improvement in Queensland disaster management arrangements. The scope of these enhancements will be bound by the Standard for Disaster Management in Queensland and other relevant doctrine.

In conducting the Review, the Office will engage with impacted communities and consider the views of community members, relevant agencies and operational staff, and also be informed by any relevant expert advice.

In conducting the Review, the Office will also have regard to other relevant reviews that have been conducted, or which may have been announced or commenced which are relevant to this review, including for example: reviews by other governments, coronial inquiries, and commissions of inquiry.

Report

In providing its report, the Inspector-General of Emergency Management is to provide an interim report into any or all of the matters raised through undertaking the review. The interim report is to be provided by 30 July 2024.

The final Review Report, including executive summary, is to be provided by 29 September 2024.

Appendix C: Disaster Recovery Funding Arrangements (DRFA) activations

Table 13: Local government areas for which DRFA was activated during the 2023–24 severe weather season (QRA 2024a)

Event	Affected local government areas	Activation summary
Southern Queensland bushfires (8 September – 7 November 2023)	Balonne, Bundaberg, Central Highlands, Gladstone, Goondiwindi, Gympie, Lockyer Valley, Logan, Maranoa, North Burnett, Scenic Rim, Somerset, South Burnett, Southern Downs, Sunshine Coast, Toowoomba, Western Downs	www.qra.qld.gov.au/sites/default/files/2024-05/Version_8_Activation_Summary_Southern_Queensland_fires_8_September_to_7_November_2023.pdf
Northern Queensland bushfires (18 October – 8 December 2023)	Cook, Flinders, Mareeba, McKinlay, Tablelands	www.qra.qld.gov.au/sites/default/files/2024-05/V5_Activation_Summary_Northern_Queensland_Bushfires_18_October_to_8_December_2023.pdf
Mount Isa bushfire (23 October – 1 November 2023)	Mount Isa	www.qra.qld.gov.au/sites/default/files/2024-03/V1-Activation-Summary-Mount-Isa-Bushfire-23-October-1-November-2023.pdf
The Pines and Condamine Farms bushfire (19 November – 1 December 2023)	Toowoomba	www.qra.qld.gov.au/sites/default/files/2024-01/v2_activation_summary_the_pines_and_condamine_farms_bushfire_19_november_-_1_december_2023.pdf
Queensland low pressure trough (20 November – 1 December 2023)	Balonne, Bulloo, Etheridge, Maranoa	www.qra.qld.gov.au/sites/default/files/2024-01/drfa_factsheet_-_v1_-_agrn_1097.pdf
Tropical Cyclone Jasper, associated rainfall and flooding (13–28 December 2023)	Aurukun, Cairns, Carpentaria, Cassowary Coast, Cook, Douglas, Hinchinbrook, Hope Vale, Kowanyama, Lockhart River, Mareeba, Napranum, Northern Peninsula, Tablelands, Torres, Torres Strait Island, Wujal Wujal, Yarrabah	www.qra.qld.gov.au/sites/default/files/2024-05/Version_16_Activation_Summary_for_Tropical_Cyclone_Jasper_associated_rainfall_and_flooding_13_to_28_December_2023.pdf
Brisbane and Ipswich severe storms (15–16 December 2023)	Brisbane, Ipswich	www.qra.qld.gov.au/sites/default/files/2024-01/v1_activation_summary_brisbane_and_ipswich_severe_storms_15-16_december_2023_v1.pdf
South Queensland severe storms and rainfall (24 December 2023 – 3 January 2024)	Banana, Brisbane, Gold Coast, Logan, Moreton Bay, Murweh, Redland, Scenic Rim	www.qra.qld.gov.au/sites/default/files/2024-05/Version_12_Activation_Summary_South_Queensland_Severe_storms_and_rainfall_24_December_2023_to_3_January_2024.pdf
South West Queensland flooding (6–23 January 2024)	Boulia, Bulloo, Diamantina, Paroo, Quilpie	www.qra.qld.gov.au/sites/default/files/2024-02/South-West-Queensland-Flooding-6-23-January-2024.pdf

Event	Affected local government areas	Activation summary
North Queensland monsoon trough (12–22 January 2024)	Etheridge	www.qra.qld.gov.au/sites/default/files/2024-02/V1_Activation_Summary_North_Queensland_Monsoon_Trough_12-22_January_2024.pdf
Tropical Cyclone Kirrily, associated rainfall and flooding (25 January – 26 February 2024)	Balonne, Barcoo, Barcaldine, Blackall-Tambo, Boulia, Bulloo, Burdekin, Burke, Carpentaria, Central Highlands, Charters Towers, Cloncurry, Croydon, Diamantina, Doomadgee, Etheridge, Flinders, Gladstone, Goondiwindi, Hinchinbrook, Ipswich, Lockyer Valley, Longreach, Maranoa, McKinlay, Moreton Bay, Mornington, Mount Isa, Murweh, North Burnett, Palm Island, Richmond, Scenic Rim, Somerset, South Burnett, Southern Downs, Sunshine Coast, Toowoomba, Townsville, Western Downs, Winton	www.qra.qld.gov.au/sites/default/files/2024-05/Version_11_1_Activation_Summary_South_Queensland_Severe_storms_and_rainfall_24_December_2023_to_3_January_2024.pdf
Western Queensland rainfall and flooding (22 March – 20 April 2024)	Balonne, Barcoo, Bulloo, Flinders, Goondiwindi, Maranoa, Murweh, Richmond	www.qra.qld.gov.au/sites/default/files/2024-05/V1_Activation_Summary_Western_Queensland_Rainfall_and_Flooding_22_March_20_April_2024.PDF

Appendix D: Community sentiment research

To help build an understanding of the communities' sentiment towards the 2023–24 severe weather season, the Office of the Inspector-General of Emergency Management commissioned Market & Communications Research (MCR) to conduct a phone survey with impacted communities. The survey focused on the communities' understandings and actions in relation to weather warnings, their local disaster management plans (LDMPs) and knowledge of disaster management arrangements.

The research included communities impacted by five key weather events in 2023–24:

- Tropical Cyclone Kirrily, associated rainfall and flooding
- South Queensland severe storms and rainfall
- Tropical Cyclone Jasper, associated rainfall and flooding
- Northern Queensland bushfires
- Southern Queensland bushfires.

Objectives

The key research objectives included:

- to assess community engagement and awareness levels regarding Queensland's disaster management arrangements generally
- to investigate the community's confidence in terms of understanding risks and being prepared for future events
- to understand the impacts experienced by community members
- to measure use of and perceived effectiveness of information and warnings methods used in the lead-up to and during the event
- to understand people's perceptions of whether they were prepared for and able to cope with a range of impacts after the event.

Method

Table 14 sets out the method for the research, as provided by MCR.

Key findings

Disaster management

Mixed levels of knowledge of disaster management arrangements were evident among those living in impacted areas. Only 26 per cent of respondents reported they had read their LDMP.

Perceptions as to who is responsible for disaster management vary. It appears people tend to revert to the agency most relevant to the disaster type (e.g. Queensland Fire and Emergency Services (QFES) for bushfires). The local council was the organisation most likely to be nominated as being responsible for

disaster management generally (59%). The Queensland Government (27%), State Emergency Service (SES) (26%), and QFES (19%) were the next most frequently mentioned organisations.

The range of preparation activities undertaken was varied. That is, there were no widespread common activities undertaken by most residents (even within most regions). Knowledge about what to do to prepare for a severe weather event might, therefore, be seen as fragmented. The speed of event onset may have impacted preparedness activities in some regions.

Expectations for assistance, information seeking and capability

Information and warnings are a key need, especially before and during an event, but also afterwards. The range of needs expressed by respondents is broad and varies by region and event type. The research therefore suggested that the assistance provided be tailored by region and by event type, on a case-by-case basis.

Warnings — registrations, sources and expectations

The council website is not the most referenced information source when facing a severe weather event. The Bureau of Meteorology website, emergency services websites or social media, radio and television were all mentioned more frequently. People are consulting different information sources for different events. If the intention is for residents to primarily consult their local council for information (regardless of event type), efforts to encourage this behaviour will be needed.

Respondents expected to receive warnings from multiple channels. Preferences varied by demographics, region and event. The research therefore suggests continued use of a variety of channels for warnings, in conjunction with consideration of how council channels should be positioned (e.g. council channels as the primary source that links all others).

Warnings received and ratings

One in two (49%) respondents could recall receiving some form of warning prior to their relevant recent severe weather event. Awareness of the Australian Warning System (AWS) and recall of receiving AWS warnings was found among a minority of respondents. Ongoing work to increase awareness and distribution of warnings is endorsed by the research.

Table 14: Community sentiment research method

Item	Details
Method	Research was conducted via computer assisted telephone interviewing (CATI). This is where a live interviewer asks respondents questions and simultaneously enters their responses into the computer program.
Respondents	People aged 18 years or older living in Queensland during their region's 2023/2024 severe weather event.
Sample and regional stratification	Total n=802. Where a district experienced more than one weather event respondents were asked to answer the survey about a specified event – as detailed below. **Northern Queensland bushfires (n = 50)** Mareeba District n = 50 **Southern Queensland severe storms and rain (n = 102)** Gold Coast District n = 50 Logan District n = 52 **Tropical Cyclone Jasper (n = 220)** Cairns District n = 200 Innisfail District n = 20 **Southern Queensland bushfires (n = 170)** Bundaberg District n = 30 Dalby District n = 30 Gladstone District n = 30 Toowoomba District n = 50 Warwick District n = 30 **Tropical Cyclone Kirrily (n = 260)** Moreton District n = 30 Mount Isa District n = 50 Townsville District n = 180
High impact suburbs	The Office of the IGEM provided a list of suburbs within each LGA that were most heavily impacted by severe weather events. These suburbs were targeted firstly during interviewing. When the sample of high impact suburbs in each LGA was exhausted, residents in other areas of each LGA were then surveyed.
Quotas and weighting	Quotas were set by age and gender. Post-surveying the data were weighted, using ABS population data, by age and gender within each district, to ensure that the total result reported is reflective of the regional, age and gender profile of Queenslanders (living in disaster regions) overall. For three districts, the population figures used for weighting were based only on the population living within high impact suburbs: these were Gold Coast, Logan and Moreton Bay. These districts had only a relatively small proportion of the population impacted by the weather event and a relatively large population base compared to other smaller LGAs. Using the population of just those living within the high impact suburbs ensured that the total result was not too heavily skewed to these three LGAs. For other areas, the total LGA figures were used in weighting.
Questionnaire	MCR designed a questionnaire to which the Office of the IGEM provided input and approved.
Fieldwork supplier	MCR's fieldwork partner, Q&A Market Research, conducted the fieldwork and data coding tasks. Q&A's interviewing team are based in Brisbane, Queensland.
Data analysis	MCR conducted the data analysis using the program Q-Software, a market research specific data analysis platform. Data was subjected to tests of significance.

Appendix E: Language guidance

The guidance below was provided for the review, as part of the linguistic analysis by Dr Helen Bromhead, Research Fellow in Linguistics, Griffith University. It should be noted that this guidance is intended to improve the readability of language used to communicate with the public and may not align with the Australian Warning System (AWS).

Words

1. Making words easier to translate

Doing words (verbs)

	Use	Avoid
1A	can	are designed to
1B	do not drive	stay off roads
1C	do not/may not have	have lost, plan not to have
1D	doing things	taking action
1E	have to do/have X	X is/are required
1F	have	receive, produce
1G	have to	need
1H	if the road is flooded, go another way or, if there is a lot of water on the road, go another way	if it's flooded, forget it
1I	is	remains
1J	live	survive
1K	move	travel, track, relocate
1L	there is/are/will be X	X has been established. X is being experienced. X will be provided. Xs in place.
1M	there can be	potential
1N	think	expect [if you can]
1O	think carefully about	consider
1P	happening now	occurring
1Q	drive slowly	slow down
1R	have your own food with you	bring your own food
1S	water	soak

People, places, things (nouns)

	Use	Avoid
1T	places	locations, areas, sites
1U	people	individuals, residents, motorists
1V	people and places	the community
1W	people who can't walk or move quickly	people who find it hard to move quickly
1X	these	the following

	Use	Avoid
1Y	broken things	debris
1Z	what can happen/what is happening	impacts, details
1AA	what to do	action, act now

Explaining words (adjectives and adverbials)

	Use	Avoid
1AB	in some places	localised
1AC	in many places	extensive, widespread
1AD	good	preferably
1AE	hurt	sting
1AF	near, nearer	close, closer
1AG	some	certain
1AH	soon	in the coming hours
1AI	now	currently, immediately
1AJ	if you can	if possible

Connecting words (conjunctions)

	Use	Avoid
1AK	because	as, due to, through

2. Making words simpler

Doing words (verbs)

	Use	Avoid
2A	become	intensifying into
2B	drink a lot of water	keep hydrated
2C	flood	experience flooding
2D	give	issue
2E	go down	recede
2F	go up	rise
2G	go to	evacuate to, attend, utilise, visit, refer to
2H	help you leave	organise transport
2I	left your house	evacuated
2J	make sure there is	provide
2K	make sure they are safe	keep them safe
2L	make sure you are safe at all times	prioritise your safety
2M	move away	pass
2N	move near	approach
2O	not allowed	prohibited
2P	should	are advised to

	Use	Avoid
2Q	start again	resume
2R	start	occur
2S	stay	remain
2T	stop working, is out	be lost, be impacted
2U	the fire, flood, etc	conditions
2V	work again	be restored
2W	to help you leave	to organise transport

People, places, things (nouns)

	Use	Avoid
2X	air firefighting	air operations
2Y	rain	rainfall
2Z	rest	remainder

Explaining words (adjectives and adverbials)

	Use	Avoid
2AA	carefully	with caution
2AB	damaged	impacted (about roads)
2AC	in danger	at risk (for people's lives)
2AD	quick	swift
2AE	up	elevated
2AF	very busy	congested

Connecting words (conjunctions)

	Use	Avoid
2AG	about	associated with
2AH	but	however

3. Unpacking ideas that may not be clear

	Use	Avoid
3A	a fire is moving quickly	a fast-moving fire
3B	an adult you think they will be safe with	an adult you trust
3C	do not drink all your water quickly, so you have some water later	limit how much water you drink to make supplies last longer
3D	ways you can leave, evacuation routes	evacuation routes [by itself]
3E	drinking alcohol and taking non-prescription drugs	consumption of alcohol and non-prescriptive drugs
3F	if you have nowhere else to go	if you have no other options, if required
3G	in some places, winds will be destructive, in other places winds will be very destructive	there will be destructive and very destructive winds*

	Use	Avoid
3H	make sure livestock can't go to X	block access to X
3I	only go to this place if you have nowhere else to go	this location should be considered a last resort
3J	only use devices when you have to, this saves batteries	limit use of devices to save batteries
3K	people in places in the red zone can go to place X	place X will accept eligible residents.
3L	put wet towels under doors and windows if there are gaps	seal gaps under doors and windows with wet towels.
3M	so you are safe	for safety
3N	stop a fire moving further	contain a fire
3O	with many places you can get out	with multiple escape points
3P	You have to help yourself and your family. Don't think that a firefighter/emergency services can always come to help you.	Don't expect a firefighter/emergency services to come to your door
3Q	you may not be able to leave your property/home because of the fire/flood/cyclone/closed roads	you could be isolated

* In a short warning, it may be clearer to only use the more serious level, e.g. "very destructive", rather than have the confusing "destructive and very destructive winds".

Writing well

4. Avoiding words that do not add much

4A	get up as high as you ~~possibly~~ can
4B	helping ~~ground crews~~
4C	help others if it is safe ~~to do so~~
4D	teams are ~~actively~~ assessing the situation
4E	if you ~~choose to~~ stay
4F	in cyclones ~~conditions~~
4G	do not ~~try to~~ leave
4H	~~situated~~ outside

5. Making things personal

	Use	Avoid
5A	your life is/can be in danger, people's lives are/can be in danger	this is a risk to life
5B	until you have more advice	until further advice received
5C	doing things to protect people	taking protective action
5D	if you go home	if going back home
5E	if you are told	if told to
5F	so you are safe	for safety

6. Making grammar simpler

	Use	Avoid
6A	after the cyclone some places in our community are not safe	the aftermath has left certain areas in our community unsafe
6B	if you don't feel safe staying at home, leave now	if you don't feel safe sheltering at home, leaving now is the safest option
6C	it is often hot and humid after cyclones	heat and humidity often follow cyclones
6D	the safest thing you can do	the best option for your safety
6E	because the power is out in many places	due to the extensive power outages
6F	put water in bottles and tubs	fill containers with water
6G	some very bad things can/will happen in X place because of Event	Event may/will produce severe impacts
6H	the fire is not serious now	fire conditions have eased
6I	there are other warnings for this area now	multiple warnings are in place for this area
6J	this place of refuge is outside the red zone, but there still may be damaging winds there	it is important for individuals to recognise that even though this site is situated outside the red zone, it may still be vulnerable to damaging winds
6K	you will have to sit	fire conditions have eased
6L	it is safer to leave early	leaving early is safer than waiting

7. Repeat words instead of using a stand-in

7A	Cover any windows in your safe room with a mattress or heavy blanket. This will protect you from broken glass if the window breaks. *Shelter under them if the roof comes off*. *Shelter under the mattress or heavy blanket if the roof comes off*.

Appendix F: Disaster management doctrine

Queensland legislation

Disaster Management Act 2003

The *Disaster Management Act 2003* (Disaster Management Act) forms the legislative basis for disaster management in Queensland. The main objects of the Disaster Management Act, set out in section 3, are to:

- help communities mitigate the potential adverse effects of an event, prepare for managing the effects of an event, and effectively respond to and recover from a disaster or emergency situation
- provide for effective disaster management for the State.

The Disaster Management Act includes provisions around disaster management groups, disaster management plans and guidelines, community information and declarations of a disaster situation (s 4).

Disaster Management Regulation 2014

Governance arrangements prescribed in the Disaster Management Act are further detailed in the Disaster Management Regulation 2014 (Disaster Management Regulation). It prescribes who must be members of the Queensland Disaster Management Committee (QDMC) (s 2), district disaster management groups (DDMGs) (s 5), and local disaster management groups (LDMGs) (s 9).

Fire Services Act 1990 (previously Fire and Emergency Services Act 1990)

The *Fire Services Act 1990* (Fire Services Act), administered by the Queensland Fire Department (QFD), provides for the prevention of, and responses to, fires and other emergency incidents (s 2(a)). The Fire Services Act has been amended since the 2023–24 severe weather season by the *Emergency Services Reform Amendment Act 2024* and the *Disaster Management and Other Legislation Amendment Act 2024*, both passed by the Parliament of Queensland on 2 May 2024.

Section 8 of the current version of the Fire Services Act establishes Queensland Fire and Rescue (QFR) and Rural Fire Service Queensland (RFSQ). The functions of these fire services are set out in section 8B. Section 129 sets out additional functions of RFSQ, including functions in relation to bushfires and managing rural fire brigades.

Marine Rescue Queensland Act 2024

The *Marine Rescue Queensland Act 2024* (MRQ Act) took effect on 3 June 2024 as part of reforms to establish a single, integrated and legislated statewide marine service. Section 6 of the MRQ Act establishes Marine Rescue Queensland (MRQ), operating within the Queensland Police Service (QPS). Section 7 outlines the functions of MRQ, which include ‘to perform marine search and rescue operations’, ‘to provide marine assistance to persons or vessels in difficulty’, and ‘to support other entities providing emergency services to help communities respond to and recover from an event or a disaster’. Prior to the establishment of the MRQ Act and the MRQ, marine rescue services in Queensland were delivered by two

volunteer organisations: the Australian Volunteer Coast Guard Association and Volunteer Marine Rescue Association Queensland. These agencies are transitioning into the MRQ.

Police Service Administration Act 1990

The *Police Service Administration Act 1990* outlines the functions and administrative processes of the QPS. In addition to the prevention of crime, the preservation of peace and good order, and the protection of communities, the functions of the QPS also include the provision of the services and support in an emergency situation (s 2.3).

Public Safety Preservation Act 1986

The *Public Safety Preservation Act 1986* provides protection to members of the public in emergency situations, particularly terrorist, chemical, biological, radiological or other emergencies. The Act is administered by the QPS. Section 5 provides that the emergency commander may declare an emergency situation in a specific area. Section 8 provides certain powers for the emergency commander to assist with the resolution of the situation, including the powers to direct an evacuation, close roads and direct others to assist.

Queensland Reconstruction Authority Act 2011

As outlined in section 2, the main purpose of the *Queensland Reconstruction Authority Act 2011* (QRA Act) is to provide for appropriate measures to:

- ensure Queensland and its communities effectively and efficiently recover from the impacts of disasters
- improve the resilience of communities for potential disasters.

The QRA Act establishes the Queensland Reconstruction Authority (QRA) to coordinate and manage the rebuilding and recovery of affected communities, including the repair and rebuilding of community infrastructure and other property. Section 10 sets out the functions of the QRA, which were expanded by amendments in July 2024 to include 'to coordinate the development and implementation of whole-of-government policies for carrying out risk assessments of potential disasters'.

State Emergency Service Act 2024

The *State Emergency Service Act 2024* (SES Act) was established on 3 June 2024. Section 6 establishes the State Emergency Service (SES), operating within the QPS. Section 7 outlines the functions of the SES, including those that relate to emergency situations, disasters and severe weather events. The establishment of the SES Act aligned with amendments to the Fire Services Act, which included the removal of provisions relating to the SES, and facilitated the transition of the SES from Queensland Fire and Emergency Services (QFES) to the QPS.

Water Supply (Safety and Reliability) Act 2008

The *Water Supply (Safety and Reliability) Act 2008* (Water Supply Act) is administered by the Department of Regional Development, Manufacturing and Water. The purpose of the Water Supply Act is to provide for the safety and reliability of water supply through the provision of water and sewerage services (including the functions and powers of service providers), a regulatory framework for providing recycled and drinking water, the regulation of referable dams, and flood mitigation responsibilities (s 3).

Disaster Management and Other Legislation Amendment Act 2024

The *Disaster Management and Other Legislation Amendment Act 2024* amended the Disaster Management Act, the Disaster Management Regulation and the Fire and Emergency Services Act (since renamed to Fire Services Act), among others. It took effect after the 2023–24 severe weather season, with provisions commencing on or after 9 May 2024.

Key amendments included:

- renaming the Fire Services Act from the Fire and Emergency Services Act (s 20)
- establishing QFR and RFSQ as distinct fire services (s 31)
- replacing references to the chief executive with 'police commissioner' throughout the Disaster Management Act (sch 1), to clarify the police commissioner's responsibilities.

Emergency Services Reform Amendment Act 2024

The *Emergency Services Reform Amendment Act 2024* amended the Disaster Management Act, Disaster Management Regulation, Fire and Emergency Services Act (since renamed to Fire Services Act) and Police Service Administration Act, among others. The amendments took place after the 2023–24 severe weather season, with relevant provisions commencing on 3 June 2024.

Key amendments included:

- removing provisions relating to the SES from the Fire and Emergency Services Act, to facilitate transition to the SES Act (s 11)
- allocating responsibility for the administration, management and functioning of MRQ and the SES to the Police Commissioner (s 24)
- establishing the State Disaster Management Group within the Disaster Management Act (s 4).

Policies, standards and guidelines

Queensland Disaster Management 2016 Strategic Policy Statement

The Queensland Disaster Management 2016 Strategic Policy Statement informs the strategic approach to keeping people safe and making communities more resilient to disaster risks and impacts. Its objectives are to strive to safeguard people, property and the environment from disaster impacts, and empower and support local communities to manage disaster risks, respond to events and be more resilient.

Standard for Disaster Management in Queensland

The Standard for Disaster Management in Queensland (Standard) establishes the outcomes to be achieved by all entities involved in Queensland's disaster management arrangements. It consists of shared responsibilities, outcomes, accountabilities and indicators to support continuous improvement. The Standard focuses on outcomes rather than setting a minimum standard, and it moves away from a traditional compliance tool and towards enhancing performance and achieving shared system-wide goals set by the sector. The Office of the Inspector-General of Emergency Management developed and maintains the Standard under sections 16C(d) and 16N(1) of the Disaster Management Act.

Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline

The aim of the Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline (PPRR DM Guideline) is to provide flexible, good practice suggestions and advice to those responsible for implementing disaster management practices. It provides a comprehensive approach to disaster management processes, including the responsibilities and considerations for stakeholders at each phase of disaster management. The guideline is complemented by manuals, reference guides, forms, templates, maps, diagrams and other related publications to further support stakeholders to understand and fulfil their responsibilities.

Note: The PPRR DM Guideline and its related toolkits are under review. The State Disaster Management Plan (SDMP) and PPRR DM Guideline Review and Renewal Program began in May 2024, with updated documents due for release in October 2025.

Disaster management plans

Queensland State Disaster Management Plan

The Queensland State Disaster Management Plan (SDMP) was released in 2018 and underwent an interim update in April 2023 to address machinery of government changes. Approved by the QDMC, the SDMP complements the Disaster Management Act and Disaster Management Regulation and establishes the framework, arrangements and practices that enable Queensland to mitigate the effects of, prepare for, respond to, recover from and build resilience to disaster events. Its objectives are to outline the principles for disaster management in Queensland, describe the roles and responsibilities of stakeholders as legislated in the Disaster Management Act, and outline the arrangements for prevention, preparedness, response, recovery and resilience. The SDMP is primarily intended for disaster management stakeholders in Queensland, including the community, local government, State Government departments and agencies, the Australian Government, government-owned corporations, NGOs, not-for-profit organisations and essential service providers.

Note: The SDMP is currently under review. The SDMP and PPRR DM Guideline Review and Renewal Program began in May 2024, with updated documents due for release in October 2025.

Queensland Recovery Plan

The Queensland Recovery Plan (QRP), maintained by the QRA as a sub-plan of the SDMP, takes an all hazards approach to disasters. It guides disaster recovery in Queensland and enables better recovery outcomes and improved resilience for impacted communities. The QRP achieves this by outlining the recovery requirements for governance, operations, planning and arrangements at the local, district and state level in Queensland. It drives a collaborative and coordinated approach across all functions of recovery, all levels of government and the whole community, and ensures recovery operations are appropriate to the scale of the disaster event. The QRP provides information around transition procedures for the transfer of the coordination role from the lead response agency to the lead recovery agency. In addition, the QRP outlines the roles and responsibilities of key positions, including the State recovery coordinator and the State recovery policy and planning coordinator.

Queensland Bushfire Plan

The aim of the Queensland Bushfire Plan (the Bushfire Plan) is to enable Queensland's management of bushfire hazard through prevention, preparedness, response and recovery. Maintained by the QFD as a sub-plan of the SDMP, its objectives are to outline Queensland's bushfire management arrangements and principles and to describe the roles and responsibilities of bushfire management stakeholders.

The Bushfire Plan is designed to provide guidance to Queensland stakeholders and outlines governance arrangements across different stakeholder groups. These stakeholders include the Queensland community, land managers, local and state governments, essential service providers, NGOs and not-for-profit organisations. Under the plan, the QFD is the primary agency for bushfire management in Queensland, with responsibilities including bushfire mitigation, community preparedness programs, incident response and control, and the development and dissemination of bushfire warnings.

District disaster management plans

In accordance with section 53 of the Disaster Management Act, a DDMG must prepare a district disaster management plan (DDMP). A DDMP details the arrangements within the disaster district to provide whole-of-government planning and coordination capability to support local governments in disaster management. The plan must:

- be consistent with the disaster management standards and disaster management guidelines (s 54)
- include provisions as set out in section 53(2) of the Disaster Management Act.

Local disaster management plans

In accordance with section 57 of the Disaster Management Act, a local government must prepare a local disaster management plan (LDMP) for disaster management in the local government's area.

As reflected in the PPRR DM Guideline, the development of an LDMP should be based on the comprehensive, all hazards approach to disaster management, which incorporates all aspects of prevention, preparedness, response and recovery and specific provisions under sections 57 and 58 of the

Disaster Management Act. It should outline steps to mitigate the potential risks, as well as identify appropriate response and recovery strategies.

LDMPs may also incorporate sub-plans that address specific vulnerabilities to the area, identified during risk assessment. Sub-plans could include a communication plan, resupply plan, evacuation plan, transport plan and recovery plan.

The LDMG for the relevant area helps the local government to prepare an LDMP (Disaster Management Act s 30(c)).

Appendix G: Other legislation, policies and plans

Queensland

Environmental Protection Act 1994

The *Environmental Protection Act 1994* is administered by the Department of Environment, Science and Innovation. Its purpose is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (s 3).

Commonwealth

Australian Government Crisis Management Framework

The Department of the Prime Minister and Cabinet is responsible for maintaining and updating the Australian Government Crisis Management Framework (AGCMF). The AGCMF underpins the other crisis plans which are maintained by the National Emergency Management Agency (NEMA).

The AGCMF outlines the Australian Government's approach to preparing for, responding to, and recovering from crises. The AGCMF provides ministers and senior officials with guidance on their respective roles and responsibilities. It also sets out the arrangements that link ministerial responsibility to the work of key officials, committees and facilities.

The AGCMF describes the Australian Government's all hazards approach to risk management, which includes mitigating, planning and assisting states and territories in managing emergencies from natural events (such as bushfires, cyclones, severe storms, floods and pandemics) and human-induced events (such as cyber incidents, space junk, malicious critical infrastructure sabotage and bio-terrorism).

Defence Assistance to the Civil Community

Defence Assistance to the Civil Community (DACC) provides the means through which Defence can assist non-Defence organisations or agencies to deliver support at a time when their own resources are not sufficient, have been overwhelmed or there is a mutually beneficial outcome for Defence in providing assistance.

COMDISPLAN 2020: Australian Government Disaster Response Plan

The Australian Government Disaster Response Plan (COMDISPLAN 2020) outlines the coordination arrangements for the provision of Australian Government non-financial assistance in the event of a disaster or emergency within Australia or its offshore territories. It derives its authority from the AGCMF.

State and territory governments are responsible for preparing for and responding to disaster events in their jurisdiction. If the jurisdiction is unable to 'reasonably cope with the needs of the situation', non-financial assistance may be provided by the Commonwealth under the COMDISPLAN 2020. This includes support from several Commonwealth Government agencies, including the Department of Defence.

Telecommunications Act 1997

The *Telecommunications Act 1997* covers the use of service providers' telecommunications networks to issue Emergency Alerts requested by state and territory governments. Part 16 Division 4 of the Act provides obligations for service providers to make provision for, and comply with, designated disaster plans.

Meteorology Act 1955

The *Meteorology Act 1955* (the Meteorology Act) sets out the roles and functions of the Bureau of Meteorology (Bureau). These include taking and recording meteorological observations; forecasting weather; and issuing warnings of gales, storms and other weather conditions likely to endanger life or property, such as those likely to give rise to floods or bushfires (s 6). The Bureau of Meteorology may make arrangements with state or territory authorities to perform its functions (s 7).

Intergovernmental Agreement on the Provision of Bureau of Meteorology Hazard Services to the States and Territories

The Intergovernmental Agreement on the Provision of Bureau of Meteorology Hazard Services to the States and Territories formalises and standardises services provided by the Bureau of Meteorology to state and territory emergency services agencies. It includes roles and responsibilities for each level of government regarding flood management, fire weather management, and the management of extreme weather and hazard impact events.

National Arrangements for Flood Forecasting and Warning

The National Arrangements for Flood Forecasting and Warning (National Arrangements), prepared by the Bureau, provide a summary of the national arrangements and practices for the provision of flood forecasting and warning services in Australia. They focus on the current system that prepares and delivers flood warning information to those at risk of riverine flooding. They present the roles and responsibilities of each level of government for delivering flood forecasting services to the community, and incorporate operational responsibilities, policy coordination and review. Specific jurisdictional arrangements and agency roles required to support the national arrangements are also outlined.

Service Level Specification for Flood Forecasting and Warning Services for Queensland

The Service Level Specification for Flood Forecasting and Warning Services for Queensland (SLS) describes the flood forecasting and warning services provided by the Bureau in Queensland within the context of the Total Flood Warning System and its interaction with other stakeholders as described in the National Arrangements.

The scope of services provided by the Bureau under the SLS is limited to those dealing with riverine flooding where the interval from rainfall to flood is six hours or more. Services include undertaking routine catchment monitoring and river height prediction activities (necessary for the operation of the Total Flood Warning System) as well as issuing and publishing specific warning and data products.

Flash flooding, where the interval from rainfall to flood is less than six hours; flooding caused purely by elevated sea levels; weather forecasting and other services that contribute to the flood forecasting and warning service (such as severe weather warnings, severe thunderstorm warnings and tropical cyclone warnings); and the provision of radar data and rainfall forecasts are out of scope.

Inter-Governmental Agreement on National Search and Rescue Response Arrangements

The Inter-Governmental Agreement on National Search and Rescue Response Arrangements provides guidance to the search and rescue authorities from each jurisdiction. Jurisdictions are responsible for coordinating search and rescue operations for persons and vehicles on land; persons and vessels on inland waterways and in waters within the limits of the ports of the relevant state or territory; and persons from a vessel at sea (4.3.1).

Appendix H: Legislated functions for disaster management in Queensland

Table 15 sets out the functions of disaster management groups and other entities outlined in the *Disaster Management Act 2003*.

Table 15: Disaster management functions legislated by the Disaster Management Act 2003 (as of 1 October 2023)

Entity	Legislated functions
Local government	**80 Functions of local government** (1) The functions of a local government under this Act are as follows— (a) to ensure it has a disaster response capability; (b) to approve its local disaster management plan prepared under part 3; (c) to ensure information about an event or a disaster in its area is promptly given to the district disaster coordinator for the disaster district in which its area is situated; (d) to perform other functions given to the local government under this Act. (2) In this section— ***disaster response capability***, for a local government, means the ability to provide equipment and a suitable number of persons, using the resources available to the local government, to effectively deal with, or help another entity to deal with, an emergency situation or a disaster in the local government's area.
Local disaster management group	**30 Functions** A local group has the following functions for its area— (a) to ensure that disaster management and disaster operations in the area are consistent with the State group's strategic policy framework for disaster management for the State; (b) to develop effective disaster management, and regularly review and assess the disaster management; (c) to help the local government for its area to prepare a local disaster management plan; (d) to identify, and provide advice to the relevant district group about, support services required by the local group to facilitate disaster management and disaster operations in the area; (e) to ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster; (f) to manage disaster operations in the area under policies and procedures decided by the State group; (g) to provide reports and make recommendations to the relevant district group about matters relating to disaster operations; (h) to identify, and coordinate the use of, resources that may be used for disaster operations in the area; (i) to establish and review communications systems in the group, and with the relevant district group and other local groups in the disaster district of the relevant district group, for use when a disaster happens; (j) to ensure information about a disaster in the area is promptly given to the relevant district group; (k) to perform other functions given to the group under this Act; (l) to perform a function incidental to a function mentioned in paragraphs (a) to (k).

Entity	Legislated functions
District disaster management group	**23 Functions** A district group has the following functions for the disaster district for which it is established— (a) to ensure that disaster management and disaster operations in the district are consistent with the State group's strategic policy framework for disaster management for the State; (b) to develop effective disaster management for the district, including a district disaster management plan, and regularly review and assess that disaster management; (c) to provide reports and make recommendations to the State group about matters relating to disaster management and disaster operations in the district; (d) to regularly review and assess— (i) the disaster management of local groups in the district; and (ii) local disaster management plans prepared by local governments whose areas are in the district; (e) to ensure that any relevant decisions and policies made by the State group are incorporated in its disaster management, and the disaster management of local groups in the district; (f) to ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster; (g) to coordinate the provision of State resources and services provided to support local groups in the district; (h) to identify resources that may be used for disaster operations in the district; (i) to make plans for the allocation, and coordination of the use, of resources mentioned in paragraph (h); (j) to establish and review communications systems in the group, and with and between local groups in the district, for use when a disaster happens; (k) to ensure information about an event or a disaster in the district is promptly given to the State group and each local group in the district; (l) to prepare, under section 53, a district disaster management plan; (m) to perform other functions given to the group under this Act; (n) to perform a function incidental to a function mentioned in paragraphs (a) to (m).
Queensland Disaster Management Committee	**18 Functions** The State group has the following functions— (a) to develop a strategic policy framework for disaster management for the State; (b) to ensure effective disaster management is developed and implemented for the State; (c) to ensure arrangements between the State and the Commonwealth about matters relating to effective disaster management are established and maintained; (d) to identify resources, in and outside the State, that may be used for disaster operations; (e) to provide reports and make recommendations that the State group considers appropriate about matters relating to disaster management and disaster operations; (f) to prepare, under section 49, the State disaster management plan; (g) to coordinate State and Commonwealth assistance for disaster management and disaster operations; (h) to perform other functions given to the group under this or another Act; (i) to perform a function incidental to a function mentioned in paragraphs (a) to (h).

Entity	Legislated functions
Queensland Fire and Emergency Services (QFES) Commissioner (as chief executive, up to and including 29 October 2023)*	**16A Functions of chief executive** The chief executive has the following functions for the administration of this Act— (a) to establish and maintain arrangements between the State and the Commonwealth about matters relating to effective disaster management; (b) to ensure that disaster management and disaster operations in the State are consistent with the following— (i) the State group's strategic policy framework for disaster management for the State; (ii) the State disaster management plan; (iii) the disaster management standards; (iv) the disaster management guidelines; (c) to ensure that persons performing functions under this Act in relation to disaster operations are appropriately trained; (d) to provide advice and support to the State group and local and district groups in relation to disaster management and disaster operations.
Queensland Police Commissioner (as chief executive, from 30 October 2023)*	**16A Functions of chief executive** The chief executive has the following functions for the administration of this Act— (a) to establish and maintain arrangements between the State and the Commonwealth about matters relating to effective disaster management; (b) to ensure that disaster management and disaster operations in the State are consistent with the following— (i) the State group's strategic policy framework for disaster management for the State; (ii) the State disaster management plan; (iii) the disaster management standards; (iv) the disaster management guidelines; (c) to ensure that persons performing functions under this Act in relation to disaster operations are appropriately trained; (d) to provide advice and support to the State group and local and district groups in relation to disaster management and disaster operations.

* On 30 October 2023, machinery of government changes transferred the role of chief executive under the Disaster Management Act from the QFES Commissioner to the Police Commissioner. The Queensland Police Commissioner has retained equivalent functions after legislative amendments that took effect on 1 July 2024. The Disaster Management Act now refers directly to the police commissioner, rather than the chief executive.

Appendix I: QRA survey results

The Queensland Reconstruction Authority (QRA) commissions statewide research every two years to assess levels of community preparedness over time, with results used to inform future Get Ready Queensland campaigns. Results from the research undertaken in May 2024 are provided below.

Survey results on preparedness found the following:

- 76% of Queenslanders experienced disruptions in the past two years due to a severe weather event
- 80% believe they have a good understanding of local risk impacts
- 59% have an emergency plan, however only 19% have written it down
- 44% have an emergency kit, although 78% of Queenslanders have a first aid kit
- 70% have a three-day emergency supply of food and water
- 64% had made copies of important documents
- 51% of Queenslanders know the names and contact details of people in their area or community
- 46% have an emergency services contact list
- 42% have a battery powered radio
- 26% own a generator.

In addition, the survey observed a:

- 36% decrease in the number of people who agreed the threat of an actual or impending disaster would be what motivated them to engage in preparedness behaviours
- 52% increase in the number of people who agreed that getting ready is a ‘habit’
- 87.5% increase in the number of people who agreed that seeing advertising or local information prompted them to prepare
- 33% increase in the number of people who agreed that seeing other people impacted by disasters prompted them to prepare.

Appendix J: Current and future improvement plans for flood warning infrastructure

The review understands that the Queensland Reconstruction Authority (QRA) is responsible for facilitating the development of a network of flood warning gauges that complies with best practice. The QRA advises it collaborates with key stakeholders, including the Bureau and local governments, to ensure the flood gauge network is providing the best possible warnings for communities. The QRA advises it is working with local governments and the Department of Transport and Main Roads (DTMR) to develop regional masterplans for flood warning infrastructure to ensure there is regional agreement on priorities and design solutions. Further to this, Engineers Australia has released updates to the Climate Change Considerations chapter in Australian Rainfall and Runoff. With new guidance now available for considering climate change in Flood Studies, the review understands this presents an opportunity to ensure flood studies for the impacted local government areas are completed in line with current best practice.

The QRA advises that under the $84.8 million North Queensland Resilience Program, funding was available to support disaster recovery and resilience activities for northern, Far North and north-west Queensland communities. Regional resilience projects are currently being assessed by the QRA for 17 local governments, which include flood studies, flood warning infrastructure, and other resilience projects.

The QRA advised that investment in flood warning infrastructure was undertaken in 2021–22, though some of this infrastructure was damaged during the 2023–24 severe weather season. The repair costs for these assets are covered under DRFA's Reconstruction of Essential Public Assets (REPA), but maintenance costs of these gauges are still a factor until the Bureau's remediation works are completed under the 2023 National Flood Warning Infrastructure Network Program (NFWINP).

The Australian Government is investing $236 million over 10 years for high-priority rainfall and river height monitoring infrastructure across Australia to address critical risks. The NFWINP will enable the Bureau to simplify ownership and maintenance of high-priority flood warning assets by acquiring, upgrading and integrating key local government-owned, and some State Government-owned, rain and river level gauges into its existing flood warning network across Australia. Approximately 1,000 assets have been identified for acquisition and remediation across Queensland over a five-year timeframe as part of the program. Approximately 200 assets are planned for acquisition in 2024–25.

The QRA is working with local governments and the DTMR on developing regional masterplans for flood warning infrastructure to ensure there is regional agreement on priorities and design solutions for when funding becomes available.

The QRA continues to work with 39 councils and state agencies in delivering the $49 million Flood Risk Management Program. In one of three packages under this program, councils impacted by floods in 2021–22 will be sharing $26.05 million to improve flood resilience through flood studies, risk assessments and special projects. Some 37 councils have already received funding for 128 projects (comprising 123

individual projects and five regional projects) through the joint Commonwealth–State DRFA to undertake key activities to manage their river, creek and overland flood risks.

In addition, the QRA is currently reviewing the Queensland Strategic Flood Warning Infrastructure Plan, which articulates the effective administration of the state's flood warning infrastructure network. Engagement with the Bureau, Queensland Flood Warning Consultative Committee (QFWCC), State Government agencies and local governments is planned for 2025. The QRA also maintains the Queensland Flood Risk Management Framework, which sets the direction for flood risk management statewide, provides clarity around expectations, outlines roles and responsibilities, and guides and supports decision-making by councils.

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