NT EMERGENCY SERVICE

Galiwin'ku
Local Emergency Plan

Contents

1. Document control

1.1. Governance

Document title	Galiwin'ku Local Emergency Plan
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1.2. Version history

Date	Version	Author	Summary of changes
16/11/2014	1	John McRoberts	First version
27/10/2015	2	Reece Kershaw	Reviewed and updated
30/12/2016	3	Kate Vanderlaan	Reviewed and updated
16/03/2018	4	Grant Nicholls	Reviewed and updated
28/11/2018	5	Travis Wurst	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
20/01/2020	6	Michael Hebb	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
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02/11/2021	8	Martin Dole	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
20/06/2023	9	Travis Wurst	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
13/06/2024	10	Matthew Hollamby	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
11/03/2025	11	Peter Malley	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
06/01/2026	12	James A O'Brien	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate

2. Acknowledgement of Country

The Northern Territory Fire and Emergency Services (NTFES) and the Northern Territory Police Force (NTPF) acknowledges the First Nations people throughout the Northern Territory (NT), from the red sands of Central Australia to the coastal people in the Top End.

We recognise their continuing connection to their lands, waters and culture. We also pay our respects to the Aboriginal and Torres Strait Islander people with whom we work and who we serve and protect.

We pay our respects to the Aboriginal and Torres Strait Islander cultures, and to their leaders past, present and emerging.

3. Introduction

3.1. Purpose

The purpose of this Plan is to describe the emergency management arrangements for Galiwin'ku Locality (the Locality).

3.2. Application

This Plan applies to the Locality.

3.3. Key considerations

The *Emergency Management Act 2013* (the Act) is the legislative basis for emergency management across the NT. The Act reflects an all hazards approach to emergency and disaster events, natural or otherwise. It provides for the adoption of measures necessary for the protection of life and property from the effects of such events.

The Act defines the emergency management structures, roles and responsibilities for the NT and, in conjunction with the Territory and regional emergency plan(s), form the basis for this Plan.

This Plan:

- confirms appointment of a Local Emergency Controller
- confirms establishment of the Local Emergency Committee (LEC)
- confirms appointment of a Local Recovery Coordinator
- confirms establishment of a Local Recovery Coordination Committee
- assesses hazards most likely to affect the community
- specifies control and coordination arrangements for mobilisation of local and, if necessary regional, resources
- identifies roles and responsibilities of key stakeholders
- details specific emergency response procedures for the higher risk situations

4. Locality context

This Plan complements the Northern Regional Emergency Plan[1] as it relates to the Locality. For further information on the hierarchy of plans, refer to the Territory Emergency Plan[2]. The Locality covers approximately 13,700 square kilometres (km) and is located approximately 150 km northwest of Nhulunbuy and 550 km northeast of Darwin and forms part of the Northern Region, as defined by the Territory Emergency Plan.

The population of the Locality is approximately 3,500, the main population centre being the town of Galiwin'ku.

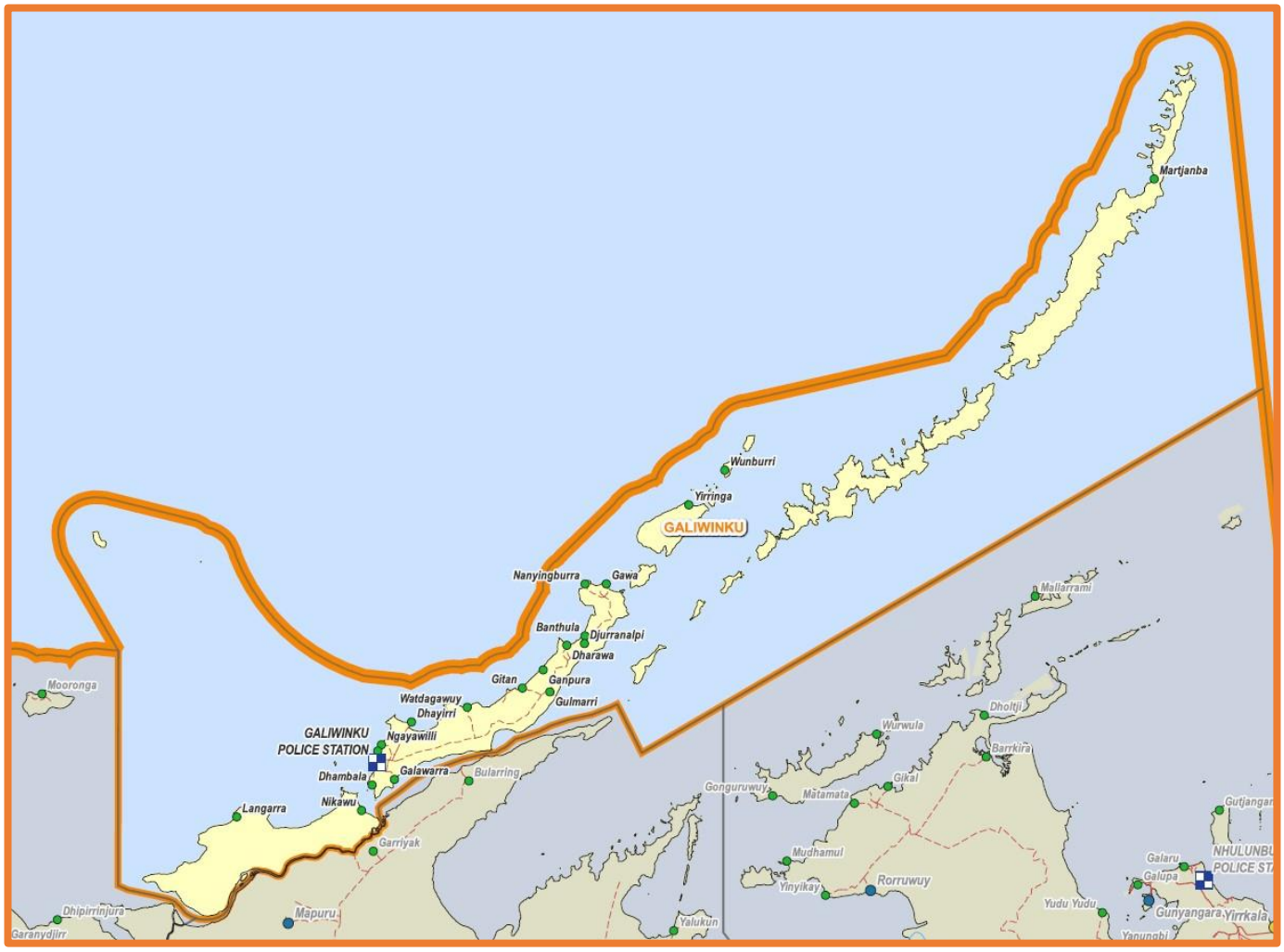
Galiwin'ku is the largest community on Elcho Island and is also the Aboriginal name for the whole island. At the northern end of Elcho Island is the community of Gawa with a population of approximately 50 people. Elcho Island is at the southern end of the Wessel Island Group and is bounded on the western side by the Arafura Sea and on the eastern side by Cadell Strait.

As well as the communities, there are a number of homelands in the Locality. Population numbers for these homelands can vary widely during the course of the year:

Bushtel ID	Locality	Aliases	Approx. population
492	Galiwin'ku	Elcho Island and Galiwin'ku	2,582
508	Gawa community		150
Bushtel ID	**Homelands**	**Aliases**	**Approx. population**
457	Banthula	Ban'tala, Bandhula, Bant'thula, Gampura and Ganpura	31
484	Djurranalpi	Djanalpi	less than 5
896	Dhambala		14
805	Dharrwar	Dharrwar	not recorded
806	Dhayirri		6
499	Ganpura	Bapulu, Ganaburra and Ganpurra	5
807	Galawarra		less than 5
512	Gulmarri	Galmarri, Gulamarri, Gulmari and Gulumarri	5
510	Gitan	Gitjan	not recorded
547	Nikawu	Howard Island and Nikawungyura	not recorded
544	Ngayawilli	First Creek and Nayawilli	9
564	Wunburri	Burgunngura Island, Stevens Island and Wunbirri	not recorded
575	Yirringa	Drysdale Island	not recorded

To obtain more information about this Locality, BushTel[3] is the central point for information about the remote communities of the NT, their people and cultural and historical influences.

[1] More information can be found at: https://www.pfes.nt.gov.au/emergency-service/publications
[2] More information can be found at: https://www.pfes.nt.gov.au/emergency-service/emergency-management
[3] More information can be found at: BushTel - Remote Communities of the NT


Martjanba
Wunburri
Yirringa
GALIWINKU
Nanyingburra
Gawa
Banthula
Djurranalpi
Dharawa
Ganpura
Gitan
Gulmarri
Watdagawuy
Dhayirri
GALIWINKU
POLICE STATION
Ngayawilli
Galawarra
Dhambala
Bularring
Nikawu
Langarra
Garriyak
Mooronga
Dhipirrinjura
Garanydjirr
Mapuru
Yalukun
Mallarrami
Dholtji
Wurwula
Barrkira
Gikal
Matamata
Gonguruwuy
Mudhamul
Yinyikay
Rorruwuy
Yudu Yudu
Yanungbi
Gunyangara
Yirrkala
Galaru
Galupa
Gutjangar
NHULUNBU
POLICE ST


LEGEND
Police Station
Homestead
Homeland
Minor Community
Major Community
Roads - Main - Sealed
Roads - Main - Unsealed
Roads - Track
Watercourses - Major
Emergency Management Boundary
Emergency Management Regions

4.1. Climate and weather

The Locality is situated in the East Arnhem and experiences weather conditions typical to those of the region. There is a distinct Wet Season (October to April) and Dry Season (May to September), with a build-up period in between (October to November).

Compared to Darwin, temperatures tend to be slightly higher during the Wet Season and slightly lower during the Dry Season.

4.2. Geography

The Locality ranges from long beaches to rocky bluffs. The beach on the north side of the rocks is the main beach and boat ramp. This is a 400 metres (m) long west-facing pocket of sand wedged in below 20 m high bluffs, and cut by rocks in the south, together with the remains of an old rock jetty with a vehicle access ramp behind.

4.3. Sacred sites

The Aboriginal Areas Protection Authority (AAPA) is a statutory body established under the *Northern Territory Aboriginal Sacred Sites Act 1989* and is responsible for overseeing the protection of Aboriginal sacred sites on land and sea across the NT.

A sacred site is defined by the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth) as being 'a site that is sacred to Aboriginals or is otherwise of significance according to Aboriginal tradition'. Sacred sites are typically landscape features or water places that are enlivened by the traditional narratives of Aboriginal people.

AAPA requests notification of any action that may have affected a sacred site. For more information on sacred sites relevant to this Locality or to report an action that may have affected a sacred site, contact AAPA on (08) 8999 4365 or via email at enquiries.aapa@nt.gov.au.

4.4. Sites of conservation

Buckingham Bay and Elcho Island group are sites of significance to the NT. For further information about these sites, contact the Department of Lands, Planning and Environment (DLPE).

4.5. Tourism

Tourism is also a major economic contributor to the Locality, particularly throughout the months of May to October.

4.6. NT and local government

This Locality sits within the East Arnhem region, with the following NT Government (NTG) agencies that have a presence in the Locality:

- NTPF
    - Galiwin'ku Police Station
- NTFES
    - NT Emergency Service (NTES) Volunteer Unit
- Department of Health (DOH)
    - Health Centre Miwatj Health
    - Marthakal Health

- Department of Education and Training (DET)
    - Shepherdson College
    - Gawa School

Local government services within the Locality are provided by the East Arnhem Regional Council (EARC). There is a Service Delivery Centre on Elcho Island, however main offices are located in Nhulunbuy and Darwin.

4.7. Building codes

Buildings and construction in the Locality are subject to the *Building Act 1993* and the *Building Regulations 1993*.

4.8. Land use

Land use in the Locality is in consultation between EARC and Traditional Owners, and include infrastructure in the areas of:

- air strip
- residential
- sewage ponds
- waste management

4.9. Homelands

Homelands (outstations) are typically located on Aboriginal land, which is held by the Aboriginal Land Trusts established under the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth). There are also some homelands that are located on Community Living Areas or parcels of land within national parks. Assets on homelands are owned by the underlying leaseholder, which for the majority of homelands is the relevant Aboriginal Land Trust. Generally, homelands are not subject to the NTG leasing or part of the NT's remote public housing system.

The homeland service provider for this Locality is the Milingimbi Outstations Progress Resources Aboriginal Corporation and the Marthakal Homelands and Resource Centre Aboriginal Corporation. Homeland service providers contribute to the delivery of housing, municipal and essential services, including fire breaks, where funding allows. Homeland service providers do not deliver emergency services. Land councils and local ranger groups within the Locality may provide land management activities on Aboriginal land, such as back burning, installing firebreaks and other mitigation works.

4.10. Power generation and distribution

Power to the Locality is provided by stand alone, diesel power stations. This is contracted out from the Power and Water Corporation (PAWC). A small solar farm helps to supplement the power generation.

4.11. Water services

The PAWC is responsible for supplying the community with water via diesel generators. The Marthakal Homelands and Resource Centre Aboriginal Corporation supplies and maintains water to the homelands through bores and diesel generators.

4.12. Health infrastructure

The Miwatj Health Aboriginal Corporation has the capacity to provide to emergency medical aid in addition to routine health treatment. Serious medical cases are required to be medically evacuated to Darwin.

4.13. Medically vulnerable clients

EARC Aged Care holds a list of all medically vulnerable clients in the locality and which of those clients consent to evacuation during an emergency. During stage 1 of the action plan, Miwatj Health Clinic Manager and EARC Aged Care Manager will meet to coordinate which clients require evacuation and coordinate the response across assets.

4.14. Emergency service infrastructure

The Locality has the following emergency service infrastructure:

- NTES Volunteer Unit
- police station and cells
- health clinic?

4.15. Roads

Elcho Island has one main road running between Galiwin'ku and Gawa, which are at opposing ends of the island. There are also a number of minor local roads. During the Wet Season, many of the roads are impassable.

4.16. Airports

The table below lists the airstrips in the Locality:

Name of the strip	Datum	Certified Aerodrome	Details (type, length, etc.)	Operator of the strip
Elcho Island	12° 01'.2" S 135° 34'.2" E Lot 295 Burmala Rd Northern Edge of community	Certified	Registered CTAF 127.15 Bitumen PCN 8/F/A/ length 1440 m width 30 m RWS 90 RWY Lighting LIRL/PAL 120.05	Marthakal Yolngu Airlines Pty Ltd
Gawa	11°46'18" S 135°54'8" E	Non-Certified	Details not available Can handle single engine smaller aircraft	EARC

Certified Aerodrome: *An airport officially approved by the Australian Government Civil Aviation Safety Authority (CASA) that meets strict safety and operational standards, often including air traffic control services*[4].

4.17. Ports (barge landings)

The Locality has a barge landing located 5 km southeast of the community.

4.18. Telecommunication

Telecommunications are available across the Galiwin'ku town area via a combination of landline, mobile and satellite communications delivery. Elcho Island telecommunications tower is powered by batteries. The tower receives the signal via a repeater tower on the mainland located at Maparru. Reduced reception occurs when the tower at Maparru is not operational.

[4] More information can be found at: https://www.casa.gov.au/operations-safety-and-travel/aerodromes

4.19. Strengthening Telecommunications Against Natural Disasters

As a result of the Royal Commission into the 2019-2020 summer bushfires, the Commonwealth government implemented the Strengthening Telecommunications Against Natural Disasters (STAND) initiative. STAND is a Commonwealth funded program, aimed at enhancing the resilience of Australia's telecommunication networks, to prevent, mitigate and manage outages during emergencies.

There are currently 56 sites across the Territory that have STAND capability, and additional sites will be incorporated within the next stage of installation.

There are 2 STAND sites within this Locality which are located and managed by the following facilities:

- Gawa Christian School
- Shepherdson College

4.20. Local radio stations

Galiwin'ku does not have a local radio station, but has the following broadcasts:

- 88.9 FM Yolngu Radio
- 105.9FM Australian Broadcasting Corporation (ABC) Local Radio
- 106.7 FM Top End Aboriginal Bush Broadcasting Association (TEABBA)
- 107.5 FM ABC Radio National

5. Prevention

5.1. Emergency risk assessments

The Galiwin'ku LEC are responsible for undertaking appropriate activities to prevent and mitigate the impact of emergencies in their Locality.

5.2. Disaster hazard analysis and risk register

The Territory Emergency Management Council (TEMC) have identified 30 hazards, as outlined in the Territory Emergency Plan, that may pose a risk across the NT, which have been allocated to designated Controlling Authorities and Hazard Management Authorities.

Many hazards require specific prevention and mitigation measures, an annual risk assessment (rated against the National Emergency Risk Assessment Guidelines) is undertaken by the LEC and determines which hazards pose a greater risk to the Locality.

The LEC has identified the following hazards as posing a risk to the Locality, with further advice provided within **Annex C** for those hazards rated at medium risk or higher:

- air crash
- bushfire (within Fire Protection and Management Zones)
- heatwave
- road crash
- storm and water damage
- tropical cyclone

Hazard	Overall consequence	Overall likelihood	Risk rating
Air crash	Moderate	Very Rare	**Low**
Bushfire (within Fire Protection and Management Zones)	Minor	Likely	**Medium**
Heatwave	Minor	Likely	**Medium**
Road crash	Moderate	Unlikely	**Medium**
Storm and water damage	Minor	Likely	**Medium**
Tropical cyclone	Moderate	Likely	**High**

5.3. Hazard specific prevention and mitigation strategies

Prevention and mitigation relates to measures to reduce exposure to hazards and reduce or eliminate risk. Actions include identifying hazards, assessing threats to life and property, and from these activities, taking measures to reduce potential loss of life and property damage.

The cornerstone of mitigation is guided and coordinated risk assessments, which should involve all potentially affected members of a community. Strategies are developed based on a thorough understanding of hazards identified in emergency risk planning and their interaction with all aspects of society.

Specific prevention and mitigation strategies for identified hazards can be found at **Annex C**.

6. Preparedness

Arrangements to ensure that, should an emergency occur, all resources and services that are needed to provide an emergency response and / or recovery can be efficiently mobilised and deployed.

6.1. Planning

NT emergency plans[5] are required by the Act and are maintained at a Territory, regional and local level. Arrangements in plans aim to be flexible and scalable for all hazards. The planning process enables agreements to be reached between people and organisations in meeting communities' needs during emergencies. The plan becomes a record of the agreements made by contributing organisations to accept roles and responsibilities, provide resources and work cooperatively.

The Regional Controller is responsible for the annual review of operations and the effectiveness of the Local Emergency Plan, supported by the LEC and the NTES Planning and Preparedness Command.

6.2. Emergency resources and contacts

The Local Controller is responsible for maintaining the emergency resource register and LEC contact lists. Local emergency management stakeholders are to advise the Local Controller of changes to resource holdings, operational response capabilities and key personnel contacts. Emergency resource and LEC contact lists for each locality are available on Web-based Emergency Operations Centre (WebEOC).

6.3. Training and education

The Act provides the legislative requirement for those involved in emergency management activities to be appropriately trained. Training and education activities are undertaken to ensure agencies are familiar with and understand the NT emergency management arrangements, as well as the relevant controlling and hazard management authorities for identified hazards.

The NTES Learning and Development Command is responsible for emergency management training across the NT. Online and face to face training is scheduled throughout the year. For further information contact the NTES Learning and Development Command via email at Training.EMTU@pfes.nt.gov.au.

6.4. Community education and awareness

Effective and ongoing community education and preparedness programs that emphasise to communities the importance of practical and tested emergency plans and safety strategies is essential. Empowering communities to act in a timely and safe manner will minimise the loss of life, personal injury and damage to property and contribute to the effectiveness of any warning system.

List of available activities and initiatives but are not limited to within the area:

- NT Fire and Rescue Service (NTFRS) Smart Sparx Program
- NTES hazard briefings
- NTES Paddy Program
- St John Ambulance First Aid in Schools Program

6.5. Exercises

Local level exercises are a key measure for testing the effectiveness of the local emergency plan and should involve all relevant stakeholders. Exercises ensure that the Plan is robust and understood, and that capabilities and resources are adequate. Exercises are conducted if arrangements with the plan have not been enacted since the last review, or substantial changes have occurred, including:

[5] More information can be found at: https://pfes.nt.gov.au/emergency-service/publications

- legislative changes
- major changes have occurred in the areas of key personnel, positions or functions across prevention, preparedness, response and recovery
- new or emerging hazards/risks have been identified

The NTES Planning and Preparedness Command have developed resources that outlines the process to develop the exercise concept in designing, planning, conducting, facilitating, participating or evaluating exercises. The Local Controller can request an exercise by emailing the request through to EmergencyManagementPlanning@pfes.nt.gov.au.

7. Response

Actions taken in anticipation of, during and immediately after an emergency to ensure that its effects are minimised and that people affected are given immediate relief and support.

7.1. Activation of the Plan

This plan has 5 stages of activation and are designed to ensure a graduated response to hazardous events, reducing the possibility of under or over reaction by the emergency management agency.

The stages are:

Stage 1	Alert	This stage is declared when the Local Controller receives warning of an event which, in their opinion, may necessitate an emergency management response
Stage 2	Standby	This stage is declared when the Local Controller considers an emergency operation is imminent. During this stage passive emergency measures are commenced
Stage 3	Activation	This stage is declared when active emergency measures are required
Stage 4	Stand-down response operations and transition to Recovery	Stage 4 occurs when the Local Controller and Local Recovery Coordinator agree to transition to recovery (if required) in accordance with the transitional arrangements of this Plan
Stage 5	Recovery	This stage is called if ongoing recovery operations and coordination is required

The stages identified provide for a sequential response. However, it may be necessary because of the degree of warning and speed of onset of an event, for the Local Controller to skip the actions required under stage 1 or 2.

7.2. Control and coordination

Arrangements for response are based on pre-agreed roles and responsibilities for stakeholders. When the scale and complexity of an event is such that resources of the community are depleted, a number of arrangements are in place to seek assistance from the region, the Territory and/or the Australian Government. Pathway for assistance is through the Regional Controller.

7.3. Local Emergency Controller

In accordance with section 76 of the Act, the Territory Controller or their delegate (section 112 of the Act) has appointed a Local Emergency Controller (Local Controller). The Local Controller for the Locality is the Officer In Charge of the Galiwin'ku Police Station. The Local Controller is subject to the directions of the Regional Controller. The powers, functions and directions of the Local Controller can be found in sections 77, 78 and 79 of the Act.

7.4. Local Emergency Committee

In accordance with section 80 of the Act, the Territory Controller has established a Galiwin'ku Local Emergency Committee (LEC). The Local Controller is Chair of the LEC and remaining membership consists of representatives from NTG and non-government entities within the Locality. Division 11 of the Act specifies the establishment, functions, powers, membership and procedure requirements of a LEC.

7.5. Emergency Operations Centre/Local Coordination Centre

NT Emergency Management Arrangements	Controlling Authority Arrangements
Emergency Operations Centre (EOC) (Territory and regional level)	Incident Control Centre (ICC)
Local Coordination Centre (LCC) (Local level)	Incident Control Point (ICP)

LCCs are established as required by the Local Controller to provide a central focus to the management, control and coordination of emergency operations in the Locality. When activated, the functions of the LCCs are:

- information collection and dissemination
- preparation and issue of official warnings and advice to the public
- coordination of the provision of resources required in the Locality
- submitting requests for resources through the Regional Controller to the Territory EOC where applicable
- dissemination of information to the media and general public.

The LCC for this Locality is the Galiwin'ku Police Station. The Regional EOC is located in Darwin at the Peter McAulay Centre. Agencies and functional groups may establish their own coordination centres to provide the focal point for the overall control and coordination of their own agency resources. Liaison officers from functional groups and support agencies will attend the EOC as required.

ICCs will be established as required by a controlling authority to provide an identified facility for the management of all activities necessary for the resolution of an incident.

An ICP is normally located near the incident in its early stages but may be relocated to an ICC where more permanent and convenient facilities and services are available.

7.6. WebEOC

WebEOC is a critical information management system used throughout the NT for emergency management activities. The system is owned and maintained by NTPF and NTFES. The online platform is used for the coordination of multi-agency response to, and recovery from, an emergency event. WebEOC also enables real-time information sharing across all agencies involved in emergency management activities.

7.7. Situation reports

It is essential for effective control and coordination of emergency management operations that the Local Controller is able to gather and collate relevant information relating to the emergency from regular, concise and accurate Situation Report (SITREPs).

LEC members are to provide SITREPs at agreed times to enable the preparation of a consolidated report which will be distributed to all committee members and other relevant authorities. This may be achieved through WebEOC.

7.8. Stakeholder notifications

Upon activation of the Plan the following personnel are to be advised as a matter of urgency:

- all available members of the LEC
- Northern Regional Controller
- NTES Territory Duty Officer (TDO)

7.9. Official warnings and general public information

Official warnings and general public information will be broadcast to the Locality through the following means:

- radio broadcast
- television news broadcast
- SecureNT website and social media broadcasts and updates

Official warnings are issued by the Bureau of Meteorology (the Bureau), Geoscience Australia, NTPF, NTFES and Controlling Authorities.

Emergency Alert is a national telephony-based emergency warning system that can deliver warning messages to landlines and mobile handsets based on the service address and mobile handsets based on the last known location of the device. Authority to utilise the Emergency Alert may be given by virtue of the pre-approval of a hazard specific emergency plan or under the Territory Emergency Plan.

The approval for the release of an emergency alert message can only be authorised by one of the following:

- Territory Controller
- Chief Officer, NTES
- Regional Controller
- Chief Fire Officer, NTFRS
- Deputy Chief Fire Officer, NTFRS
- Executive Director, BFNT
- Chief Fire Control Officer, BFNT

The Standard Emergency Warning Signal (SEWS) is an audio alert signal (wailing siren) which may be broadcast on public media to draw attention to the fact that an urgent safety message is about to be made. Generally, SEWS is only played before announcements concerning significant emergencies where emergency management arrangements should be activated as a result.

Control and hazard management authorities may have pre-planned use of SEWS for non-weather related events, through a pre-approved hazard-specific emergency plan.

The approval for the release of a SEWS message can only be authorised by one of the following:

- Territory Controller
- Chief Officer, NTES
- Manager Hazard Preparedness and Response NT (the Bureau) (for weather and flood-related events)

Warning and information messages for general public are authorised by the Regional or Incident Controller. The dissemination of such emergency warnings and information is to be by whatever means are appropriate and available at the time.

7.10. Australasian Inter-Service Incident Management System

The Australasian Inter-Service Incident Management System (AIIMS)[6] is a robust incident management system that enables the seamless integration of activities and resources of a single agency or multiple agencies when applied to the resolution of any event.

7.11. Closure of schools

The decision to close schools due to an impending threat will be made by the Chief Minister on advice from the TEMC. When the nature of an event demands an immediate response, local authorities will take the appropriate steps to ensure the safety to the public. This action may include the temporary closure of a school to begin preparations, pending formal closure of the school by the Chief Minister for the remainder of the event.

The decision to reopen schools will be made by the Chief Minister on advice from the Chief Executive, DET.

7.12. Closure of government offices

The decision to close government offices due to an impending threat will be made by the Chief Minister on advice from the TEMC. When the nature of an event demands an immediate response, local authorities should take all appropriate steps to ensure public safety and the protection of property.

The decision to reopen government offices will be made by the Chief Minister on advice from the TEMC.

All NTG agencies are to have an emergency preparedness plan which sets out their processes for closing down their offices once approval has been given. This should have clearly articulated employee guidelines to ensure employees know when they are authorised to leave and are required to return to work.

7.13. Remaining in place

The TEMC have identified the need to review opportunities to support 'sheltering in community' for weather-vulnerable communities under the NT Emergency Management Arrangements.

In the NT, 'sheltering in community' means residents remain in their community in a safe place before, during, and after a hazard. This may include staying at home or arranging their own safe accommodation. For those without options, formal emergency shelters or temporary accommodation may be provided by Incident Controllers until it's safe to return home.

This approach can be supported by additional community resources like personnel, goods, or equipment. While evacuation remains an option, sheltering in community is often safer and more effective when supported. The decision depends on community capacity and the specific event.

7.14. Emergency shelters or strong buildings

Emergency shelters and strong buildings are places of refuge that provide people with a place of protection and shelter during a disaster or emergency event such as a cyclone, flood or fire.

The recognised emergency shelters within the Locality are:

Shelter(s)	People capacity
Dhurrkay building	300
Galiwin'ku Police Station and cells	75
Marthakal (workshop)	300
Shepherdson College	440
Sport and Rec hall	500

[6] More information can be found at: https://pfes.nt.gov.au/emergency-service/publications

There are a number of buildings built to the wind terrain code in Galiwin'ku, (all houses that are not made of tin are built to code). The DET in conjunction with NTPF and shelter owners are responsible for the management of emergency shelters during an emergency event.

The responsibilities of the emergency shelter manager are:

- the provision of personnel to staff and operate the emergency shelters at such times as they are activated
- the maintenance of effective liaison with other stakeholders with responsibilities relating to cyclone shelters, in particular the NTPF.

Emergency shelters are opened under the direction of the Territory or Regional Controller in consultation with the Shelter Group (DET). Emergency shelters will not normally operate for more than 48 hours.

The timing of the opening of emergency shelters will be dependent upon the severity of the impending incident, the numbers to be sheltered, the time of day the incident is expected to impact and the period of time the emergency shelters are likely to be occupied. The announcement that emergency shelters are open in the Locality will be made by radio broadcast and social media, and will include emergency shelter rules such as no pets or alcohol being permitted in shelters. It is up to the discretion of the shelter manager if food will be provided.

7.15. Evacuation

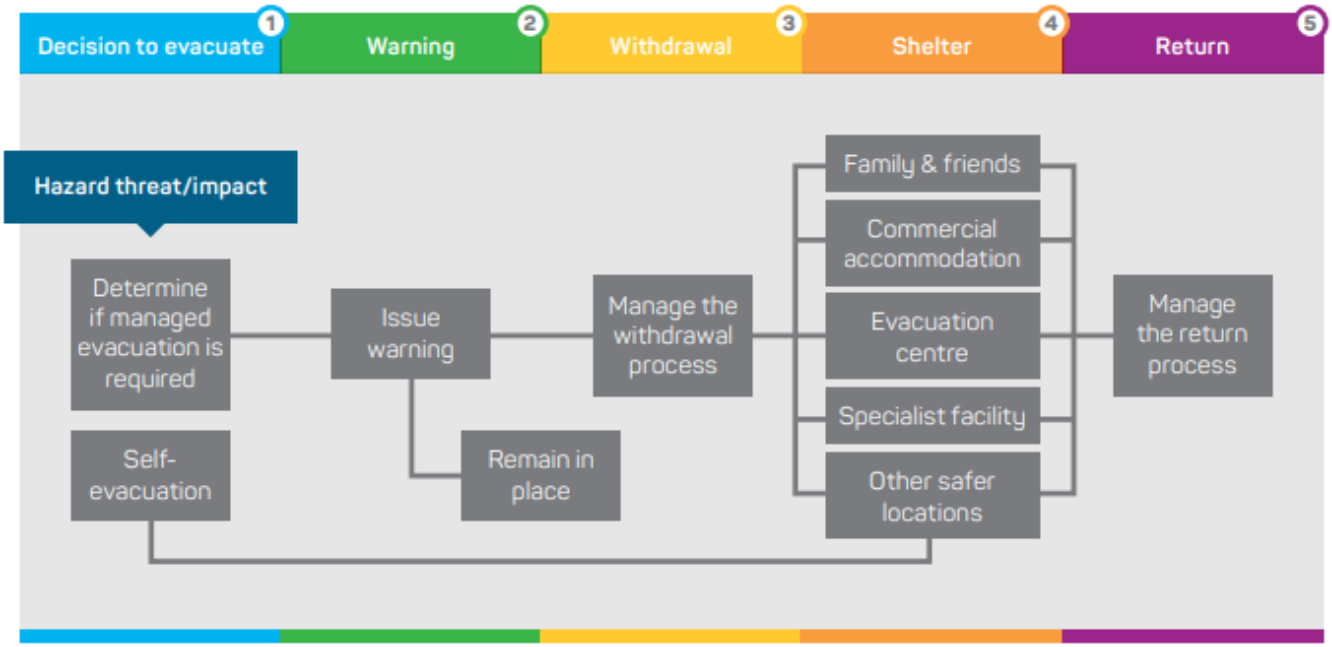
Evacuation is a risk management strategy that can be used to mitigate the effect of an emergency or disaster on a community. It involves the movement of people to a safer location and their return. The decision to evacuate a community, including establishing an evacuation centre, is not taken lightly as it represents significant resource and financial implications.

Evacuation of the Locality will be considered as a last resort. Where an evacuation is required the TEMC, in consultation with the Regional Controller, Local Controller and the LEC, will arrange emergency accommodation and transport, as necessary, through the relevant functional group/s.

Evacuation is a complex process that has 5 distinct steps:

1. decision
2. warning
3. withdrawal
4. shelter
5. return

Each step is linked and must be carefully planned and carried out in order for the entire process to be successful. Given an evacuation centre will only be opened as a part an evacuation, it is vital to have an understanding of the 5-step process.



Source: Australian Institute of Disaster Resilience, Evacuation Planning Handbook, 2017

7.16. Identified evacuation centres

An evacuation centre is designed to accommodate people for short to medium periods of approximately 4 to 6 weeks, although this figure may vary.

An evacuation centre will provide some or all of the following services:

- assistance accessing finances and recreational activities
- beds
- linen
- meals
- medical services (or access to them)
- personal support

An evacuation centre implies the provision of these services in contrast to an emergency shelter, in which people are expected to be self-sufficient.

For further information on evacuation centres/shelters management, refer to the NT Evacuation Field Guide available on WebEOC.

7.17. Impact assessment

Immediately after an emergency event, there is a need to identify and assess impacts to inform short and long-term recovery priorities. Comprehensive assessment of all impacts is a vital component of emergency response activities. Guidelines for the conduct of rapid assessments in the NT, including the establishment of dedicated Rapid Assessment Teams (RATs) to collect data in the field, have been developed.

The Survey, Rescue and Impact Assessment Group, led by the NTPF, is responsible for coordinating rapid impact assessments. At the local level, local controllers or an Incident Controller if appointed, should contact the Survey, Rescue and Impact Assessment Group lead to discuss impact assessments if deemed appropriate.

8. Recovery

The coordinated process and measures for supporting emergency-affected communities in the reconstruction of physical infrastructure and restoration of the social, economic and natural environments.

In the NT, the Department of the Chief Minister and Cabinet (CM&C) lead recovery coordination.

8.1. Local Recovery Coordinator and Coordination Committee

When a region and/or locality has been affected by an event, the Regional Recovery Coordinator may appoint a Local Recovery Coordinator in accordance with section 87 of the Act, the responsible agency for Recovery is CM&C.

The Local Recovery Coordinator will be an employee of the East Arnhem Region's CM&C office and will establish a Local Recovery Coordination Committee (LRCC) drawing from membership of the LEC and other relevant members of the community as needed. The Local Recovery Coordinator reports directly to the Regional Recovery Coordinator.

Local Recovery Coordinator and Committee functions, powers and directions are established in Division 12 and 13 of the Act respectively.

8.2. Transitional arrangements

The transition from response to recovery coordination reflects the shift from the protection of life and supporting the immediate needs of the community to establishing longer term, more sustainable support structures.

The transition to recovery coordination occurs after the completion of the transition checklist and at a time agreed by the Territory Controller and Territory Recovery Coordinator in accordance with the Territory Emergency Plan.

Transition will occur when the Territory Recovery Coordinator is satisfied that the following has occurred:

- the Territory Controller has briefed the TEMC and the Territory Recovery Coordinator
- the Regional Controller has briefed the Regional Recovery Coordinator
- where there is significant changeover of personnel, the EOC planning operations and logistics sections have briefed incoming recovery planning, operations and logistics staff

The Regional Recovery Coordinator will ensure all functional group leaders, agencies, support groups and other relevant stakeholders are notified prior to the transition to recovery. This notification is to include changes to relevant contact details and other pertinent information.

An example of response and recovery activities can be found at **Annex D**.

9. Debrief

Debrief processes embed continuous improvement into the delivery of emergency management activities. Consistent approaches to lessons learned encourage adaptability, and flexibility across all levels of government. Sharing of knowledge and experiences throughout emergency events assists with ongoing continuous improvement of people and organisations involved.

The NTG implements a lessons learned approach recognising the positive impact on organisational culture commensurate with increasing opportunities to achieve emergency management goals. Whilst lessons learned often begins in one agency through an internal debrief process, those lessons learned are transferable across multiple agencies.

During any operational response, personnel involved are encouraged to record activities where there are lessons to be learned. Activities can include decision making and consequential responses. Where decisions are made by an Incident Controller, Incident Management Team (IMT) member or a functional group member, those decisions should be recorded in a Decision Log (within WebEOC). Decision Logs can be referred to as part of the debrief process.

10. Related references

The following references apply:

- *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth)
- *Building Act 1993*
- *Building Regulations 1993*
- *Emergency Management Act 2013*
- National Disaster Risk Assessment Guidelines
- National Disaster Risk Reduction Framework
- Northern Regional Emergency Plan
- *Northern Territory Aboriginal Sacred Sites Act 1989*
- Rapid Assessment Team Guidelines
- Territory Emergency Plan
- Transition to Recovery Checklist

11. Annexures

Annex A Functional groups - roles and responsibilities

Annex B Functions table

Annex C Prevention, mitigation strategies and action plans for identified hazards

Annex D Summary of response and recovery activities

11.1. Annex A: Functional groups - roles and responsibilities

Functional group	Local contact
Animal Welfare	Department of Agriculture and Fisheries (DAF)
Critical Goods and Services	ALPA Galiwin'ku Store
Digital and Telecommunications	Department of Corporate and Digital Development (DCDD)
Emergency Shelter	Shepherdson College/Gawa School
Engineering	Department of Logistics and Infrastructure (DLI)
Industry	Department of Trade, Business and Asian Relations (DTBAR)
Medical	Galiwin'ku Primary Health Centre
Public Health	DOH
Public Information	CM&C
Public Utilities	PAWC
Survey, Rescue and Impact Assessment	NTPF
Transport	DLI
Welfare	Department of Children and Families (DCF)

Full details on functional group roles and responsibilities are detailed in the Territory Emergency Plan.

11.2. Annex B: Functions table

Emergency response and recovery functions with identified agencies/organisation/provider.

During an event some of these functions may be needed at a local level.

Functions	Agency/organisation/provider responsible
Animal/livestock management	EARC/Marthakal Rangers
Anti-looting protection	NTPF
Banking services	Traditional Credit Union
Broadcasting: What radio stations provide announcements?	ABC Local Radio/Yolgnu Radio
Clearing of essential traffic routes	EARC/Marthakal Rangers/DLI
Clearing storm water drains	EARC/DLI
Clothing and household Items	Arnhem Land Progress Aboriginal Corporation (ALPA)
Community clean up	Marthakal/Rangers/EARC/Yalu/ALPA
Control, coordination and management	Designated Control Authority
Coordination to evacuate public	NTPF
Critical goods and services (protect/resupply) • food • bottle gas • camping equipment • building supplies	Marthakal/EARC/ALPA/Tuckerina/Bottom Shop/AEC Building/Electrical Plumbing Resources/Delta Reef/ Aruga/Sea Swift/DTBAR
Damaged public buildings: Coordination and inspections	Marthakal/EARC/DLI/Department of Housing, Local Government and Community Development (DHLGCD)
Disaster victim identification capability	NTPF
Emergency alerts	NTPF/NTFES
Emergency food distribution	Yalu
Emergency Operations Centre (EOC), including WebEOC	NTPF/NTFES
Emergency shelter. Staff, operations and control	DET/EARC
Evacuation centre - staffing, operations and control	DCF
Financial relief/assistance Disaster Recovery Funding Arrangements	CM&C/DCF (Category A measures to individuals)/DTBAR (Category B measures)
Identification of suitable buildings for shelters	LEC
Interpreter services	Aboriginal Interpreter Service and Aboriginal Resource and Development Service
Management of expenditure in emergencies	Controlling Authority and any activated functional groups at the direction of the controlling authority

Functions	Agency/organisation/provider responsible
Medical services	Marthakal Health Clinic/Miwatj Health Clinic
Network communications (IT): Responders /public maintenance and restoration of emergency communication	Telstra/DCDD
Power: Protection and restoration	ESO/PAWC/Marthakal Homelands
Public messaging during response and recovery	Hazard Management Authority/CM&C
Public/environmental health (EH) management • all EH functions including water & food safety • disease control	Top End Health/DOH
Rapid impact assessment	NTPF
Recovery coordination	CM&C
Repatriation	As per local arrangements/DCF
Restoration of public buildings	Marthakal/AEC Building, Electrical and Plumbing Resources/EARC/DLI/DHLGCD
Restoration of roads and bridges (council/territory) excluding railways	EARC/Marthakal/DLI
Road management and traffic control including public Information on road closures	NTPF/DLI/EARC
Sewerage: Protection and restoration	PAWC
Survey	NTPF/NTFES
Traffic control	NTPF/DLI/EARC
Transport: Commercial and public airport/ planes, automobiles, ferries, buses	School Bus/ALPA Bus/Aged Care bus/Marthakal bus/ Marthakal hire vehicles/Rainbow Bus/DLI
Vulnerable groups (medical)	EARC/Aged care
Waste management • collection • disposal of stock	EARC
Water (including drinking water): Protection and restoration	PAWC/AEC/Marthakal Homelands

11.3. Annex C: Prevention, mitigation strategies and action plans for identified hazards

11.3.1. Bushfire (within Fire Protection and Management Zones)

Hazard	Controlling authority	Hazard management authority
Bushfire (within Fire Protection and Management Zones)	NT Fire and Emergency Services (Bushfires NT)	NT Fire and Emergency Services (Bushfires NT)

A fire hazard is an event, accidentally or deliberately caused, which requires a response from one or more of the statutory fire response agencies. A fire hazard can include, but not limited to:

Term	Definition
Structure fire	A fire burning part, or all of any building, shelter, or other construction.
Bushfire	An unplanned fire. It is a generic term that includes grass fires, forest fires and scrub fires. Bushfires are a natural, essential and complex part of the NT environment. The term bushfire is interchangeable with the term wildfire.
Vehicle fire	An undesired fire involving a motor vehicle.

In the NT, managing bushfire and vegetation on private properties is the responsibility of the landowner.

Landholder responsibility to control fire

The landholder or occupier of land must take all reasonable steps to protect property on the land from fire and inhibit the fire from spreading.

If a landholder or occupier is unable to control a fire and prevent it from spreading to other land, they must:

- notify fire control officer or fire warden and all neighbouring property holders
- call 000 in an emergency.

Under section 90(3) of the *Bushfires Management* Act the landholder or occupier commits an offence if the fire has the potential to spread to other land and they fail to take reasonable steps to control the fire and to notify all parties.

Communication, co-operation and shared responsibility within the community, matched by a capacity to undertake self-protective measures, form the basis of successful fire management throughout the NT.

In areas where there is no gazetted fire protection zone, if the owner or occupier of land is unable to control fire on the land, the owner or occupier must notify BFNT of this fact. When fires are reported to 000, the Joint Emergency Services Call Centre, the (JESCC) will contact BFNT to triage the report. In these areas, firefighting response from BFNT is not guaranteed as there is no established volunteer firefighting resource. BFNT may assist the owner or occupier of the land through the coordination of information and advice to assist the owner or occupier to control the fire. This may include liaison with affected neighbouring owners or occupiers for resource support, provision of fire weather information or the issuing of public information. In some circumstances, BFNT may deploy firefighting resources from larger regional centres to assist the owner or occupier to control the fire. BFNT have a rostered NT Duty Officer (NTDO) to provide 24/7 incident triage coverage who can be contacted through the JESCC.

Actions to be taken

As described above, in areas where there is no fire protection and management zones (BFNT) or emergency response area (NTFRS), fire is the responsibility of the land owner or occupier. Where an owner or occupier has contacted BFNT that they are unable to control fire on the land, BFNT may contact the Local Controller to discuss local response arrangements and coordination of resources.

Prevention and preparative controls include, but are not limited to:

- a fire danger period is declared over large areas when climatic and seasonal conditions presents increased fire risk for a prolonged period of time. A fire danger period usually coincides with the accepted 'fire season' in an area. Broadly this is during the Australian summer months in central Australia and during the Dry Season further north. A permit to burn is required before using fire during a fire danger period in all zones
- a fire ban can be declared for up to 24 hours. A combination of factors are considered when declaring a fire ban period including forecast fire danger, ignition likelihood, hazards and resourcing. All permits to burn are revoked within the declared fire ban area
- a fire management area can be declared in an area where BFNT have identified heightened fire risk. A fire management plan can be prescribed for a fire management area, and the plan can require landowners to take action to prepare for, or prevent, the spread of fire
- additional fire regulations apply within BFNT Fire Protection and Management Zones (FPMZ). Permits to burn are required throughout the entire year inside an ERA or FPMZ and a minimum 4m wide firebreak within the perimeter boundary of all properties and additional firebreaks around permanent structures and stationary engines is required within an FPMZ
- the BFNT Regional Fire Management Plan
- establishment of an IMT with liaison officers from other agencies to assist
- radio, television and social media posts

Warning and advice approval flow (bushfire only):

The Australian Warning System is a national approach to information and warnings during emergencies like bushfire. The system uses a nationally consistent set of icons, like those below.

There are 3 warning levels

	Warning level	Description
	Advice (Yellow)	An incident has started. There is no immediate danger. Stay up to date in case the situation changes
	Watch and Act (Orange)	There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family
	Emergency Warning (Red)	An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to Action can be used flexibly across all 3 warning levels depending on the hazard.

All warnings and advice will be issued by the Incident Controller from the relevant controlling authority for fire (NTFRS or BFNT).

Actions to be taken – Bushfire – guide only

Organisation/ Provider	Stage 1: Alert	Stage 2: Standby	Stage 3: Activation	Stage 4: Stand down	Transition to recovery
All Members	Attend briefings Inform key personnel Provide SITREPs	Attend briefings Inform key personnel Provide SITREPs	Attend briefings Inform key personnel Provide SITREPs	Attend briefings Inform key personnel Provide SITREPs	Attend briefings Inform key personnel Provide SITREPs
Local Controller	Notify duty officer	Attend briefings Inform key personnel Provide SITREPs	Proceed to the incident suite and carry out response procedures/actions	Stand down	Attend debrief
NT Police 2IC	Attend LEC meeting Prepare equipment and plan response	Maintain contact with the Local Controller in relation to updates and planned responses Ensure community warnings are appropriate and disseminated	Attend fire scene Provide appropriate response Provide updates to the Local Controller	Monitor scene to prevent further outbreak Assess damage	Conduct debrief Assist the Local Controller in the recovery effort and conduct community awareness and preventions sessions
Health clinic		Prepare equipment to attend Prepare to triage patients	Attend forward command post Maintain presence at the health clinic Evacuate patients, if required	Stand members down Refurbish/replace all equipment used in the response	Attend debrief
Support organisations	Provide support as requested by the Local Controller				

11.3.2. Heatwave

	Hazard	Controlling Authority	Hazard Management Authority
	Heatwave	Department of Health	Department of Health

The NT has naturally warm to hot weather. However, maximum and minimum temperatures occasionally exceed historical records creating heatwave conditions. Heatwave (extreme heat) conditions occur across the Territory between the months of October and March. Extreme heat is predicted to become more frequent, more intense, of longer duration, and occurring earlier in the warm season.

A heatwave occurs when maximum and minimum temperatures are unusually hot (unusual for that location) projected over a 3 day period. Heatwaves can occur with or without high humidity. They have potential to cover a large area, exposing individuals and communities to hazardous heat. Forecast minimum and maximum temperatures are compared to the historical data of a location as well as temperatures over the last 30 days to establish a heatwave occurrence.

Extreme heat can be very taxing on the body. The human body can be over-heated when it is surrounded by a temperature close to or exceeding body temperature of 37˚C in the presence of dehydration. If the body's temperature is unable to be reduced adequately by evaporation of perspiration or moving to cooler surroundings, the resulting illness may range from mild to severe/catastrophic. A heatwave forecast is a warning that the hot temperatures will be a shock to the body, compared to recent temperatures. Even the most acclimatised NT residents can be affected by heat stress.

NT Health publishes heat health alerts where a severe or extreme heatwave is forecast to affect:

- a major centre (Greater Darwin Region, Alice Springs, Katherine, Tennant Creek, Nhulunbuy; OR
- 3 or more populated centres in a Bureau weather district,

AND the forecast is:

- 3 or more days of severe heatwave; OR
- 2 or more days of extreme heatwave

The level of a severe or extreme heatwave event will determine the magnitude of response required to effectively manage the situation. The following describes heatwave incident response hierarchy and are based on AIIMS incident classification.

Level	Description
Level 1	The Severe or Extreme Heatwave has minimal or no impact on normal operations. The Severe or Extreme Heatwave continues for one – 3 days. Hospitals and health services may observe an increase in activity commensurate with the incident. Response by NT Health through heat health alerts.
Level 2	The Extreme Heatwave continues for approximately 3 – 6 days. The Extreme Heatwave has major impact on normal operations. The weather event is resulting in compounding impacts on essential services and infrastructure, and there are anticipated impacts on human health and infrastructure.
Level 3	An Extreme Heatwave is protracted, exceeding 6 days. Maximum temperatures for the localities are exceeded for what is normally expected and multiple days with significantly increased night-time temperatures. Public infrastructure is affected. Power supply outages, compounding the heatwave and resulting in the public unable to seek respite from the heat. Abnormally high presentations at hospitals for heat related illness. Businesses are taking significant actions to protect the welfare of their workers.

Prevention and preparative controls include, but are not limited to:

- preseason situational awareness with the Bureau
- developing heat health communication and community engagement strategies
- engagement with government and private agencies, functional groups and community organisations
- preparing fact sheets, and translating into indigenous and multicultural languages
- updating heat health advice email distribution list
- monitoring the Bureau heatwave forecast and decision support product
- public messaging (using radio, website posts, and social media posts) when a heatwave is forecasted, imminent or in progress

Public safety message process:

- NT Health receives heatwave warning from the Bureau
- the heatwave decision support product is reviewed and localities of forecast severe or extreme heatwave noted
- Director Environmental Health circulates information on extreme heat to stakeholders, listing all localities likely to be impacted
- NT Health Strategic Media, Marketing and Communications Team publish heat health alerts on NT Health Alerts webpage and other channels
- NT Health publishes media release through NTG Media Releases
- NT Health engages with media to broadcast heat health messages.

Warnings and advice approval flow:

The Australian Warning System is a national approach to information and warnings during emergencies like bushfire. The system uses a nationally consistent set of icons, like those below.

There are 3 warning levels:

	Warning level	Description
	Advice (Yellow)	An incident has started. There is no immediate danger. Stay up to date in case the situation changes
	Watch and Act (Orange)	There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family
	Emergency Warning (Red)	An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to Action can be used flexibly across all 3 warning levels depending on the hazard.

11.3.3. Road crash

	Hazard	Controlling Authority	Hazard Management Authority
	Road crash	NT Police Force	NT Fire and Emergency Services (NT Fire and Rescue Service)

A road crash occurs when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction, such as a tree, pole or building. Road crashes often result in injury, disability, death, and or property damage as well as financial costs to both society and the individuals involved. Emergency services are frequently called on to extricate seriously injured casualties from their vehicles following road crashes. This is achieved by employing space creation techniques to create openings in the vehicle. These openings make it possible to administer first aid to the casualty and to remove them from the vehicle.

A number of factors contribute to the risk of collisions, including vehicle design, speed of operation, road design, weather, road environment, driving skills, fatigue, impairment due to alcohol or drugs, and behaviour, notably aggressive driving, distracted driving, speeding and street racing.

Responses to road crash incidents will be coordinated from the JESCC. NTFRS will respond as per pre-determined response arrangements contained within the Intergraph Computer-Aided Dispatch system for incidents occurring within an NTFRS ERA. For incidents occurring outside of an ERA, response will be approved by the rostered NTFRS TDO.

Prevention and preparative controls include, but are not limited to:

- radio, television and social media posts
- targeted road safety campaigns
- community engagement strategies
- training in PUASAR024 - undertake road crash rescue delivered by NTES and NTFRS to NTPF and NTFES members.

Public message approval flow:

- NTPF Territory Duty Superintendent to approve public messaging and forward to NTPF and NTFES Media Unit for dissemination.

11.3.4. Storm and water damage

	Hazard	Controlling Authority	Hazard Management Authority
	Storm and water damage	NT Police Force	NT Fire and Emergency Services (NT Emergency Service)

Severe storms are localised events that do not usually affect wide areas, consequently the threat they pose is often underestimated by the community. These storms can occur anywhere in the Territory and do so much more frequently than any other major natural hazard.

On average, each year severe storms are responsible for more damage, as measured by insurance costs, than tropical cyclone, earthquake, flood or bushfire. Unfortunately, storms also kill people; between 5 and 10 deaths are caused by lightning strikes in Australia each year. Deaths also occur when strong winds cause tree limbs to fall, debris to become projectiles and small boats in open water to capsize. In fact, although many people believe that tornados do not occur in Australia, 41 tornado-related deaths have been recorded in Australia.

As the Hazard Management Authority the NTES have established, equipped and trained a volunteer unit at the Locality, which is capable of responding to the impact of storms. Initial control and coordination will be through the NTES TDO.

Prevention and preparative controls for include, but are not limited to:

- implementation of high risk season preparation initiatives and council clean ups
- radio, television and social media posts.

Public safety message process:

- the Bureau issues a Broadcast warning to NTES TDO
- NTES TDO issues Australian Warning System to the NTPF and NTFES Media Unit
- NTES TDO notifies Local Controller and NTES Manager Northern Command
- NTES passes recommendations to the Regional and Local Controller to confirm plan stages
- NTPF and NTFES Media Unit and Public Information Officer to publish public messaging.

Warnings and advice approval flow

The Australian Warning System is a national approach to information and warnings during emergencies like storm, flood and cyclone. The system uses a nationally consistent set of icons that are found below.

There are 3 warning levels:

	Warning level	Description
	Advice (Yellow)	An incident has started. There is no immediate danger. Stay up to date in case the situation changes
	Watch and Act (Orange)	There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family
	Emergency Warning (Red)	An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to Action can be used flexibly across all 3 warning levels depending on the hazard.

On advice from the Bureau's weather warnings, the NTES determine the Australian Warning System level. The NTES TDO is responsible for issuing Australian Warning System warnings and advice.

11.3.5. Tropical cyclone

Hazard	Controlling Authority	Hazard Management Authority
Tropical cyclone	NT Police Force	NT Fire and Emergency Services (NT Emergency Service)

A tropical cyclone hazard includes a cyclone threat to the township, housing and infrastructure of the Locality including the surrounding areas. During the cyclone season, November to April, the Bureau keeps a 24-hour watch on developing tropical weather systems. The Bureau will issue a Tropical Cyclone Advice whenever a tropical cyclone is likely to cause winds in excess of 62 km/h (gale force) over Australian communities within the next 48 hours.

A number of cyclones have directly or indirectly impacted NT in recent years. The following is a summary of significant tropical cyclones to have impacted the area:

- Severe Tropical Cyclone Megan – March 2024
  Category 3 system at landfall. Brought destructive winds and major flooding to Borroloola and surrounding areas.
- Severe Tropical Cyclone Trevor – March 2019
  Category 4 system at landfall. Triggered widespread evacuations across the Gulf of Carpentaria and caused significant wind damage and flooding.
- Severe Tropical Cyclone Marcus – March 2018
  Category 5 at peak intensity, Category 2 when crossing near Darwin. Caused widespread damage with destructive winds and heavy rainfall across the Northern Territory, especially Darwin and surrounding regions.
- Severe Tropical Cyclone Lam – February 2015
  Category 4 system at landfall. Brought destructive winds and flooding to Arnhem Land communities, damaging homes and infrastructure.
- Severe Tropical Cyclone Monica – April 2006
  Category 5 system at peak intensity. One of the most intense cyclones recorded in the Southern Hemisphere; caused extensive environmental damage.
- Severe Tropical Cyclone Ingrid – March 2005
  Category 4 system at landfall. Impacted Arnhem Land and the Tiwi Islands with strong winds and heavy rainfall.
- Severe Tropical Cyclone Tracy – December 1974
  Category 4 system at landfall. Devastated Darwin, destroying most of the city and causing 71 fatalities.

Tropical Cyclones are classified into categories based on their sustained wind speed. These categories help communicate the potential severity of a cyclone's impact, including wind damage, storm surge, and flooding. Understanding these categories is essential for assessing risk and implementing appropriate emergency response measures.

The following table outlines the classification system used for tropical cyclones:

Table – Tropical cyclone categories

Category	Max mean wind (km/h)	Typical strongest gust (km/h)	Transport effects
1	63 - 88	< 125	Negligible house damage. Damage to some crops, trees and caravans. Craft may drag moorings
2	89 - 117	125 - 164	Minor house damage. Significant damage to signs, trees and caravans. Heavy damage to some crops. Risk of power failure. Small craft may break moorings
3	118 - 159	165 - 224	Some roof and structural damage. Some caravans destroyed. Power failures likely
4	160 - 199	225 - 279	Significant roofing loss and structural damage. Many caravans destroyed and blown away. Dangerous airborne debris. Widespread power failures
5	>200	> 279	Extremely dangerous with widespread destruction

Note: Corresponding approximate wind gusts and central pressure are also provided as a guide. Stronger gusts may be observed over hilltops, in gullies and around structures.

As the Hazard Management Authority the NTES have established, equipped and trained volunteer units, to support response and recovery operations to tropical cyclones.

The NTES maintain the Territory EOC in a state of readiness. If the EOC is required to be activated by the Regional Controller, the NTES will support this activation and facilitate, where possible, the staffing requests for IMT personnel.

Prevention and preparative controls include, but are not limited to:

- implementation of cyclone preparation initiatives and council clean ups
- radio, television and social media posts
- during the cyclone season (November to April), the main ALPA Galiwin'ku Store maintains a six (6) weeks supply of non-perishable food items and emergency water, while the ALPA Buthan Store also holds emergency water.

Public safety message process (initial notification):

- the Bureau issue a cyclone advice to NTES TDO
- NTES TDO issues Australian Warning System to the NTPF and NTFES Media Unit
- NTES TDO notifies Local Controller and NTES Manager Northern Command
- Local Controller notifies LEC
- NTES Manager Northern Command consults with the Bureau, Regional Controller, NTES Chief Officer and Incident Controller to determine recommended messaging
- NTPF and NTFES Media Unit, or Public Information Officer receives approved messaging to publish
- responsibility for development and promulgation of warnings and information post the establishment of an IMT will rest with the Public Information Officer and the Incident Controller.

The response to a cyclone event is staged and dependant on timings of the weather warnings issued by the Bureau and the projected impact on the communities. The table located on pages 29 – 32 provides a guide to typical actions for members of the LEC upon receipt of notifications from the Bureau. The table also notes the need for LEC members to contribute to the recovery process post the impact of the cyclone.

Warnings and advice approval flow

The Australian Warning System is a national approach to information and warnings during emergencies like storm, flood and cyclone. The system uses a nationally consistent set of icons that are found below.

There are 3 warning levels:

	Warning level	Description
	Advice (Yellow)	An incident has started. There is no immediate danger. Stay up to date in case the situation changes
	Watch and Act (Orange)	There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family
	Emergency Warning (Red)	An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

Each warning level has a set of action statements to give the community clearer advice about what to do. Calls to Action can be used flexibly across all 3 warning levels depending on the hazard.

On advice from the Bureau's weather warnings, the NTES determine the Australian Warning System level.

The NTES TDO is responsible for issuing Australian Warning System warnings and advice prior to an Incident Controller is appointed.

Actions to be taken – Tropical cyclone – guide only[7]

Organisation/ Provider	Watch	Warning (onset of Gale Force Winds)			Reduced risk	Transition to recovery
	48 hours	24 + hours	6 + hours	3 + hours		
All members	Attend briefings Inform key stakeholders Provide SITREPs Assist the Local Controller as required Ensure final preparations are undertaken prior to Warning	Attend briefings Inform key personnel Assist the Local Controller as required	Attend briefings Assist the Local Controller as required Inform key personnel	Assist the Local Controller as required Take and remain in shelter	Remain in shelter until directed by Local Controller Assist the Local Controller as required	Attend briefings Inform key personnel Assist the Local Controller as required
Local Controller	Convene meeting of the LEC Ensure LEC members and community have activated their Cyclone Plan Co-ordinate the dissemination of the cyclone watch information to the relevant local community Communications established and maintained with Regional Controller, and NTES TDO and advise state of preparedness Participate in REC meetings as required	Convene meeting of the LEC Ensure that the dissemination of the cyclone warning information to the public is maintained Advise Regional Controller of state of preparedness and ascertain SITREPs requirement Activate EOC if required	Update LEC and allocate tasks as required Ensure that the dissemination of the cyclone warning information to the public is maintained At the appropriate time, advise persons at risk to move to a shelter	Take and remain in shelter	When it is declared safe to move outside, ascertain the extent of injury to persons and damage to property Give directions to survey teams advising community of reduced risk Provide SITREPs to Regional Controller and Incident Controller Prepare for transition to recovery	Provide SITREPs to Regional Controller and Incident Controller Prepare for transition to recovery Begin compilation of information for Post Operation Report

[7] Action stages as per Tropical Cyclone advice and warnings issued by the Bureau of Meteorology

Organisation/ Provider	Watch	Warning (onset of Gale Force Winds)			Reduced risk	Transition to recovery
	48 hours	24 + hours	6 + hours	3 + hours		
NTPF	Brief police members Disseminate warnings and information as required Maintain normal police duties Assist Local Controller as required Ensure all operational vehicles are fully fuelled	Brief police members Assist with the preparation of the EOC Disseminate cyclone warning information as directed by the Local Controller and advise information received	Brief police members Disseminate cyclone information as directed by the Local Controller and advise them of information received Limit transport and ensure all emergency vehicles are fully operational Co-ordinate the movement of personnel to shelter Commence final patrol of area Ensure all personnel take shelter	Take and remain in shelter	When advised by Local Controller, move outside and ascertain the extent of injury to persons and damage to property and report with damage assessments Assist Local Controller with prioritising response operations	Assist in the preparation of the final SITREPs Ensure that all NTPF equipment used in the operation is accounted for, maintained and restored Inform key personnel
Unit Officer Galiwin'ku NTES	Attend LEC meetings Brief unit members Advise the Operations Officer of the unit involvement Check and prepare unit equipment Carry out other duties as directed by the Local Controller	Brief unit members Advise the Operations Officer of the unit involvement	Brief unit members Advise the Operations Officer of the unit involvement	Take and remain in shelter	Remain in shelter until advised by Local Controller that it is safe to move outside Provide SITREPs as required	Coordinate any urgent priorities and participate in meetings as required Organise request for assistance documentation
DOH	Brief health centre personnel Advise Local Controller	Brief health centre personnel Determine	Brief health centre personnel Complete security	Take and remain in shelter	Remain in shelter	Advise Local Recovery Coordinator of any urgent priorities and

Organisation/ Provider	Watch	Warning (onset of Gale Force Winds)			Reduced risk	Transition to recovery
	48 hours	24 + hours	6 + hours	3 + hours		
	of stage of preparedness and of any urgent requirements Maintain normal health and families services Participate in pre-cyclone clean up	priorities and provide the Local Controller with information and advice on communications, first aid, medical and public health and community service matters Check, prepare and secure health centre stores equipment	of health centre facilities including ambulance/essential vehicles and communications equipment Ensure that all requests for assistance are channelled through the Local Controller			participate in meetings as required Assist with recovery efforts
DET	Brief education personnel Advise Local Controller of state of preparedness and availability of manpower Maintain normal education services Participate in pre-cyclone clean up	Brief education personnel When advised, close school and advise community to secure buildings Staff to secure personal residence	Brief education personnel Provide emergency accommodation and, where possible, assist with welfare and other community services as required Ensure all personnel take shelter	Take and remain in shelter	Remain in shelter	Advise Local Recovery Coordinator of any urgent priorities and participate in meetings as required Assist with recovery efforts
EARC	Advise Local Controller of the state of preparedness and availability of human resources	Brief departmental staff on the declaration of Warning	Brief departmental staff on the declaration of next Warning progression Ensure all personnel take shelter	Brief departmental staff Take and remain in shelter	Remain in shelter until advised by Local Controller that it is safe to move outside	

11.4. Annex D: Summary of response and recovery activities

The following tables list a summary of possible response and recovery activities to be considered following an event.

This table is presented as a guide only, assisting emergency managers with operational decision making, planning and resource allocation. It also highlights the importance of response and recovery coordination working collaboratively.

Activities have been broken down and are listed under either response or recovery for simplicity and ease of use. In practice not all response activities will be completed during the response phase. Likewise not all recovery activities will commence after the transition to recovery.

The post event period of any event is highly dynamic and produces many challenges, both foreseen and unpredicted. Response and recovery coordination must be flexible and able to adapt to the situation as it evolves.

In most cases, the points noted in this table and in the ensuing document are outlined in greater detail in functional group or agency plans.

Activity	Response activities	Recovery activities
1. **Situational awareness**	Road clearance teams General public Media reports Survey and rescue teams Impact assessment teams	Contributes to recovery planning through impact assessment data Comprehensive Impact Assessments Needs Assessment
2. **Public Information**	Public Information Group activation Spokespersons identified SecureNT activated	Continues in recovery
3. **Survey and Rescue**	Survey teams deploy to designated areas Critical sites surveyed Deploy rescue teams – NTFRS and NTPF Specialist Response Division provide primary Urban Search and Rescue capability	Survey and Impact Assessment data used to contribute to the Recovery Action Plan
4. **Road clearance**	Road patrol teams deploy and check assigned routes Road clearance to priority sites	Restoration of road networks and bridges Return to business as usual
5. **Emergency accommodation**	Emergency accommodation and shelter - evacuation centres Provision of resources that will	Evacuation centres may continue into recovery Temporary accommodation options Repatriation planning

Activity	Response activities	Recovery activities
	enable people to remain in their homes Emergency clothing	
6. Medical	Hospital - identify any issues with accessing facilities - initial impact assessment - access to critical supplies e.g. medicines, consumables, power or fuel and water - ongoing acute clinical care and critical services requirements - increase morgue capacity Health Centres - identify any issues with accessing facilities - Access to critical supplies e.g. medicines, consumables, power or fuel and water GP clinics and pharmacies - identify operational GP services - identify operational pharmacies Support Medically vulnerable people Medical retrieval services (air and road)	Ongoing provision of health services - which may include business continuity plans - engagement with stakeholders Repatriation of medically vulnerable people in community GP clinics and pharmacies - ongoing liaison by the Medical Group Medical retrieval services – resume business as usual
7. Essential goods and services	Establish emergency feeding and food distribution points Assessing the damage to suppliers and retailers of critical resources Assess the impact on barge operations and any effect on the ability to supply remote communities Implement interim banking arrangements	Ensure enablers are in place to support the re-opening of essential services Monitor levels and availability of essential goods Manage logistics arrangements supplying resources to outlying communities Public health inspections (food outlets) Banking sector business continuity arrangements
	Fuel Fuel suppliers and point of sale Manage fuel supplies to emergency	Monitor fuel levels Infrastructure repairs Emergency fuel supplies for recovery

Activity	Response activities	Recovery activities
	power generation	Liaise with fuel suppliers, distributors and wholesalers to re-establish long term supply
	Banking Assess damage to banks and ATMs Implement temporary arrangements	Emergency cash outlets Implement long term arrangements
8. Evacuation	Evacuations within community Evacuation out of community Registration	Support services for evacuees Recovery information for evacuees Repatriation
9. Public health	Communicable disease control response Drinking water safety standards Sewage and waste disposal Safe food distribution and advice Vector and vermin control Food and commercial premises	Ongoing in recovery
10. Utilities	Power supply Power generation Water supply Sewerage Emergency sanitation	Restore power network Restore water and sewerage infrastructure Issue alerts until safe to use
11. Impact assessments	Training assessment teams Initial impact assessments	Comprehensive impact assessments Ongoing needs assessments
12. Transport infrastructure (supply lines)	Air (airport/airstrip) Clear the runway to allow air movements Establish a logistics hub at the airport Terminal damage and operational capability assessment	Monitor repairs and business continuity activities
	Road Highway and critical access roads damage assessment Repair work to commence immediately	Planning and prioritising repair work of all affected key roads for the Locality
	Port, harbour and barge Assess damage to port infrastructure and harbour facilities	Repairing infrastructure Establish alternate arrangements for the supply of remote communities

Activity	Response activities	Recovery activities
	Assess the damage to barge facilities	
13. **Waste management**	Waste management requirements and develop waste management plan if required	Continues in recovery
14. **Repairs and reconstruction**	Private housing - impact assessments - temporary repairs Government buildings - damage assessment Public housing - impact assessments Private industry - damage assessments	Private housing - information and support to facilitate repairs Government buildings - repairs and reconstruction Public housing - long term repair plans Private industry - repair and reconstruction of enabling infrastructure - support DRFA payment facilitation where eligible Temporary accommodation for a visiting construction workforce, if necessary or suitable accommodation is unavailable
15. **Transport services**	Staged re-establishment of public transport services	Continues in recovery
16. **Telecommunication**	Telstra and Optus will assess the damage to their infrastructure Put in place temporary measures to enable landline and mobile services	Repair damage networks and infrastructure (for private entities there is support for operators only)
17. **Public safety**	NTPF will maintain normal policing services to the community	Gradual return to business as usual
18. **Animal welfare**	Temporary emergency arrangements for pets	Reunite pets with their owners and cease emergency support arrangements
19. **Community consultation**	Information provision regarding the overall situation, response efforts, what services are available and how to access them	Community consultation process regarding long term recovery and community development led by relevant departments

12. Acronyms

Acronyms	Definitions
AAPA	Aboriginal Areas Protection Authority
ABC	Australian Broadcasting Corporation
AIIMS	Australasian Inter-Service Incident Management System
ALPA	Arnhem Land Progress Aboriginal Corporation
BFNT	Bushfires NT
CM&C	Department of the Chief Minister and Cabinet
DAF	Department of Agriculture and Fisheries
DCF	Department of Children and Families
DCDD	Department of Corporate and Digital Development
DHLGCD	Department of Housing, Local Government and Community Development
DLPE	Department of Lands, Planning and Environment
DLI	Department of Logistics and Infrastructure
DTBAR	Department of Trade, Business, and Asian Relations
DET	Department of Education and Training
DOH	Department of Health
DRFA	Disaster Recovery Funding Arrangements
EARC	East Arnhem Regional Council
EOC	Emergency Operations Centre
ERA	Emergency Response Area
ESO	Essential Services Operators
FPMZ	Fire Protection and Management Zone
ICC	Incident Control Centre
ICP	Incident Control Point
IMT	Incident Management Team

Acronyms	Definitions
JESCC	Joint Emergency Services Communications Centre
LCC	Local Coordination Centre
LEC	Local Emergency Committee
LRCC	Local Recovery Coordination Committee
NERAG	National Emergency Risk Assessment Guidelines
NT	Northern Territory
NTES	Northern Territory Emergency Service
NTFRS	Northern Territory Fire and Rescue Service
NTG	Northern Territory Government
NTPF	Northern Territory Police Force
NTFES	Northern Territory Fire and Emergency Services
PAWC	Power and Water Corporation
PPRR	Prevention, Preparedness, Response and Recovery
RAT	Rapid Assessment Team
SEWS	Standard Emergency Warning Signal
SITREP	Situation Report
STAND	Strengthening Telecommunications Against Natural Disasters
TDO	Territory Duty Officer
TEMC	Territory Emergency Management Council
WebEOC	Web-Based Emergency Operations Centre