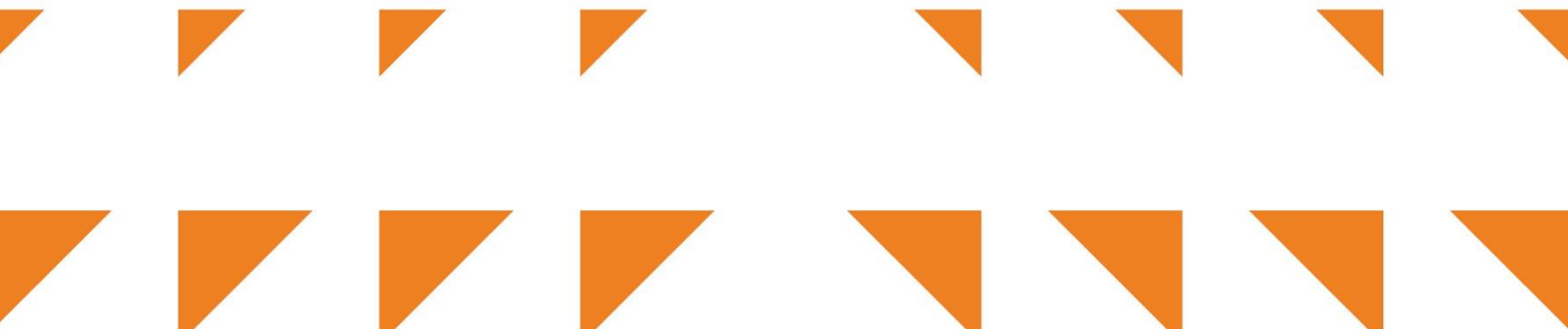




# Katherine

## Local Emergency Plan



# Contents

<b>1. Document control.....</b>	<b>4</b>
1.1. Governance.....	4
1.2. Version history .....	4
1.3. Local Emergency Committee members and key stakeholders engaged for review .....	5
<b>2. Acknowledgement of Country.....</b>	<b>6</b>
<b>3. Introduction .....</b>	<b>6</b>
3.1. Purpose.....	6
3.2. Application .....	6
3.3. Key considerations .....	6
<b>4. Locality context.....</b>	<b>7</b>
4.1. Climate and weather .....	9
4.2. Geography.....	9
4.3. Sacred sites .....	9
4.4. Sites of conservation.....	9
4.5. Tourism.....	9
4.6. Commonwealth, NT and local government.....	10
4.7. Building codes .....	10
4.8. Land use.....	10
4.9. Homelands .....	10
4.10. Power generation and distribution .....	10
4.11. Water services .....	10
4.12. Health infrastructure .....	11
4.13. Medically vulnerable clients.....	11
4.14. Emergency service infrastructure .....	11
4.15. Roads .....	11
4.16. Airports.....	12
4.17. Rail infrastructure.....	12
4.18. Telecommunication.....	13
4.19. Local radio stations .....	13
<b>5. Prevention .....</b>	<b>14</b>
5.1. Emergency risk assessments .....	14
5.2. Disaster hazard analysis and risk register .....	14
5.3. Hazard specific prevention and mitigation strategies .....	15
<b>6. Preparedness .....</b>	<b>15</b>
6.1. Planning .....	15
6.2. Emergency resources and contacts .....	15
6.3. Training and education .....	15
6.4. Community education and awareness .....	15
6.5. Exercises.....	16
<b>7. Response.....</b>	<b>16</b>
7.1. Activation of the Plan .....	16

7.2. Control and coordination .....	17
7.3. Local Emergency Controller .....	17
7.4. Local Emergency Committee .....	17
7.5. Emergency Operations Centre/Local Coordination Centre .....	17
7.6. WebEOC.....	18
7.7. Situation reports .....	18
7.8. Stakeholder notifications .....	18
7.9. Official warnings and general public information .....	18
7.10. Australasian Inter-Service Incident Management System .....	19
7.11. Closure of schools.....	19
7.12. Closure of government offices.....	19
7.13. Sheltering in community .....	19
7.14. Emergency shelters or strong buildings.....	20
7.15. Evacuation .....	20
7.16. Identified evacuation centres .....	21
7.17. Impact assessment.....	21
<b>8. Recovery .....</b>	<b>22</b>
8.1. Local Recovery Coordinator and Coordination Committee.....	22
8.2. Transitional arrangements .....	22
<b>9. Debrief .....</b>	<b>23</b>
<b>10. Related references .....</b>	<b>23</b>
<b>11. Annexures .....</b>	<b>23</b>
11.1. Annex A: Functional groups - roles and responsibilities .....	24
11.2. Annex B: Functions table.....	25
11.3. Annex C: Prevention, mitigation strategies and action plans for identified hazards .....	28
11.3.1. Air crash.....	28
11.3.2. Bushfire (within Fire Protection and Management Zones) .....	30
11.3.3. Fire (within Gazetted Area).....	34
11.3.4. Flood.....	39
11.3.5. Rail crash .....	64
11.3.6. Road crash.....	67
11.4. Annex D: Summary of response and recovery activities .....	70
<b>12. Acronyms .....</b>	<b>75</b>

# 1. Document control

## 1.1. Governance

Document title	Katherine Local Emergency Plan
Contact details	NT Emergency Service, Planning and Preparedness Command
Approved by	Territory Controller
Date approved	22 December 2014
Document review	Annually
TRM number	04-D25-107630

## 1.2. Version history

Date	Version	Author	Summary of changes
22/12/2014	1	John McRoberts	First version
23/11/2015	2	Reece P Kershaw	Reviewed and updated
30/12/2016	3	Kate Vanderlaan	Reviewed and updated
03/12/2018	4	Travis Wurst	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
23/01/2020	5	Michael Hebb	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
05/11/2020	6	Travis Wurst	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
13/01/2022	7	Janelle Tonkin	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
20/06/2023	8	Travis Wurst	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
19/06/2024	9	Matthew Hollamby	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
11/03/2025	10	Peter Malley	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate
06/01/2026	11	James A O'Brien	Reviewed and endorsed by the Regional Controller, as the Territory Controller's delegate

Disclaimer: Every effort has been made to ensure that the information contained within this plan is accurate and where possible reflects current best practice. However, the Northern Territory Emergency Service does not give any warranty or accept any liability in relation to the content of material contained in the document.

### 1.3. Local Emergency Committee members and key stakeholders engaged for review

The following Local Emergency Committee members and key stakeholders were engaged with during the review of the Adelaide River Local Emergency Plan, to ensure it addresses the specific needs of the community.

Agency/organisation	Name	Role/position
Australia Red Cross	Shelly Waterhouse	Committee member
Big Rivers Region Health	Renae Daniel	Committee member
Big Rivers Region Health	Lauren Hart	Committee member
Dept. Agricultural and Fisheries	Charles Dury	Committee member
Dept. Corporate and Digital Development	Ashleigh Giles	Committee member
Dept. Education and Training	Darryl Griffith	Committee member
Dept. of Children and Families	Brianna Boulderstone	Committee member
Dept. of Children and Families	Freya Bartle	Committee member
Dept. of Infrastructure and Logistics	Alison Hooper	Committee member
Dept. of Logistics & Infrastructure	Corey Charleston	Committee member
Dept. of the Chief Minister & Cabinet	Sean Hartley	Committee member
Dept. Trade, Business and Asian Relations	Mellyssa Tracey	Committee member
Disaster Relief Australia	Cassie Brown	Committee member
Katherine Town Council	Brett Kimpton	Committee member
NT Emergency Service	Jamie Richardson	Planning Officer
NT Emergency Service	David Travers	Operations Officer
NT Police Force	Warren Scott	Sergeant/Local Controller
NT Police Force	Lita Casugay	Regional Administration
RAAF Defence	Cameron Allen	Committee member

## 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 Katherine 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<sup>1</sup> as it relates to the Locality. For further information on the hierarchy of plans, refer to the Territory Emergency Plan<sup>2</sup>. The Locality covers approximately 22,500 square kilometres (km) and is located approximately 312 km southeast of Darwin and forms part of the Northern Region, as defined by the Territory Emergency Plan.

To obtain more information about this Locality, Bushtel<sup>3</sup> is the central point for information about the remote communities of the NT, their people and cultural and historical influences.

The Locality population fluctuates between some 6,000 to 10,000 persons, the main population centre being the town of Katherine.

The population centres within the Locality are estimated as follows:

Bushtel ID	Locality	Aliases	Approx. population
582	Binjari	Binjarri and Wylunba	282
14071	Katherine		9,643
642	Rockhole	Rochole	115
Bushtel ID	Homelands	Aliases	Approx. population
14045564	Barnjarn		20
819	Dillinya	Dry Creek	not recorded
670	Djarrung	Djurrung	5
598	Jodetluk	Gorge Camp, Katherine Town Camp & Maude Creek Camp	35
621	Miali Brumby	Kalamo, Kalamo-Mali Brumby, Kalano, Kalano Farm and Mialli	154
951	Menngen	Djalibang, Innesvale Station and Jalijbang	8
655	Werenbun	Edith Falls Road	29

The Locality also contains the below pastoral stations:

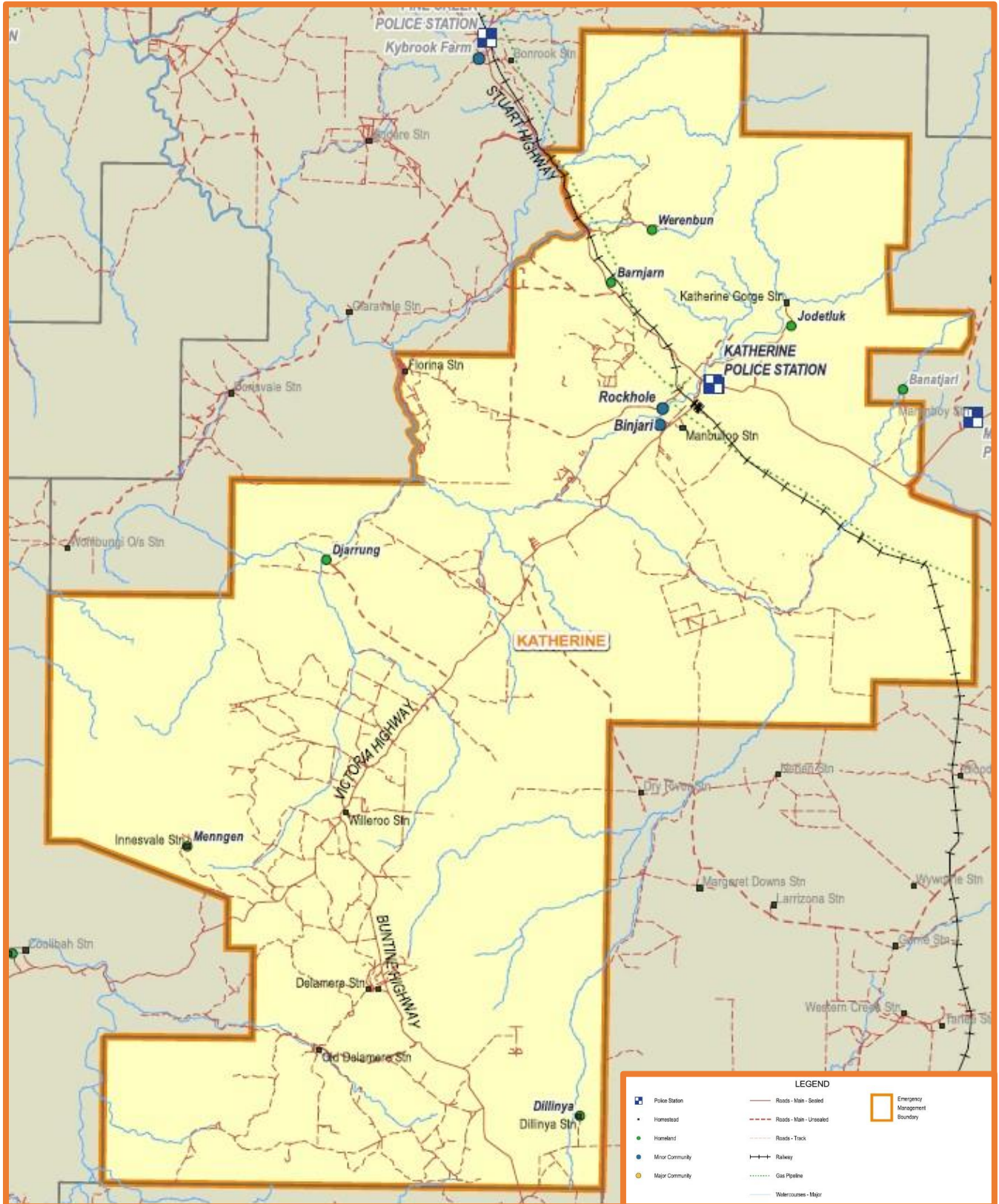
- Aroona Station
- Delamere Station
- Dixie Station
- Florina Station
- Katherine Downs Station
- Manbullo Station
- Mathison Station
- Scott Creek Station
- Stapleton Station
- Willeroo Station
- Innesvale Station

<sup>1</sup> More information can be found at: <https://www.pfes.nt.gov.au/emergency-service/publications>

<sup>2</sup> More information can be found at: <https://www.pfes.nt.gov.au/emergency-service/emergency-management>

<sup>3</sup> More information can be found at: <https://bushtel.nt.gov.au/>







## 4.1. Climate and weather

The Locality experiences similar weather conditions which occur throughout the Top End of the NT. There is a distinct Wet Season (October to April) and Dry Season (May to September). Compared to Darwin, temperatures tend to be slightly higher during the Wet Season and slightly lower during the Dry Season. The Locality's average rainfall is approximately 1,141 millimetres (mm).

## 4.2. Geography

The Locality ranges from river flats to the rugged terrain of the Arnhem Land escarpment, the highest point of which is approximately 450 metres (m) above sea level. Limestone outcrops predominate throughout the northern part of the Locality. The Locality is drained by a number of rivers and creeks, of note these are:

- Fergusson River
- Katherine River
- Edith River
- King River
- Flora River
- Maud Creek
- Leight Creek
- Tindal Creek

## 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](mailto:enquiries.aapa@nt.gov.au).

## 4.4. Sites of conservation

The Yinberrie Hills and the Western Arnhem Plateau are sites of conservation significant for this Locality. For further information about these sites contact the Department of Lands, Planning and Environment (DLPE)<sup>4</sup>.

## 4.5. Tourism

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

---

<sup>4</sup> More information can be found at: <https://nt.gov.au/environment/environment-data-maps/important-biodiversity-conservation-sites/conservation-significance-list>

## 4.6. Commonwealth, NT and local government

This Locality sits within the Big Rivers region, with most NT Government (NTG) agencies having a presence in the Locality. Local government services in the Locality are provided by the Katherine Town Council (KTC), Roper Gulf Regional Council and Victoria Daly Regional Council within their respective areas.

The Royal Australian Air Force (RAAF) Base Tindal operates approximately 15 km southeast of Katherine, with approximately 1,000 members including families. The Katherine Civilian Airport is part of the RAAF Base Tindal estate and leased to KTC who provide air and land space to civilian aviation operators.

## 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

The Katherine Land Use Plan<sup>5</sup> was introduced into the NT Planning Scheme in June 2014 and provides the framework for the future development of land in the Locality.

Katherine has the following land usage:

- residential
- commercial
- industrial
- environmental management

## 4.9. Homelands

Homelands 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 Ngaliwurru Wuli Aboriginal Corporation, Jawoyn Association and the Kalano Community Association Inc. 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

The Locality is serviced by 3 power stations, Channel Island Power Station, Weddell Power Station and the Katherine Power Station. Remote outstations and pastoral properties are serviced by independent generators.

## 4.11. Water services

90% of the Katherine water supply is obtained from the Katherine River, with the remaining 10% being sourced from groundwater for water quality. The water is distributed from the Katherine Water Treatment Plant, the PFAS water treatment plant will supply the required water supply should the

---

<sup>5</sup> More information can be found at: [https://nt.gov.au/data/assets/pdf\\_file/0003/228990/katherine-land-use-plan-200512.pdf](https://nt.gov.au/data/assets/pdf_file/0003/228990/katherine-land-use-plan-200512.pdf)

surface water plant be offline. Remote outstations and pastoral properties are serviced by independent bores and/or river pumps.

#### 4.12. Health infrastructure

The Katherine Hospital has the capacity to provide emergency medical aid in addition to routine health treatment. Serious medical cases are required to be evacuated to Darwin. Patients can be evacuated either via road or air.

The Katherine Ambulance Centre has been designed and constructed with a capacity for the establishment of an 8 – 11 bed emergency facility that can accommodate a range of medical activities. Additionally, a temporary morgue can also be located at the Ambulance Centre.

RAAF Base Tindal has a health centre providing a front line emergency response for the base and care to the Australian Defence Force (ADF) members.

#### 4.13. Medically vulnerable clients

A list of medically vulnerable people for Katherine is held by the Medical Group. This list incorporates vulnerable clients who require emergency power for respirators and/or those who are oxygen dependent. In a disaster or emergency situation where a medically vulnerable person attends an evacuation centre, their carer retains responsibility for their care. The Medical and Welfare Group identified an area at the MacFarlane Primary School as an evacuation centre site for this group.

There are 3 residential aged care facilities in Katherine, namely:

- Rocky Ridge Nursing Home (Australian Rural and Remote Community Services) provides aged care, with 30 residential high care places, and 5 residential low care places.
- Katherine Hostel (Frontier Services) provides 15 residential high care places and 5 residential low care places.
- Kalano Aged Care (Australian Red Cross NT) provides 18 residential low care places.

Wurli-Wurlinjang Aboriginal Health Service is located within the Locality and provide services to a significant portion of the population.

#### 4.14. Emergency service infrastructure

The Locality has the following emergency service infrastructure:

- police station and cells
- NT Fire and Rescue Service (NTFRS) station, inclusive of Auxiliary and Volunteer staff
- NT Emergency Service (NTES) and Volunteer Unit
- Katherine Hospital
- St John Ambulance and Volunteer staff

#### 4.15. Roads

All major roads in the Locality are sealed and prone to flooding during the Wet Season. It is noted that all roads throughout the area are prone to wandering stock and native animals. The major roads in the Locality being:

- Stuart Highway is the critical road access point between Darwin and the rest of Australia. This includes the Katherine high-level bridge as the only Wet Season crossing of the Katherine River.
- Gorge Road, services Nitmiluk National Park, carrying a large volume of traffic during the Dry Season. The road is subject to frequent closure due to flooding, predominately at Maud Creek.
- Florina Road is joined to the Stuart Highway 3-4 km northwest of Katherine via Zimin Drive and services semi-rural residents, commercial agriculture and horticulture properties and the Rockhole community. It is subject to flooding in numerous places.

- Emungalan Road services semi-rural properties to the north of Katherine and can be isolated by Leight Creek.
- Edith Falls Road services Werenbun outstation and Leliyn, which experiences significant tourism in the Dry Season with an attached campground. This road is regularly isolated at multiple points in the Wet Season.
- Giwining (Flora) Road, Innesvale Road and Edith Farms Road are all at least partially unsealed and service population centres within the Locality.

During the Wet Season, all roads may be subject to inundation at various creek/river crossings and low-lying areas.

#### 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
Tindal (licensed)	14°31.3'S 132°23.0'E	Non-Certified	Sealed 2713 m x 45 m	RAAF
Manbulloo (unlicensed)	14°36.0'S 132°11.0'E	Non-Certified	Sealed 1500 m x 50 m	Privately owned
Delamere (unlicensed)	15°37.0'S 131°38.0'E	Non-Certified	Red silt sand 1500 m x 30 m	Privately owned

**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<sup>6</sup>.

#### 4.17. Rail infrastructure

The Darwin to Adelaide Railway transits through the NT terminating in the vicinity of East Arm Port. At least 12 trains use the line each week, carrying either passengers or a variety of freight including hazardous chemicals/materials. Rail maintenance crews also operate various vehicles on the line at different times. In the event of a major incident, many railway authorities have response capabilities and can provide specialised assistance, advice and support. The various railway organisations are:

Organisation	Function
Aurizon	Rail operator, Train control operator of freight trains, Track maintenance, Maintenance of rolling stock, Rail Infrastructure Manager
Australasian Railway Corp	Managed by both the NT and South Australian Governments
Australian Southern Railroad	Train control operator of freight trains
BJB Joint Venture	Track maintenance
Evans Deacon Industries	Maintenance of rolling stock
Great Southern Railway	Passenger service operator (once per week)
Journey Beyond	Seasonal Passenger service operator (up to two per week)
One Rail (Previously Genesee & Wyoming Inc.)	Rail operator
Pacific National	Locomotive operator, including locomotive crews for passenger services only and terminal operators
All contact with these authorities is to be through the Regional Controller.	

<sup>6</sup> More information can be found at: <https://www.casa.gov.au/operations-safety-and-travel/aerodromes>

## 4.18. Telecommunication

Telecommunications are available in an approximately 30km radius around the Katherine township via a combination of landline, mobile and satellite. Throughout the rest of the Locality, telecommunication services are extremely limited and only satellite-based communications are reliable.

## 4.19. Local radio stations

Katherine, has the following broadcasts:

- 98.1 FM Hot100
- 106.1 FM Australian Broadcasting Corporation (ABC) Local Radio
- 105.3 FM ABC News Radio
- 106.9 FM Mix 104.9
- 101.3 FM 8KTR Katherine Community Radio

## 5. Prevention

### 5.1. Emergency risk assessments

The Katherine 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)
- emergency animal disease
- fire (within Gazetted Area)
- flood
- hazardous material
- heatwave
- major power outage
- rail crash
- road crash

Hazard	Overall consequence	Overall likelihood	Risk rating
Air crash	Minor	Unlikely	Low
Bushfire (within Fire Protection and Management Zones)	Minor	Likely	Medium
Emergency animal disease	Moderate	Rare	Medium
Fire (within Gazetted Area)	Moderate	Unlikely	Medium
Flood	Major	Unlikely	High
Hazardous material	Moderate	Very Rare	Low
Heatwave	Moderate	Unlikely	Medium
Major power outage	Minor	Unlikely	Low
Rail crash	Moderate	Rare	Medium
Road crash	Moderate	Unlikely	Medium

### 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<sup>7</sup> 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](mailto: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:

- NTES hazard briefings
- NTES Paddy Program

---

<sup>7</sup> More information can be found at: <https://pfes.nt.gov.au/emergency-service/publications>



- NTFRS Smart Sparx Program
- St Johns 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:

- 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](mailto: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) can appoint a Local Emergency Controller (Local Controller). The Local Controller is the Superintendent of Katherine 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 Katherine 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 Local Controllers 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 Katherine 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 reports (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
- Secure NT 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)<sup>8</sup> 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, Department of Education (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. Sheltering in community

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.

---

<sup>8</sup> More information can be found at: <https://pfes.nt.gov.au/emergency-service/publications>

## 7.14. Emergency shelters or strong buildings

Emergency shelters and places of refuge are buildings or structures 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	Accessibility
Katherine Showgrounds (managed by KTC)	180 (not to be used in flood)	
Katherine High School	400	
MacFarlane Primary School	175	utilised for vulnerable clients and their carers
Casuarina Primary School	280	

The DET in conjunction with the NTPF and the 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 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 local shelter manager if food will be provided.

## 7.15. Evacuation

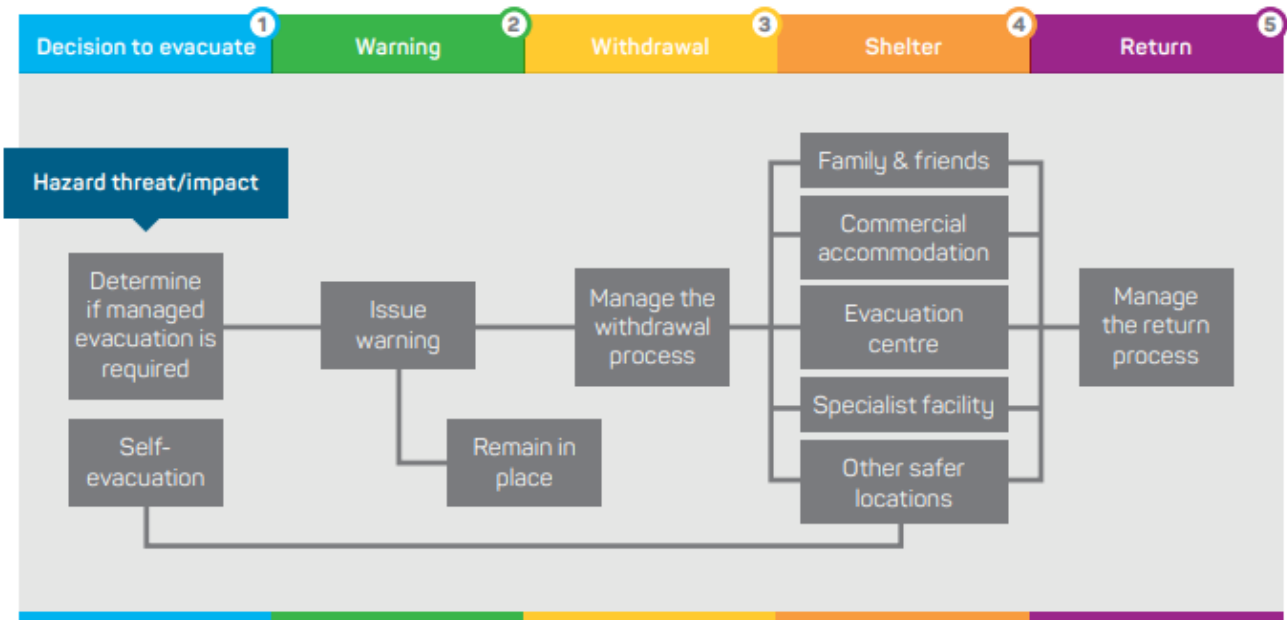
Evacuation is a risk management strategy that can be used to mitigate the effect of an emergency or disaster on a community. It involves the movement of people to a safer location and their return. The decision to evacuate a community, including establishing an evacuation centre, is not taken lightly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

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

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 management, refer to the NT Evacuation Centre 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.

### 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 the Department of the Chief Minister and Cabinet (CM&C). The Local Recovery Coordinator 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.

LRCC 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 multi-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 member or a functional group member, those decisions should be recorded in a Decision Log (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
- 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	Department of Trade, Business and Asian Relations (DTBAR)
Digital and Telecommunications	Department of Digital and Corporate Communications (DCDD)
Emergency Shelter	DET/KTC
Engineering	Department of Logistics and Infrastructure (DLI)/KTC
Industry	DTBAR
Medical	DOH/Big Rivers Region
Public Health	DOH/Big Rivers Region
Public Information	CM&C
Public Utilities	Power and Water Corporation (PAWC)
Survey, Rescue and Impact Assessment	NTPF/NTFES
Transport	DLI
Welfare	Department of Children and Families (DCF)

Full details of 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	DAF
Anti-looting protection	NTPF
Banking services	DTBAR
Broadcasting: What radio stations provide announcements?	DCDD
Clearing of essential traffic routes	DLI/KTC/RGRG/VDRC
Clearing storm water drains	DLI/KTC/RGRG/VDRC
Clothing and household Items	DCF
Community clean up	KTC
Control, coordination and management	Designated control authority
Coordination to evacuate public	As identified in local emergency plan
Critical Goods and Services (protect/resupply) <ul style="list-style-type: none"> <li>• food</li> <li>• bottle gas</li> <li>• camping equipment</li> <li>• building supplies</li> </ul>	DTBAR
Damaged public buildings: Coordination and inspections	DLI/Department of Housing, Local Government and Community Development (DHLGCD)
Disaster Victim identification capability	NTPF
Emergency Alerts	NTPF/NTFES/BFNT
Emergency food distribution	DCF
EOC, including WebEOC	NTPF/NTFES
Emergency shelter staff, operations and control	DET/NTPF/NTFES
Evacuation centre - Staffing, operations and control	DCF

Functions	Agency/organisation/provider responsible
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
Management of expenditure in emergencies	Controlling authority and any activated Functional Groups at the direction of the controlling authority
Medical services	Big Rivers Region/DoH
Network communications (IT): Responders /Public Maintenance and restoration of emergency communication	Working Group set up to identify
Power: Protection and restoration:	PAWC
Public messaging during response and recovery	Hazard management authority/CM&C
Public/Environmental Health (EH) management <ul style="list-style-type: none"> <li>all EH functions including water &amp; food safety</li> <li>disease control</li> </ul>	Top End Health/DOH/KDH
Rapid Impact Assessment	NTPF/NTFES
Recovery coordination	CM&C
Repatriation	As detailed in local emergency arrangements
Restoration of public buildings	DLI
Restoration of roads and bridges (council/territory) excluding railways	DLI/KTC
Road management and traffic control including public Information on road closures	DLI/KTC
Sewerage: Protection and restoration	PAWC
Survey	NTPF/NTFES
Traffic Control	NTPF/DLI
Transport : Commercial and Public airport/ planes, automobiles, buses	DLI

Functions	Agency/organisation/provider responsible
Vulnerable Groups (medical)	DOH/KDH
Waste management <ul style="list-style-type: none"> <li>• collection</li> <li>• disposal of stock</li> </ul>	DLI/KTC
Water (including drinking water): Protection and restoration	PAWC

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

### 11.3.1. Air crash

	Hazard	Controlling authority	Hazard management authority
	Air crash	NT Police Force	NT Fire and Emergency Services (NT Fire and Rescue Service)

Air crash means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

Aircraft movements across the NT include commercial air transport and general aviation. Personnel involved with aircraft accidents are advised to obtain and read a copy of the Australian Transport Safety Bureau Civil and Military Aircraft Accident Procedures for Police Officers and Emergency Services Personnel<sup>9</sup>.

In the NT, Air services Australia supplies an “on airport” Aviation Rescue and Fire Fighting Service (ARFFS) at the Darwin, Alice Springs and Yulara Airports. NTFRS will assist ARFFS at these Airports. It is important to note, that the ARFFS do not operate within the Katherine Airport (RAAF Base Tindal), as it has its own capability within the area of response, by specialised uniformed members.

Under the National Search and Rescue (SAR) Plan, responding to an aviation disaster that involves an unregistered aircraft, or an aircraft registered in another jurisdiction, is the responsibility of the state or Territory in which the disaster occurred. Responses to accidents involving all other civilian (non-military) aircraft that occur outside an aerodrome precinct and within the Australian SAR Region are the Australian Maritime Safety Authority’s responsibility, in conjunction with the applicable state or Territory emergency arrangements.

Responses to air crash incidents will be coordinated from the NT JESCC. NTFRS resources will be responded as per pre-determined response arrangements contained within the SerPro system for incidents occurring within an NTFRS Emergency Response Area (ERA). For incidents occurring outside of an ERA, response will be approved by the rostered NTFRS TDO.

Where an aircraft emergency occurs within the vicinity of a certified or registered aerodrome, the local Aerodrome Emergency Plan details the response arrangements to the emergency. The Australian Maritime Safety Authority, in conjunction with the applicable state or territory emergency arrangements, is responsible for coordinating the SAR phase when an aircraft is assumed to be lost, to have ditched or have crashed outside of a certified aerodrome, or a distress beacon associated with the aircraft or persons on board is detected.

The Australian Maritime Safety Authority may transfer coordination to the state or territory police services in accordance with the recovery effort as well as under national SAR arrangements.

#### **NTFRS roles and responsibilities for an air crash on an aerodrome include:**

- within an ERA where there is no "on aerodrome" fire service, or when designated in the Aerodrome Emergency Plan, take charge of firefighting operations
- where the ARFFS or ADF fire service is stationed, assist that service in the firefighting operations and provide specialist firefighting equipment.

<sup>9</sup> More information can be found at: [www.atsb.gov.au/publications/2017/hazards-at-aviation-accident-sites/](http://www.atsb.gov.au/publications/2017/hazards-at-aviation-accident-sites/)

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

- the aviation industry operates under stringent national, state and local legislation and guidelines to minimise risk to the community
- Australian Government Aviation Disaster Response Plan (AUSAVPLAN 2014)
- in accordance with the Civil Aviation Standards Authority Manual of Standards part 139 aerodromes may have an local Aerodrome Emergency Plan
- aerodrome maintenance
- reducing the risk of animal hazards on aerodromes
- training in PUASAR022 Participate in a Rescue Operation delivered to NTFRS members
- skills maintenance of procedures surrounding aircraft incidents developed by the Australian Transport and Safety Bureau.

**Public safety message process:**

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



### 11.3.2. 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 bushfire is 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.

**Prevention** is the activities that can be undertaken by a range of stakeholders that will assist in the mitigation against a bushfire. 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 Bushfires NT 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.

Outlined below is a list of key prevention activities within the Locality:

- risk assessment through the LEC and other relevant stakeholders
- fire danger period declaration, which spans over large areas when climatic and seasonal conditions present increased fire risk for a prolonged period of time. A fire danger period usually coincides with the accepted 'fire season' in an area. A permit to burn is required before using fire during a fire danger period in all zones
- a fire ban that 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 NTFRS ERA and BFNT Fire Protection Zone (FPZ) and Management Zones (FMZ). This includes:
  - permits to burn are required throughout the entire year inside an ERA and FPZ
  - within ERAs and FPZ a 4 m wide firebreak along the perimeter boundary of all properties and with additional firebreaks around permanent structures and stationary engines are required
- compliance inspections

- both NTFRS and BFNT undertake compliance inspections on firebreak and fuel load management within the ERA and FPZ. Fire Breaks outside these areas are encouraged but not enforceable
- fuel management activities
  - as it is across the NT, it is the responsibility of the land owner / land holder to manage and mitigate the risk on the property. This is a responsibility of both the government and private entities
  - within the Locality the following list are some of the stakeholders responsible for managing and mitigating fuel load:
    - DLPE
    - KTC
    - Aboriginal Land Councils
    - Parks and Wildlife
    - NTFRS
    - BFNT
    - Contracted private entities

**Preparedness** is the range of activities that can prepare for an incident. These are commonly training, resource management and allocations and community education.

The BFNT, through normal business, recruits, trains and resources their volunteers and staff for fire operations. The BFNT undertake community engagement / awareness programs within the Locality, these programs primarily focus on:

- private home and block preparations
- fire break inspections
- bushfire survival plans

The Australian Fire Danger Rating System<sup>10</sup> (AFDRS) is a nationally aligned approach to fire weather forecast. Both the NTFRS and BFNT, through a Territory wide observer network, gather a specific range of observation data at selected locations to provide data for the daily Fire Danger Rating. The ratings are described in the below image.

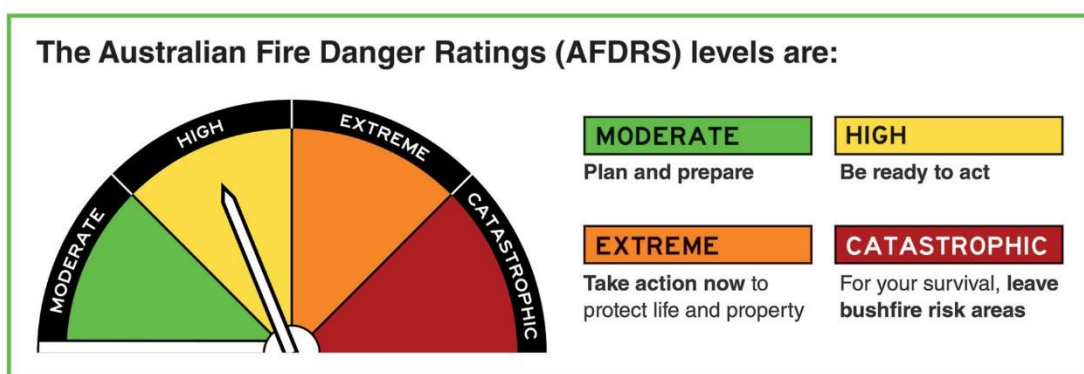


Figure 2: AFDRS Ratings

<sup>10</sup> More information can be found at: <https://afdrs.com.au/>

Both agencies are the controlling authority and hazard management authority for fires within each of their jurisdictions. Practically each agency is responsible for managing the technical aspects of responding to a bushfire and commanding its resources through their Incident Controller.

If a fire is occurring within an ERA, the NTFRS is the control and hazard management authority, whereas when the fire is in the FPZ, BFNT is the controlling and hazard management authority.




The BFNT has 3 classifications of incidents and describes them in generic terms, as shown in the table below:

Incident Classification	Description
Level 1	Level 1 fire incidents are characterised by being able to be controlled through local or initial response resources within a few hours of notification. Being relatively minor, all functions of incident management are generally undertaken by the first arriving crew/s.
Level 2	Level 2 fire incidents are more complex either in size, resources, risk or community impact. Level 2 incidents usually require delegation of several incident management functions and may require interagency response. They may be characterised by the need for: <ul style="list-style-type: none"> <li>• deployment of resources beyond the initial response,</li> <li>• sectorisation of the incident,</li> <li>• the establishment of function sections due to the levels of complexity, or</li> <li>• a combination of the above.</li> </ul>
Level 3	Level 3 fire incidents are protracted, large and resource intensive. They may affect community assets and/or public infrastructure, and attract significant community, media and political interest. These incidents will usually involve delegation of all the Incident Management functions.

### Australian Warning System

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. All warnings and advice will be issued by the Incident Controller from the relevant controlling authority for fire (NTFRS or BFNT). Each warning level has a set of action statements to give the community clear advice about what to do. Calls to Action can be used flexibly across all 3 warning levels depending on the hazard.

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

In instances where the Local Controller is required to perform a task or function, the controlling authority will contact the Local Controller.

## 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
KDH	Inform key personnel  Personnel notified will depend on extent and type of incident	Update key personnel  Prepare for a response as required, depended on incident	Update key personnel  Activate response, dependent on incident	Debrief with all members of response team	Support lead recovery agencies, as required
BFNT/NTFRS	Advise key personnel  Seek fire weather forecast for coming days	Update key personnel  Brief crews attending  Monitor and update	Conduct firefighting efforts as per internal SOPs and usual firefighting practices  Deploy earthmoving machinery and aircraft (via contactors) if required  Once contained, crews to continue to mop up and patrol  Form Incident Management Team, if required	Conduct debrief with members  Resume normal activities  Conduct investigation, if required	Assist where required  Take action upon debrief
Support organisations	Provide support as requested by the Local Controller				

### 11.3.3. Fire (within Gazetted Area)

Hazard	Controlling authority	Hazard management authority
 Fire (within Gazetted Area)	NT Fire and Emergency Services (NT Fire and Rescue Service)	NT Fire and Emergency Services (NT Fire and Rescue Service)

A fire hazard is an event, accidentally or deliberately caused, which requires a response from one or more of the statutory fire response agencies.

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

**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.

Prevention is the activities that can be undertaken by a range of stakeholders that will assist in the prevention of a fire. Outlined below is a list of key prevention activities within the Locality.

- risk assessment through the LEC and other relevant stakeholders
- fire danger period declaration, which spans 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. A permit to burn is required at all times while 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
- additional fire regulations apply within NTFRS ERA, this includes:
  - permits to burn are required throughout the entire year inside an ERA
  - within ERAs a 4 m wide firebreak along the perimeter boundary of all properties and with additional firebreaks around permanent structures and stationary engines is required
- compliance inspections
  - NTFRS may undertake compliance inspections on firebreak and fuel load management
- fuel management activities
  - as it is across the NT, it is the responsibility of the land owner / land holder to manage and mitigate the risk on the property. This is a responsibility of both the government and private entities
  - within the Locality the following list are some of the stakeholders responsible for managing and mitigating fuel load:
    - DLPE
    - Local council

- Parks and Wildlife
- NTFRS
- BFNT
- Contracted private entities.

Preparedness is the range of activities that can prepare for an incident. These are commonly training, resource management and allocations and community education.

The NTFRS, through normal business, recruits, trains and resources their volunteers and staff for fire operations.

The NTFRS also undertake community engagement programs within the Locality, these programs primarily focus on:

- private home and block preparations
- fire survival plans
- youth engagement

The Australian Fire Danger Rating System<sup>11</sup> (AFDRS) is a nationally aligned approach to fire weather forecast. Both the NTFRS and BFNT, through an observer network, gather a range of observations across the NT to provide data to the daily Fire Danger Rating. The ratings are described in the below image.

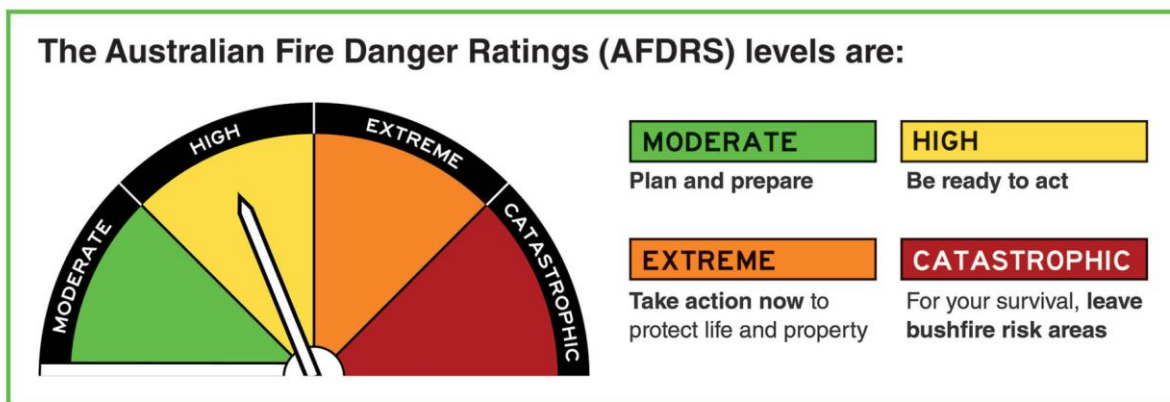


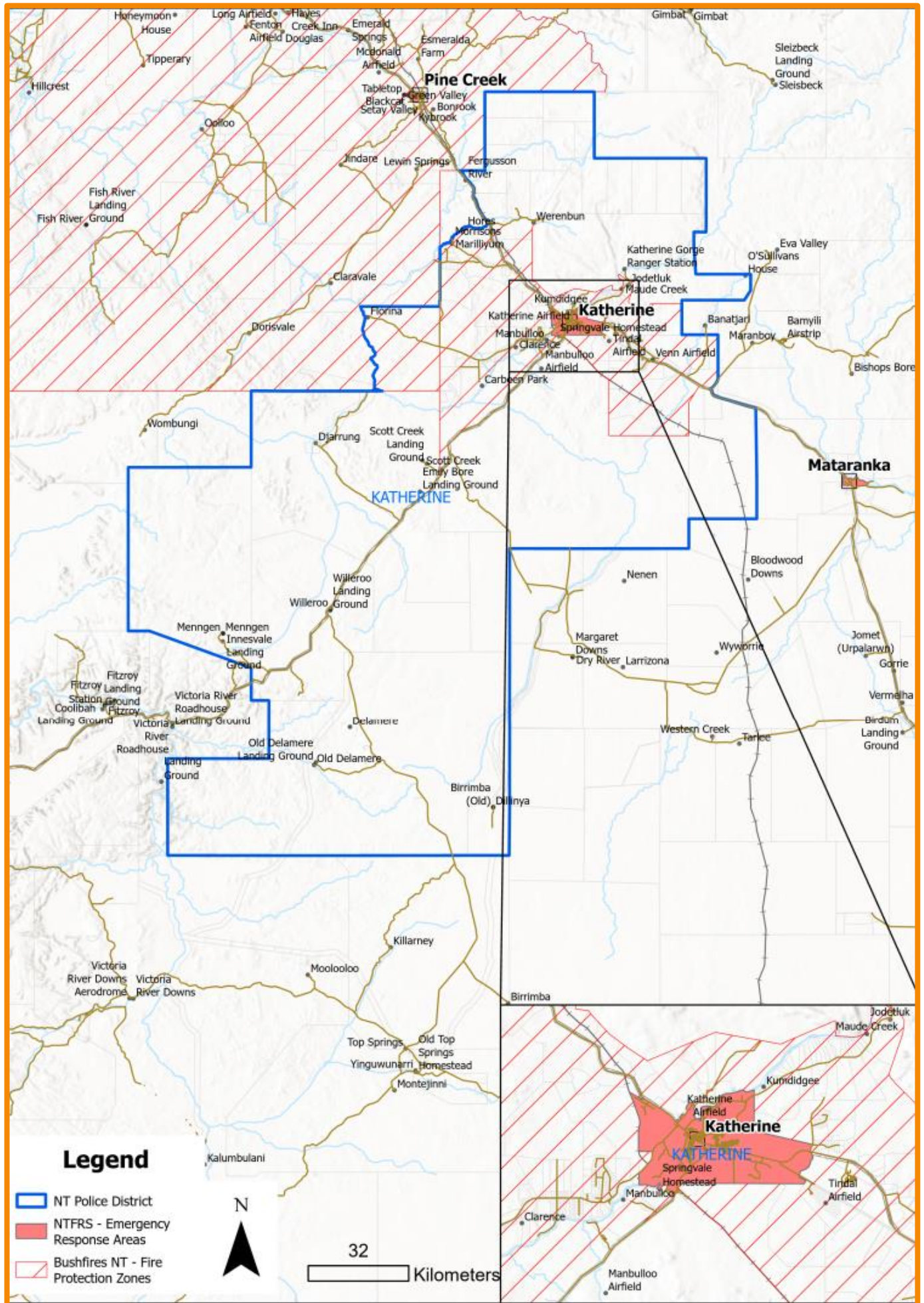
Figure 2: AFDRS Ratings

The response to bushfires is a business as usual activity for both the NTFRS and BFNT. Both agencies are the hazard management authority and controlling authority for fires within each of their jurisdictions. Practically each agency is responsible for managing the technical aspects of responding to a bushfire and commanding its resources through their Incident Controller.

If a fire is occurring within an ERA, the NTFRS is the control and hazard management authority, whereas when the fire is in the FPMZ, BFNT is the controlling and hazard management authority. This is graphically represented on page 36 Fire Jurisdictional boundary – Katherine.

<sup>11</sup> More information can be found at: <https://afdrs.com.au/>







NTFRS and BFNT has 3 classifications of incidents and describes them in generic terms, as shown in the table below:




Incident classification	Description
Level 1	Level 1 incidents are generally characterised by being able to be resolved through the use of local or initial response resources only.
Level 2	Level 2 incidents may be more complex either in size, resources or risk. They are characterised by the need for: <ul style="list-style-type: none"> <li>• deployment of resources beyond initial response,</li> <li>• sectorisation of the incident,</li> <li>• the establishment of function sections due to the levels of complexity,</li> <li>• a combination of the above.</li> </ul>
Level 3	Level 3 incidents are characterised by degrees of complexity that may require the establishment of divisions for effective management of the situation.

### Australian Warning System

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. All warnings and advice will be issued by the Incident Controller from the relevant controlling authority for fire.

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.

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.

In instances where the Local Controller is required to perform a task or function, the controlling authority will contact the Local Controller. Tasks approved by the controlling authority's Incident Controller may include, but not limited to:

- liaison with key community stakeholders
- closure of roads or places
- fire cause or protection of potential area of origin
- post fire impact assessments.

## Actions to be taken – Fire – 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
KDH	Inform key personnel  Personnel notified will depend on extent and type of incident	Update key personnel  Prepare for a response as required, depended on incident	Update key personnel  Activate response, dependent on incident	Debrief with all members of response team	Support lead recovery agencies, as required
NTFRS	Advise key personnel  Seek fire weather forecast for coming days	Update key personnel  Brief crews attending  Monitor and update	Conduct firefighting efforts as per internal SOPs and usual firefighting practices  Provide SITREPs  Deploy earthmoving machinery and aircraft (via contactors) if required  Once contained, crews to continue to mop up and patrol  Form Incident Management Team, if required	Conduct debrief with members  Resume normal activities  Conduct investigation, if required	Assist where required  Take action upon debrief
Support organisations	Provide support as requested by the Local Controller				

### 11.3.4. Flood

	Hazard	Controlling authority	Hazard management authority
	Flood	NT Police Force	NT Fire and Emergency Services (NT Emergency Service)

The Katherine Locality may be subject to inundation caused by seasonal monsoonal/severe storm activity. When such inundation occurs, access by both air and road will be severely restricted. Inundation, (also known as pluvial flooding), occurs when an area receives a large amount of water in a short amount of time which causes localities to be submerged.

The Bureau will issue a flood watch advice with up to 4 days lead time in situations where forecast rainfall and catchment conditions may lead to flooding. Flood study maps have been developed for populated areas which lie along river reaches that have the potential to flood<sup>12</sup>. Flood study mapping and gauging station locations can be found on pages 44 - 50 of this Plan.

Flooding of the Katherine River is brought about by monsoonal rains and decaying tropical cyclones which impact on the Katherine River catchment. Research of river levels recorded 1952 - 2006; show that sections of Katherine have been threatened by a flood on several occasions, 4 of which exceeded 17 m at the Railway Bridge.

The largest floods were in January 1998, when the river reached a height of 20.4 m and the entire community was affected. The most recent flood event was in April 2006, where the river peaked at 18.97 m and flooding affected some of the lower level areas in Katherine, including some of the Central Business District (CBD).

The river height levels of the 1914 (18.59 m), 1931 (19.05 m) and 1940 (19.26 m) floods were obtained by levelling to known flood marks and whilst these levels would be less reliable than the records post 1952, they are thought to be fairly accurate.

Records of floods prior to 1952 allow at least a partial record of major flooding to be estimated the level of the 1897 flood which was estimated at a river height level of 19.0 to 19.5 m. At 16.0 m at the gauge, the flood water approaches the Katherine Bridge<sup>13</sup>.

The indicative impact of flood levels are provided in the table below:

Katherine River at Nitmiluk Centre (m)	Consequence
3.0 – Minor	Maud Creek crossing may close due flooding Isolation of residents on Gorge side of crossing
5.5 – Moderate	Public access to Katherine Gorge is closed
6.5 – Major	Impact to surrounding area with widespread inundation
Katherine River at Katherine Bridge (m)	Consequence
13.0	Emungalan Road closed
15.0	Florina Road closed
16.0 – Minor	Miali Brumby (Kalano Community) may be inundated Tindal Creek/Bullock Creek near hospital inundated
16.5 – Moderate	Stuart Highway south may close due inundation Low lying areas in Katherine may be further inundated
17.5 – Major	Impacts in town CBD and hospital, widespread inundation

<sup>12</sup> More information can be found at: <https://DLPE.nt.gov.au/water/water-resources/flooding-reports-maps/floodplain-maps>

<sup>13</sup> More information can be found at: [http://www.bom.gov.au/cgi-bin/wrap\\_fwo.pl?IDD60022.html](http://www.bom.gov.au/cgi-bin/wrap_fwo.pl?IDD60022.html)

The Katherine Region is drained by the upper tributaries of the Daly River, which collects run-off from the Katherine River system. The surface drainage is complex as localised run-off often disappears underground through sinkholes and solution cavities and joints in the limestone. Conversely, during the Wet Season, water may back up through some sinkholes to form temporary lakes.

Katherine was originally located on the eastern embankment of the Katherine River. Some extension of the urban area into the eastern floodplain occurred prior to the decision to locate all future development at Katherine East beyond the flood plain. Limited development has also occurred on the north bank floodplain.

In a flood of Annual Exceedance Probability (AEP) of 1% (as 1 to 100 chance that flooding will occur in any year), depths of flooding in the built-up area vary from nil along the high riverbanks to about 1.4 m along Katherine Terrace. Depths of 4 m or more are experienced on the floodplain.

The 1957 and 1998 floods were of this magnitude. Flood water would remain in the built-up area for 3 to 4 days for the 2% AEP flood and 5 days for the 1% AEP flood and the Stuart and Victoria Highway would be impassable for most of that time. In January 1998, approximately 450 mm of rain (almost half the annual total) fell within a period of 2 days totally inundating the town.

The Katherine Locality and in particular the Tindal Creek catchment experienced well above average rainfall events during December 2003, February, and March of 2004. The direct cause of the flooding was the several high daily rainfall events starting with the highest event on 23 December 2003. The situation was worsened by the fact that the underlying limestone aquifer filled to overflowing in many areas.

The conveyance of the drainage system in Tindal Creek could not cope with this increased runoff and flooding occurred on both sides of Bicentennial Drive. Another consequence of the high rainfall was the widespread discharge of groundwater to the surface via seepage areas and sinkholes within the Tindal Creek catchment. A small lake formed along Uralla Road where an enclosed depression filled with groundwater discharging from adjacent areas and with surface runoff.

The groundwater discharge from Tindal Creek and the lake along Uralla Road are likely to re-occur in future wet seasons if rainfall continues to be above average. Once groundwater levels have been raised it will take several years of average or below average rainfall for them to return to lower levels. The Stuart Highway at Tindal Creek is also prone to serious flooding making exit and egress between Katherine, Tindal, and the airport impossible.

This phenomenon is unpredictable and cannot be accurately forecasted and will require monitoring of the areas of the King River and the Victoria Highway and closure of the roads should be upon the recommendation of either the Regional or Local Controller. The King River (45 km south of Katherine) is also prone to flooding and the closure of the Stuart Highway often results for periods not usually extending longer than 48 hours.

The DLI has recently investigated several structural mitigation measures following the Katherine Regional Flood Mitigation Advisory Committee's recommendations to minimise flood impacts in Katherine. A hydraulic flood model was created to test the different options including levee banks, detention basins and drainage upgrades, which demonstrated that it is possible to significantly reduce flooding of properties during smaller events (5% AEP).

The final design of the mitigation structures comprises a northern and southern levee, which is a combination of earth embankments, wall levees and temporary levee structures across roadways, along with upgrades to various drains within the town area.

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

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:**

- installation of fixed and transportable flood levees
- community education, flood updates and forecasting.




**Public safety message process:**

- the Bureau issues a flood 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 and Incident Controller to determine recommended messaging
- NTPF and NTFES Media Unit or Public Information Group receives approved messaging to publish.

**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 Bureaus' 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.

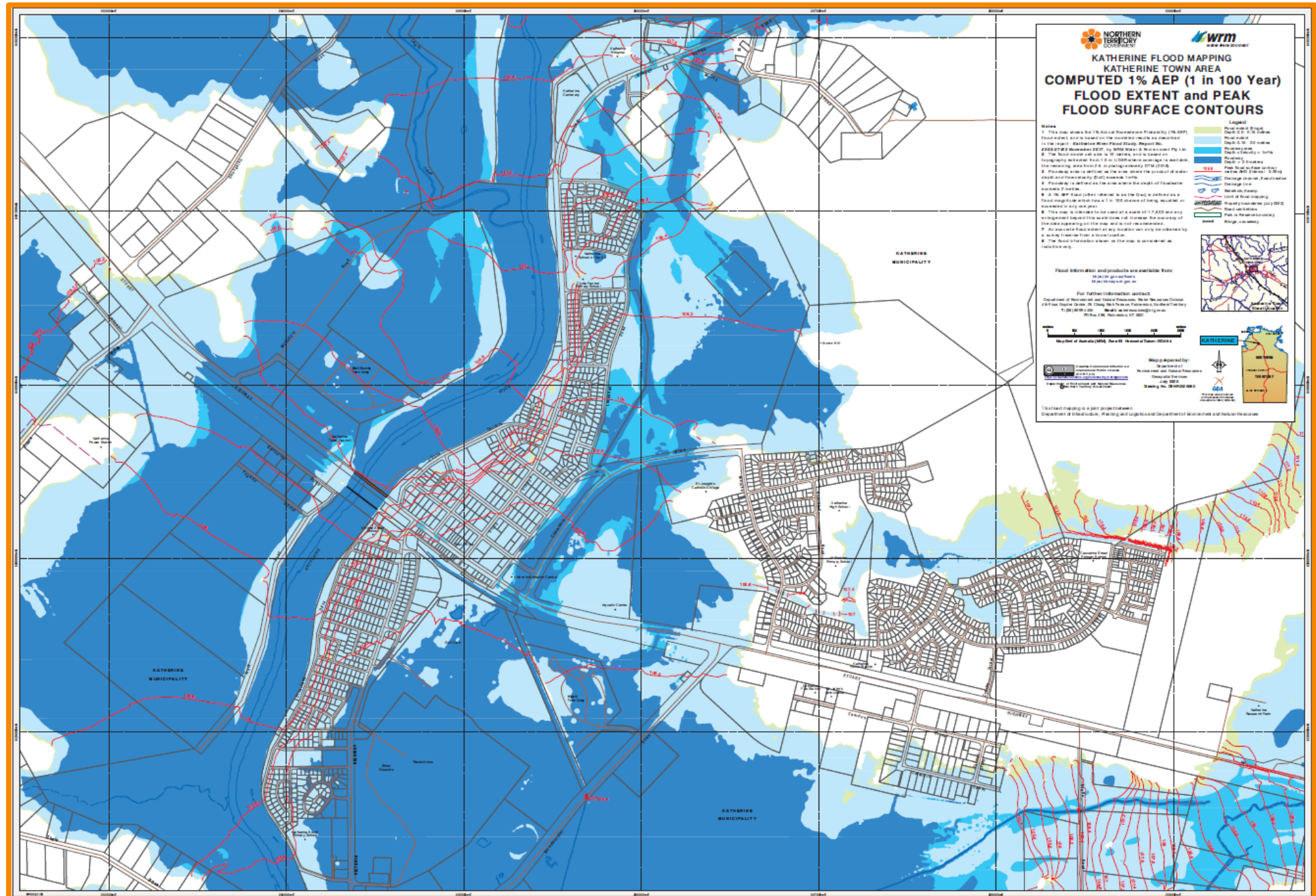
## Flood messaging – Flooding

Advice Levels	Description – Katherine township	Public messaging broadcast with the Bureau flood messaging advice
Watch		Flood Early Warning System will be activated.
Minor Flooding Gorge Road	<p>This warning is issued when the Katherine River level is predicted to exceed 3 m at the Nitmiluk Centre.</p> <p>General situation:</p> <p>Floodwaters are contained within the riverbanks, Maud Creek crossing is likely to close, isolating residents and tourists along Gorge Road and Nitmiluk (Katherine Gorge) National Park.</p>	<p>A Minor Flood Warning for the Gorge Road has now been declared.</p> <p>All residents are advised to listen to advice.</p> <p>The river at Nitmiluk Centre has reached 3 m.</p> <p>Within 12 hours flooding may occur on the Gorge Road at Maud Creek crossing.</p>
Minor – Katherine Moderate – Gorge Road	<p>This warning is issued when the Katherine River level is predicted to exceed 5.5 m at the Nitmiluk Centre and 16 m at Katherine Bridge.</p> <p>General situation:</p> <p>Flood waters are still largely confined within riverbanks. Maud Creek will be closed and a rise in the level could close Gorge Road at Bullock Creek Crossing (Morris Road) and likely to flood areas of Miali Brumby (Kalano Community) and Florina Road crossings.</p>	<p>A Moderate Flood Warning for the Gorge Road and a Minor Flood Warning for Katherine has now been declared.</p> <p>All residents are to listen carefully to this advice.</p> <p>The height of the river at Nitmiluk Centre is 5.5 m and predicted to rise.</p> <p>If present conditions persist, the Katherine Local Controller advises that flooding is possible to areas of:</p> <ul style="list-style-type: none"> <li>• Miali Brumby (Kalano Community)</li> <li>• Florina Road crossings</li> <li>• Tindal Creek and the Bullock Creek crossing over the next 12 hours.</li> </ul> <p>The Gorge Road at Maud Creek crossing is closed.</p>
Moderate – Katherine Major – Gorge Road	<p>This warning is issued when the Katherine River level is predicted to exceed 6.5 m at the Nitmiluk Centre and 16.5 m at the Katherine Bridge.</p> <p>General situation:</p> <p>Maud Creek and Bullock Creek (Morris Road) crossings will be closed. Some flooding will occur near Emungalan Road and Miali Brumby (Kalano Community). Flooding will occur at Florina Road creek crossing. The Stuart Highway south of Katherine will also be affected, especially around Tindal Creek where flood run off may close the highway.</p> <p>Flooding may occur along the western side of the Katherine River and the 'Rocks' area, as well as affecting property in the Bicentennial Road area.</p>	<p>A Major Flood Warning for Gorge Road and a Moderate Flood Warning for Katherine has been declared.</p> <p>The Katherine River at Nitmiluk Centre is 6.5 m and predicted to rise.</p> <p>If present conditions persist, the Katherine Local Controller advises that flooding is possible within 12 hours at:</p> <ul style="list-style-type: none"> <li>• Bullock Creek (Morris Road) crossing</li> <li>• Miali Brumby (Kalano Community)</li> <li>• Florina Road Creek crossings</li> <li>• Stuart Highway south of Katherine in the Tindal Creek area.</li> </ul>

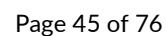
Advice Levels	Description – Katherine township	Public messaging broadcast with the Bureau flood messaging advice
<p><b>Major Katherine</b> (SEWS is played on media)</p>	<p>This warning is issued when the Katherine River level is predicted to exceed 17.5 m at the Katherine Bridge.</p> <p>General situation:</p> <p>Flood waters may cover extensive areas of the CBD and lower parts of the town, both north and south of the Stuart Highway. The Stuart Highway could be cut by the depth of flood and flow rate between the Katherine CBD and Katherine East.</p> <p>There could be an increasing flood run into the CBD, Katherine East may be isolated, with flooding isolating the Katherine Hospital.</p>	<p>The Katherine River has reached 8 m at the Nitmiluk Centre and is predicted to rise.</p> <p>The Katherine Local Controller advises that flooding will occur at:</p> <ul style="list-style-type: none"> <li>• Gorge Road at Maud Creek crossing</li> <li>• Bullock Creek (Morris Road) crossing</li> <li>• Miali Brumby (Kalano Community)</li> <li>• Florina Road Creek crossings</li> <li>• Stuart Highway south of Katherine in the Tindal Creek area.</li> </ul> <p>If present conditions continue, flooding may also be expected in:</p> <ul style="list-style-type: none"> <li>• The CBD</li> <li>• Lower parts of the residential areas of the town, both north and south, including Lockheed and Lindsay Street</li> <li>• Katherine Hospital</li> <li>• The Stuart Highway may be cut between the CBD and Katherine East.</li> </ul> <p>Public Shelters are now opened at:</p> <ul style="list-style-type: none"> <li>• Katherine High School</li> <li>• MacFarlane Primary School</li> <li>• Casuarina Street Primary School.</li> </ul>
<p><b>Fallen River Heights</b></p>	<p>A 'Falling River Height' Advice for Katherine has now been declared.</p>	<p>The Katherine River height at Nitmiluk Centre is falling and expected to continue falling.</p>



## Flood study map – Katherine Town



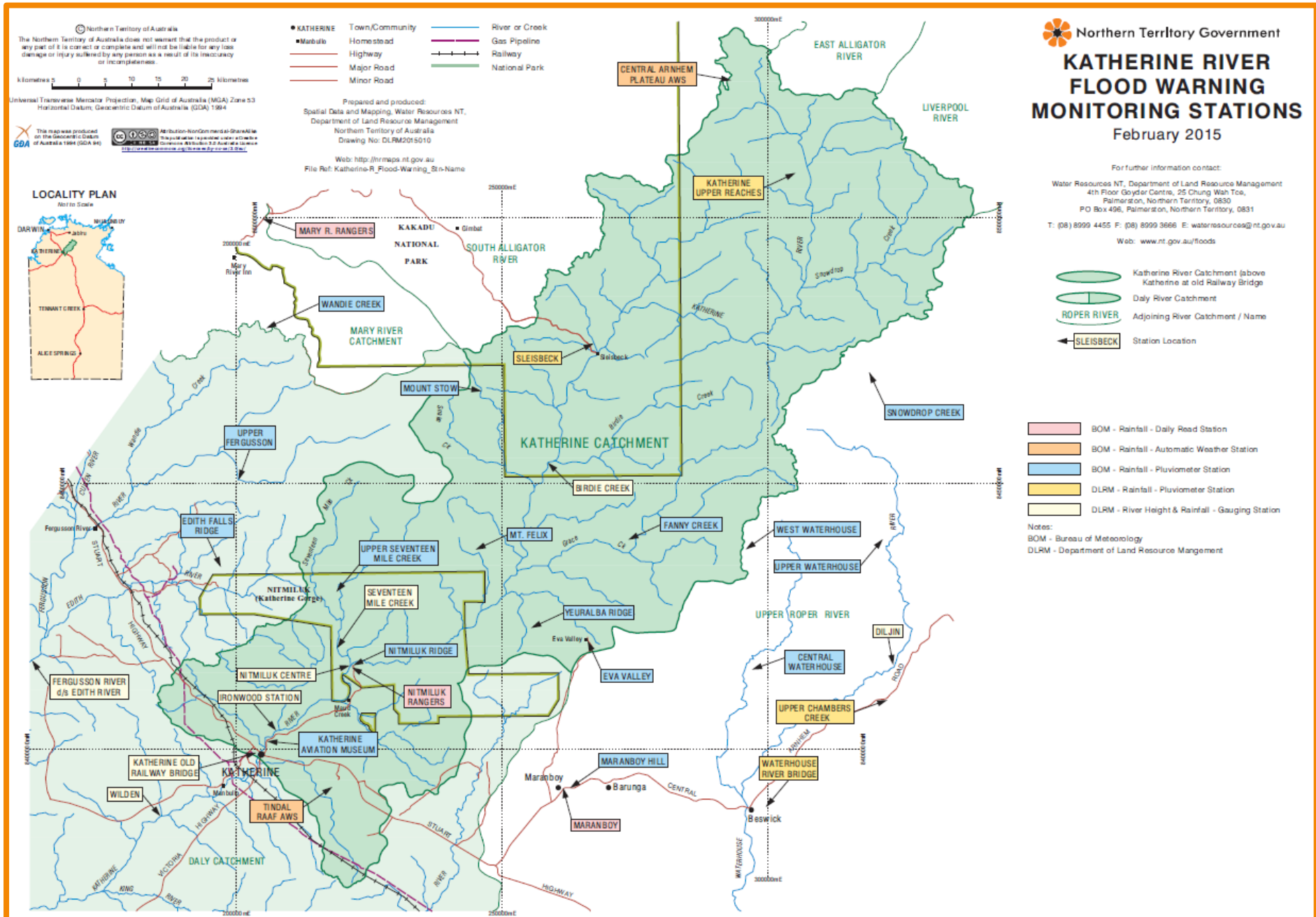






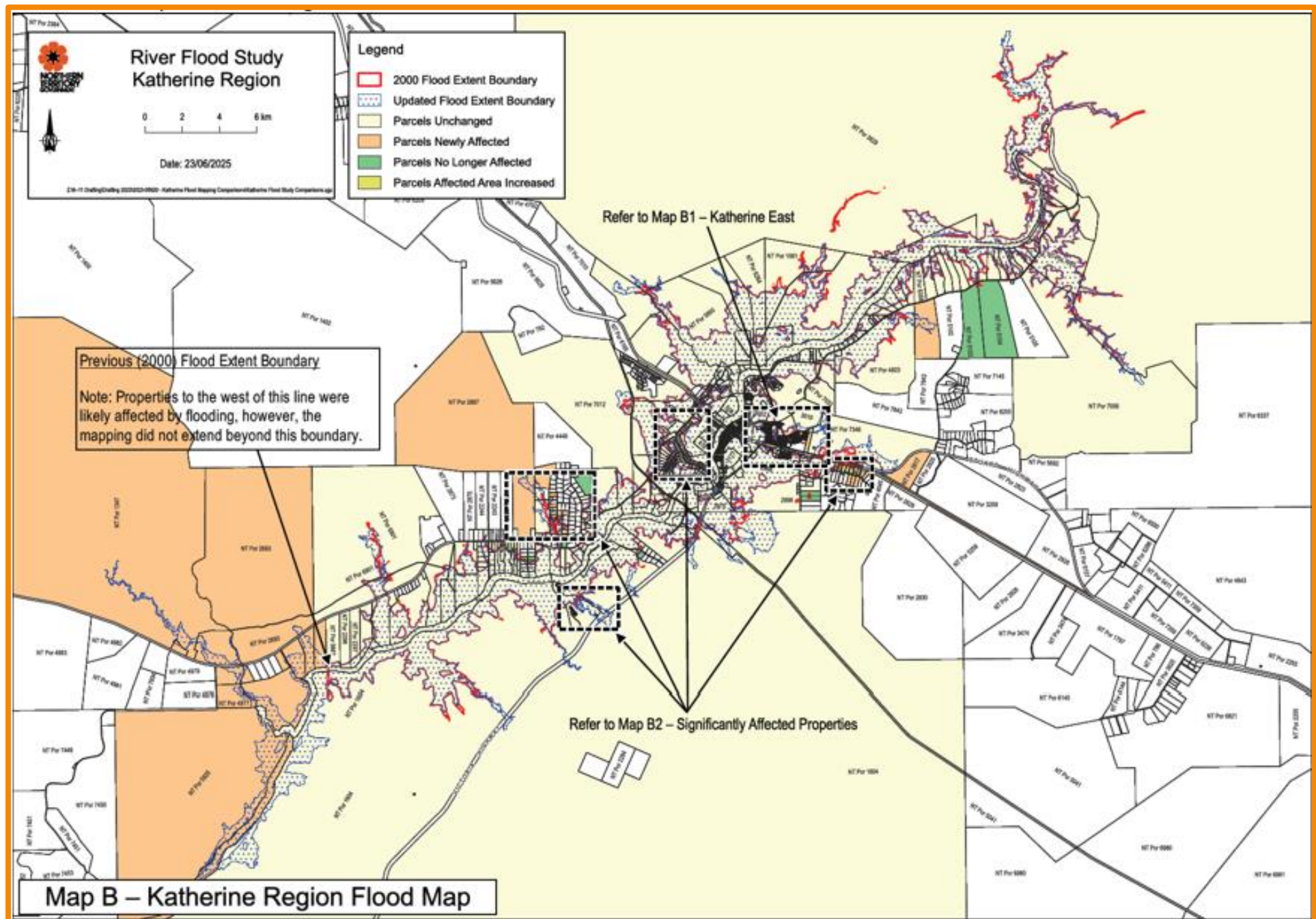


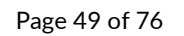
### Katherine flood warning monitoring and gauge station locations





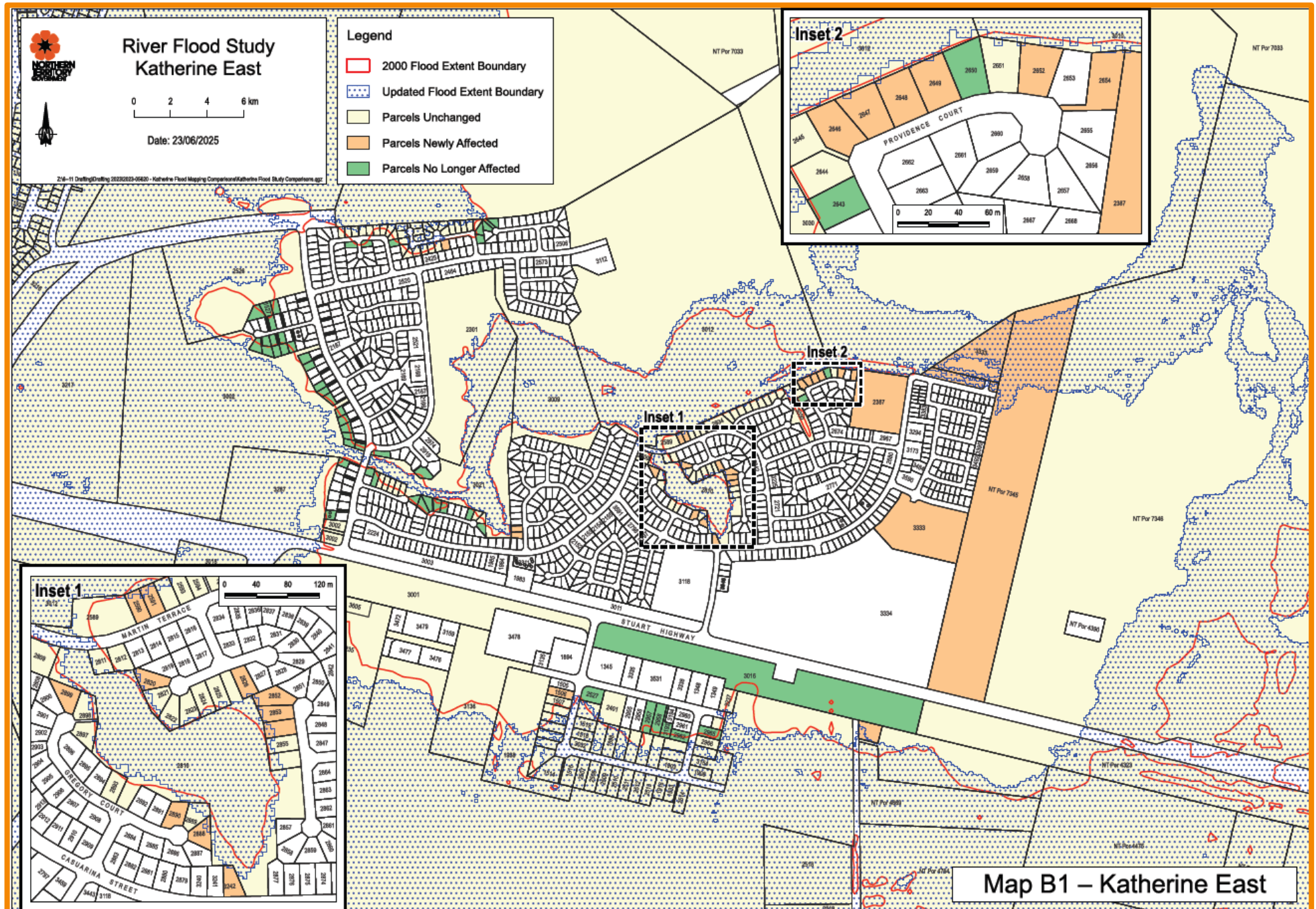
## River Flood Study – Katherine Region – 2025







## River Flood Study – Katherine East



Actions to be taken – Flooding – guide only<sup>14</sup>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/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	<p>Liaise with the NTES TDO, regarding the situation</p> <p>Advise all members of the LEC:</p> <ol style="list-style-type: none"> <li>1. Declaration of <b>Minor Flood Watch – Gorge Road</b></li> <li>2. Create WebEOC entry</li> <li>3. Allocate tasks as required</li> <li>4. Establish frequency of SITREP from function groups</li> <li>5. Provide information to the public as necessary</li> </ol>	<p>Liaise with the NTES TDO/EOC</p> <p>Convene a meeting with the LEC to:</p> <ol style="list-style-type: none"> <li>1. Advise members of the declaration of Minor Flood for Katherine</li> <li>2. Brief members of the situation</li> <li>3. Allocate tasks as required including preparation of shelters, as required</li> <li>4. Request SITREPs from members</li> </ol> <p>Consider school closure/s and confirm evacuation procedures</p>	<p>Liaise with the NTES TDO/EOC</p> <p>Convene a meeting of the LEC</p> <ol style="list-style-type: none"> <li>1. Advise members of the declaration of Moderate Flood Warning</li> <li>2. Brief members of the situation, and confirm shelter arrangements and agency readiness</li> <li>3. Consider school closure and confirm evacuation procedures</li> <li>4. Activate the EOC and ensure Liaison Officers are present</li> </ol>	<p>Liaise with the NTES TDO/EOC</p> <p>Convene a meeting of the LEC</p> <ol style="list-style-type: none"> <li>1. Advise members of the declaration of Major Flood Warning</li> <li>2. Brief members on the situation</li> <li>3. Confirm shelter arrangements and agency responses</li> <li>4. Confirm school closures and evacuation procedures</li> <li>5. Confirm closure of business premises including liquor outlets</li> </ol>	<p>Liaise with the EOC, and circulate <b>Cancellation of Flood alert</b> to the public</p> <p>Convene a meeting of the Katherine LEC</p> <ol style="list-style-type: none"> <li>1. Advise members of the <b>Declaration of the Transition to recovery stage</b></li> <li>2. Brief members of the situation and confirm recovery arrangements</li> </ol> <p><b>Circulate Falling River Height Advice</b> and provide information to the public of the situation and that a recovery response has been activated</p> <p>Ensure 'Post Flood' public information is provided</p>

<sup>14</sup> Action stages as per Flood products issued by the Bureau of Meteorology

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
		<p>Consider activation of the EOC (ensure the presence of Liaison Officers)</p> <p>Consider seeking closure of business premises including liquor outlets</p> <p>Assess requirement for NTES/Specialist (Search and Rescue, Territory Response Group) personnel deployment from Darwin and request if necessary</p>	<p>or accessible via WebEOC</p> <p>Consider seeking closure of business premises including liquor outlets</p> <p>Ensure bulk fuel supplies are relocated to Crawford Street Industrial area</p>		<p>Continue with recovery stage activities as required</p> <p>Begin to prepare a post operations Report</p> <p>Provide support to the Local Recovery Coordinator and attend the LRCC as requested</p>
PAWC	Hold in-house meeting of all Public Utilities Group Leaders to verify preparedness of staff	<p>Brief Public Utilities Group Leaders</p> <p>Maintain electricity, water and sewage supply and keep Local Controller advised on the situation</p>	<p>If required, relocate PAWC river height and rainfall monitoring equipment to the Public Utilities Group operations centre</p> <p>Brief Public Utilities Group Leaders</p> <p>Liaise with other departments and organisations as required</p> <p>Maintain electricity, water and sewage</p>	<p>Brief Public Utilities Group Leaders</p> <p>Liaise with other departments and organisations as required</p> <p>Maintain/restore electricity, water and sewage supply and keep Local Controller advised on the situation</p>	<p>Brief Public Utilities Group Leaders</p> <p>Liaise with other departments and organisations as required</p> <p>Maintain/restore electricity, water and sewage supply and keep Local Controller advised on the situation</p> <p>Debrief staff and arrange relief for ongoing support</p>



Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
			<p>supply and keep the Local Controller advised on the situation</p> <p>Maintain SITREP schedule</p> <p>Provide a liaison officer for EOC duty, if required</p>		<p>Advise Local Recovery Coordinator of any urgent priorities and participate in meetings as required</p> <p>Resume normal duties as soon as possible</p>
DCDD	<p>Attend briefings</p> <p>Identify staffing resources</p> <p>Confirm WebEOC access</p> <p>Commence back-up of a locally stored agency data</p> <p>Monitor WebEOC</p> <p>Liaise with other departments and organisations as required</p>	<p>Attend briefings</p> <p>Ensure successful back-up of data</p> <p>Respond to outages</p> <p>Monitor WebEOC</p> <p>Prepare to activate additional services as requested by the Local Controller</p> <p>Liaise with Medical Group Leader to determine communication requirements for hospital should an evacuation occur</p> <p>Backup hospital PABX data/settings</p>	<p>Attend briefings</p> <p>Respond to outages</p> <p>Monitor WebEOC</p> <p>Liaise with other departments and organisations as required</p> <p>Liaise with service providers to maintain priority</p> <p>Work with Medical Group Leader to transition hospital communication if hospital is evacuated</p> <p>Shutdown PABX and ICT infrastructure at hospital after evacuation</p>	<p>Attend briefings respond to outages</p> <p>Monitor WebEOC</p> <p>Liaise with other departments and organisations as required</p> <p>Liaise with service providers to maintain priority communications services as determined by Local Controller</p> <p>Arrange controlled shutdown of hardware and removal from sites where deemed necessary by ICT</p>	<p>Attend briefings respond to outages</p> <p>Monitor WebEOC</p> <p>Liaise with other departments and organisations as required</p> <p>Provide relevant information for inclusion in final SITREPs</p> <p>Reconnect government ICT services on a priority basis as directed by the Local Controller</p> <p>Advise Local Recovery Coordinator of any urgent priorities and participate in meetings as required</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
			Recovery of hardware where deemed necessary by ICT		
DET	<p>Liaise with Local Controller</p> <p>Brief personnel</p> <p>Ensure all staff contact details are up to date</p> <p>Maintain normal services</p>	<p>Liaise with Local Controller</p> <p>Brief personnel</p> <p>Liaise with other departments and organisations as required</p> <p>Maintain normal services</p> <p>Prepare to make identified facilities available for use as emergency shelters</p>	<p>Brief personnel</p> <p>Liaise with Shelter Manager for the preparation of evacuation shelters</p> <p>Liaise with other departments and organisations as required, especially Welfare Group</p> <p>Ensure presence of liaison officer at the EOC</p>	<p>Brief personnel</p> <p>Liaise with other departments and organisations as required</p> <p>Ensure presence of liaison officer at the EOC</p> <p>Make identified facilities available for use as emergency shelters</p> <p>Deploy personnel to emergency shelters</p> <p>If required, arrange accommodation for counter disaster personnel from other areas</p>	<p>Liaise with Local Controller</p> <p>Brief personnel</p> <p>Assist with the preparations for evacuees to return home</p> <p>Liaise with other departments and organisations as required</p> <p>Prepare to supervise and assist in the restoration of department facilities when notified by the EOC</p> <p>Supervise and assist in the restoration of facilities</p> <p>Debrief staff and arrange relief for ongoing support</p> <p>Resume normal duties</p> <p>Provide support to the Local Recovery Coordinator and attend the LRCC as requested</p>
KTC	No action	<p>Brief council personnel</p> <p>Liaise with other departments and</p>	<p>Brief council personnel</p> <p>Ensure emergency procedures are in place for roads, drains, dumps and stores</p>	<p>Brief council personnel</p> <p>Provide liaison officer for EOC duty, if required</p>	<p>Arrange inspection and provide SITREPs of roads and drainage network</p> <p>Reconcile invoices and accounts with EOC</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
		<p>organisations as required</p> <p>Prepare to assist with dissemination of warnings/information as requested by Local Controller</p>	<p>Provide assistance to Local Controller as requested</p> <p>Provide liaison officer for EOC duty, if required</p> <p>Maintain SITREP schedule</p>	<p>Commission emergency dumping site</p> <p>Council and DLI to liaise and assist as resources allow</p> <p>Coordinate engineering operations within the town</p> <p>Arrange for a place to have domestic pets through the Katherine Town Council</p> <p>Establish an area for parking of private vehicles</p>	<p>Coordinate emergency repairs</p>
DoH	<p>Liaise with Local Controller</p> <p>Ensure contact lists are updated</p> <p>Brief all section leaders within each group</p> <p>Circulate Minor Flood Warning Gorge Road to Medical Group via SMS when received from Local Controller</p> <p>Maintain normal services where possible</p>	<p>Liaise with Local Controller</p> <p>Brief all section leaders</p> <p>Circulate Minor Flood Warning Katherine to Medical Group via SMS when received from Local Controller</p> <p>Liaise with LEC to confirm where hospital will relocate</p>	<p>Brief all section leaders</p> <p>Circulate Flood Warning Advice to Medical Group contract tree when received from Local Controller</p> <p>If required despatch liaison officer to the Regional EOC</p> <p>Set-up health EOC in the conference room at the Katherine High School</p>	<p>Brief all section leaders</p> <p>Circulate Major Flood Warning Advice to Medical Group contact tree when received from Local Controller</p> <p>Transfer any remaining Medical Group staff to the health EOC at the high school</p>	<p>Brief all Section Leaders</p> <p>Remain at evacuation sites until advised by the EOC</p> <p>Determine inundation has occurred</p> <p>Set up alternative facilities or maintain evacuation points for hospital and aged/health care facilities</p> <p>Prepare hospital and aged/health care facilities for return</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
	<p>Activate liaison officer</p> <p>Monitor WebEOC</p>	<p>to if an evacuation is required</p> <p>Maintain normal services where possible</p> <p>Hospital to discharge patients and/or organise for patient transfers to Royal Darwin Hospital or another determined location out of Katherine</p> <p>Liaise (and confirm) with Northern Region to go on bypass - unable to accept impatient admissions</p> <p>Notify surrounding remote communities and Royal Darwin Hospital</p> <p>Advise Rocky Ridge Aged Care Facility of the potential to evacuate</p> <p>Confirm arrangements for relocation of temporary morgue to be relocated to</p>	<p>Assist Local Controller as required</p> <p>Identify high -risk patients and medically vulnerable clients for potential evacuation</p> <p>Liaise with people requiring medical support</p> <p>Section leader to ensure that stakeholders have been advised to activate the PRMS Clients Care Plans</p> <p>Maintain priority services</p> <p>Liaise with LEC on preparation of evacuation of shelters</p> <p>Brief personnel identified for deployment to relocated emergency department and hospital</p> <p>Prepare for hospital evacuation (emergency department to go to Katherine Dialysis Centre</p>	<p>Maintain priority services</p> <p>Monitor WebEOC</p>	<p>Provide support to the Local Recovery Coordinator and attend the LRCC as requested</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
		<p>Chardon Street Facility</p> <p>Assist Local Controller as required</p> <p>Staff to be released to ensure welfare of families and properties</p> <p>Set up health EOC at executive rooms at the Katherine Hospital</p> <p>Monitor WebEOC</p> <p>Confirm pre-arranged accommodation for emergency management personnel from other areas</p>	<p>Advise Rocky Ridge Aged Care Facility to evacuate</p> <p>Evacuate hospital patients and identified people requiring medical support that will require evacuation</p> <p>Arrange for the relocation of temporary morgue to be relocated to Chardon Street Facility (see page 50 of this Plan)</p> <p>Deploy personnel to identified emergency department and hospital</p> <p>Monitor WebEOC</p> <p>If required, arrange accommodation for personnel from other areas</p>		
<b>DLI</b>	<p>Attend LEC meetings</p> <p>Brief Transport Group Leaders</p> <p>Liaise with other departments and organisations as required</p>	<p>Attend LEC meetings</p> <p>Brief Transport Group Leaders and allocate tasks as required</p> <p>Maintain liaison with representatives of other departments</p>	<p>Attend LEC meetings</p> <p>Brief Transport Group Leaders and implement any necessary traffic control measures</p> <p>Maintain liaison with representatives of other departments and</p>	<p>Attend LEC meetings</p> <p>Maintain traffic management and closures as necessary</p> <p>Maintain liaison with representatives of other departments</p>	<p>Arrange all necessary plant and equipment for flood recovery purposes</p> <p>Arrange to inspect, assess, and secure damaged houses and buildings resulting from the flood</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
	Maintain and advise the Local Controller on possible plant/equipment deployment	and organisations as required  Advise Local Controller accordingly  Provide a liaison officer for EOC duty, if required	organisations as required  Advise Local Controller accordingly  Coordinate school bus transport in liaison with Shelter Group	and organisations as required  Advise Local Controller as necessary	In conjunction with council, arrange for clearing of debris, reopening roads/bridges and access ways  Liaise with other departments and organisations and provide support as required  Prepare to forward final SITREP to the Local Controller  Provide support to the Local Recovery Coordinator and attend the LRCC as requested
DCF	Liaise with Local Controller  Ensure contact lists are updated  Brief all Welfare Group Section Leaders  Circulate Minor Flood Warning for Gorge Road advice to Welfare Group contacts	Liaise with Local Controller  Brief all Welfare Group Section Leaders  Circulate Flood Warning Advice to Welfare Group contacts  Liaise with emergency shelter  Maintain normal services	Attend LEC Meetings  Brief all Welfare Group Section Leaders  Circulate Flood Warning Advice to Welfare Group contacts  Provide SITREP regarding preparedness  Liaise with Shelter Group Leader to initiate evacuation centre preparations and resourcing	Attend LEC Meetings  Brief all Welfare Group Section Leaders  Circulate Flood Warning advice to Welfare Group contacts  Brief NT Welfare Group Leader  Maintain SITREP schedule  Transfer Welfare Group EOC to	Attend LEC Meetings  Brief all Welfare Group Section Leaders  Maintain SITREP schedule  Welfare Group personnel to remain at evacuation sites until advised by the EOC  Determine extent of inundation and confirm recovery services required  Provide support to the Local Recovery

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
		Operational staff to be released to ensure welfare of families and properties	<p>Brief personnel identified for deployment to evacuation centres</p> <p>Prepare to establish Welfare Group EOC at the Katherine High School evacuation centre</p> <p>Assist Local Controller as required</p> <p>Identify high-risk vulnerable persons/groups requiring assistance in event of evacuation</p> <p>Deploy evacuation centre resources to the Katherine High School – this will be the first evacuation centre to open</p> <p>Maintain priority services</p>	<p>Katherine High School evacuation centre site</p> <p>If required, arrange accommodation for Welfare Group personnel from other regions</p> <p>Deploy evacuation centre resources/personnel to centres</p> <p>Determine level of recovery supports required and notify services to prepare on standby</p> <p>Maintain priority services</p>	Coordinator and attend the LRCC as requested
<b>DTBAR (Animal Welfare)</b>	<p>Attend LEC meeting</p> <p>Brief Animal Welfare Functional Group Leader</p> <p>Liaise with other departments and</p>	<p>Brief Animal Welfare Group Leader and commence preparedness activities</p> <p>Maintain liaison with representatives of</p>	<p>Commence preparedness activities</p> <p>Maintain liaison with representatives of other departments and organisations</p>	<p>Activate business continuity arrangements with the Darwin office</p> <p>Consider forward deployment if necessary to</p>	<p>Ascertain impact of hazard in relation to animal welfare and commence planning for response and recover operations for approval to the Local Controller</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
	<p>organisations as required</p> <p>Ensure contact lists are updated</p> <p>Monitor WebEOC</p>	<p>other departments and organisations</p> <p>Provide a liaison officer for EOC duty, if required</p>	<p>Provide a liaison officer for EOC duty, if required</p>	<p>supplement staff in Katherine office</p> <p>Continue brief and liaison roles</p>	<p>Continue brief and liaison roles</p>
<b>DTBAR (Critical Goods/Industry)</b>	<p>Attend briefings</p> <p>Confirm WebEOC access and monitor WebEOC</p> <p>Review list of Katherine businesses and confirm stocks of critical goods</p> <p>Report to Local Controller on status of holdings and any recommended emergency remedial action as required</p> <p>Liaise with other departments and organisations as required</p>	<p>Check with members for any updates to their 'state of readiness' e.g. critical stocks that may have been ordered</p> <p>Attend LEC meetings</p>	<p>Contact members to obtain 'state of readiness' reports</p> <p>Attend LEC meetings</p> <p>Liaise with all LEC members regarding durability of critical goods and services holdings and dissemination of advice</p> <p>Liaise with Transport Group regarding emerging critical goods and services distribution requirements</p> <p>Monitor and report to EOC on developing status of demand and critical goods and services holdings as emergency progresses</p> <p>Liaise with the Welfare Group to identify and monitor emerging non-commercial critical</p>	<p>Contact members to obtain 'state of readiness' reports</p> <p>Attend LEC meetings</p> <p>Liaise with all LEC members regarding durability of critical goods and services holdings and dissemination of advice</p> <p>Liaise with Transport Group regarding emerging critical goods and services distribution requirements</p> <p>Monitor and report to EOC on developing status of demand and critical goods and services holdings as emergency progresses</p> <p>Liaise with the Welfare Group to identify and monitor</p>	<p>Attend LEC meetings</p> <p>Liaise with all LEC Groups regarding durability of critical goods and services holdings and dissemination of advice</p> <p>Liaise with Transport Group regarding emerging critical goods and services distribution requirements</p> <p>Monitor and report to EOC on developing status of demand and critical goods and services holdings as emergency progresses</p> <p>Liaise with the Welfare Group to identify and monitor emerging non-commercial critical goods and services distribution outlets and monitor demand for supplies</p> <p>Report to Local Controller status of holdings and any recommended emergency</p>



Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
			<p>goods and services distribution outlets and monitor demand for critical goods and services supplies</p> <p>Report to Local Controller on status of holdings and any recommended emergency remedial action as required if shortfall identified</p> <p>Act as liaison between EOC and members for all requests and priority listings to ensure accurate information</p>	<p>emerging non-commercial critical goods and services distribution outlets and monitor demand for critical goods and services supplies</p> <p>Report to Local Controller on status of holdings and any recommended emergency remedial action as required if shortfall identified</p> <p>Act as liaison between EOC and members for all requests and priority listings to ensure accurate information</p>	<p>remedial action as required if shortfall identified</p> <p>Act as liaison between EOC and members for all requests and priority listings to ensure accurate information</p>
KTC	<p>Brief council personnel</p> <p>Maintain services</p> <p>Establish and maintain liaison with the Local Controller to provide regular reports on status of all council provided services</p>	<p>Brief council personnel</p> <p>Maintain services</p> <p>Advise the Local Controller on essential service matters</p> <p>Liaise with health clinic representative on community service matters</p>	<p>Brief council personnel</p> <p>Advise the Local Controller on essential service matters</p> <p>If necessary, restore services according to the priorities given by the Local Controller</p>	<p>Consider commencement of Recovery stage operations, as necessary</p>	<p>Where appropriate, recall and stand-down council staff</p> <p>Advise the Local Controller when all council personnel are accounted for and on any outstanding problems association with the emergency operations</p>

Organisation/ Provider	Minor – Gorge Road	Moderate – Gorge Road Minor – Katherine	Major – Gorge Road Moderate – Katherine	Major Gorge Road and Katherine	Falling river heights/Transition to recovery
			Carry out such tasks as allocated by the Local Controller		<p>Confirm debrief arrangements with the Local Controller</p> <p>Provide relevant information for the preparation of the Post Operations Report</p> <p>Liaise with the Local Recovery Coordinator</p>

## Designated response area for flood





### 11.3.5. Rail crash

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

A train crash, train collision, train accident is a type of disaster involving 1 or more trains. Train crashes often occur as a result of miscommunication, when a moving train meets another train on the same track; or an accident, such as when a train wheel jumps off a track in a derailment; or when the train hits a stationary or moving object.

Responses to rail crash incidents will be coordinated from the JESCC. NTFRS resources will be responded as per pre-determined response arrangements contained within the SerPro system for incidents occurring within an NTFRS ERA. For incidents occurring outside of an ERA, responses will be approved by the rostered NTFRS TDO.

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

- maintain a clear railway, removing animal hazards
- training in PUASAR022 - participate in a rescue operation

**Public safety message process:**

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

## Actions to be taken – Rail crash – 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 relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required
KDH	Advise key personnel  Personnel notified will depend on extent and type of incident  Activate the Pre-Hospital Response Team  Convene a briefing  This decision will be based on the number of casualties and the hospital's activities  Notify NCCTRC	Update key personnel  Where appropriate the group leader will activate the KDH Emergency Coordination Centre, as per the KDH Mass Casualty Plan  Provide SITREPs  Nominate a liaison officer for EOC, if required	KDH Mass Casualty Plan is activated  All relevant section leaders have activated their relevant plans  Provide SITREPs	Debrief all members of response team  Address rosters to cover shifts to adequately rest responders  KDH to resume normal activities	Support lead recovery agency, as required
NFRS	Attend briefings Inform key personnel	Update key personnel Brief crews attending	Crews' response using AIIMS and sectors, where possible	Conduct debrief with members  Resume normal activities	Assist where required  Take action upon debrief

Organisation/ Provider	Stage 1: Alert	Stage 2: Standby	Stage 3: Activation	Stage 4: Stand down	Transition to recovery
	Provide SITREPs	Monitor and update	<p>Conduct firefighting efforts as per internal SOPs and usual firefighting practices</p> <p>Provide SITREPs</p> <p>Deploy earthmoving machinery and aircraft (via contactors) if required</p> <p>Once contained, crews to continue to mop up and patrol</p> <p>Form Incident Management Team, if required</p>	Conduct investigation, if required	
DCF	<p>Advise key personnel</p> <p>Attend Katherine LEC meeting, if required</p>	<p>Update key personnel</p> <p>Place personnel on standby</p> <p>Provide SITREPs</p>	<p>Activate relevant plans</p> <p>Provide SITREPs</p> <p>Undertake duties as directed by the Local Controller</p>	<p>Update key personnel</p> <p>Determine ongoing support requirements</p> <p>Prepare to standdown services</p> <p>Undertake debrief</p>	Support recovery activities as required
Support organisations	Provide support as requested by the Local Controller				

### 11.3.6. 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 SerPro or 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 NTFES and NTPF members.

**Public safety message process:**

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



## Actions to be taken – Road crash – 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 relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required	Notify relevant group leaders  Convene Katherine LEC briefing if required
KDH	Advise key personnel  Personnel notified will depend on extent and type of incident  Activate the Pre-Hospital Response Team  Convene a briefing  This decision will be based on the number of casualties and the hospital's activities  Notify NCCTRC	Update key personnel  Where appropriate the group leader will activate the KDH Emergency Coordination Centre, as per the KDH Mass Casualty Plan  Provide SITREPs  Nominate a liaison officer for EOC, if required	KDH Mass Casualty Plan is activated  All relevant section leaders have activated their relevant plans  Provide SITREPs	Debrief all members of response team  Address rosters to cover shifts to adequately rest responders  KDH to resume normal activities	Support lead recovery agency, as required
NFRS	Attend briefings Inform key personnel	Update key personnel Brief crews attending	Crews' response using AIMS and sectors, where possible	Conduct debrief with members  Resume normal activities	Assist where required  Take action upon debrief

Organisation/ Provider	Stage 1: Alert	Stage 2: Standby	Stage 3: Activation	Stage 4: Stand down	Transition to recovery
	Provide SITREPs	Monitor and update	<p>Conduct firefighting efforts as per internal SOPs and usual firefighting practices</p> <p>Provide SITREPs</p> <p>Deploy earthmoving machinery and aircraft (via contactors) if required</p> <p>Once contained, crews to continue to mop up and patrol</p> <p>Form Incident Management Team, if required</p>	Conduct investigation, if required	
DCF	<p>Advise key personnel</p> <p>Attend Katherine LEC meeting, if required</p>	<p>Update key personnel</p> <p>Place personnel on standby</p> <p>Provide SITREPs</p>	<p>Activate relevant plans</p> <p>Provide SITREPs</p> <p>Undertake duties as directed by the Local Controller</p>	<p>Update key personnel</p> <p>Determine ongoing support requirements</p> <p>Prepare to standdown services</p> <p>Undertake debrief</p>	Support recovery activities as required
Support organisations	Provide support as requested by the Local Controller				

## 11.4. Annex D: Summary of response and recovery activities

The following table outlines 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	<ul style="list-style-type: none"> <li>Road clearance teams</li> <li>General public</li> <li>Media reports</li> <li>Survey and rescue teams</li> <li>Impact assessment teams</li> </ul>	<ul style="list-style-type: none"> <li>Contributes to recovery planning through impact assessment data</li> <li>Comprehensive impact assessments</li> <li>Needs assessment</li> </ul>
2. Public Information	<ul style="list-style-type: none"> <li>Public Information Group activation</li> <li>Spokes persons identified</li> <li>SecureNT activated</li> </ul>	<ul style="list-style-type: none"> <li>Continues in recovery</li> </ul>
3. Survey and Rescue	<ul style="list-style-type: none"> <li>Survey teams deploy to designated areas</li> <li>Critical sites surveyed</li> <li>Deploy rescue teams – NTFRS and NTPF Specialist Response Division provide primary Urban Search and Rescue capability</li> </ul>	<ul style="list-style-type: none"> <li>Survey and impact assessment data used to contribute to the Recovery Action Plan</li> </ul>
4. Road clearance	<ul style="list-style-type: none"> <li>Road patrol teams deploy and check assigned routes</li> <li>Road clearance to priority sites</li> <li>Assess Stuart Hwy to Katherine (supply route)</li> </ul>	<ul style="list-style-type: none"> <li>Restoration of road networks and bridges</li> <li>Return to business as usual</li> </ul>

Activity	Response activities	Recovery activities
5. Emergency accommodation	<ul style="list-style-type: none"> <li>Emergency accommodation and shelter               <ul style="list-style-type: none"> <li>evacuation centres</li> </ul> </li> <li>Provision of resources that will enable people to remain in their homes</li> <li>Emergency clothing</li> </ul>	<ul style="list-style-type: none"> <li>Evacuation centres may continue into recovery</li> <li>Temporary accommodation options</li> <li>Repatriation planning</li> </ul>
6. Medical	<ul style="list-style-type: none"> <li>Hospital               <ul style="list-style-type: none"> <li>Identify any issues with accessing facilities</li> <li>Initial Impact assessment</li> <li>Access to critical supplies e.g. medicines, consumables, power or fuel and water</li> <li>ongoing acute clinical care and critical services requirements</li> <li>increase morgue capacity</li> </ul> </li> <li>Health Centres               <ul style="list-style-type: none"> <li>identify any issues with accessing facilities</li> <li>Access to critical supplies e.g. medicines, consumables, power or fuel and water</li> </ul> </li> <li>GP clinics and pharmacies               <ul style="list-style-type: none"> <li>identify operational GP services</li> <li>identify operational pharmacies</li> </ul> </li> <li>Support Medically vulnerable people</li> <li>Medical retrieval services (air and road)</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing provision of health services               <ul style="list-style-type: none"> <li>which may include business continuity plans</li> <li>engagement with stakeholders</li> </ul> </li> <li>Repatriation of medically vulnerable people in community</li> <li>GP clinics and pharmacies               <ul style="list-style-type: none"> <li>ongoing liaison by the Medical Group</li> </ul> </li> <li>Medical retrieval services – resume business as usual</li> </ul>

Activity	Response activities	Recovery activities
7. Essential goods and services	<ul style="list-style-type: none"> <li>Establish emergency feeding and food distribution points</li> <li>Assessing the damage to suppliers and retailers of critical resources</li> <li>Assess the impact on barge operations and any effect on the ability to supply remote communities</li> <li>Implement interim banking arrangements</li> </ul>	<ul style="list-style-type: none"> <li>Support the re-opening of the private business sector</li> <li>Monitor levels and availability of essential goods</li> <li>Manage logistics arrangements supplying resources to outlying communities</li> <li>Public Health inspections (food outlets)</li> <li>Banking sector business continuity arrangements</li> </ul>
	<u>Fuel</u> <ul style="list-style-type: none"> <li>Fuel suppliers and point of sale</li> <li>Manage fuel supplies to emergency power generation</li> </ul>	<ul style="list-style-type: none"> <li>Monitor fuel levels</li> <li>Infrastructure repairs</li> <li>Emergency fuel supplies for recovery</li> <li>Liaise with fuel suppliers, distributors and wholesalers to re-establish long term supply</li> </ul>
	<u>Banking</u> <ul style="list-style-type: none"> <li>Assess damage to banks and ATMs</li> <li>Implement temporary arrangements</li> </ul>	<ul style="list-style-type: none"> <li>Emergency cash outlets</li> <li>Implement long term arrangements</li> </ul>
8. Evacuation	<ul style="list-style-type: none"> <li>Evacuations within community</li> <li>Evacuation out of community</li> <li>Registration</li> </ul>	<ul style="list-style-type: none"> <li>Support services for evacuees</li> <li>Recovery information for evacuees</li> <li>Repatriation</li> </ul>
9. Public Health	<ul style="list-style-type: none"> <li>Communicable disease control response</li> <li>Drinking water safety standards</li> <li>Sewage and waste disposal</li> <li>Safe food distribution and advice</li> <li>Vector and vermin control</li> <li>Food and commercial premises</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing in recovery</li> </ul>
10. Utilities	<ul style="list-style-type: none"> <li>Power supply</li> <li>Power generation</li> <li>Water supply</li> </ul>	<ul style="list-style-type: none"> <li>Restore power network</li> <li>Restore water and sewerage infrastructure</li> </ul>

Activity	Response activities	Recovery activities
	<ul style="list-style-type: none"> <li>• Sewerage</li> <li>• Emergency sanitation</li> </ul>	<ul style="list-style-type: none"> <li>• Issue alerts until safe to use</li> </ul>
11. Impact assessments	<ul style="list-style-type: none"> <li>• Training assessment teams</li> <li>• Initial impact assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive impact assessments</li> <li>• Ongoing needs assessments</li> </ul>
12. Transport infrastructure (supply lines)	<u>Air (Airport/Airstrip)</u> <ul style="list-style-type: none"> <li>• Clear the runway to allow air movements</li> <li>• Establish a logistics hub at the airport</li> <li>• Terminal damage and operational capability assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor repairs and business continuity activities</li> </ul>
	<u>Road</u> <ul style="list-style-type: none"> <li>• Highway and critical access roads damage assessment</li> <li>• Repair work to commence immediately</li> </ul>	<ul style="list-style-type: none"> <li>• Planning and prioritising repair work of all affected key Territory Highways (Stuart, Barkly, Victoria and Arnhem)</li> </ul>
	<u>Rail</u> <ul style="list-style-type: none"> <li>• Rail damage assessment</li> <li>• Outage estimation</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing liaison with operator to support restoration to business as usual</li> </ul>
	<u>Port, Harbour and Barge</u> <ul style="list-style-type: none"> <li>• Assess damage to port infrastructure and harbour facilities</li> </ul> <p>Assess the damage to barge facilities</p>	<ul style="list-style-type: none"> <li>• Repairing infrastructure</li> </ul> <p>Establish alternate arrangements for the supply of remote communities</p>
13. Waste management	<ul style="list-style-type: none"> <li>• Waste management requirements and develop waste management plan if required</li> </ul>	<ul style="list-style-type: none"> <li>• Continues in recovery</li> </ul>
14. Repairs and reconstruction	<ul style="list-style-type: none"> <li>• Private housing <ul style="list-style-type: none"> <li>- impact assessments</li> <li>- temporary repairs</li> </ul> </li> <li>• Government buildings <ul style="list-style-type: none"> <li>- damage assessment</li> </ul> </li> <li>• Public housing <ul style="list-style-type: none"> <li>- impact assessments</li> </ul> </li> <li>• Private industry <ul style="list-style-type: none"> <li>- damage assessments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Private housing <ul style="list-style-type: none"> <li>- information and support to facilitate repairs</li> </ul> </li> <li>• Government buildings <ul style="list-style-type: none"> <li>- repairs and reconstruction</li> </ul> </li> <li>• Public housing <ul style="list-style-type: none"> <li>- long term repair plans</li> </ul> </li> <li>• Private industry</li> </ul>

Activity	Response activities	Recovery activities
		<ul style="list-style-type: none"> <li>- repair and reconstruction</li> <li>• Temporary accommodation for a visiting construction workforce</li> </ul>
15. Transport services	<ul style="list-style-type: none"> <li>• Staged re-establishment of public transport services</li> </ul>	<ul style="list-style-type: none"> <li>• Continues in recovery</li> </ul>
16. Telecommunications	<ul style="list-style-type: none"> <li>• Telstra and Optus will assess the damage to their infrastructure</li> <li>• Put in place temporary measures to enable landline and mobile services</li> </ul>	<ul style="list-style-type: none"> <li>• Repair damage networks and infrastructure (for private entities there is support for operators only)</li> </ul>
17. Public safety	<ul style="list-style-type: none"> <li>• Police will maintain normal policing services to the community</li> </ul>	<ul style="list-style-type: none"> <li>• Gradual return to business as usual</li> </ul>
18. Animal welfare	<ul style="list-style-type: none"> <li>• Temporary emergency arrangements for pets</li> </ul>	<ul style="list-style-type: none"> <li>• Reunite pets with their owners and cease emergency support arrangements</li> </ul>
19. Community consultation	<ul style="list-style-type: none"> <li>• Information provision regarding the overall situation, response efforts, what services are available and how to access them</li> </ul>	<ul style="list-style-type: none"> <li>• Community consultation process regarding long term recovery and community development</li> </ul>



## 12. Acronyms

Acronyms	Definitions
AAPA	Aboriginal Areas Protection Authority
ABC	Australian Broadcasting Corporation
ADF	Australian Defence Force
AEP	Aerodrome Emergency Plan
AIIMS	Australasian Inter-Service Incident Management System
ARFFS	Aviation Rescue and Fire Fighting Service
BFNT	Bushfires NT
CASA	Civil Aviation Safety Authority
CBD	Central Business District
CM&C	Department of the Chief Minister and Cabinet
DCDD	Department of Corporate and Digital Development
DCF	Department of Children and Families
DLI	Department of Logistics and Infrastructure
DLPE	Department of Lands, Planning and Environment
DET	Department of Education and Training
DoH	Department of Health
DTBAR	Department of Trade, Business and Asian Relations
EOC	Emergency Operations Centre
ERA	Emergency Response Area
ICC	Incident Control Centre
ICP	Incident Control Point
JESCC	Joint Emergency Services Communications Centre
KM	Kilometres
KTC	Katherine Town Council

Acronyms	Definitions
LCC	Local Coordination Centre
LEC	Local Emergency Committee
LRCC	Local Recovery Coordination Committee
M	Metres
MM	Millimetres
NERAG	National Disaster Risk Assessment Guidelines
NT	Northern Territory
NTES	Northern Territory Emergency Service
NTFES	Northern Territory Fire and Emergency Services
NTFRS	Northern Territory Fire and Rescue Service
NTG	Northern Territory Government
NTPF	Northern Territory Police Force
RAAF	Royal Australian Air Force
RAT	Rapid Assessment Team
RCC	Rescue Coordination Centre
SAR	Search and Rescue
SEWS	Standard Emergency Warning Signal
SITREP	Situation Report
TDO	Territory Duty Officer
TEMC	Territory Emergency Management Council
WebEOC	Web-Based Emergency Operations Centre