

# NT Heatwave Hazard Plan

Department of Health

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## 1. Applicability

The audience for this Heatwave Hazard Plan (HHP) comprises the Northern Territory Government (NTG), functional groups within the NT Emergency Management Arrangements (NTEMA), and key stakeholders including business and community groups with a significant role in the management of an extreme heat emergency.

Although the HHP is not a community plan, communities, individuals and other private sectors such as tourism, agriculture, transport, energy, water and infrastructure may find the contents of this plan useful in the development of their organisational heatwave response plans.

## 2. Plan statement

This plan provides emergency management arrangements for a heatwave event in line with the broader NT Emergency Management Arrangements (NTEMA). As per the Territory Emergency Plan (TEP), the Department of Health (referred throughout the plan as NT Health) is the Controlling Authority and Hazard Management Authority for Heatwaves.

A Controlling Authority (CA) is the NTG agency with the delegated responsibility to direct or undertake response to a specific hazard, including managing the technical aspects of response operations and suppressing immediate consequences.

A Hazard Management Authority (HMA) is the NTG agency responsible for coordination and preparing plans and capabilities to respond to a specific hazard.

The NT Health Public Health Division is responsible for implementing this plan.

## 3. Policy suite

This plan forms part of the following policy suite:

- Territory Emergency Plan
- NT Health Emergency Management Framework

Related documents included as annexures:

- How to prepare for a Heatwave Checklist and Individual Response Measures to Extreme Heat Events
- Specific Actions for Health Care Services during Heatwaves
- Specific Actions for Parents and Caregivers
- Sample Severe Heatwave Warning for Aboriginal Communities
- Sample Extreme Heatwave Warning for Aboriginal Communities
- Beat the NT Heat Poster

## 4. Introduction

### 4.1. Purpose

The purpose of this plan is to outline the strategies and measures for the management of extreme heat events in the Territory. The plan includes actions for NT Health, NTG agencies, Functional Groups under the TEP, Local Councils, and health services.

The objectives of the HHP are to:

- outline the context and risk of heatwaves in the NT
- outline strategies to protect and promote the health of individuals and communities in the NT in the event of extreme heat
- improve the public and environmental health outcomes of all Territorians in partnership with individuals and the community
- describe triggers and response activities to extreme heat for NT Health and stakeholders
- describe how notifications and communication about heatwaves will be managed
- provide a framework for activation of relevant plans in the event of an extreme heat event
- monitor, assess, communicate and provide guidance on extreme heat for preparedness, response and recovery

## 4.2. Scope

The scope of the plan includes:

- description of the Australian Warning System (AWS) for heatwaves
- heatwave severity classification
- triggers for activation of the plan
- the establishment of incident management team (IMT) when the plan is activated
- response and recovery actions
- description of the roles of NT Health Chief Executive (CE), the Chief Health Officer (CHO) and other teams within the department
- description of the roles and responsibilities of NTG agencies and Functional Groups
- information on extreme heat preparedness for individuals, communities and health services

### 4.2.1. Out of scope

The scope of this HHP does not include providing specific instructions for NTG agencies on the appropriate measures to take during heatwaves to guarantee the safety of their employees.

The Work Health and Safety Act mandates that Persons Conducting a Business or Undertaking have a critical duty to ensure the health and safety of their workers.

## 4.3. Assumptions

An emergency declaration may not be required in a heatwave response but the NT will utilise the NTEMA as described in the TEP to activate its multi-agency responses to a heatwave hazard. The TEP recognises the need for other agencies to assist a CA when a hazard-specific plan is activated. It also clarifies that the NTEMA may be activated whenever a “hazard-specific emergency plan indicates they should be activated”.

In the event the Incident Controller (IC) or response staff require special powers to achieve the incident's objectives, NT Health will engage with the Solicitor for the NT to determine the most relevant legislation to enact for example, the *NT Emergency Management Act 2013* or the *Public and Environmental Health Act 2011*.

In the event the *Emergency Management Act* is enacted, the IC may need to be appointed as an Authorised Officer to afford them the relevant powers to manage the incident. NT Health will consider pre-appointing Authorised Officers at the beginning of each heatwave season.

### 4.3.1. Financial responsibilities

Controlling Authorities are responsible for meeting the cost of response until the NTEMA are enacted. Activities being undertaken as part of a heatwave response will be under the control of the (NT Health) IC. It is envisaged that NT Health will be responsible for the cost of responding to a level 1 or 2 incident. NT Health IC will draft the relevant human resources and procurement delegations if these are required.

Once the NTEMA have been enacted, the TEP and EM financial arrangements take precedence.

## 4.4. Activation

This plan will be activated by NT Health when Bureau of Meteorology (BoM) forecasts a heatwave for:

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

AND the forecast is:

- Three or more days of severe heatwave; OR
- Two or more days of extreme heatwave

AND NT Health determines that a Heat Health response is required. Activation decisions are made using a risk assessment process on likelihood and impact. This plan may be activated based on anticipated severity and longevity of the heatwave; observed minimum and maximum temperatures; impacted population; public events and the anticipated impact on hospital and health services or at the discretion of the CE of NT Health, acting on the advice of the CHO.

Where a severe or extreme heatwave event does not meet the above triggers but prolongs over a period, the Chief Health Officer (or delegate) may advise that a localised heatwave response is required and an IC may be appointed. For example, where a remote locality experiences severe or extreme heatwave continuously over a prolonged period, which is six or more consecutive days.

## 4.5. Authority to activate the plan

The authority to activate the plan is NT Health CE or delegate, including the appointment of an IC to manage the event. It is envisaged that the IC shall be appointed initially from the Health Protection Branch, for example the Executive Director.

This plan can be activated for any locality, part or whole of the Territory forecasted to be or affected by a severe or extreme heat event.

## 4.6. Legal Authority

Depending on the authority or powers needed by the organisation, NT Health will work with legal services to determine which of the following acts will best support the activities required to respond to the incident.

### 4.6.1. *Emergency Management Act 2013*

The NT *Emergency Management Act 2013* provides the legislative foundation that supports the NTEMA. The act includes provisions to appoint Authorised Officers and outlines the special powers Authorised Officers can utilise under this act.

The TEP referred to in the Act lists the hazards that impact the NT and outlines the HMA and CA for each of these hazards. The TEP also describes the NTEMA governance and operational response across prevention, preparedness, response and recovery.

### 4.6.2. *Public and Environmental Health Act 2011*

The provisions of the *Public and Environmental Health Act 2011* provide guiding principles for this plan, relating to activities to protect and promote the health and wellbeing of individuals and communities in the Territory. This plan contributes to the fulfilment of the objects of the *Public and Environmental Health Act 2011*, which (among others) seek to; 'improve the public and environmental health outcomes of all Territorians in partnership with individuals and the community', and 'enable special action to be taken to protect the health of particular individuals and communities in the Territory who are at public health risk or facing particular health problems'.

## 5. Context

Heatwaves are one of the most dangerous natural hazards in Australia, in terms of impacts on human health. Extreme heat causes more deaths and hospitalisation in Australia than any other natural hazard. Extreme heat accounted for 7,104 injury hospitalisations and 293 deaths in the 10-year period from 2012–13 to 2021–22. This represented 77.9% of total weather related injury hospitalisations and 43% of weather related deaths respectively.

Heatwaves are exacerbated in the NT by high humidity during the early wet season (October–December). For example, in 2019 the Territory recorded the highest mean maximum temperature on record at the time (1.9°C above average). Also, between December 2019 and January 2020, the mean maximum temperature was 4.0°C above average. In fact, more than 85% of recorded temperature in the NT in the first four months of 2020 were above average.

The annual mean temperature was 0.58°C above average for the Territory in 2021. Some parts of the Territory recorded day time or night time temperatures that were in the highest 10% of long term records. December 2021, in particular, saw slightly warmer than usual mean minimum temperatures. The mean temperature for December was 1.15°C above average and the seventh warmest on record.

### 5.1. Climate Projections

Climate projections<sup>1</sup> indicate that temperatures in the NT are expected to rise and extreme heat events are likely to become more frequent in the next 10–15 years. In the years 1981–2010, Darwin, Katherine, and Alice Springs had a significant number of days with temperatures exceeding 35°C. Specifically, Darwin experienced these hot days 13% of the year, Katherine experienced them 43% of the year, and Alice Springs experienced them 25% of the year. Extremely hot days are ahead as Darwin is projected to have 35°C temperatures for around half of the year, totalling 176 days. Alice Springs is expected to have 135 days, or 40% of the year, with temperatures reaching 35°C. In comparison, Katherine is projected to have 240 days, or 66% of the year, with temperatures reaching 35°C.

### 5.2. Risk

The NT Natural Hazard Risk Management framework has identified seven natural hazards of concern and has conducted a preliminary risk assessment using the framework to identify which hazards have the potential to cause the most harm. The Territory-wide risk assessment is split into two regions: Northern and Southern. Organisations are encouraged to use the ratings to help assess, manage, and prioritise risk management activities. The assessment of heatwaves indicates an ALMOST CERTAIN likelihood and MAJOR consequence, resulting in an EXTREME risk rating.

#### 5.2.1. Locality Heatwave Risk Ratings

NT Health recommends that each locality that has identified heatwave as High or Extreme risk, using the NT Natural Hazard Risk Management Framework, develop specific emergency response procedures to consider and coordinate the methods for mitigating the impact to the local community.

### 5.3. People Vulnerable to Heatwaves

The factors that determine a person's vulnerability to heatwaves are multifaceted. These may include age, pre-existing physical and mental health conditions, and occupation and socio-economic status. Heatwaves may be amplified by the nature of the urban environment such as housing, roads, and concrete pavements.

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<sup>1</sup> [Climate Change in the Northern Territory: State of the Science and Climate Change Impacts](#)

Heat health risks are more pronounced in the young and elderly, those pregnant or breast-feeding, those with underlying chronic health conditions, those taking medications which affect the way the body reacts to heat (e.g., for high blood pressure, depression, insomnia), sustained strenuous activity and those most directly exposed such as the homeless, people living in low grade housing, and those working in the outdoors or excessively hot workplaces. People who belong to more than one vulnerability category have increased risk of heat illness.

Extreme heatwaves can have health risks for every Territorian who does not take precautions to keep cool, not just vulnerable people.

## 5.4. Impacts of Heatwave on Health

Over exposure to heat can result in heat stress leading to a range of illnesses such as heat rashes, heat cramps, heat exhaustion, or heat stroke.

While data on heat related deaths and hospitalisations are limited in the NT, available evidence shows that exposure to extreme heat was the leading cause of weather related injury hospitalisation in the NT from 2019–20 to 2021–22. There were 73 heat related injury hospitalisations representing 76.8% of all weather related injury hospitalisations. Research also shows that the NT recorded 36 heat related deaths from 2003 to 2018. These deaths were attributed by the coroner to “heat-illness only”, “heat stroke,” “heat exertion,” “exertion,” “exposure,” “environmental exposure,” “hyperthermia,” “dehydration,” and “heat-related death”. Most deaths occurred in October and January.

The defining characteristic in most of the deaths is that there were comorbidities and the persons were often younger. The heat-related deaths were often of active persons who were involved in some degree of physical exertion while being exposed to the hot and humid environmental conditions.

The most common heat illnesses include:

- Heat rash - an itchy and painful skin rash caused by blockages to the sweat ducts and an increase in pressure of the sweat ducts.
- Dehydration - mild to moderate dehydration makes the heart work faster and leads to reduced fluid available for sweating. Symptoms of dehydration may include dizziness, tiredness, irritability, thirst and fainting.
- Heat cramps - painful muscle cramps and spasms, usually in the muscles of the legs and the abdomen. An affected person may experience heavy sweating.
- Heat exhaustion – associated with an elevated core body temperature above 38°C and a reduced amount of fluid in the body due to excessive sweating without adequate fluid replacement. This can quickly progress to heat stroke if not properly treated promptly.
- Heat stroke – a core body temperature above 40.5°C with confusion and impaired consciousness. It can be fatal if treatment is delayed. Heat stroke is a severe medical emergency.

Extreme heat events may lead to:

- Worsening of chronic conditions such as cardiovascular disease, impaired renal function and respiratory disease.
- Mental illness - aggravates pre-existing mental health conditions, negatively affects mood and wellbeing, and increases levels of violence and suicide rates.
- Disproportionate impacts on Aboriginal and Torres Strait Islander communities.

The indirect impacts of heatwaves could include occupational injury, impacts on essential services (power, water, health services and supply chains), infectious disease transmission (food, water and vector-borne illnesses), and negative impacts on productivity.

### 5.4.1. Lag effects

Heatwaves significantly affect health and the demand for health services for several days following their occurrence, referred to as lag effects. The effects of intense heatwaves are typically recorded on the day of the event; however, they can also be observed for a duration of between 5 to 10 days following the occurrence. Numerous studies indicate that there is a heightened risk of mortality and morbidity observed from day 1 to day 3 following a heatwave day. Studies have further indicated a rise in emergency ambulance calls for a duration of up to 10 days after the occurrence of a heatwave. The implications of heatwave exposure extend beyond the immediate day, potentially influencing conditions on subsequent non-heatwave days following the event.

## 5.5. Bureau of Meteorology Heatwave Service

The BoM is a key stakeholder in preparing and responding to heatwaves in the NT. BoM issues heatwave forecasts, and provides a Heatwave Decision Support product, which provides district severity summary forecast and town excess heat factor forecast in the Territory. NT Health uses this Heatwave Decision Support product to determine the need for heat health messaging.

The Excess Heat Factor is a measure of heatwave intensity that considers the comparison between the long-term and short-term climate records for the warning area. The projected maximum and minimum temperatures for the next three (3) days are compared with the actual temperatures over the previous 30 days and long-term climate record to determine what is considered hot at that location.

When a location is forecast to experience severe and extreme temperatures, it suggests that the hot weather conditions may pose challenges for the body's ability to adapt and recover from the heat in that area.

BoM holds weekly situational awareness briefings for emergency management agencies and the functional groups of the NTEMA. NT Health attends these situational awareness briefings. The briefings are useful to NT Health's heatwave HMA role as they:

- Provide ongoing awareness of current and upcoming weather risks
- Enhance planning capabilities
- Improve overall understanding of Territory weather and climate

### 5.5.1. Heatwave Severity Levels

The BoM categorises heatwaves into three severity levels, determined by the excess heat factor (EHF).

These are;

- Low-Intensity Heatwaves (with EHF of 0 to 0.9) - more frequent in the Territory between October and March. Most people can cope during these heatwaves.
- Severe Heatwaves (with EHF of 1 to 2.9). These are likely to be more challenging for vulnerable people such as older people, particularly those with medical conditions.
- Extreme Heatwave (with EHF of 3 and above). Extreme heatwaves are rare and can be a problem for everyone—even for people who are healthy. People who work or exercise outdoors are at greater risk.

## 5.6. NT Heat Health Warning Levels


NT Health has adopted the Australian Warning System (AWS) for heat health warnings. This system includes nationally identified warning levels, icons, and action statements.

The AWS provides point-in-time information about a hazard that is affecting or expected to impact communities. It describes the impact, expected consequences for communities, and includes advice on what people should do. The system uses a nested model of three levels. Each warning level is combined with a set of action statements to give the community clearer advice about what to do. The heat health warnings levels are coloured coded.

Below are the heat health warning levels NT Health will utilise for public messaging about heatwaves.


### 5.6.1. Advice

The ‘Advice’ warning level (with yellow symbology as shown in figure 1) provides advice to the community about a developing severe or extreme heat event.

 <p>Figure 1: ‘Advice’ Warning Level Symbol</p>	<p>For the advice level warning, there is no immediate danger. NT Health will issue this warning as an early advice that a severe or extreme heatwave is expected to occur later in the week. The action statement may include:</p> <ul style="list-style-type: none"> <li>• Plan ahead</li> <li>• Stay informed through radio, TV, Department of Health press release, Secure NT or BoM weather alerts</li> <li>• Monitor conditions</li> </ul>
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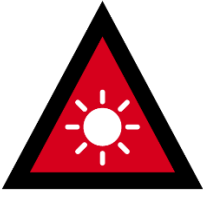
### 5.6.2. Watch and Act

The ‘Watch and Act’ warning level (with orange symbology as shown in figure 2) is an indication that a severe heatwave is imminent or happening now. NT Health will issue a “Watch and Act” warning to instruct the community to start taking action in response to a severe heat event. The action statement may include:

 <p>Figure 2: ‘Watch and Act’ Warning Level Symbol</p>	<ul style="list-style-type: none"> <li>• Conditions are changing and you need to start taking action now to protect yourself and your loved ones. Plan ahead, don’t over-expose yourself to the high temperature, keep cool and monitor conditions.</li> </ul>
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### 5.6.3. Emergency Warning

This is the highest warning level (red symbology as shown in figure 3). It is an indication that an extreme heatwave is imminent or happening now. NT Health will issue an “Emergency Warning” to advise the community to act now to protect lives. The action statement may include:

 <p>Figure 3: 'Emergency Warning' level Symbol</p>	<ul style="list-style-type: none"> <li>You may be in danger and need to take action immediately. Protect yourself and your family from extreme heat, don't overexert yourself in the heat, keep cool, and monitor conditions.</li> </ul>
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## 5.7. Relationship between Heatwave Severity Levels and Heat Health Warning Levels

The heatwave severity levels, and NT Health heatwave warning levels (based on the AWS) are complimentary. The heatwave severity levels are an important part of the triggers for activation of the heatwave plan. The heatwave severity levels are also taken into consideration in decisions about the level of warnings to provide to the community. The following table shows how the heatwave severity levels, and NT Health heatwave warning system work together.

Table 1: NT Health Heatwave Warning System

Heatwave Severity	Trigger EHF	Lead Time	Heat Health Warning Level	Activity
Severe Heatwave or Extreme Heatwave	1 to ≥3	Later in the week (< 3 days)	Advice	Consider issuing heat health advice alert
Severe Heatwave	1 to <3	Imminent or Occurring (<1 day)	Watch and Act	Consider issuing heat health watch and act alert
Extreme Heatwave	≥ 3	Imminent or Occurring (<1 day)	Emergency Warning	Consider issuing heat health emergency warning alert

## 5.8. Australia's Total Warning System

NT Health has adopted the Australian Total Warning System (TWS)<sup>2</sup> for heatwave warnings. The TWS describes the lifecycle of action before, during, and after a disaster event. For heatwaves, the TWS will involve understanding the nature of the extreme heat, communicating the information to those likely to be impacted by it, and facilitating protective action and timely response. Figure 4 depicts the important components of the TWS.

NT's heatwave response system will align with the TWS and will include monitoring of heatwave situation and predictions by BoM, interpretation of detailed town excess heat factor forecast by NT Health, message construction by NT Health, and Communication by NT Health to influence community response. The organisational readiness and building community resilience aspects of the TWS correspond to the prevention and preparedness components of the HHP. Continuous review and improvement components of the TWS also correspond to the lessons management aspects of the HHP.

<sup>2</sup> [AIDR \(2021\). Public Information and Warnings Handbook \(Page 5\)](#)

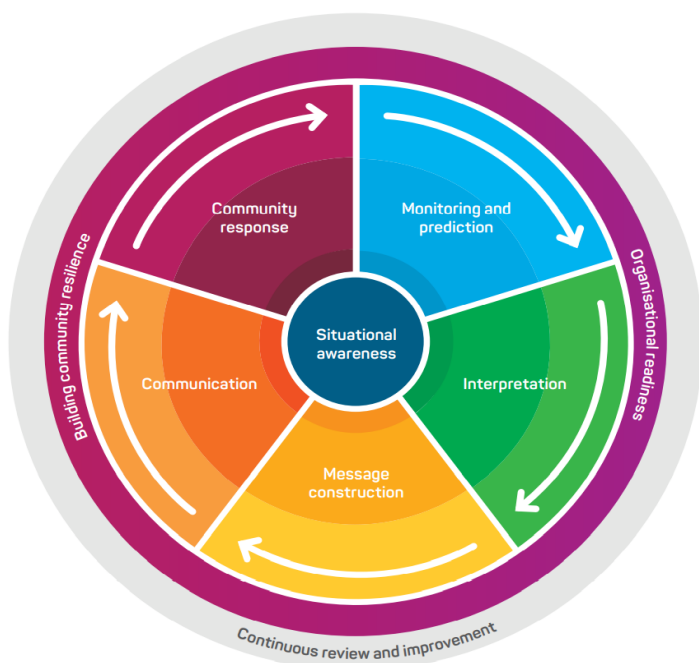


Figure 4: Australia's Total Warning System

## 6. Governance

### 6.1. Command and Control

The IC shall have the overall responsibility for the management of all activities and personnel deployed to respond to the heatwave event. As part of their role, the IC will need to establish an Incident Management Team (IMT) to coordinate the response to an extreme heat event effectively.

The incident management structure will be consistent with the TEP and will be based on the Australasian Inter-Service Incident Management System (AIIMS). The IC and IMT will comply with the AIIMS framework in terms of their functions and responsibilities. The IC may request the assistance of NTG agencies and functional groups to support the response, contingent upon the severity and complexity of the incident.

The number of functions and personnel required for a response may vary depending on the complexity, scale, or duration of the incident. For a level 1 incident, only the IC, a planning officer and a public information officer may be required. The planning officer shall be an appropriately trained staff from the Environmental Health Strategy Unit. The public information functions will be handled by the NT Health Strategic Media, Marketing, and Communications team. It is not expected that a level 1 incident will require an incident control centre to be established.

For a Level 2 or 3 incident – the IC may establish a dedicated incident control centre at a suitable location (for example Manunda Place, 38 Cavanagh Street Darwin City or the identified TEOC at Peter McAulay Centre) to meet the needs of the IMT and act as the central location from which information is received, collated, analysed and disseminated.

The IMT may include the following roles:

- IC
- Deputy IC (if appointed)
- Planning Officer
- Intelligence Officer (if Level 3 incident)

- Public Information Officer - allocated from NT Health Media and Communication Branch in the first instance
- Operations Officer
- Investigations Officer (if Level 3 incident)
- Logistics Officer
- Finance (if Level 3 incident)
- Activated Functional Group liaison officers as required

### 6.1.1. Activation of Local Emergency Committees during response

The activation of the Local Emergency Committee (LEC) will be under the management of the IC (in consultation with NT Police Regional Controller whose role is to oversee response arrangements in their relevant region).

The Local Controller (NT Police) will continue to manage the local response as per local emergency plans. They will be supported by the Health Centre Manager or NT Health representative as the HMA and under the direction of an NT Health IC.

## 7. Prevention (mitigation)

While heatwaves cannot be prevented, government agencies and business/industry can take mitigation action to prevent the health impacts. Emergency mitigation<sup>3</sup> refers to activities and measures aimed at reducing exposure and vulnerability to hazards, to reduce or eliminate risk.

These include:

- Building community awareness and resilience to heatwaves through public education.
- Safeguarding health of outdoor workers such as suspending or postponing certain work until the temperature decreases.
- Residential service agencies, particularly those catering to vulnerable individuals, must prioritise the implementation of measures to safeguard the health of their residents.
- Increasing infrastructure resilience. Agencies responsible for infrastructure and essential service (i.e. power and transport) are to safeguard assets proactively as extreme heat events can be exacerbated by supply failures and interruption to services.
- Providing enhanced warning systems. BoM, NT Health, health services, NTG agencies, and other stakeholders must ensure accurate prediction of heatwaves, timely warnings, targeted messages, and clear instructions to safeguard lives.
- Government agencies, business/industry, and communities taking proactive measures to adapt to and be ready for extreme heat events. This may include:
  - Local government and communities: planning and preparing for extreme heat events. For example, through external shading, tree planting, and designating heat refuges.
  - Business/industry, critical infrastructure providers, tourism operators: recognising the potential risk of extreme heat events on their operations and taking preparedness and risk reduction measures.

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<sup>3</sup> Territory Emergency Plan version 10 (Section 2.2)

- NTG agencies responsible for urban planning and design: taking consideration of extreme heat and incorporating heat management strategies including green building design and passive cooling approaches.
- NTG agencies responsible for vulnerable people such as the aged, homeless, childcare and school children: taking consideration of extreme heat and instituting measures to prepare for and respond to extreme heat events
- Modifying community behaviour:
  - NT Health building community resilience through education on extreme heat and recommending actions to prepare for, respond to and recover from extreme heat events.
  - Individuals taking responsibility for their own health and the health of those in their care. This includes planning and preparing for extreme heat events. For example, learning about the symptoms of heat illness and heat stress first aid measures; preparing personal heatwave plan; and checking on vulnerable family members.

## 8. Preparedness

### 8.1. Emergency preparedness

Preparedness is crucial to our ability to respond to an emergency. It refers to the arrangements that ensure efficient mobilisation and deployment of resources and services needed to address the impact of a heatwave event.

Heatwave preparedness activities are undertaken by:

- Agencies and organisations that have responsibilities as described in this plan.
- Communities, individuals, businesses, industries and community groups that are likely to be affected by the heatwave impacts.

NT Health will collaborate with various government agencies, functional groups, health services, and community organisations to establish measures that can be used to effectively anticipate and prevent or reduce the negative consequences of extreme heat events. Some measures to be implemented include.

- Establishing arrangements to ensure a well-coordinated response to widespread, extreme heat events.
- Identifying the adverse health impacts and necessary response actions to manage the impacts effectively.
- Engaging stakeholders before the start of the heatwave season.
- Conducting emergency management exercises for heatwave situations.
- Creating informative materials like posters and fact sheets (refer to appendices) to distribute to communities during extreme heat events.
- Providing immediate access to information on extreme heat risks and appropriate responses through broadcast media, NT Health alerts website, Secure NT, and social media.
- Ensuring comprehensive government awareness through a daily heatwave report during the season.
- Ensuring that relevant staff receive training in AIIMS.

It is also recommended that private organisations and government agencies also develop strategies and operational plans to prepare for extreme heat events effectively.

## 8.2. Monitoring and Prediction of Heatwave Conditions

Monitoring and prediction of heatwave conditions is a key part of preparedness and facilitate situational awareness. BoM is responsible for monitoring and predicting the likelihood of heatwaves occurring in all regions of the Territory. This responsibility is part of their responsibilities under the “Intergovernmental Agreement on the Provision of Bureau of Meteorology Hazard Services to the States and Territories”, which was signed between the Commonwealth of Australia and the States and Territories.

When BoM’s weather monitoring and predictions show the likelihood of a heatwave occurring in the NT, the heatwave forecast is forwarded to NT Health for further action. NT Health will then utilise BoM’s Heatwave Decision Support product to closely analyse district and locality-specific heatwave forecasts and take appropriate action.

## 8.3. Local Emergency Committees preparedness activities

Local Emergency Committees (LECs) in partnership with the Northern Territory Emergency Service (NTES) are responsible for ensuring that local emergency plans have identified heatwaves as a hazard and localised planning has been undertaken and documented. The following are activities the Local Controller and LEC members should be considering:

- Establishing local heatwave response arrangements.
- Making arrangement for localised public messaging on heatwaves. Engaging community leaders and key business owners
- Identifying emergency shelter arrangements (heat refuges)<sup>4</sup>: as a minimum requirement, identify potential buildings with air conditioning to provide a place for individuals to seek respite from the heat. The heat refuge is open to all members of the community, particularly those who are considered high risk. The services offered include access to cool water, and chairs. However, no catering or refreshments are provided. These are not intended to be overnight accommodation venues.

## 9. Response

During periods of extreme heat, it is crucial to collaborate with relevant agencies and organisations responsible for areas affected by extreme heat to respond effectively and mitigate the consequences. This includes collaborating with them to disseminate accurate information to the public effectively.

### 9.1. BoM Notification

BoM notifies NT Health of forecasted heatwave conditions through email to the Environmental Health Strategy Unit. On notification from BoM of expected heatwave conditions, Environmental Health Strategy will acquire information on Town EHF detailed forecast from BoM’s Heatwave Decision Support product to help understand the severity of the heatwave at different locations.

### 9.2. Interpretation and Further Action

Environmental Health Strategy will interpret the Town EHF detailed forecast using the nationally agreed EHF severity index. If it is determined that the forecasted heatwave meets the triggers for activation of the heatwave plan, a report is compiled to the Executive Director of Health Protection listing all the localities that are expected to experience severe or extreme heatwave over the forecast period. Environmental

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<sup>4</sup> See appendix D for more detailed information of Emergency Shelter – Heat Refuge arrangements

Health Strategy, on directive of the Executive Director of Health Protection, also prepares another report to the Communications Team listing all localities that are expected to be impacted by the forecast heatwaves, the duration of impact and the severity, and request for public messaging about the event.

### 9.3. Levels of Response

The severity of a severe or extreme heatwave event will determine the magnitude of response required to manage the situation effectively. The below table describes the levels of response and is based on the AIIMS incident classification.

Table 2: Levels of Heatwave Response

Level	Description
Level 1	<p>The heatwave is anticipated to be severe or extreme, and the triggers for HHP activation are satisfied. The heatwave lasts for a period of 3 days. Health services and hospitals may experience an increase in activity that corresponds with the incident. Response is provided by NT Health. Public messaging (heat health alerts) may employ either Watch and Act or Emergency Warning for the day(s) during which the heatwave is occurring.</p> <p>NT Health resources will be used for the response. NT Health regional leads may be activated.</p> <p>An IMT may be established to support the IC- this may only include the public information and shared operations/planning function.</p> <p>The focus for a level 1 incident will be public messaging and communications with general public especially high risk groups and communities.</p> <p>LECs may be requested to provide information and situational awareness, but are not activated.</p>
Level 2	<p>An extreme heatwave is forecast. The triggers for activation are met. The event is widespread. The extreme heatwave continues for approximately 3 - 6 days. The extreme temperatures are resulting in compounding impacts on essential services and infrastructure, and there are anticipated impacts on human health. There is a rise in hospital and health service activity.</p> <p>NT Health will appoint an IC, who will oversee the response. NT Health will provide public messaging through heat health alerts. Medical Group and Public Health Group will be activated. Emergency medical retrieval may be required.</p> <p>LECS will lead the local response in accordance with their local emergency plans. LECs will provide information and situational awareness into the Health EOC. Emergency sheltering arrangements (heat refuges) may be activated.</p> <p>A scalable and adaptable IMT will be established. Authority to commit, incur, or approve expenditure in relation to the incident control remains with NT Health.</p> <p>NT Health may request for support from other NTG agencies. Cost incurred by those agencies to provide the support will be borne by NT Health provided they obtain prior approval to spend from the IC.</p> <p>Recovery arrangements will align with the TEP.</p>
Level 3	<p>An extreme heatwave is forecast, covering a highly populated region. The extreme heatwave is protracted, exceeding 6 days. Multiple days with significantly increased night-time temperatures are occurring. Public infrastructure is affected. Power supply outages may occur, compounding impacts of the heatwave and resulting in the public unable to seek respite from the heat. Abnormally high presentations at hospitals. There</p>

	<p>are increased call outs for medical retrieval services. Businesses are taking significant actions to protect the welfare of their workers. There are a significant number of impacts including bushfires due to the extreme temperatures. NT Health will provide public messaging and issue Emergency Warnings for extreme heat.</p> <p>An IMT would be established to manage the response. A whole-of-NTG response will be required to manage the widespread impacts. The complexity of the incident may require establishment of significant resources for effective management.</p> <p>Functional groups will be activated. This will require the endorsement of Territory Emergency Management Council (TEMC) to enact the NTEMA.</p> <p>LECs will lead the local response in accordance with their local emergency plans. LECs will provide information and situational awareness into the Health EOC. Emergency sheltering arrangements (heat refuges) may be required.</p> <p>NT Health may consider transfer of Incident control responsibility to another agency, if response is beyond their capability. NT Health will maintain HMA responsibility in this case.</p> <p>Recovery arrangements will align with the TEP.</p> <p>Financial delegations will align with NTEMA.</p>
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The IC is responsible for determining the level of response to a heatwave incident, categorising it as level 1, 2, or 3.

## 9.4. Response activities

The following is not a comprehensive list of response activities, but the initial ones undertaken.

- Report to the Executive Director of Health Protection on expected heatwave conditions
- Report to the NT Health Communications Team on expected heatwave conditions
- Brief to CHO
- Brief to CE
  - Minister and TEMC briefings as required
- Appointment of IC
- Establishment of an appropriately sized IMT in response to the projected scenario
- Determine public messaging
- Activation of the TEP arrangements determined by the severity of the event

### 9.4.1. Communication

There are two channels of communication associated with the activation of the HHP: internal communications to facilitate response arrangements and public messaging.

#### 9.4.1.1. Notifications

The IC will notify the following key stakeholders to inform them of the imminent or occurring heatwave. This includes, but is not restricted to:

#### Internal to the NT Health using email:

- the Office of the CEO
- the CHO
- Regional Executive Director in the affected region
- the Office of Emergency Management

- Regional Emergency Management Coordinator in the affected region
- the Medical Group Lead
- NT Health Strategic Media, Marketing and Communications

#### External to the NT Health using email:

Health Protection Branch will maintain a list of key stakeholders that will be notified of a Heat Health Warning. This includes but not limited to:

- Territory Emergency Management Council (TEMC)
- Territory Emergency Controller
- Regional Controller/s
- Functional Group Leaders
- Department of the Chief Minister and Cabinet (CM&C)
- Department of Treasury and Finance (DTF)
- Attorney-General's Department (AGD)
- Department of Corporate and Digital Development (DCDD)
- NT Police (NTPOL)
- NT Emergency Service (NTES)
- Department of Education and Training (DET)
- Department of Children and Families (DCF)
- Department of Corrections (DoC)
- Department of Trade, Business and Asian Relations (DTBAR)
- Department of Logistics and Infrastructure (DLI)
- Department of Lands, Planning and Environment (DLPE)
- Department of Agriculture and Fisheries (DAF)
- Department of Housing, Local Government and Community Development (DHLGCD)
- Department of Tourism and Hospitality (DTH)
- Department of People, Sport and Culture (DPSC)
- NT Worksafe
- St John NT
- Local Controller in the impacted location
- Health services in the impacted location
- Affected local community through community alerts by NT Health Communications Team
- Local Councils

#### Territory Emergency Management Council

The declaration of a Level 2 or 3 incident will activate a notification process to TEMC from NT Health TEMC member (Chief Executive) coordinated by the Incident Controller or Executive Director Health Protection Branch.

##### 9.4.1.2. WebEOC

If a multi-agency response is required, the IC will request the creation of a WebEOC incident board. This board will be used for the coordination of multi-agency response to, and recovery from, the event. WebEOC will be used to provide real-time information relevant to the event, including but not limited to:

- A statement of intent
- Common operating picture and situational awareness
- Incident action plans
- Situation reports

## 9.4.2. Community Notifications

### 9.4.2.1. Message Construction

When a predicted heatwave is deemed to have significant health impacts, NT Health will develop suitable heat health messages to communicate effectively with the public, government agencies, health services, and community organisations.

The messages will provide precise and focused information regarding the heatwave, its anticipated consequences, vulnerable population, recommended actions, and first aid guidance for those impacted.

### 9.4.2.2. Public Messaging (Health Alerts)

Ensuring the dissemination of accurate information to the public, government agencies, health services, businesses/industry, and community organisations is an essential component of an effective heatwave response.

Heat Health alerts will be disseminated via various channels, including media outlets, the NT Health alerts website and social media accounts, Secure NT, variable message signs and community groups on social media. The alerts will be customised for specific communities or locations and will utilise persuasive language appropriate for the given situation. Communication will be ongoing during the event and will provide guidance as the event diminishes or concludes. The community alerts will contain the following information:

- **Advice** will be issued as an early advice that a severe or extreme heatwave is expected to occur later in the week.
- **Watch and Act** alert will be issued if a severe heatwave is imminent or has commenced.
- **Emergency Warning** alert will be issued if an extreme heatwave is imminent or has commenced.

Heat health alerts will be distributed to NTG agencies, functional groups, health services, and community organisations. The expectation is for the agencies to forward the alerts promptly to their partners and contractors.

Community alerts will be issued prior to and during a heatwave event. When a severe and extreme heatwave is forecast, daily heat health warning reports will also be prepared and distributed to NTG government agencies, functional groups, and health services.

### 9.4.2.3. SecureNT

The NT Health Communications Team will send an email to Secure NT whenever heat health alerts are issued. Secure NT will share these alerts on their website and social media platforms to offer more ways for the community to stay informed about heatwave events.

### 9.4.2.4. Emergency Alert system

NT Health may engage with the NT Police, and NT Fire and Emergency Services for the use of the Emergency Alert system (the national telephony-based emergency warning system) for community notifications. The use of the Emergency Alert System will depend on the severity of the heatwave incident. The system may be used for Level 2 or 3 incidents.

### 9.4.3. Community response

The objective of heat health messaging is to prompt the community to take necessary measures to safeguard their wellbeing and the wellbeing of those under their care. Heat health alerts will inform the community about necessary measures to safeguard their wellbeing during the heatwave event. This plan contains a comprehensive list of actions (see appendices) that can be taken by the general community, health services, carers, and other vulnerable groups to safeguard lives during heatwave events. Please refer to the appendices for further details.

## 9.5. Escalation Protocol

NT Health will request for activation of the NTEMA when the heatwave event is of such severity, and complexity that additional resources and functional group support is required for effective response. This will be linked to the level of response, normally at level 2 or 3. On activation of the NTEMA, the relevant TEP Functional Groups will be activated by the IC to support the IMT.

Activation of the NTEMA will be facilitated by the NT Health CE. The CE will make a request to TEMC as per the TEMC Terms of Reference.

## 9.6. Withdrawal from response

This plan will remain active whilst the severe or extreme heatwave conditions that caused the activation remain over the affected area.

Consideration for withdrawal from response will be made after receiving advice from BoM that the heatwave conditions that caused the activation of this plan have ceased, and the IC determines that coordination of the emergency response operations in relation to the extreme heat conditions is no longer required. The IC will:

- Work with the Local Controllers and LECs to conclude local activities in accordance with their respective local plans and arrangements.
- Work with the Recovery Coordinator to plan for recovery
- Advise decision to withdraw from response and cessation of the response operations to participating agencies
- Develop transition to recovery and recovery checklist. Transition to recovery arrangements will align with the TEP
- Arrange for appropriate multi-agency debrief(s) to document issues for the review of response operations and the plan.

### 9.6.1. Ongoing care after heatwaves

Health services will continue to offer guidance on the management of common health conditions caused by the heatwave, such as heat stroke and heat exhaustion after the event has ended.

Health services will also continue to monitor the health of vulnerable patients as heat health impacts may extend beyond the duration of the heatwave incident. Other considerations include conducting welfare assessments of the patients and staff to ensure a successful recovery after the event.

## 10. Recovery

Depending on the extent of the response, a recovery plan may be developed, and a Recovery Coordinator may be appointed. The timing of transition from response to recovery will be determined by the NT

Health, in consultation with the appointed Recovery Coordinator, once the specified conditions have been fulfilled:

- BoM's forecasts indicate that the heatwave conditions have subsided.
- Risk to the community has reduced.

## 10.1. Recovery Planning and Transition to Recovery

Recovery from a heatwave event will be scaled according to the complexity and impact of an event. Recovery arrangements will be established following a level 2 or 3 response. Recovery will be underpinned by the recovery principles, objectives and domains outlined in the TEP. The recovery governance arrangements will also align with the TEP.

### 10.1.1. Extreme Heat Impact Statement

It is expected that NT Health will complete an impact statement for a level 2 or 3 event. The impact statement will be completed in conjunction with affected local councils, health services, and the Recovery Coordinator (CM&C). This impact statement will be presented to the CE of NT Health, and the TEMC. The completion of an impact statement is an important activity for recovery planning. The impact statement will facilitate understanding of how functional groups and agencies can contribute to the recovery process.

### 10.1.2. Transition to Recovery Checklist

The transition to recovery checklist will be based on the checklist provided in the TEP.

## 11. Lessons Management

### 11.1. Debrief

Following a prolonged period of heatwave and at the conclusion of the heatwave season, NT Health will assess the responses to these events and compile valuable insights to enhance future preparedness.

The debrief<sup>5</sup> processes embeds continuous improvement into the delivery of emergency management activities. It may also be known as After Action Reviews.

It is a discussion, focused on performance standards, of an event that enables those involved to discover what happened, why it happened, and how to sustain strengths and improve on weaknesses. An after action review is a tool incident command personnel and units can use to get maximum benefit from every incident. It provides a review of the incident upon its completion to identify and discuss effective and non-effective performance and lessons learned and how to apply them in the future.<sup>6</sup>

#### 11.1.1. Hot Debrief

Involves describing what was intended to happen, what was actually accomplished, what improvements, or corrective actions need to be made.

A hot debrief is conducted immediately after response operations are complete or at the end of shift. It allows for rapid capture of real-time feedback aimed at addressing pressing or immediate concerns. The NT IC will facilitate and document the meeting.

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<sup>5</sup> Territory Emergency Plan

<sup>6</sup> AIDR Knowledge Hub Glossary

### 11.1.2. Formal Debrief

Formal debrief, which may also be known as operational debriefing or a cold debrief, is conducted to examine the overall response to the incident. These are usually more structured than a hot debrief and may extend beyond the issues that can be resolved within the incident. The IC will generally be a participant in the process rather than leading it.

The debrief should be held within four weeks of the incident's conclusion and should include key personnel involved in the incident response.

### 11.1.3. Psychological Debrief

It is well recognised that undertaking additional working hours or conducting irregular physical work can affect the wellbeing of responders. NT Health is committed to limiting the affect this can have on its responders and promotes safe work practices when managing emergency events. Where additional Employee Assistance Program resources are required, the IC will recommend that agencies utilise the contracted agency psychological support services.

## 11.2. Lessons Learnt process

Debriefs will identify the learnings from an incident or exercise. The lessons management process will include the collection, analysis, and dissemination of experiences from responding to an incident. The lessons should be recorded in the centralised lessons management documentation. These should be actioned within an agreed timeframe.

## Appendices

## 12. Appendix A – Roles and responsibilities

The level of response will determine which response activities are enacted or required.

This plan operates under the assumption that managing heatwaves is a shared responsibility, and NTG agencies will need to assist NT Health to minimise the risk and impact of heatwaves on the community.

During the recovery phase Functional Groups, NTG agencies and stakeholder are expected to participate in recovery planning and activities. The level of support required will depend on the heatwave impacts and the affected communities e.g. impact to any supply chains and subsequent food security issues.

Recovery arrangements will align with the TEP.

### 12.1. Department of Health / NT Health

As the HMA and CA for heatwaves, NT Health will:

- Prepare and coordinate plans and capabilities to respond to heatwaves.
- Develop and maintain NT heatwave planning and communications arrangements.
- Ensure that preparations to respond to heatwaves are effective.
- Maintain situational awareness of heatwave conditions via the BoM Heatwave Service.
- Activate the NT Heatwave Hazard Plan following severe or extreme heatwave forecast.
- Retain responsibility for heatwave response, where capacity and capability allow.
- Develop public messaging, which aligns with BoM heatwave decision product, Australian Total Warning System and the Australian Warning System.

- Share information with health services, government agencies, communities, and community organizations in line with our HMA responsibilities.
- Establish an incident control centre and oversee the response to a heatwave incident, if necessary.
- Create and oversee the operations of a call centre, if deemed appropriate.
- Retain financial responsibilities for Level 1 and 2 incidents

Position	Responsibilities in preparedness	Responsibilities in response
Chief Executive	<p>Accountable officer for Heatwave risk</p> <p>Agency has approved contemporary emergency plans</p> <p>Support preparedness activities and relevant training and educational needs</p> <p>Member of TEMC</p>	<p>Notification to Minister – Territory Controller – TEMC</p> <p>Appoint an Incident Controller</p> <p>Chair for strategic and consequent management group</p> <p>Ensures sufficient resources are allocated to enable effective discharge of NT Health’s HMA and CA responsibilities including reallocation of staff to support response arrangements</p> <p>As needed reports and escalation proposals to TEMC</p>
Chief Health Officer	<p>Ensures the development of contemporary plans and arrangements</p> <p>Holds the EM portfolio</p> <p>Supports preparedness activities and relevant training and educational needs</p> <p>Endorsement of NT Heatwave Plan</p>	<p>Advise on public health concerns</p> <p>Representative on any national or NT wide meetings</p> <p>Has the authority to take necessary actions, which may include giving oral or written directions, in order to protect public health.</p>
Executive Director Health Protection Branch	<p>Ensuring plans are developed, and training and exercise activities are undertaken</p> <p>EH members nominated to fulfil NT Health’s responsibilities as the HMA in Heatwaves – by consistently monitoring the heatwave situation during the season</p>	<p>Notifications to staff in area of responsibility</p> <p>Release of staff to fulfil NT Health’s response obligation including provision of subject matter expert advice and information</p> <p>Briefs to CHO</p> <p>Request to Communications Team for public messaging</p> <p>May be appointed as the IC</p>
Regional Executive Directors	<p>Development of regional plans, procedures, and provision of medical services as per BAU and medical group responsibilities. This includes development of facility specific extreme heat action plans.</p>	<p>Work with the IC, regional and local health services, Regional Emergency Coordinators and LECs (under the TEP) to oversee emergency operations in localities of their region.</p> <p>Disseminate heat health alerts to health services in the affected communities</p>

Position	Responsibilities in preparedness	Responsibilities in response
	<p>Ensure health services under their authority are prepared for extreme heat response.</p> <p>Establish internal processes to identify, assess and monitor vulnerable patients during extreme heat periods.</p>	<p>Work with medical group members to ready resources including ambulances (including aeromedical retrieval) and hospital surge capacity (staffing, and resourcing) to provide medical services.</p> <p>When extreme heat conditions commence, services commence clinical review and support to those who may be medically impacted by heatwaves and should aid in targeted measures to protect the vulnerable patients from heat exposure.</p> <p>Be a point of contact between the IC and the regional area on the heat event by providing situational awareness.</p>
Director, Corporate Communications	<p>Work with Health protection to develop heat health communications plan and arrangements</p> <p>Develop public messaging resources</p> <p>Preparedness public messaging (e.g. PIC registration)</p>	<p>Delivery of timely, accurate, consistent and coordinated release of information including</p> <ul style="list-style-type: none"> <li>- Staff alerts</li> <li>- Stakeholder engagement alerts, bulletins</li> <li>- Talking points</li> <li>- Press/media releases</li> <li>- Call centre</li> </ul>
Incident Controller	<p>Not appointed</p> <p>Any identified possible IC should undertake relevant training where possible</p>	<ul style="list-style-type: none"> <li>- Given the authority by the CE to manage the incident aligned to AIIMS principles</li> <li>- Should be AIIMS Control an Incident Level 2 (or equivalent) trained OR supported by an qualified person</li> </ul>
Office of Emergency Management	<p>Maintaining NT Health emergency management arrangements including incident management guidelines</p> <p>Stakeholder engagement</p> <p>Support development of education, training and exercises</p>	<p>SME Emergency management advice and guidance</p> <p>Appointment to the IMT</p>
Legal Team	Public and Environmental Health Act	Development of any legal instruments
HLB members	<p>Business continuity planning</p> <p>Workforce planning</p> <p>Support preparedness activities</p>	<p>Business continuity plans activation</p> <p>Supports reallocation of staff to support response arrangements</p>
Directors, Managers	Business continuity and workforce planning	<p>Business continuity plans activation</p> <p>Release staff to fulfil NT Health's response obligation</p>

Position	Responsibilities in preparedness	Responsibilities in response
All staff	Attend training as determined by level of engagement Nominate for workforce re-allocation	Maintain situational awareness Relocation to areas of needs as directed

## 12.2. NTG Agencies

NTG agencies may be engaged during a level 1 or level 2 heatwave incident. Those agencies that do not lead a functional group will also be engaged during a level 3 incident.

NTG Agency	Responsibilities in preparedness	Responsibilities in response
<p>Department of Agriculture and Fisheries (DAF)</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Engage with agricultural and fisheries businesses and agencies to promote and enable services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice relating to needs of Territorians as relevant to the DAF activities and program areas.</p>
<p>Department of Children and Families</p> <p><i>Provides support services across child protection, domestic and family violence, and homelessness among others.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with funded providers and related stakeholders across Child Protection, Domestic, Family and Sexual Violence and Homelessness programs to promote and enable services and supports to Territorians relevant to the heatwave incident.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS</p>	<p>Engage with funded providers and related stakeholders to promote and enable services and supports to Territorians as relevant to the heatwave incident.</p> <p>Enable self-efficacy and responsible management by providers, contractors, agencies, and service users by promoting subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice relating to needs of Territorians as relevant to the DCF activities and program areas.</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
<p>Department of Corporate and Digital Development</p>	<p>planning, as part of normal agency operations.</p> <p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Engage with critical telecommunication and ICT businesses and agencies to promote and enable services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>Department of Education and Training</p> <p><i>The Department, is the regulatory authority for NT early education and childcare providers. In this capacity it is responsible for early education and childcare providers as well as NT public schools comply with emergency management and evacuation planning requirements.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with early childhood education and care providers and NT schools to promote and adjust services and supports to Territorians relevant to the heatwave incident.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Engage with education stakeholders and agencies to promote and adjust services to support response to heatwave incidents and safeguard health and wellbeing of children.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p> <p>Activate extreme heat response in public schools and provide advice and guidance to early childhood education and childcare providers and share information with non-government school peak bodies.</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
	<p>Share advice and guidance with private schools, early education and childcare providers on extreme heat preparedness.</p> <p>Consider installation of air conditioning in public school buildings or libraries</p>	
<p>Department Logistics and Infrastructure</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Engage with DLI businesses and agencies to promote and enable services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p> <p>Activate heat messaging using Variable Message Signs as required to advise road users of the prevailing extreme heatwave conditions and to advise them to take the necessary steps to protect their health and safety.</p> <p>Enable targeted bus advertising on extreme heat when necessary.</p>
<p>Department of the Chief Minister and Cabinet (DCM&amp;C)</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS</p>	<p>Engage with program areas to promote and enable services to support response to heatwave incidents including First Nations.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p> <p><b>Recovery specific for CM&amp;C</b></p> <p>Work in conjunction with NT Health to initiate and oversee heatwave recovery activities.</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
<p>Department of Trade, Business and Asian Relations (DTBAR)</p>	<p>planning, as part of normal agency operations.</p> <p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Engage with agency providers, industry and businesses to promote and enable services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>Department of Tourism and Hospitality</p> <p><i>Support heat health awareness of the tourism and hospitality sector</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Installation of signage in parks and hike trails regarding risks of extreme heat.</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents. For example, ensuring heat safety in NT parks including implementing measures like temporarily closing hiking trails and restricting access to remote areas within the parks during heatwaves.</p> <p>In partnership with Public Information develop coordinated and customised heat health messaging for park visitors</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>BoM</p>	<p>As per appendix B</p>	<p>As per appendix B</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
Local Councils	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Consider mitigation strategies including:</p> <ul style="list-style-type: none"> <li>- External shading, and tree planting.</li> <li>- Identifying and promoting places of refuge during heatwaves for cooling such as air-conditioned libraries, movie theatres, or shopping centres, swimming pools etc.</li> </ul> <p>Working in collaboration with LECs to identify of local shelter arrangements.</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents. For example:</p> <ul style="list-style-type: none"> <li>- Activate any council heatwave plans.</li> <li>- Promoting places of refuge during heatwaves for cooling such as air-conditioned libraries, movie theatres, or shopping centres, swimming pools etc.</li> <li>- Collaborating with Emergency Shelters in operating places of refuge; including establishing cooling centres in air-conditioned facilities including libraries</li> </ul> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas</p>
Office of the Commissioner of Public Employment (OCPE)	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents. For example:</p> <ul style="list-style-type: none"> <li>- Support the activation of any re-allocation of workforces strategies.</li> <li>- Consider emergency determinations for changes to workplace conditions.</li> </ul>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
	<p>development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>Northern Territory Fire and Emergency Services (NTFES)</p> <p><i>Facilitate emergency management planning, enhance public awareness regarding potential disasters, and establish a response capability for emergency events through the utilisation of dedicated volunteers.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Undertake comprehensive risk assessment at all levels to include heatwaves.</p> <p>Collaborate with NT Health to integrate heatwave considerations into emergency management plans at all levels.</p> <p>Incorporate comprehensive heatwaves information into their educational presentations to the community in order to adequately equip the community for the impacts of heatwaves.</p> <p>Collaborate with NT Health on heatwave exercises</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents.</p> <p>Support NT Health as HMA and CA during activations including appointment of personnel in a Level 2 and 3 IMTs</p> <p>Ongoing Executive Officer activities for activation of TEMC for heatwaves</p> <p>Accept and process any requests for Australian Government Support</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>NT Police</p>	<p>Participate in preparedness and planning activities related to</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
	<p>heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Assist in the management of heatwave incidents, particularly in cases where the incident's magnitude and complexity necessitate a comprehensive government response.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>Local Controllers and Local Emergency Committees (LECs)</p>	<p>Stakeholder engagement as required including heatwave risk and mitigation strategies for area of responsibility.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development heatwave response plans.</p> <p>Identification of suitable buildings and arrangements to provide heat refuge in local emergency plans.</p> <p>Undertake Local Natural Hazard Risk assessment for their community.</p> <p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with community to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS</p>	<p>Engage with LECs, stakeholders and the community to promote and enable services to support response to heatwave incidents including:</p> <ul style="list-style-type: none"> <li>- Activation of local plans and procedures to support NT Health.</li> <li>- Activation of Local Emergency Committees.</li> <li>- Local Controllers to work with NT Health to coordinate extreme heat response at the local level.</li> </ul> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
<p>NT Worksafe <i>NT Worksafe is a supporting organisation in the Public Health Group under the TEP.</i></p>	<p>planning, as part of normal agency operations.</p> <p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable relevant to the heatwave incident.</p> <p>Promotion and distribution of HMA and BoM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Provision of work health and safety guidance to industry, businesses and individuals working in hot conditions</p> <p>Support educational activities on heatwaves in public sessions especially in Work Health and Safety Week programming</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents. For example:</p> <ul style="list-style-type: none"> <li>- Provide updates on heat-related incidents to the NT Health in order to support heat health situational awareness.</li> <li>- Provide liaison officer to Level 2 or 3 IMT to be part of the EMT.</li> </ul> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>
<p>Power and Water Corporation</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into</p>	<p>Engage with agency staff, stakeholders and program areas to promote and enable services to support response to heatwave incidents.</p> <p>Promote subscribing to and/or accessing NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice as relevant to the agency activities, stakeholders and program areas.</p>

NTG Agency	Responsibilities in preparedness	Responsibilities in response
	Agency risk assessment and WHS planning, as part of normal agency operations.	

The following NTG agencies do not have dedicated activities but hold roles as supporting and participating organisations as described in the TEP. All agencies should engage with staff and stakeholders to consider WHS heat related mitigation strategies on workforce, clients and facilities

- Department of Housing, Local Government and Community Development
- Department of Lands, Planning and the Environment
- Department of Mining and Energy
- Department of People, Sport and Culture

### 12.3. Functional Groups roles and responsibilities

The below tables describe the roles and responsibilities of the stakeholders in Heatwaves at the preparedness and response phases.

Functional groups are triggered when the NT Emergency Management Arrangements are activated

Functional Group	Responsibilities in preparedness	Responsibilities in response
<p>Animal Welfare</p> <p><i>Extreme heat can have a detrimental impact on animals potentially leading to heat illness if proper protection measures are not taken.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).</p>	<p>Action role as per TEP arrangements</p> <p>Respond to Incident Controller tasking in relation to activities for animal welfare as extreme heat can have a detrimental impact on animals – including companion animals, pets, commercial animals and wildlife.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller</p> <p>Provide intelligence, feedback and advice relating to needs of Territorians as relevant to the FG’s activities.</p>
<p>Critical Goods and Services Group</p> <p><i>Extreme temperatures can have a detrimental impact on supply chains that provide the critical goods</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of critical good and services (including the supply chain capability) to the community.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG’s activities.</p>
<p>Digital and Telecommunications Group</p> <p><i>Extreme temperatures can be detrimental to ICT infrastructure.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to digital and telecommunications to the community.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG’s activities.</p>

Functional Group	Responsibilities in preparedness	Responsibilities in response
	<p>Prepare for the effects of a heatwave on telecommunications/ICT capability and environments, such as mobile and radio communications.</p>	
<p>Emergency Shelter <i>Air-conditioned heat refuges provide respite to people who do not have adequate cooling in their own homes</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent Consultation with NT Health to provide guidance to LECs and local councils on identifying and designating the most suitable local facilities to provide refuge from heatwaves.</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of emergency shelter to the community.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG's activities.</p>
<p>Engineering Group <i>Extreme temperatures can be detrimental to public infrastructure.</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).</p> <p>Prepare for the effects of a heatwave on infrastructure capability and environments.</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of engineering services including messaging to road users via variable message signs.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG's activities.</p>
<p>Industry Group <i>Extreme temperatures can have detrimental impacts on business,</i></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of support and intelligence to and from industry group stakeholders.</p>

Functional Group	Responsibilities in preparedness	Responsibilities in response
<i>industry and tourism operators</i>	mitigation strategies through FG service network. This may be coordinated through Animal Welfare FG for primary industry stakeholders.  Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).	Appoint a Liaison Officer, as required by the Incident Controller.  Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG's activities.
Medical Group	<p><b>The actions as described in the TEP will be conducted by the relevant NT Health RED</b></p> Subject to the size and duration of the Heatwave response, the MG will engage with stakeholders to maintain clinical and medical response to the heatwave event.	
Public Health Group	<p><b>The actions as described in the TEP will be conducted by the relevant PH section leader e.g. EH Director and CDC Director</b></p> Subject to the size and duration of the Heatwave response, the PHG will conduct response activities as the HMA.	
Public Information Group  <i>This function in the first instance will be coordinated by The NT Health's Strategic Media, Marketing, and Communications unit to oversee public health messaging and heat health alerts.</i>	Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.  Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.  Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).	Action role as per TEP arrangements  Respond to Incident Controller tasking in relation to activities relating to provision of public messaging by working in collaboration with NT Health to create and sharing public communications during the response and recovery stages of an extreme heat incident. Including: <ul style="list-style-type: none"> <li>- distribution of alerts and notifications.</li> <li>- translations into appropriate Aboriginal and ethnic languages.</li> <li>- ensuring that public messages are precise, timely, consistent, and coordinated across government.</li> </ul> PIG lead functions may be transferred to CM&C if recommended by NT Health Communications Team or when the NTEMA are activated.  Appoint a media and communications team members to the IMT, as required by the Incident Controller.  Provide intelligence, feedback and advice relating to needs of

Functional Group	Responsibilities in preparedness	Responsibilities in response
<p>Public Utilities</p> <p><b>Extreme heatwave events may result in significant increases to demand for utilities like power and water</b></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements)</p> <p>Prepare for the effects of a heatwave on infrastructure capability, supply and environments.</p>	<p>stakeholders/community as relevant to the FG's activities.</p> <p>Action role as per TEP arrangements</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of engineering services including messaging to road users via variable message signs.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG's activities.</p> <p>Take into consideration delaying planned power or water supply interruptions in the affected area during a protracted heatwave event in order to protect the people.</p>
<p>Survey, Rescue and Impact Assessment Group</p>	<p>Not expected to be activated.</p>	<p>Not expected to be activated.</p>
<p>Transport Group</p> <p><b>Transport support during a heatwave may become necessary, especially if refuge shelters are established</b></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and mitigation strategies through FG service network.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements).</p> <p>Prepare for the effects of a heatwave on transport services and infrastructure.</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking in relation to activities relating to provision of transport group.</p> <p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Provide intelligence, feedback and advice relating to needs of stakeholders/community as relevant to the FG's activities.</p>
<p>Welfare Group</p> <p><b>To coordinate the provision of (or access to) support services that assist to</b></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Promotion and distribution of HMA and BoM heatwave risk and</p>	<p>Action role as per TEP arrangements.</p> <p>Respond to Incident Controller tasking for the provision of, or access to support services that assist meet the immediate essential requirements of high-risk groups and individuals.</p>

Functional Group	Responsibilities in preparedness	Responsibilities in response
<p><b><i>meet the immediate essential needs.</i></b></p>	<p>mitigation strategies through Welfare Group service network.</p> <p>Action response activities as tasked through the Incident Controller.</p> <p>Promote and action as relevant heat related mitigation strategies for response and recovery activities (consistent with WHS requirements)</p>	<p>Appoint a Liaison Officer, as required by the Incident Controller.</p> <p>Enable self-efficacy and responsible management by providers, contractors, agencies, and service users by promoting subscribing to NT Health, Secure NT and BoM heat health alerts/warnings and related information.</p> <p>Provide intelligence, feedback and advice relating to needs of Territorians as relevant to the Welfare Group’s activities.</p>

### 12.4. Health Supporting/Participating Agencies

Supporting/Participating Agency	Responsibilities in preparedness	Responsibilities in response
<p>Local Health Services including</p> <p>Aboriginal Community Controlled Health Services (ACCHSs)</p> <p>General Practices (GPs)</p> <p>Health Centres (not managed by NTG)</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies.</p> <p>Engage with providers and related stakeholders to promote and enable services, and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of agency/organisational heatwave response plans.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into agency/organisational risk assessment and WHS planning, as part of normal agency operations.</p> <p>Identify clients at risk and implement personal safety plans to support clients during heatwaves.</p>	<p>Advise staff and clients of current warnings and advise.</p> <p>Participate in briefings and updates as required.</p> <p>Review clients list to identify as at risk patients.</p> <p>Ongoing monitoring of high risk patients.</p> <p>Deliver (or modification) of clinical and medical arrangements for people impacted by the heatwave.</p> <p>Enact any heatwave mitigation strategies (high risk patients provided rooms with air-conditioning).</p> <p>Adapt pharmacological treatments.</p> <p>Provide advice of any increase in presentations related to heat.</p>
<p>St John NT</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans.</p>	<p>Advise staff and clients of current warnings and advise.</p> <p>Participate in briefings and updates as required.</p> <p>Provide support to health facilities and community locations to reduce impact on health service demand.</p> <p>Appoint LO as requested to establish EOC.</p> <p>Activate any agency heatwave action plans.</p> <p>Advise of any emerging risks or issues to medical retrieval services.</p>

Supporting/Participating Agency	Responsibilities in preparedness	Responsibilities in response
	<p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Provide workload data to NT health to support management of heatwave lag.</p>
<p>Primary Health Network (PHN)</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Share heat health alerts/warnings received from NT Health with their contractors, partners and regional and local offices.</p> <p>Contribute to response in outreach locations</p> <p>Advise of any emerging risks or issues</p>
<p>Pharmacy Guild</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p>	<p>Share heat health alerts/warnings received from NT Health with their contractors, partners and regional and local offices.</p> <p>Advise of any emerging risks or issues</p>

Supporting/Participating Agency	Responsibilities in preparedness	Responsibilities in response
	<p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	
<p>Medical Retrieval services (Aeromedical)</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p>	<p>Share heat health alerts/warnings received from NT Health with their contractors, partners and regional and local offices.</p> <p>Appoint LO as requested to establish EOC</p> <p>Activate any agency heatwave action plans</p> <p>Advise of any emerging risks or issues related to medical retrieval services</p>

## 12.5. High Risk settings

Due to the high risk population the following agencies have been identified but their role is not in support of NT Health response but to support organisational activities and advice IMT of any areas of concern.

High Risk Setting	Responsibilities in preparedness	Responsibilities in response
<p>Aged Care Connector = Medical Group</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Identify clients at risk and implement personal safety plans to support clients during heatwaves.</p>	<p>Advise clients of current warnings and advise</p> <p>Increase monitoring of high risk patients</p> <p>Ensure cooling is available for all patients and particularly in rooms with high risk patients during the hottest hours of the day</p> <p>Advise of any emerging risks or issues</p>
<p>Department of Corrections</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Create awareness of staff on symptoms and first aid measures of heat illness.</p>	<p>Provide any situational awareness</p> <p>Engage stakeholders to identify and safety issues or concerns</p> <p>Implement measures to safeguard incarcerated individuals from heat-related illnesses</p> <p>Provision of cold water, ice, additional showers, and access to designated areas with air conditioning.</p> <p>Conduct wellness checks on inmates who may be susceptible to heat-related illnesses</p>
<p>Disability Sector</p> <p>Connector = Department People, Sport and Culture</p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable</p>	<p>Advise clients of current warnings and advise</p> <p>Increase monitoring of high risk patients</p> <p>Modify activities to ensure less time outdoors</p>

High Risk Setting	Responsibilities in preparedness	Responsibilities in response
	<p>services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Identify clients at risk and support implement personal safety plans to support clients during heatwaves.</p>	<p>Support any cooling strategies</p> <p>Provide situational awareness on any high risk impacts</p>
<p>Schools and Early Learning Sector</p> <p><b>Connector = Department of Education and Training</b></p>	<p>Participate in preparedness and planning activities related to heatwave risk and mitigation strategies with NT Health.</p> <p>Engage with providers and related stakeholders to promote and enable services and supports relevant to heatwave incidents.</p> <p>Promotion and distribution of HMA and BOM advice, templates and related tools to support development of Agency heatwave response plans</p> <p>Promote and action as relevant heat related mitigation strategies that integrate heat mitigation into Agency risk assessment and WHS planning, as part of normal agency operations.</p> <p>Enable staff to be able to recognise and treat heat related illness including displaying heat guidelines and charts in prominent locations in the school for reminders around hydration and symptoms</p> <p>Implementation of mitigations strategies e.g.</p> <ul style="list-style-type: none"> <li>- Consider having adequate shade on school grounds from man-made structures (tents, sails and umbrellas) and/or trees</li> <li>- Have water fountains located around the school premises</li> </ul>	<p>Modifying or postponing any planned vigorous activity</p> <p>Educate and encourage students and school staff to stay hydrated</p> <p>Rescheduling/moving classes from classrooms with direct sunlight/no cooling</p> <p>Varying school hours by reducing midday recess to no less than 30 minutes and adjusting the dismissal time accordingly</p>

High Risk Setting	Responsibilities in preparedness	Responsibilities in response
	<ul style="list-style-type: none"> <li>- Review first aid kits and consider the inclusion of additional ice packs and hydrolytes</li> </ul>	

### 13. Appendix B: BoM and NT Health Activities

Timing	Description	Responsibility	Action
<b>Always</b>			
	Continuous monitoring of weather and relating observations with the past, current and emerging trends	BoM	<ul style="list-style-type: none"> <li>Provide weather observations, heatwave warning, 3-day heatwave forecast and seasonal outlook for heatwaves and the community.</li> </ul>
<b>Before</b>			
	Pre-emergency community engagement and messaging about heatwave risk, shared responsibility and protective action	BoM	<ul style="list-style-type: none"> <li>Pre-season emergency service briefings on multi-week seasonal outlooks.</li> <li>Public awareness campaigns including education resources</li> <li>Targeted information and services for non-clinical health groups and service providers, such as water, power and telecommunication sectors.</li> </ul>
	Pre-emergency community engagement and messaging about heatwave risk, shared responsibility and protective action	Department of Health	<ul style="list-style-type: none"> <li>Assess heatwave risk and identify vulnerable groups.</li> <li>Identify strategies to reduce risk through processes such as participatory planning with communities and industry to develop responses.</li> <li>Preseason community and industry awareness campaigns including                             <ul style="list-style-type: none"> <li>Informing the community of their heatwave risk</li> <li>Providing appropriate health advice to the community</li> <li>Facilitating message sharing by third-parties, eg aged care providers, primary health networks, indigenous health services.</li> </ul> </li> </ul>
	Organisational capacity, systems and arrangements in place to warn effectively	BoM	<ul style="list-style-type: none"> <li>Situational awareness, monitoring and prediction, message conception and communication systems (and content) are operationally ready and tested with capability verified. Systems include excess heat factor, 3-day heatwave forecasting and prediction, heatwaves warning, publishing and dissemination.</li> <li>Capable teams trained and ready.</li> <li>Communication processes to key stakeholders established and tested.</li> <li>Warning thresholds defined in terms of impact and severity.</li> </ul>
		NT Health	<ul style="list-style-type: none"> <li>Interpretation, message conception, communication and community response operationally ready.</li> <li>Triggers and thresholds to issue heat health warnings to stakeholders and community.</li> <li>Capable teams trained and ready to respond.</li> </ul>
<b>During</b>			

	Monitoring and Prediction: Detecting severe and extreme heatwave conditions	BoM	<ul style="list-style-type: none"> <li>Weather conditions monitored for the probability of heatwaves. Heatwaves forecasted.</li> </ul>
	Interpretation: Understanding the impact of predicted heatwave and deciding whether and how to warn	NT Health	<ul style="list-style-type: none"> <li>Interpret impacts of predicted heatwave.</li> <li>Decide on whether and how to warn the public taking into consideration severity thresholds and lead times.</li> </ul>
	Message conception: Conceiving the content of a message to inform and warn people of the heatwave, including calls-to-action.	BoM	<ul style="list-style-type: none"> <li>BoM provides generalised heatwave warning messages.</li> <li>Provision of images indicating warning area and heatwave rating.</li> </ul>
		NT Health	<ul style="list-style-type: none"> <li>Use BoM heatwave warning to construct heat health messages</li> </ul>
	Communication: Timely, tailored and targeted warning dissemination through multiple channels to all impacted people.	BoM	<ul style="list-style-type: none"> <li>Provide sufficient lead time in heatwave warnings.</li> <li>Share heatwave warning with the Department of Health and relevant stakeholders.</li> <li>Heatwave warning disseminated through BoM website and app, and other agreed channels.</li> </ul>
		NT Health	<ul style="list-style-type: none"> <li>Heat health warning published on the Department of Health websites and other appropriate channels.</li> </ul>
<b>After Season</b>			
	Continuous review and improvement: Review and evaluate extreme heat warning messaging and actions	NT Health	<ul style="list-style-type: none"> <li>Post-heatwave season review and evaluation of warnings, messaging, community response, and heatwave impacts.</li> <li>Share results with partners.</li> <li>Review and update NT Heatwave Hazard Plan and action plan based on results of review.</li> </ul>

## 14. Appendix C: Specific Actions for Health Care Services during Heatwaves

The following list of specific actions can contribute to protecting patients and staff from heat-health effects during extreme heat. Health Services should:

- identify and actively monitor high risk patients during extreme heat events to identify symptoms associated with heat
- adapt pharmacological treatments
- ensure bed availability especially in emergency departments
- increase medical care staff to ensure full coverage in case of an increase in admissions
- activate procedures to guarantee an adequate health and social assistance for hospital discharge of high risk patients or postpone discharge till after the extreme heat
- ensure high risk patients are placed in rooms with air conditioning
- less critical patients should at least have access to an area with air conditioning during the hottest hours of the day
- increase liquid intake of patients
- modify diet accordingly with increased fruit and vegetables
- adjust patient bed and personal clothing
- be prepared for specific illnesses known to cause increased hospitalisations during heatwaves e.g. dementia, stress-related, vulnerability of those with mental health disorders
- ensure the wellbeing and safety of health staff

Furthermore, retirement and nursing home staff should increase monitoring of high risk patients, and ensure cooling is available for all patients and particularly in rooms with high risk patients during the hottest hours of the day.

## 15. Appendix D - Emergency Shelter, heat refuges considerations

In urban settings, there may be opportunity for the public to identify and visit cool places of refuge e.g. shopping centres, cinemas, libraries, and social clubs or community halls. This may not be an option in all remote communities' therefore emergency shelter – heat refuges should be identified by LEC that provide a minimum service to 'escape the heat' for set period of time.

In identifying a community space(s), Local Emergency Committee (LECs) should consider the following

- It is accessible to the public
- Access to power
  - air conditioning
  - devise charging capability (is advantageous)
- Access to cool water
- Access to refrigeration is an advantage
- Seating area(s)/chairs
- Organisation (personnel) identified to take on the role of operating the space
- Toilets or access to nearby toilets
- Showering facilities are advantageous not essential, as the community is functioning and community members have the ability to return home for periods to maintain/attend to any personal needs

Examples of spaces that may be suitable include

- Council building
- Recreational halls
- Multi-use cyclone shelters (if air-conditioned)

Schools should not be used as it is expected these will remain operational – as a cooling place for students and to maintain community life.

LECs will be provide information from the Emergency Shelter Group that aligns to the emergency shelter arrangements for other hazards. LECs need to promote a self-care model, these facilities are NOT evacuation shelters and no services will be provided

ONLY in extreme circumstances will an emergency shelter – heat refuge be used for sleeping and this will be determined by the Local Controller and the risk to the community, and only if overnight temperatures are impacting the health of the community.

The community must have a clear understanding of what this overnight facility will accommodate e.g.

- no meals will be provided, community should bring light refreshments either from home or purchased from the local shop
- bring bedding and pillows for sleeping

The escalation of emergency shelter – heat refuge to emergency sheltering (sheltering in community) and/or operation of evacuation centres will be enacted by the Incident Control in response to as increased risk. These arrangements will be described as part of the NT sheltering arrangement project documentation.

## 16. Appendix E (i) Resources

There are a number of resources on NT heatwaves these can be found in the following links (these links are current as at September 2024):

- <https://health.nt.gov.au/public-health-notifiable-diseases/heat-stress-heat-health-warning-info-sheet.docx> (live.com)
- <https://health.nt.gov.au/public-health-notifiable-diseases/heat-health-information-health-providers-professionals.docx> (live.com)
- <https://health.nt.gov.au/public-health-notifiable-diseases/heat-health-management-residential-aged-care.docx> (live.com)
- <https://nt.gov.au/wellbeing/health-conditions-treatments/heat-stress>
- <https://securent.nt.gov.au/prepare-for-an-emergency/weather-events/heatwave>
- <https://nt.gov.au/wellbeing/health-conditions-treatments/heat-stress/babies-and-kids>
- <https://securent.nt.gov.au/prepare-for-an-emergency/weather-events/heatwave/power-outage>
- <https://worksafe.nt.gov.au/forms-and-resources/bulletins/working-in-heat>
- [https://nt.gov.au/parks/safety-rules/beat-the-heat?SQ\\_VARIATION\\_589303=0](https://nt.gov.au/parks/safety-rules/beat-the-heat?SQ_VARIATION_589303=0)

## 16.1. Appendix E (ii) Resources: How to prepare for a Heatwave Checklist

When a severe or extreme heatwave is forecast for your location. Do the following to prepare for the heatwave conditions.

- Monitor the weather, you can use the Bureau of Meteorology website or app (BoM app)
- Check that fridges, freezers, fans and air-conditioners work (if available)
- Know the local public places you can go for cooling
- If you have critical medication, store them at the right temperature
- Get cool packs and make ice cubes, if you can
- Know who to call for help when in emergency
- Know who you will check on, such as neighbours, friends, relatives and those isolated
- Create cool rooms and cross breezes in your house
- Make sure your windows are protected from the sun by using blinds or curtains
- Be prepared for bushfire
- Check that you have enough food and drinking water
- If you must walk or work outside, wear protective clothing and apply sunscreen
- Learn the signs of heat illness so that you can respond if you or someone is feeling unwell:
  - Tired,
  - Head hurt
  - Dizzy
  - Cannot think good
  - Sore muscles
  - Thirsty
  - Unable to go to the toilet

### Individual Response Measures to Extreme Heat Events

- Increase fluids, especially cold or iced water but avoid alcohol and caffeine.
- Wear light, loose-fitting clothing
- Decrease physical activity in the heat
- Plan around the heat and avoid prolonged stay in the heat between 11 am and 3 pm
- Stay cool in air-conditioning where possible or seek out shady areas with a breeze
- Get into cold water or apply cold substances to the body
- Look after those most at risk including children and older people
- Modify medication or treatment if necessary, on medical advice.
- Store medications in a cool area
- Do not leave anyone in cars, especially children and pets
- Provide adequate water and shade for pets
- Tune in to emergency advice, by phone app or radio
- Plan ahead for hot weather, including power outages
- Phone '000' in a life threatening emergency

## 16.2. Appendix E (iii) Resources: Specific Actions for Parents and Caregivers

Newborns, infants and young children are very vulnerable to heat illness. The effects of extreme heat can be very severe because children's bodies warm at a faster rate than others. Parents and caregivers should take appropriate measures to protect children from extreme heat.

- keep children cool by having them drink plenty of water
- take lots of breaks
- wear light-coloured and lightweight clothing
- limit playing outdoors to cooler times of the day
- make sure fluids are not very cold or high in sugar/sweetener content
- do not leave a child unattended in a vehicle, even with the windows down
- always make sure children have left the car when you reach your destination
- don't leave sleeping infants in the car
- breastfeed or bottle-feed babies less than six months old more often
- offer older babies and children extra drinks in hot weather - the best drink is water
- dress babies and children in cool clothing and protect them from the sun with hats and sunscreen
- If a child is sick (fever, vomiting, diarrhoea, or even a mild cold), they need extra attention to ensure they remain well hydrated and don't overheat.

### 16.3. Appendix E (iv) Resources: Sample Severe Heatwave Warning for Aboriginal Communities

#### Orange Alert – Get Ready

Warning: Very hot weather.

It is going to be very hot in Bulman and Ramingining this week. The hottest day will be on Thursday 20 October.

When it is really hot do this to stay safe:

- Sit in the shade
- Drink lots of water
- Have enough electricity tokens
- Look after kids and old people in the community
- Use fans and damp towels to keep cool
- Don't drink any grog
- Don't drink any hot drinks or drinks with sugar in them.

Very hot weather can make you sick. You might feel:

- Tired
- Head hurt
- Dizzy
- Cannot think good
- Sore muscles
- Thirsty
- Unable to go to the toilet

If you, or someone you know, start to feel really sick, go to the nearest health clinic for help.

For more information on very hot weather visit <https://nt.gov.au/wellbeing/health-conditions-treatments/heat-stress>



## 16.4. Appendix E (v) Resources: Sample Extreme Heatwave Warning for Aboriginal Communities

### Red Alert – Act Now

Warning: Really hot weather, Do this now, Stay safe.

It is really hot today in Bulman and Ramingining, you have to stay safe, stay cool today, and do these things:

- Sit in the shade
- Drink lots of water
- Have enough electricity tokens
- Look after kids and old people in the community
- Use fans and damp towels to keep cool
- Don't drink any grog
- Don't drink any hot drinks or drinks with sugar in them.

Very hot weather can make you sick. You might feel:

- Tired
- Head hurt
- Dizzy
- Cannot think good
- Sore muscles
- Thirsty
- Unable to go to the toilet

If you, or someone you know, start to feel really sick, go to the nearest health clinic for help.

For more information on very hot weather visit <https://nt.gov.au/wellbeing/health-conditions-treatments/heat-stress>



### 16.5. Appendix E (vi) Resources: Beat the NT Heat Posters

Below posters are available for all NTG and non-government organisations to access, resources are located on the NTG website <https://nt.gov.au/wellbeing/health-conditions-treatments/heat-stress>

**BEAT THE HEAT**  
and look after your health

- Stay hydrated
- Keep cool
- Stay in the shade
- Wear a wide brimmed hat
- Dress in light, loose clothing
- Apply SPF 50+ sunscreen
- Avoid alcohol and caffeinated drinks
- Plan ahead and monitor for heat health warnings
- Know the signs of heat stress and help others

for more information visit [nt.gov.au/heatstress](https://nt.gov.au/heatstress)

Seek medical advice if you feel unwell. If symptoms are serious  
Call Triple Zero [000]

NORTHERN TERRITORY GOVERNMENT

**EXTREME HEAT CAN BE FATAL**

Seek medical advice if you feel unwell. If symptoms are serious  
Call Triple Zero [000]

**KNOW THE SIGNS OF HEAT STRESS**

- headache
- dizziness or fainting
- muscle cramps
- feeling thirsty
- tiredness and lethargy
- urinating less often
- Confusion leading to poor decision making

[nt.gov.au/heatstress](https://nt.gov.au/heatstress)  
[securent.gov.au](https://securent.gov.au)

NORTHERN TERRITORY GOVERNMENT

**EXTREME HEAT CAN BE FATAL**

We know it's warm across the Top End of the Territory for most of the year but it's important to recognise when hot weather becomes extreme heat.

Extreme heat conditions can have serious impacts on your health so it's important to be aware of the Heat Health Warnings so you can make sure you're prepared to beat the heat.

Heat Health Warnings will be issued when certain heatwave triggers have been met.

**EXTREME HEAT HEALTH WARNINGS**

Extreme heat can be dangerous for everyone, including pets.

Warnings are issued when temperatures for a 3 day period are considered extremely hot for that location. Typically these temperatures will range from the low to mid-forties, with the overnight temperature in the mid to high-twenties providing minimal relief.

**SEVERE HEAT HEALTH WARNINGS**

Severe heat can impact the health of vulnerable groups including older people, babies, children, people with medical conditions, women who are pregnant or breastfeeding and pets.

Warnings are issued when temperatures for a 3 day period are considered hot for that location. Typically these temperatures will range between the high-thirties to low-forties, with the overnight temperature in the mid-twenties.

[nt.gov.au/heatstress](https://nt.gov.au/heatstress)  
[securent.gov.au](https://securent.gov.au)

NORTHERN TERRITORY GOVERNMENT

## 17. Appendix F: Acronyms and Glossary

### 17.1. Acronyms

Acronyms	Full form
ACCHS	Aboriginal Community Controlled Health Services
AIIMS	Australasian Inter-Service Incident Management System
AWS	Australian Warning System
BoM	Bureau of Meteorology
CA	Controlling Authority
CDC	Centre for Disease Control
CE/CEO	Chief Executive Officer
CHO	Chief Health Officer
CM&C	Department of Chief Minister and Cabinet
DoH	Department of Health/NT Health
EH	Environmental Health
EHF	Excess Heat Factor
EMC	Emergency Management Committee
EOC	Emergency Operations Centre
HLB	NT Health Leadership Board
HMA	Hazard Management Authority
HHP	Heatwave Hazard Plan
IC	Incident Controller
ICC	Incident Control Centre
IMT	Incident Management Team
LECs	Local Emergency Committees
NTEMA	NT Emergency Management Arrangements
NTES	Northern Territory Emergency Service
NTG	Northern Territory Government
PHN	Primary Health Network
PIG	Public Information Group
PUG	Public Utilities Group
SME	Subject Matter Expert
SMMC	Strategic Media, Marketing and Communications Unit, NT Health
TEMC	Territory Emergency Management Council
TEP	Territory Emergency Plan
TWS	Total Warning System
WebEOC	Web based Emergency Operations Centre

## 17.2. Glossary of Terms

Term	Meaning in the context of this plan
Affected Area	The location impacted by a heatwave.
Controlling Authority	The controlling authority is the NTG agency with delegated responsibility to direct or carry out planning and response to a certain hazard.
Debrief	A meeting held during or after a response with the purpose of assessing the conduct or results of the response.
Excess Heat Factor	An intensity measure that categorises heatwaves by their severity.
Emergency Shelter – heat refuge	Secure and cool environment for individuals to find relief during times of intense heat.
Functional Group	A combination of entities that have primary responsibility, arrangements and coordination of relevant/associated organisations with a supporting role. These responsibilities are laid out in functional group plans.
Hazard Management Authority	A hazard management authority is the NTG agency responsible for coordination and preparing plans and capabilities to respond to a specific hazard.
Heat Exhaustion	A form of shock, due to depletion of body fluids resulting from overexposure to a hot environment.
Heat Stress	Illness caused by the body overheating.
Heat Stroke	A life-threatening condition that develops when the body's temperature-regulating and cooling mechanisms are overwhelmed and body systems begin to fail.
Heat Health Alert/Heat Health Warning/Community Alert	Information and advice issued to provide current information and resources about active extreme heat, heat health conditions, and protective or first aid measures in the NT. It notifies the community, local governments, hospitals, health, and community services of the risk and likely impact of extreme heat on people's health.
Heatwave	A period of unusually hot weather at a specified location. Heatwaves are calculated using the forecast maximum and minimum temperatures over the next three days. This information is compared to what would be considered hot for that location, and also to the observed temperatures over the last 30 days.
Heatwave Decision Support Product	Information on heatwave situation in weather districts and localities provided by Bureau of Meteorology to states and territories agencies to assist in heatwave preparation and response.
Heat Health Warning	Public health warning that a heat hazard is forecast within the next number of days to help the public to prepare for and lessen the impacts of a heatwave event.
Locality	An area, town or neighbourhood.
Preparedness	The knowledge and capacities developed by governments, response and recovery organisations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters - Australian Institute for Disaster Resilience - Glossary
Prevention	Activities and measures to avoid existing and new disaster risks. Prevention (i.e., disaster prevention) expresses the concept and intention to completely avoid potential adverse impacts of hazardous events.

Protective	Measures taken to protect one's self or others from harm or exposure to too much hot weather or temperatures.
Recovery	The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster affected community or society, aligning with the principles of sustainable development and "build back better", to avoid or reduce future disaster risk.
Response	Response is described as actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected <sup>7</sup> .
Responsibilities	The state or fact of being responsible, answerable or accountable for something within one's power, control or management.
Stand down	Transition from responding to an event back to normal core business and/or recovery operations. There is no longer a requirement to respond to the event and the threat is no longer present.
Stand/stood up	The operational state whereby resources are mobilised, personnel are activated and operational activities commenced.
Territory Emergency Plan (TEP)	The main plan describing the NT's (NT) approach to emergency and recovery operations, the governance and coordination arrangements, and roles and responsibilities of agencies.
Vulnerable	The conditions determined by physical, social, economic and environmental factors or processes, which increase the proneness of an individual, a community, assets, or systems to the impact of hazards.
WebEOC	A critical information management system used throughout the NT. Used by agencies with defined roles and responsibilities under the TEP during all phases of an emergency event.

## Acknowledgements

The following documents were consulted during the preparation this plan.

- South Australia Health (2016). Extreme Heat Strategy, version 6.11.
- New South Wales Government (2018). State Heatwave SubPlan, version 2.0
- Emergency Management Victoria (2014). State Emergency Response Plan Extreme Heat Sub-Plan, 2<sup>nd</sup> Edition.
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- AIDR (2021). Public Information and Warnings Handbook.
- United States Environmental Protection Agency (June 2006). Excessive Heat Events Guidebook.
- Ahmedabad Heat Action Plan 2019

<sup>7</sup> Australian Institute for Disaster Resilience - Glossary

## 18. Document history

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