



# Adverse Weather and Bushfire Response

## HSEQ Management System Procedure

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### What this procedure describes

Adverse weather conditions poses a potential risk to the health and safety of TasNetworks personnel. This procedure provides context and guidance to personnel identifying and responding to adverse weather conditions. Additionally, this procedure also provides information to ensure the safe return of personnel to normal duties following an event or warning period.

For the purpose of this procedure, adverse weather includes:

- Extreme hot and cold conditions;
- Preparation for increased bushfire risk(s);
- Periods of actual bushfire (e.g. including active fire fronts, smoke and the aftermath of burnt areas);
- Wet weather;
- Floods;
- Exposure to ultra-violet radiation;
- Damaging winds; and
- Storm events (e.g. electrical, hail, dust).



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## Why it is required?

This procedure provides guidance to help reduce the risk of injuries sustained to TasNetworks personnel who may be required to work outside during periods of adverse weather. Bushfires have also been included in this standard because they may be the result of extreme weather and require careful management.

## Who it applies to and when?

This procedure applies to all TasNetworks personnel; however, there is particular focus on field-based workers as they will have greater exposure to adverse weather. It is recognised that other work practices may be affected by this procedure, such as the location of work (e.g. works in bushland areas during bushfire, coastal areas during storm surges etc.) and the use of equipment such as Elevating Work Platform vehicles and ladders.

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# 1. Procedure

## 1.1 FAULT CONDITIONS

Faults, and or disruptions in the electricity power-supply system, are often the result of poor weather conditions. If adverse weather prevents restoration of power-supply from being achieved safely, then work crews must wait until conditions improve sufficiently to allow work to proceed safely.

**Please note:** The health, safety and well-being of TasNetworks personnel will always have supreme priority over the demand for supply restoration.

## 1.2 CONTROL STRATEGIES

This procedure provides control strategies for specific adverse weather conditions and work activities to reduce the effects that adverse weather may have on the health, safety and well-being of our employees. The control strategies are based on the 'Hierarchy of Control' as shown in Table 1:

**Table 1 – Hierarchy of controls**

Highest → Lowest	Elimination	Work does not proceed until weather conditions ease to a level that allows safe work
	Substitution	Find alternative work that does not require exposure to the adverse weather conditions
	Isolation	Transfer work to a more suitable location e.g. indoors
	Engineering controls	Physical barriers e.g. working undercover when conditions make it safer to do so.
	Administrative controls	This Standard, in conjunction with associated Work Practices; weather monitoring equipment; weather alerts
	Personal Protective Equipment	Clothing and equipment provided to protect from the adverse weather conditions

## 1.3 RISK ASSESSMENT

Ensure your pre-task risk assessment (e.g. First Pass or Job Risk Analysis (JRA)) considers weather conditions. Work must not proceed until all controls are in place. If conditions change during work, stop and review the risk assessment. At any time adverse weather poses an uncontrollable or unacceptable risk to workers, then work must be ceased and the appropriate leader/manager advised.

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## 1.4 MEASUREMENT OF WEATHER CONDITIONS

To reliably assess the impact of some weather conditions, TasNetworks provides monitoring equipment and uses authorised sources of advice to ensure information is accurate. These are described in more detail in the following subsections.

### 1.4.1 Personal Measurement

Measuring localised weather conditions whilst onsite allows a more accurate assessment of risk. Portable devices, such as the Kestrel 3000 (Figure 1) are provided to give reliable readings for temperature, relative humidity and wind speed while onsite. It also provides readings for 'heat index' (i.e. combines temperature and humidity, also known as apparent temperature) and 'wind chill' reading (i.e. combines temperature and wind speed). These parameters are more indicative of the effect of weather on people than temperature alone.

Wind direction can change and measurement of wind gust(s) is more reliable when taken over a period of at least three consecutive minutes (and periodically as the work proceeds to ensure conditions are adequately quantified and responded to).



Figure 1 – TasNetworks issued (portable) Kestrel 3000 used for assessing weather conditions while onsite

### 1.4.2 Warnings and Authorised Advice

It is essential that information on pending, or actual (adverse) weather, is gathered from valid and reliable sources. The preferred source of information regarding the assessment of pending weather conditions should be sought from the following areas:

- Bureau of Meteorology <http://www.bom.gov.au> (storm and wind warnings, UV index, rainfall, ambient temperatures, frost warnings); and
- [TasFire](#) (days of Total Fire Ban, elevated fire risk, location and intensity of bushfires).

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## 1.5 WORKING IN HOT WEATHER

### 1.5.1 Hot weather hazards to consider in the pre-task risk assessment

An individual's tolerance to hot conditions can vary and activity levels have a significant effect. Dehydration, due to fluid loss, occurs during increased or sustained activity, mainly due to perspiration and respiration. This makes a worker more susceptible to fatigue and muscle cramps. Inadequate fluid replacement before, during and after activity, will result in dehydration and may lead to heat exhaustion and/or heat stroke:

- Symptoms of heat exhaustion include clammy moist skin, weakness and extreme fatigue, nausea, headache and weak pulse; and
- Severe dehydration may lead to heat stroke. Similar to heat exhaustion, but with a dry skin, confusion and collapse.
  - Heat stroke may arise in a worker who has not been identified as suffering from heat exhaustion and has persisted in further activity. This is a potentially fatal condition and must be treated immediately by a medical professional.

It should also be noted that heat exhaustion / heat stroke can still occur even if reasonable hydration practices are carried out. For example, an individual's medical condition(s) could increase their intolerance to heat exposure.

Conditions that lead to associated physical impacts of workers working in hot conditions are often also associated with other risks such as elevated bushfire danger and increased sightings of snakes.

### 1.5.2 Control Strategies

When conducting a risk assessment prior to undertaking any work, the following control strategies are to be used as a guide:

- Teamwork (monitoring/communications of each other);
- Fluid intake (TasNetworks will provide drinking water);
  - keep hydrated all the time. If you present to work dehydrated it is harder to regain safe hydration levels.
  - at least 500ml before activity (recommended).
  - 200ml every 15 minutes during activity (recommended).
  - at least 500ml after activity (recommended).
- Working in the shade (where achievable);
- Rest breaks guidance as per **Error! Reference source not found.** and **Table 3**;
- Intensity of tasks and ability to rotate the high-intensity tasks;
- Plan work so high intensity tasks can be done during cooler periods;
- Ensure any planned work complies with the high-fire danger periods restrictions;
- Ensure first aid supplies and emergency management plans are reviewed/approved; and
- Modify start and finish times.

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The risk assessment must be reviewed periodically to ensure control measures are still appropriate to the conditions. Where the risk assessment identifies that conditions are unacceptable for employees to work safely, work shall cease and the Manager / Team Leader shall be advised as soon as practicable.

### 1.5.3 Rest Breaks

The purpose of rest breaks is to lower work energy output to offset heat stress. It is defined as the ratio of work-to-rest (e.g. 30 minutes rest in each hour means 50% work and 50% rest) during any given work period.

The work / rest periods apply each hour and cannot be accumulated. Rest breaks are to be taken in shaded (i.e. protection from the sun), cooled or air-conditioned areas where available.

**Table 2<sup>1</sup> - Work-Rest Regime for general work in high-temperature environments**

Measured Heat Index °C	Duration of rest break per hour (low intensity work)	Duration of rest break per hour (high intensity work)
32		15 minutes
34	15 minutes	30 minutes
36	30 minutes	45 minutes
38	45 minutes	Do not work
40	Do not work	Do not work

**Table 3– Work-Rest regime for glove & barrier work in high-temperatures**

Measured Heat Index °C	Duration of rest break per hour
32	30 minutes
34	Do not work

## 1.6 WORKING IN COLD TEMPERATURES

### 1.6.1 Cold weather hazards

An individual’s tolerance to cold temperatures can also vary. Cold related conditions occur when the rate of body heat loss exceeds the rate of body heat production. Injuries sustained from working in cold conditions can affect the entire body (e.g. hypothermia) or can be localised (e.g. frost nip or frost bite).

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<sup>1</sup> From information on the Kestrel website (based on US standard)

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Even before physical injury from cold temperatures becomes a risk, the control and dexterity of exposed hands becomes adversely affected. For example, at 16° Celsius, this takes several hours to occur; while at 2° Celsius, it takes only a few minutes. Thus, the risk of incident and injury increases with a decreasing temperature.

People are more susceptible to injury due to muscle sprains during cold weather.

When people are working in environments where they are exposed to snow, they are not only at risk from injury from cold conditions, but also from exposure to ultra-violet (UV) radiation. Higher altitudes receive more UV radiation than lower altitudes and snow also reflects UV radiation.

## 1.6.2 Control Strategies

During periods of severe cold, or where there is a risk of extreme adverse conditions, (e.g. blizzards, heavy snow etc.), a risk assessment must be conducted to ensure that the workload is compatible with the physical capabilities of the employees and environmental limits set in this procedure.

When conducting the risk assessment prior to, during and after a job, the following control strategies are to be used as a guide:

- Re-scheduling of work that doesn't have ready access to suitable shelter;
- Scheduling of work so that light-to-moderate work is carried out continuously; rather than heavy work punctuated by frequent breaks. Inactivity in cold conditions increases the risk of cold stress. In addition, skin wet from sweat will cool much more rapidly than dry skin; individuals' physical capability, condition, and state-of-health;
- Re-scheduling of work to the warmer parts of the day; use of windbreaks and barriers to avoid wind exposure;
- Several layers of clothing to be worn. In this way, some air is trapped between each layer and the air is a good insulator; approved protective clothing that does not restrict circulation should be worn;
- Before starting work, warm muscle groups up by undertaking low intensity exercises. Commence with light work and increase the level gradually; and
- Defer unnecessary travel. Ensure vehicles are suitable and equipped for the conditions. Drivers must always drive to the conditions. In cold weather, frost and ice make road conditions hazardous, whilst fog and blizzards etc. restricts visibility.

## 1.6.3 Standards for Cold Conditions

Air movement is very important in cold environments - since the combined effect of wind and temperature can produce a condition called 'wind-chill'. The higher the wind speed, and the lower the temperature at the work area, the greater the requirement for adequate insulation of protective clothing becomes.

An equivalent chill temperature chart (**Table 4**), relating actual air temperature and wind velocity, can be used when estimating the combined cooling effect of wind and low temperatures on exposed skin, or when determining clothing insulation requirements to maintain the deep core body temperature at a desired level.

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**Table 4 - Work-Rest Regime for work in low temperatures (wind chill)**

Measured Wind Chill	Duration of rest break per hour
0	15 minutes
-10	30 minutes
-15	45 minutes
-20	Do not work

Rest breaks are expected to be taken in sheltered, warm areas. Low intensity exercises will assist with maintaining body warmth.

## 1.7 WORK IN WET WEATHER

### 1.7.1 Risks

Employees working in the rain also face additional hazards, such as:

- **Slips & Trips** – When working in the rain, a natural reaction is to work more quickly in order to get back inside as soon as possible. However, rain can make work conditions more slippery; therefore, employees are expected to work slowly and deliberately to prevent slipping and falling, especially when climbing ladders;
- **Un-insulated electrical assets and reduced effectiveness of insulated PPE** – Damp or wet conditions increase the risk of electrocution or shock when working on, or near, electrically energised equipment. The risk assessment must consider this hazard when implementing controls;
- **Visibility** – Can be compromised during wet or foggy weather and the risk assessment must address any issues this condition introduces, e.g. bringing work-earths closer in so they are still visible;
- **Defer unnecessary travel** - Ensure vehicles are suitable and equipped for the conditions. Drivers must always drive to the conditions. In wet weather roads are slippery, and visibility is compromised; and
- **Vehicular Traffic** – Employees need to ensure that you can be seen. When working in an area where there is vehicular traffic (e.g. trucks, cars, forklifts, etc.) or on roadways and verges, always wear approved high visibility clothing.

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## 1.7.2 Control Strategies

When conducting a risk assessment prior to, during and after a job, the following control strategies are to be used as a guide:

- Use of barriers to keep the rain off; and
- Use of appropriate (i.e. TasNetworks-rated) wet-weather gear.

When these controls are not sufficient to mitigate the risks to an acceptable level, stop work until conditions improve.

## 1.8 WORKING IN UV RADIATION

### 1.8.1 Risks

Ultraviolet radiation covers a range of wavelengths split into three groups – A, B and C. These are invisible to the human eye and can't actually be felt by the skin; however, protection is a requirement. For example, UV-A is the most common form and penetrates most deeply, passing through an eyes cornea, reaching the lens and retina inside your eyes. UV-B penetrates less deeply but can cause sunburn; wrinkling and premature ageing. UV-C is potentially the most dangerous, but almost all of it is blocked by the ozone layer - a situation that may change with ozone depletion, especially in Australia. It's not just the sun that can damage our eyes.

Prolonged exposure to high-levels of UV radiation can lead to skin damage causing skin cancers (e.g. melanomas) and serious damage caused to your eyes.

The amount of UV exposure in any location is dependent on a large number of factors; including the time of year (i.e. earth's proximity to the sun), the latitude (angle of the sun), stratospheric conditions (e.g. ozone layer thickness) and atmospheric conditions (e.g. cloud cover). Daily UV Index ratings can be obtained from weather broadcasts and are published in newspapers and on websites such as <http://www.bom.gov.au/tas/uv/>. Other environmental factors that can affect UV exposure include reflection of the surroundings (water, snow etc.) and natural shade (i.e. under a tree canopy).

### 1.8.2 Control Strategies

The human body has natural defences from UV exposure; however, avoiding excessive exposure is the key to avoiding skin damage and resultant skin/eye damage.

**Table 5** shows the recommended precautions that should be implemented commensurate with the UV Index.

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**Table 5 – Mitigating the risk of UV exposure**

UV Index	Exposure Category	Recommended Precautions
11 & above 8 to 10	Extreme Very High	Where possible, schedule shaded work between 10am and 2pm (11am-3pm daylight saving time). Stay indoors as much as possible, otherwise use all precautions below.
6 to 7	High	Wear a broad brimmed hat, SPF 30+ Sunscreen, wrap-around sunglasses, and seek shaded areas. Stay indoors where possible between 10am – 2pm (11am-3pm DLST).
3 to 5	Moderate	Wear helmet brims, SPF 30+ sunscreen, wrap-around sunglasses, seek shady areas.
1 to 2	Low	You can safely stay outdoors with minimal protection.

**Note:** Sunglasses and sunscreen are available to TasNetworks employees. If employees wear prescription glasses and require prescription safety glasses, please ensure you speak with your Team Leader / Manager (refer to [Work Practice IMS – WPP-00-46](#)). When applying sunscreen, remember to apply to all exposed skin before going outdoors and again throughout the day in accordance with the manufacturer’s instructions.

## 1.9 WORK IN HIGH WIND

### 1.9.1 Risks

Windy conditions present a wide range of risks:

- Falling objects;
- Flying debris (e.g. projectiles);
- Fire potential due to (energised) clashing conductors or fallen infrastructure; Shock potential from (energised) fallen or low conductors;
- Driving and road hazards;
- Dust and visibility;
- Worksite – controlling vehicles/plant/equipment, controlling damaged conductors and other infrastructure, debris, dust, visibility; and Work practices – working at height, communications; and
- Fall from height – due to wind gusts affecting ladder control and stability

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## 1.9.2 Control Strategies

When conducting the risk assessment prior to, during and after the job, the following control strategies are to be used as a guide:

- Consider the need to work in windy conditions, seek alternative tasks that can be undertaken safely in windy conditions;
- Planning routes to the destination that avoid areas where there may be flying debris or falling/fallen trees / branches;
- Drive to the conditions;
- Stay out of drop zones (unless it is communicated that you are in the drop zone) wear appropriate PPE;
- Observe safe operating limits of Elevated Work Platform (EWPs) and ladders;
- Staying out of the line-of-fire of falling or flying debris; and
- Identifying appropriate escape routes where there is a fire risk.

**Note:** Wind gust measurements must be taken over a minimum of three minutes, and periodically as work proceeds (refer Section 1.4.1).

## 1.9.3 Safe Operating Limits for Mobile Equipment

**Table 6** shows the generalised maximum wind speeds for safe operation of mobile equipment. EWP details were sourced from the manufacturers' manuals. Details for other equipment was sourced from [CFMEU Vic OH&S alert 2009](#).

**Table 6- Equipment Safe Operation in Wind**

Machine Type	Make/Model	Max Wind speed km/hr
EWP	RG TF17M	72
	GMJ	45
	Versalift VST 5000i	
	Nifty Lift	
	Altec	
	Sherrin 18GB Series 2 / 3	

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Machine Type	Make/Model	Max Wind speed km/hr
Pole Hole Borer Erector	OZZY Crane Borer 5/10-15 - 5t Using single block(normal operation)	36
	OZZY Crane Borer 5/10-15 - 10t using the double block	
	OZZY Crane Borer 5/10-15 - 15m max height	
Vehicle Loading Crane with Winch	UNIC UR30 VAT	36
	UNIC UR45 VAT	
	UNIC UR364	
	UNIC UR-W340	
	UNIC UR-W344	
	UNIC UR-W374	
Vehicle Loading Folding Crane	HMF A802-K2	36
	HMF 683-K2	
	HMF 735-K2	
	HIAB 050A	

### 1.9.4 Safe Operating Use for Ladders in Windy Conditions

The [Lineworkers' Reference Handbook](#) (Section 6.12.13 and 6.12.14.15.1) describes the safe use of ladders; including techniques to secure poles to structures. Ladders must not be climbed above 2m in winds gusting above 40 km/h (11 m/s).

Consider adding limits for tower work once feedback is received from EHV line worker, Pat Carroll.

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## 1.10 WORKING IN STORMS

Storms are a combination of several adverse weather conditions (as discussed in previous sections). They can also include conditions not covered. These include hail storms, electrical storms and dust storms (localised or more rarely as a specific meteorological phenomenon when dust from central Australia is deposited on Tasmania, refer to the [Bureau of Meteorology website](#)).

### 1.10.1 Control Strategies

A risk assessment must be conducted to ensure that the workload is compatible with the physical capabilities of the employees and environmental limits set out in this Standard.

In anticipation of such periods, local Team Leaders/Managers, in consultation with employees, will consider the control strategies relevant above depending on the nature of the storm.

When conducting the risk assessment prior to, during and after the job, the following control strategies are to be used as a guide. :

### 1.10.2 Working during Electrical Storms (lightning)

Potential risks include:

- Risk of injury from a direct or indirect lightning strike;
- Ignition of fires;
- Height of work; and
- Conductivity and local elevation of work site.

Working on Overhead Conductors or Structures:

- Work on High Voltage (HV) Conductors: Whenever there is visible lightning or a thundercloud, judged to within 20-km of the place of work, work is to cease immediately and all members of the working party are to seek shelter at ground level
- Work on Low Voltage (LV) Conductors: Whenever there is visible lightning or a thundercloud, judged to within 5-km of the place of work, work is to cease immediately and all members of the working party are to seek shelter at ground level.

#### Operation of Pole Mounted Switchgear and Fuse Replacement

Switching operations, which includes replacement of fuses, shall cease when visible lightning or a thundercloud is judged to be within 5-km of the location of the switch or fuse. All members of the working party are to seek shelter at ground-level.

Operation of Ground Mounted Switchgear:

- Modern type substations: These have fault rated operating equipment installed and earth mats provided in the operating area. Hence, there are no restrictions to operating these in a lightning storm.

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- Older Type Substations: Where they have pole mounted fuses, air break switches or links, they do not have the same fault rating and rely on the integral earth mat to dissipate fault currents. Where the integrity of the earth system is suspect, operations are not to be carried out when visible lightning or a thundercloud is judged to be within 5-km of the location of the substation.

Seeking Shelter:

When seeking shelter in a building or vehicle, the building or vehicle must be at least 20-metres clear of all conductors.

How to estimate how far away lightning is: When you find yourself working outside in a thunderstorm, try this method to estimate how far away you are from lightning strikes. Just count the number of seconds that pass between a [flash of lightning](#) and the crack of thunder that follows it. Sound travels at about 340 m/s, so multiply the number of seconds you counted by 340, and you'll have estimated how many meters away you are from the lightning strike. For example, a three-second count, then, would place the lightning strike about 1,020 m away, or

### 1.10.3 Hail Storms

When situated in a hail storm, the associated risks involve:

- Size and frequency of hail falling (will it harm people or damage equipment?);
- Slippery and uneven surfaces when walking; and
- Vehicle loss of traction due to slippery surfaces.

Safety helmets will provide sufficient protection against most hail events in Tasmania. However; when necessary, cease work and seek shelter under cover or in a vehicle until the storm passes. Avoid driving when hail is settling on the ground or visibility becomes obscured.

### 1.10.4 Dust Storms

When situated in a dust storm, the associated risks involve:

- Eye injuries;
- Visibility of roads and work site (can you see well enough to operate/drive safely?);
- Failure of equipment due to ingress of dust; and
- Increased risk of arc flash.

Seek shelter in a vehicle or building. Goggles and P1/P2 masks should be worn where available. Avoid driving when visibility has been compromised.

### 1.10.5 Floods

- When situated in a flood situation, the associated risks involve: Electric shock from conductors in water;
- Engulfment and possible drowning;
- Loss of vehicle; and

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- Isolation from rising flood waters.

Do not enter standing or flowing floodwater either on foot or in a vehicle under any circumstances.

### 1.10.6 Blizzards

A blizzard is a severe snow storm accompanied by strong winds. Apart from the more apparent issues, relating to the effects from extreme cold conditions on the human body, visibility can become extremely limited.

When situated in a blizzard, the associated risks involve:

- Entrapment / isolation;
- Freezing conditions;
- Vehicle fails to start; and
- Visibility of roads and work site.

Work must cease immediately in blizzard conditions and shelter sought without delay. Avoid driving. Be prepared to implement the emergency rescue plan when conditions persist.

### 1.10.7 Working on days of Total Fire Ban and during Bushfire Conditions

Approximately 60% of TasNetworks' overhead distribution network resides within high to very high bushfire risk areas. Tasmania experiences, on average, three Total Fire Ban Days per year on average. The link to the TasNetworks Bushfire Preparation Document:

<http://collaborationzone.tnad.tasnetworks.com.au/business-functions/planning/bushfirescenario/planning/Safety%20Management?Web=1>

#### 1.10.7.1 Fire Danger Index (FDI) and Fire Danger Rating (FDR)

The expected fire behaviour on a given day varies depending on factors such as temperature, relative humidity, wind speed, vegetation and drought factors.

The BoM issues a Fire Danger Index (FDI), which is a combination of air temperature, relative humidity, wind speed and drought. An FDI ranking of 1 means that fire will not burn, or will burn so slowly that it can be easily controlled; however, an FDI in excess of 100 means that fire will burn uncontrollably.

In Tasmania, when the FDI is expected to reach, or exceed a value of 38 either on any particular day or the next day, the BoM will issue a Fire Weather Warning, which may result in the Tasmania Fire Service (TFS) declaring a day of Total Fire Ban (TFB) in all or part of the state. Usually, a Total Fire Ban lasts for 24-hours (i.e. from midnight to midnight).

The FDI is used to determine the Fire Danger Rating (FDR), which provides a classification of the expected fire behaviour on a given day. The relationship between FDI and FDR is given in

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Table 6; along with a summarised description of the conditions to be expected on each type of day.

**Table 6: Relationship between Fire Danger Index (FDI) and Fire Danger Rating (FDR)**

FDI	FDR	Description
100+	Catastrophic	<ul style="list-style-type: none"> <li>• Most fires breaking out a 'catastrophic' day will spread rapidly and be uncontrollable.</li> <li>• There is a high likelihood that people in the path of a fire will be killed or seriously injured.</li> <li>• Many homes are very likely to be destroyed.</li> <li>• Even the best-prepared homes will not be safe.</li> </ul>
75-99	Extreme	<ul style="list-style-type: none"> <li>• Some fires breaking out today will spread rapidly and be uncontrollable.</li> <li>• People in the path of a fire may be killed or seriously injured.</li> <li>• Many homes are very likely to be destroyed.</li> </ul>
50-74	Severe	<ul style="list-style-type: none"> <li>• Some fires breaking out today will spread rapidly and be uncontrollable.</li> <li>• People in the path of a fire may be killed or seriously injured.</li> <li>• Some homes are likely to be destroyed.</li> </ul>
25-49	Very High	<ul style="list-style-type: none"> <li>• Some fires breaking out today will spread rapidly and be difficult to control.</li> <li>• There is a possibility that people in the path of a fire will be killed or seriously injured.</li> <li>• Some homes may be destroyed.</li> </ul>
12-24	High	<ul style="list-style-type: none"> <li>• Fires breaking out today can be controlled.</li> <li>• People in the path of a fire are unlikely to be killed or seriously injured if they take shelter.</li> </ul>
0-11	Low-Moderate	<ul style="list-style-type: none"> <li>• Fires breaking out today can be controlled easily.</li> <li>• There is little risk to people and property.</li> </ul>

### 1.16.2 Identified risks on days of increased bushfire risk

Workers are at risk of being exposed to bushfires, and also inadvertently starting a bushfire. The risks and corresponding impacts in Table 7 have been identified on days of increased bushfire risk:

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**Table 7 – Work Activities and Potential Bushfire Impacts**

<p style="text-align: center;"><b>RISKS</b></p> <p>(Component of an activity, product, or service that is likely to cause bushfire related issues)</p>	<p style="text-align: center;"><b>IMPACTS</b></p> <p>(How our activities contribute a major or minor part, and associated impacts)</p>
<p><b>A – Works Activities</b> Hot Work (Welding, Grinding, Heat Torch, Use of petrol driven equipment such as Chain saws). Starting a fire through radiated heat, sparks or flames</p>	<ul style="list-style-type: none"> <li>• Destruction of property</li> <li>• Potential loss of life</li> <li>• Damage to reputation / brand</li> <li>• Conflict with stakeholders and poor public image</li> <li>• Claims for damage</li> </ul>
<p><b>B – Works Activities</b> General work in rural areas</p>	<ul style="list-style-type: none"> <li>• Employees or Contractors could be exposed to a bushfire or unsafe areas</li> </ul>
<p><b>C – Works Activities</b> Driving off road in rural areas. Employees or Contractors could cause bushfire through hot exhausts contacting dry grass</p>	<ul style="list-style-type: none"> <li>• Destruction of property</li> <li>• Potential loss of life</li> <li>• Damage to reputation / brand</li> <li>• Conflict with stakeholders and poor public image</li> <li>• Claims for damage</li> </ul>
<p><b>D – Works Activities</b> Operating Network Infrastructure Sparks, arcs, flashovers could cause a bushfire</p>	<ul style="list-style-type: none"> <li>• Destruction of property</li> <li>• Potential loss of life</li> <li>• Damage to reputation / brand</li> <li>• Conflict with stakeholders and poor public image</li> <li>• Claims for damage</li> </ul>
<p><b>E – Works Activities</b> Works associated with restoration of supply (During Event)</p>	<ul style="list-style-type: none"> <li>• Employees or Contractors could be exposed to unsafe conditions (bushfire) whilst restoring supply during event</li> </ul>
<p><b>F – Works Activities</b> Works associated with restoration of supply (Post Event)</p>	<ul style="list-style-type: none"> <li>• Employees or Contractors could be exposed to unsafe conditions (falling trees) whilst restoring supply post event</li> </ul>
<p><b>G – Works Activities</b> Crew availability for patrol/inspection of tripped feeders on TFB days</p>	<ul style="list-style-type: none"> <li>• Delays in identification of issues or prolonged restoration of supply if crews not available</li> </ul>

By applying a risk ranking to each aspect identified in Table 7, the actions listed in Appendix 1 have been determined to ensure appropriate risk control measures are enacted.

Further actions are listed in the following procedures:

- [Bush Fire season Total Fire Ban Response](#)

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## 2. Responsibilities

The following outlines the responsibilities required of Team Leaders/Managers and Team Members before work can proceed during prevailing or impending storm events.

These include but are not limited to the following:

### 2.1 Team Leaders and Managers

Managers and Team Leaders are responsible for:

- Ensuring all Team Members are aware of, and adopt, the principles outlined in this Standard;
- Act on authorised advice about adverse weather conditions, and ensure communication to all potentially affected workers;
- Determine whether normal duties can proceed safely during periods of adverse weather; and if not, arrange alternate tasks in safe locations; and
- Monitoring and follow-up of worker compliance to this procedure as stated in 2.2.
- Workers

Team Members must:

- Conduct risk assessments that consider weather conditions and only begin work when controls are agreed and implemented;
- Review the risk assessment as weather (or site) conditions change and, where necessary, cease work and advise the appropriate Team Leader or Manager;
- Monitor Team Members to watch for signs of exposure to extremes of weather, in particular extreme heat or cold. Individual tolerances to hot or cold conditions can vary and it is essential that communication is maintained;
- Maintain contact with your Team Leader/Manager to advise of localised conditions and allow for agreed response to emerging weather events; and
- Report all instances of adverse weather or resulting hazards so that others can be warned (e.g. landslides, fires, flooded roadways); and
- Ensure normal work does not resume until conditions have eased and the risks are within a controllable range.

Remember to always notify your Team Leader/Manager of ALL incidents and ensure you apply the One-Hour rule. For more information please refer to the TasNetworks [Incident Management Procedure](#).

## 3. Reference documents

The following documents were reviewed as part of developing this procedure:

Legislation
<ul style="list-style-type: none"><li>• Tasmanian Work Health and Safety Act 2012</li><li>• Tasmanian Work Health and Safety Regulations 2012</li></ul>

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### Codes of Practice, Industry Codes, etc.

- Potential Bushfire Impact Report, Kevin Tolhurst – University of Melbourne (NW30356049)
- AS/NZS ISO31000 Risk Management – Principles and Guidelines

### TasNetworks Documents

- Field Works Practice (XXXXXXX)
- [Bushfire Mitigation Management Strategy 2014](#)
- [Bushfire Mitigation Management Plan 2015](#)
- [BFM Activities on High Risk Days – Aspects & Impacts Register](#) (NW 30357535)
- [Auto Reclose Suppression in Total Fire Ban Periods](#) (Aurora Energy Document)
- [ICS Event Response Management Manual](#) 2016
- [Integrated Risk Management System 2015](#)
- Bushfire Preparation Document:  
<http://collaborationzone.tnad.tasnetworks.com.au/business-functions/planning/bushfirescenario/planning/Safety%20Management?Web=1>

### Forms

- 

### Other Documents/Resources

- 

## 4. Records arising from this procedure

Record	Storage Location
Stored Documents and associated correspondence and approvals etc.	Record Point, Wasp, TVD, Promapp ZONE- Intranet site

## 5. Glossary and abbreviations

**Glove and Barrier Work** – Tasks that involve the use of gloves and barriers that will restrict ventilation and reduce cooling.

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## APPENDIX 1 – Actions on Days of Increased Bushfire Risk

Item	Actions as per FDR/FDI						
	Low-Moderate (FDI: 0 – 11)	High (FDI: 12 – 24)	Very High (FDI: 25 – 37)	Very High (FDI: 38 – 49) <b>TFB = FDI 38</b> <b>ICS Declared</b>	Severe (FDI: 50 – 74)	Extreme (FDI: 75 – 99)	Catastrophic (FDI: 100+)
<b>A - Hot Work (Welding, Grinding, Heat Torch, Use of petrol driven equipment such as Chain saws).</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	No Hot Work to be carried out in rural areas in TFB declared TFS Regions.	No Hot Work to be carried out in rural areas in TFB declared TFS Regions.	No Hot Work to be carried out in rural areas in TFB declared TFS Regions.	No Hot Work to be carried out in rural areas in TFB declared TFS Regions.
<b>B - General work in rural areas</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	Contact Team Leader prior to leaving depot to confirm works area is safe. Ensure fire suppression equipment is available Monitor Mate-Safe if fitted.	Contact Team Leader prior to leaving depot to confirm works area is safe. Ensure fire suppression equipment is available Monitor Mate-Safe if fitted.	Contact Team Leader prior to leaving depot to confirm works area is safe. Ensure fire suppression equipment is available Monitor Mate-Safe if fitted.	Contact Team Leader prior to leaving depot to confirm works area is safe. Ensure fire suppression equipment is available Monitor Mate-Safe if fitted.

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Item	Actions as per FDR/FDI						
	Low-Moderate (FDI: 0 – 11)	High (FDI: 12 – 24)	Very High (FDI: 25 – 37)	Very High (FDI: 38 – 49) <b>TFB = FDI 38</b> <b>ICS Declared</b>	Severe (FDI: 50 – 74)	Extreme (FDI: 75 – 99)	Catastrophic (FDI: 100+)
<b>C - Driving off road in rural areas.</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	No vehicular movements off <b>properly constructed roads or cleared tracks</b> for planned works in rural areas in TFB declared TFS Regions.	No vehicular movements off <b>properly constructed roads</b> for planned works in rural areas in TFB declared TFS Regions.	No vehicular movements off <b>properly constructed roads</b> for planned works in rural areas in TFB declared TFS Regions.	No vehicular movements off <b>properly constructed roads</b> for planned works in rural areas in TFB declared TFS Regions.
<b>D - Operating Network Infrastructure</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	Ensure fire suppression equipment is within 20m of equipment being operated in rural areas in TFB declared TFS Regions.	Ensure fire suppression equipment is within 20m of equipment being operated in rural areas in TFB declared TFS Regions.	Ensure fire suppression equipment is within 20m of equipment being operated in rural areas in TFB declared TFS Regions.	Ensure fire suppression equipment is within 20m of equipment being operated in rural areas in TFB declared TFS Regions.

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Item	Actions as per FDR/FDI						
	Low-Moderate (FDI: 0 – 11)	High (FDI: 12 – 24)	Very High (FDI: 25 – 37)	Very High (FDI: 38 – 49) <b>TFB = FDI 38</b> <b>ICS Declared</b>	Severe (FDI: 50 – 74)	Extreme (FDI: 75 – 99)	Catastrophic (FDI: 100+)
<b>E - Works associated with restoration of supply (During Event)</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	Contact Team Leader to confirm works area is safe.  Ensure appropriate comms in place.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Ensure appropriate comms in place.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Ensure appropriate comms in place.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Ensure appropriate comms in place.  Monitor Mate-Safe if fitted.
<b>F - Works associated with restoration of supply (Post Event)</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	Contact Team Leader to confirm works area is safe.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Monitor Mate-Safe if fitted.	Contact Team Leader to confirm works area is safe.  Monitor Mate-Safe if fitted.
<b>G - Crew availability for patrol/ inspection of tripped feeders on TFB days</b>	No Specific Action	No Specific Action	No Specific Action Monitor FDI	Contact Team Leader to determine crews on standby  Monitor Mate-Safe if fitted.	Contact Team Leader to determine crews on standby  Monitor Mate-Safe if fitted.	Contact Team Leader to determine crews on standby  Monitor Mate-Safe if fitted.	Contact Team Leader to determine crews on standby  Monitor Mate-Safe if fitted.

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