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They're our hot weather heroes,

fighting the flames and forewarning the community of dangerous conditions. While every state and territory have a rural fire service of their own, Ben and Lauren chat with Phil from the South Australian Country Fire Service (CFS) and extinguish any confusion around Fire Ban Seasons.

From considerations in campfire cooking, to seeking the right refuge – in this heated episode of the Snowys Camping Show, Phil cools the coals and clarifies all regulations that are relevant to travellers and tourers during the Fire Danger periods.

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Mentioned in this Episode:

Products:

<u>Camping stoves</u> <u>Kitchens</u> Gas BBQs



Fire blanket

Personal Locator Beacon (PLB)

Firepit

Multi-fuel stove

<u>Trangia</u>

Multi-fuel bottle

Hexamine tablets

Generator

Solar and power devices

Other:

What Can I Do / What Can't I Do?

Bushfire Safer Places and Bushfire Last Resort Refuges

<u>Emergency WA - Fire Danger Ratings</u>

CFS SA - Fire Danger Season Dates

Queensland Parks & Wildlife Service - Campfires and Cooking

Introducing Phil from the CFS

Chatting with Lauren and Ben today is Phillip McDonough from the CFS. Phil works as the Strategy and Compliance Officer in the Preparedness Operations department, loosely known as the prevention area. The sector focuses on legislation and compliance-type issues, with relevance to keeping campers and hikers safe when touring outback and country areas during the Fire Danger Season.

Gas Stove Regulations

In previous years, devices such as <u>camping stoves</u>, pull-out <u>kitchens</u>, and <u>gas BBQs</u> in caravan parks were prohibited during a Fire Danger period. After a change in regulations, caravan parks and alike are now exempt. The adjustment allows travellers to utilise gas BBQs and carry out external cooking in caravan parks on a Fire Ban Day.

Where the new policies concern caravan parks, they do not apply to national parks. The latter operate via their own legislation that indicates the use of physical fires and gas cooking devices are still not permitted on Fire Ban days. Such activities also remain banned at free camps and layaway sites unless campers have been issued specific permits to allow otherwise.

Previously too, gas BBQs were allowed to be utilised within 15 metres of a house or domestic building. This did not account for the popular Bunnings BBQs, given the hardware store doesn't fall under the same criteria. Considering this, the CFS incorporated specific terminology that referenced 'commercial businesses' to continue the Aussie tradition of the Bunnings BBQs.

Travelling During the High Season

Ultimately, travellers ought to be prepared and well-informed before travelling during the fire season. Some regional areas lack phone reception, which can lead to further difficulties – so



camping somewhere with poor or no coverage will require pre-planning for potential problems.

While the CFS website indicates what is and is not permitted in alignment with restrictions during the Fire Danger Season, the Bureau Of Meteorology (BOM) website helps travellers to confidently identify potential Fire Bans or predicted fire weather up to four days in advance. With a specific fire danger prediction function, the BOM is recommended for acquiring an accurate idea of the conditions before travelling. The CFS base their decisions on the BOM's data, where severe circumstances trigger their release of a Total Fire Ban status. Other online emergency platforms include the Alert SA and Emergency Plus apps. The Alert SA app (or your state's equivalent) allows the user to establish a 'geo-fence' that marks roughly where they'll be travelling. In an area with phone reception, the app will notify the user if a fire has been lit nearby. This allows campers to maintain a sense of situational awareness when out bush.

Interstate, the NSW Rural Fire Service offers Fires Near Me, where Victoria's services are via Emergency Management Victoria (EMV). Ultimately, camping in high-risk areas during the fire danger season demands an adequate phone signal for the best chance of seeking help in the case of a bushfire emergency.

Radios

When a fire is active, the CFS initiate a notification process. As the sole national information body, the Australian Broadcasting Corporation (ABC) is the only commercial partner contracted with the CFS. While commercial radio stations will break into their own transmissions and communicate independently, they are bound by no formal agreements. Another method to stay linked with other members of the camping community is via radio and television communication 'trees'. With adequate radio contact in and out, park rangers and relevant authorities aware of your travel plans can notify of when there will be a Total Fire Ban. The forewarning can aid the process of rearranging and restructuring plans in accordance with the recent weather changes.

Protection in Bushfire-Risk Zones

Firstly, adequate drinking water is vital to include when travelling through high-risk zones. When faced with a fire, the key to survival is keeping a solid barrier between yourself and the flames – for example, a woollen <u>blanket</u>. While cotton burns and synthetic melts, wool does neither and so offers the best defence. Other examples of protective barriers include a building, a shelter or alike, a large tree, or a boulder. Phil recommends storing a woollen jumper or blanket in your vehicle while travelling as a simple safety step, like in fire trucks. Contrary to popular belief, dampening your woollen blanket will result in steam that burns the skin, so it's suggested to keep the fabric dry.

Within your vehicle, keep below window-height where the radiation is less intense, with a blanket over the top for protection and insulation. Out in the open, locate a hide-out or solid object to position between yourself and the blaze. When this proves difficult or impossible, Phil's advice is to move sideways from the fire, as opposed to attempting to out-run it by moving upwards or ahead.



Bushfire Refuges

The black smoke of a bushfire turns day into night. Open flames draw air in from the 360-degree scope surrounding the fire, engulfing it in the hurricane of heat. Phil often parallels the intense roar of the angry blaze to how it sounds standing beside a freight train. Escaping a bushfire can be confusing and disorientating as it generates relentless heat, a smokey stench, and a suffocating haze. There are two types of bushfire refuges, each listed on the CFS website: Bushfire Safer Places and Bushfire Last Resort refuges. On the front page, travellers can enter the town they're headed to, and those highlighted indicate bushfire refuges.

Usually, a Safer Place offers the best chance of survival as its infrastructure (for example, that of a township) means less vegetation and flammable materials. The deeper someone travels into a Safer Place, the more likely they are to find safety and security. On the other hand, a Last Resort refuge – as its name suggests – should only be considered as a final option and not before a Safer Place. Despite reduced vegetation, a Last Resort is not found within a Safer Place and, with no servicemen to assist, is nothing but an open space (for example, an oval). While these are well-signed, there is no guarantee they will protect to the extent of a Safer Place.

To determine bushfire refuges, a boundary is drawn at an adequate distance from vegetation and measured to less than two kilowatts per square kilometre – the threshold of survival. While there will be sparks, embers, and smoke, it's the radiant heat that causes the most damage and poses the greatest threat. This is prevented within the Safer Place zones after many are measured to be below the threshold. On the CFS website, a Safer Place is identifiable as a yellow shaded area while Last Resort Refuges are each marked with a green icon.

Travelling on Foot

For those with a <u>Personal Locator Beacon</u> (PLB) but without a vehicle, the initial reaction when feeling under threat of a bushfire is to activate the PLB. That said, doing so within another emergency event will likely make it difficult for a service member to respond while they're busy battling the blaze. However, it is still beneficial to know that there are people within the area.

In the case of pre-occupied service members, those in danger of a bushfire beyond their vehicle are urged to identify the direction of the fire and begin moving to the side rather than ahead or on an incline. As touched on earlier, it is virtually impossible to outrun a fire. Phil elaborates that fire travels almost 10-times faster up a slope than along flat land, while the heat radiates at a lower intensity from the sides of the flames.

Ultimately, travelling on foot requires adequate preparation, education, and spatial awareness.

Identifying a Fire

If your nose says 'comfort campfire', but your gut says 'bushfire' – the CFS want to know immediately. Phil assures that they would rather receive a phone call in the early stages than



for an observer to standby until it exacerbates. First, identify where the smell is coming from. Is it a campfire that can be handled independently, or more frenzied flames that are likely to spiral out of control?

In outback SA, the CFS may be 200-300km away before they reach a reported fire, which could meanwhile grow substantially – a tyranny of the distance between outback locations. On the other hand, response times to situations within the Mount Lofty Ranges surrounding Adelaide are reduced from hours to minutes. This comes with the greater population of people and higher concentration of resources in the area, and built-up country regions alike. In some areas of the state, active prescribed burning is a helpful strategy. Phone operators ask a series of pre-set questions to help the caller identify the status of the fire, including how it smells and appears. If the fire seems uncontrolled, the operators can investigate further and consequently prevent a serious bushfire.

The Fire Danger Season: Unpacked

From campfires to camp stoves, the nuances of Fire Ban Season can be confusing. Lauren and Ben ask Phil to extinguish some of the perplexity by asking what constitutes a Fire Danger Season and, more specifically, what resource is most reliable from which to confirm relevant dates.

Fire Danger periods vary across the state, where SA dries out from the west to the south. The time between the west coast drying out and the Mount Gambier area in the southeast of the state doing so differs by four to six weeks. To minimise the inconvenience of the Fire Danger periods to the farming industry and camping community, the CFS stagger the dates. South Australia is fragmented into 15 Fire Ban districts – West Coast, Northwest and Northeast pastoral, Eastern and Lower Eyre, Flinders Mid-North, Adelaide Metro, and finally tracking across to the Southeast Riverland and Lower Southeast. Kangaroo Island is its own Fire Ban district, with ever-fluctuating dates that depend on the volume of annual and seasonal rainfall.

While Victoria and NSW mirror SA's approach, the NT covers the entirety of their state and WA indicates their Fire Danger ratings on their <u>website</u>. Ultimately, the most accurate information can be sourced from each organisation's website.

Leading into traditional seasonal dates, the CFS liaise with local bushfire management committees to gather their recommendations. From there, they base their decisions on the risk of the fuel loads (that is, the total combustible content of a fire zone, building, or space), dryness of the fuels, and foresight into when the season may conclude. It's also not uncommon for the CFS to further extend the season if their initial closing dates are found to be premature. This process happens in October, and by November 1 – when the first district looks to approach an early season – the dates are published on the CFS website. While Fire Danger Season prompts restrictive use of some equipment, this doesn't mean to say that there aren't potential Total Fire Ban Days beyond these dates. Occasionally, there are days on the cusp of the Fire Danger Season that could pose a significant risk. In these situations, a Fire Ban Day is declared through the media, and restrictions are put in place. During the Fire Danger Season, this process is corresponded – though restrictions are already established. Such concern vehicles in long grass, use of certain equipment, stationary engines, and physical fires. For example, many farmers carry out acre burning – though if



they do so during the Fire Danger Season, a permit is required from their local council. Comfort fires also need to adhere to certain criteria during Fire Danger periods, including their size and depth. The restrictions indicate that a comfort fire needs to be less than one square metre, and entrenched 30 centimetres into the ground. A responsible member of the group is also required to control the fire from the time it ignites to the time it is extinguished, and there always needs to be an <u>extinguishing agent</u> within reach. A 'responsible' group member is someone not under the influence of alcohol or drugs, and of an appropriate age to monitor the fire.

On Total Fire Ban Days, campfires are prohibited in all capacities.

Braziers and Above-Ground Fires

During the Fire Danger Season, <u>above-ground</u> and brazier fires are forbidden. This is due to the nature of their design, which doesn't allow them to sit within a 30-centimetre trench. That said, there are exceptions for those who manage to obtain a permit – though this is not a simple endeavour. Suitable permits are administered by the local government, and require an inspection of the site. When camping out bush, this can be inconvenient and difficult to follow through with.

Considering this, Phil encourages campers to simply dig a 30-centimetre hole as a firepit.

Comfort Fires

While some campers are known to toss some spuds on the coals (hungry for potatoes or not) in anticipation of someone questioning their 'comfort fire' – Phil clarifies that the exemption in the new legislation allows campfires for both comfort and cooking during the Fire Danger Season.



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Environmental Protection Agency (EPA) Legislation

While comfort fires are permitted in Fire Danger Seasons under relevant restrictions, some areas continue to ban them under the EPA legislation on account of their smoke causing an inconvenience. That said, those camping generally aren't within zones affected, where most of the clause refers to areas surrounding and within townships and alike. Caravan parks will often indicate whether travellers can create a campfire, but those camping within relevant townships are simply encouraged to consider this extra step to avoid prosecution under the EPA legislation.

Regarding backyard camping, local councils outline regulations on how to approach campfires and, given they administer the legislation for the EPA, offer the most suitable advice.



"Gas" Stove Terminology

It's important to note that while national parks indicate against 'gas' stoves, this terminology covers a broader group of cooking appliances.

Be it <u>multi-fuel stoves</u> using unleaded fuel or Shellite, or <u>Trangias</u> with methylated spirits and other <u>fuel types</u> – the term 'gas' in the context of appliances during the Fire Danger Season extends beyond Liquified Petroleum Gas (LPG) equipment. Essentially, liquid, gas, and solid fuels such as <u>hexamine tablets</u> and bricks, are all prohibited under this term.

Use of Gas Appliances

Many appliances can be bundled within the 'gas' arena, including angle grinders, gas soldering equipment, and oxy welding machines. Despite falling under the same banner as gas stoves, the use of these tools as an independent group is restricted under certain circumstances.

As mentioned, gas cooking is exempt from restrictions if in a caravan park or within 15 metres of a domestic or commercial building. That said, it's recommended to clear the stove's surrounding space to four metres, removing leaves and other bush debris from within the boundary. While this clearance concerns the sides of your pit, it also refers to the space above – so remove any flammable vegetation and low-hanging branches from within four metres above the pit too. Doing so ensures plenty of buffer, and the lowest chance of wayward sparks igniting.

Generators

There are two categories of generators: enclosed and non-enclosed.

Here in SA, an enclosed generator should only be used at a campsite if someone is within the vicinity at all times – in other words, doesn't simply 'set and forget'. In this case, like comfort fires, there needs to be a cleared space, an extinguishing agent within the area, and someone present at all times. If the latter isn't possible, there are further, complicated regulations involved.

Non-enclosed generators pose a higher risk, as vegetation is more likely to come into contact with the device itself. Much of the danger revolves around its exhaust system, so every stationary engine must comply with the relevant system regulations. If the exhaust gases pass through the manufactured exhaust system, with no identified leaks or escapes, a non-enclosed generator is deemed to comply. Moreover, no vegetation, leaves, or bush debris are to come into contact with the exhaust system.

Induction Cooktops

With the increase in use of <u>solar and 12V devices</u>, and the rapid development of batteries, Lauren and Ben ask Phil on behalf of the camping community whether such devices can be used all-year-round, regardless of Fire Danger restrictions.

Much to their surprise, it's a solid NO from Phil!



On a declared Fire Ban Day, an electric cooker is only permitted for use on the 'foreshore'. The term describes the space ranging from the low tide watermark to the first standing bush or grass. However, gas and electric BBQs supplied by some parks are a commercial system, maintained and guaranteed to comply with the full meta-clearance and therefore exempt from this law.

Be it an open flame or electrical charge, any heat source is bound within tight restrictions on a Fire Ban Day.

Extinguishing a Fire

From a woollen blanket to a water bucket, Phil outlines the best methods to extinguish a fire. While it depends on what seems appropriate at the time, he suggests keeping a small extinguisher in your camp vehicle in case a fire begins to burn beyond control.

On the other hand (and contrary to what some believe), Phil confirms that sand is not advised as a means of dousing a fire. Unlike others, it traps in the heat, posing harm to anyone who may trip and fall into the pit.

Ultimately, the most effective extinguishing agent is water. The key is to disperse it via small droplets or mist using a knapsack, spray bottle, or garden sprayer. The droplets absorb the heat which, as previously mentioned, is the main cause of harm. On the other hand, a large volume of water thrown directly onto the flames simply sinks into the sand and disappears. Essentially, fragmenting water into smaller particles via a spray device is far more effective than dumping a full pail in a panic.

Lastly, activating a dry chemical fire extinguisher produces a white powder that swallows the oxygen feeding the flames, meanwhile cooling the fire. That said, the powder itself contains chemicals that can eat away at a vehicle's electrical components if left to settle for too long (an ironic feature of a device stored in the car boot!). Another limitation is how it can affect asthmatics, often caught in the wind and easily inhaled.

Overall, given the dry chemical extinguisher lacks practicality and is primarily used in emergencies, dispersing water remains the most common and effective strategy to diminishing a fire.

After extinguishing the flames, heat can remain among the coals. A successful procedure is raking them out to allow the heat to diffuse, where coals will cool faster still after sundown. Before departing the area, simply ensure the ash and fire debris is cool to touch.

Find Out More or Get Involved!

The CFS website, Facebook page, and other social media platforms remain the most effective sources of information on Fire Danger Seasons and related weather considerations for touring and camping. To get involved, simply jump online, read more about the responsibilities of volunteers and CFS members and the opportunities available, and follow the recruitment process.

In country towns, local brigades welcome and encourage those who are interested to drop in and visit. This is a great way to navigate the community and get to know the locals. To stay relevant and informed, the CFS website offers information on What Can't I Do, where any change in regulation is reflected. The map on the website's front page



is also layered and interactive, allowing a comprehensive understanding of the state's bushfire and weather status.

Thanks for listening, tune in again for next week's episode!

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If you have any questions for Ben and Lauren, make sure you head over to our $\underline{Facebook}$ \underline{group} and let us know as we'd love to hear from you.

Catch you out there!