Fire Management and Community Recovery Plan

Weymouth Progress Association

Updated October, 2021

Weymouth Progress Association Sub Committee Fire Management and Community Recovery Plan

The WPA Fire Management and Community Recovery Sub Committee met on January 18, 2020 to consider the implications of a major fire event in Weymouth and how this would impact the community.
The sub Committee consisted of:

- Craig Tyeson (Vice President, WPA) Convener
- Ralph Berry: TFS Weymouth Station leader
- Zich Zicy-Woinarski: TFS volunteer
- Stan Van Emmerik: WPA Executive and SES volunteer
- Daryl Bailey: WPA Committee member

The Fire Management and Community Recovery Plan has been reviewed by the Tas Fire Service Community Development Officer.

The development of this plan is consistent with the interim findings of the Bushfire Royal Commission, which urges "shared responsibility" with respect to fire management and community recovery. A copy of the interim findings is available at the following link:
https://naturaldisaster.royalcommission.gov.au/system/files/2020-08/Interim%20Observations%20-31%20August%202020_0.pdf

The Sub Committee was guided by the following key questions:

Key Questions:

- What is a bushfire disaster?
- What are the consequences of a bushfire disaster?
- What or who is affected or lost in the community?
- What do we need to do in the Weymouth Community to mitigate the risks and effects of a bushfire disaster?
- What happens immediately following a bushfire disaster?
- What is community recovery?
- What are the roles of key stakeholders in community recovery?
- What resources, agencies will assist us in planning?
- Where to next?

Our response to a major fire event can be guided by three broad areas of focus:

- **What?** Define the problem, identify the risks and hazards.
- **So what?** What does this mean for the community? How will the community be affected?
- **What next?** What do we do to mitigate risks? How do we manage and assist the community to recover from a major bushfire event?

What?

The following risks have been identified with respect to major fire event or bushfire disaster impacting the Weymouth Community:

#	Location and Risk/Event	Outcome	Existing/proposed risk treatment actions
1	• Fire starts east of Lulworth Road	• Fire spreads to Weymouth • Excess fuel loads	• Residents advised to put protection measures in place to reduce fire risk
2	• Fire Danger: Severe, Extreme or Catastrophic	• Fire difficult or impossible to stop or control	• Leave early.
3	• 2km spotting distance	• Embers and fire in advance of the main fire	• Emergency broadcast advising to leave early
4	• Smoke	• Respiratory difficulties. • Difficult for fixed wing or rotary wing aircraft to locate fire	• Leave early
5	• Power outage	• Power cut to household pumps. Communication blackout. NBN towers impacted.	• Recommend battery powered radio
6	• Road blocked	• No access in or out • Difficulties for TFS to deploy appliances and personnel	• Leave early
7	• Evacuation to safe place	• Traffic congestion at river beach • Traffic control required • Cars will need to be abandoned • Difficult access to beach for aged and disabled • Lack of shelter • Evacuees will need to stay at the safe place for significant period of time	• Alternative defensible place • Sports ground? How do we make the sports ground defensible? • Determine in advance who will stay in the event of a fire event • Consider alternative access

#	Location and Risk/Event	Outcome	Existing/proposed risk treatment actions
8	• Reduced food supplies	• Victims seeking shelter have little or no food. Elderly and young significantly impacted.	• Emergency supplies delivered after the fire front has passed
9	• Excess fuel loads in public spaces and private property	• Higher risk of fire	• Controlled fuel reduction burns
10	• Inconsistencies in community preparedness • Numbers of residents unclear and therefore difficult to account for all residents • Elderly, infirmed or disabled have difficulty in accessing safe location.	• Numbers of residents unprepared placed at higher risk • Elderly and infirmed at greater risk of injury	• Develop community, age, property profile of Weymouth: ABS, GTC • Identify permanent, casual residents • Identify key areas that can be cleared of fuel • Mobile phone contact by tower
	• Ambulances unable to access the fire zone	• Elderly and infirmed unable to be evacuated	• Leave early

So What?

Emergency Services, TFS and SES conduct a rapid impact assessment following the fire event to assess the extent of damage to structures, infrastructure and to determine if there has been any loss of life.

A major fire event will impact the following:

- Access: road, air, sea
- People with disabilities and the aged
- Infrastructure and power
- Communication
- Emergency services
- Property loss
- Loss of life or injury
- Water and food
- Local Business
- Wildlife and flora
- Trauma and mental health
- Primary producers

What Next?

- What actions/strategies are needed to mitigate the risks?
- What Community Recovery strategies are required following a major bushfire event?
- What is the role of:
    - WPA
    - TFS
    - GT Council
    - State Government

Recommendations:

- Investigate alternative means of evacuation
    - River – upstream
    - Across Weymouth Farm land to Weymouth Farm Road
- Replace public wood fired BBQs with electric BBQs
- Identify areas required fuel reduction or clearing
- Develop Community awareness around fire management
- Construct Trevor Street extension as a natural fire break
- Create new fire breaks
- Develop access trails
- Develop Sports Ground as alternative safe place.
- Assess issues regarding access to Sports Ground and maintaining the area as a defendable place. This will require fire breaks, fuel reduction, cleared access on Walden Street.
- Identify where low branches can be cut to enable fire truck access, particularly in public spaces or those owned by DPIPWE or GTC
- Develop a Community profile: age, residential status, need for prescription medication, mobility issues, medical conditions that may be impacted by fire/smoke eg asthma
    - Create Survey Monkey (anonymous)
- Identify expertise that exists in the community that would assist in community recovery. Undertake audit of local skills (Survey Monkey):
    - Professional
    - Trades – electrician, plumbing, building
    - First aid certification
    - Medical experience, nurses
    - Location of emergency generators, fire pumps
- Conduct audit of residences with:
    - solar powered battery packs
    - generators
    - Fire fighting pumps and equipment
- Strategies to enact in the event of an extreme fire danger
    - Advise residents to leave
    - Public information
    - Messages on Public Hall Notice board

- Complete Fire Management and Community Recovery Plan (FMCRP) including community consultation.
- Convene Special Community meeting for Community Consultation on FMCRP. Invite GTC Emergency Management person (Peter Groves, Procurement, Risk and Compliance Officer George Town Council)
- Raise Community awareness about possible looting following a fire event
- Legal implications for victims of a fire event.
- Insurance implications for victims of a fire event.
- Clearly define Duty of Care for each agency or community organization.
- Determine optimum location for a Bushfire Recovery Centre: Weymouth Hall, Tam O' Shanter Golf Club, elsewhere?

Updated Recommendations:

Recommendations (September, 2020)

• Investigate alternative means of evacuation
  ○ River – upstream
  ○ Across Weymouth Farm land to Weymouth Farm Road
  ○ Gain approcal from land owner to use access road

• Replace public wood fired BBQs with electric BBQs
• Identify areas requiring fuel reduction or clearing
• Develop Community awareness around fire management. Letterbox drop, website and email to members.
• Construct Trevor Street extension as a natural fire break
• Create new fire breaks Cricket Ground: Walden Street access to be cleared.
• Develop access trails. • Regular maintenance of fire trails. Identify fire trails. • Service Request to DPIPWE to re-survey and assess fire appliances to the Esplanade.
• Develop Sports Ground as alternative safe place.
• Assess issues regarding access to Sports Ground and maintaining the area as a defendable place. This will require fire breaks, fuel reduction, cleared access on Walden Street.
• Identify where low branches can be cut to enable fire truck access, particularly in public spaces or those owned by DPIPWE or GTC
• Develop a Community profile: age, residential status, need for prescription medication, mobility issues, medical conditions that may be impacted by fire/smoke eg asthma • Create Survey Monkey (anonymous)

• Identify expertise that exists in the community that would assist in community recovery. Undertake audit of local skills (Survey Monkey):
  ○ Professional
  ○ Trades – electrician, plumbing, building
  ○ First aid certification

○ Medical experience, nurses ○ Location of emergency generators, fire pumps
• Conduct audit of residences with: ○ Solar powered battery packs ○ Generators ○ Fire fighting pumps and equipment
• Strategies to enact in the event of an extreme fire danger ○ Advise residents to leave ○ Public information ○ Messages on Public Hall Notice board ○ Conduct a Community Fire Drill involving all Emergency Services (November, 2022?)
• Complete Fire Management and Community Recovery Plan (FMCRP) including community consultation.
• Remind members of the need to have a Bushfire Plan. Provide members and residents with copy of updates FMCRP.
• Raise Community awareness about possible looting following a fire event. • The following advice has been received from Tasmania Police: ○ *Anyone who is the victim of a crime is urged to report the matter to police as soon as possible after the incident on 131 444 or Triple Zero (000) in an emergency.* ○ *Burglary prevention advice can be located on the Tasmania Police website, for example, within the Residential Burglary Prevention brochure at - https://www.police.tas.gov.au/services-online/pamphlets-publications/residential-burglary-prevention/*
• Legal implications for victims of a fire event.
• Insurance implications for victims of a fire event.
• Clearly define Duty of Care for each agency or community organization.
• Determine optimum location for a Bushfire Recovery Centre: Tam O' Shanter Golf Club has been identified by SES, department of Police, Fire and Emergency Management as the designated Emergency Assembly Point. This has been confirmed by the Tam O' Shanter Golf Club.
New Recommendations (Updated, October 2021)
• Regular scheduling of maintenance of Fire Trails
• Newsletter or flier to remind residents of need for fire plan leading into summer. • Email • Website • Letterbox drop
• Trevor Street burn. Needs to be done March/April
• Vegetation above Power lines opposite Smith Street needs to be cleared. Telstra shed track needs to be cleared.
• TFS supervision of burns of vegetation in the WMBRA. Service Request to GTC.
• Monitor fire reduction in and around the Optus Tower.

Community Recovery

Several documents and publications are available to inform the community and key agencies about issues in relation to Community recovery following a major fire event or bushfire disaster.

The WPA Sub Committee recommends the following:

- Australian Institute for Disaster Resilience Handbook Collection and Checklists
- Tasmanian Disaster Resilience Strategy 2020-2025
- Tasmanian Community Bushfire Refuge Plan
- George Town Council Emergency Management Plan
- Red Cross: Recovering from Disaster

Other useful publications include:

- Emergency Management Victoria: Disaster Recovery Toolkit for Local Government
- Emergency New South Wales: NSW Disaster Recovery
- South Australia: Disaster Recovery Plan

Duty of Care Australia

The principle of duty of care is that you have an obligation to avoid acts or omissions, which could be reasonably foreseen to injure of harm other people. This means that you must anticipate risks for your clients and take care to prevent them coming to harm.

A duty of care exists when someone's actions could reasonably be expected to affect other people. If someone is relying on you to be careful, and that reliance is, in the circumstances, reasonable, then it will generally be the case that you owe them a duty of care. You need to be clear about exactly what the nature of the care or support is that you are providing, and on which the person is relying. Failure to exercise care in that situation may lead to foreseeable injury (in other words it could have been avoided with due care taken).

Surviving a bushfire

We recommend that you are familiar with the Bushfire Survival Strategies available on the Tas Fire Service website: Tas Fire Service Bushfire Survival Plan

The information below from the South Australian Community Fire Service may also be useful.

There are 7 keys to surviving a bushfire which we recommend you review as part of developing your Bushfire Survival Plan.

Writing and practicing your Bushfire Survival Plans

- Your plan is central to your survival.
- **Have you got a Plan?**

Understanding bushfire behaviour

- It is important to understand the characteristics and behaviour of bushfires.
- They are influenced by vegetation, topography and climate**.**
- **What do you know about bushfire behaviour?**

Recognising days of high fire danger

- Bushfires can be more dangerous on certain days.
- Learn to recognise the characteristics and terminology of these days.
- **Do you know the signs?**

Preparing your home and property

- Even if your Plan is to leave early, a well prepared home is more likely to survive a bushfire.
- **How prepared is your property?**

Creating Emergency Kits

- Kits keep all the things you will need together and accessible. Create:
    - Relocation Kit - things to take with you
    - Survival Kit - what you need to help survive the day
    - Recovery Kit - what you need for the 24-48 hours after a fire.
- **What would you pack?**

Acting on days of high fire danger

- Put your preparation and plans into action on high fire danger days.
- **What will you do on a high fire danger day?**

Consider your physical and emotional preparation

- It's important to be realistic about what you can and can't do.
- Ensure you and your family understand fully what a bushfire can mean in terms of fear, stress and threat to personal life.
- **How prepared are you?**

Know what to do on fire danger days

Fires can threaten suddenly without warning, and can travel very fast.
It's important that you use triggers to warn you of the potential for danger before a fire even starts.
Days of high fire danger are usually:

- hot
- dry
- windy

Finding out the Fire Danger Rating is the best way to identify if it is a day of high fire danger.
Remember, the Fire Danger Rating is not a predictor of how likely a bushfire is to occur, but how dangerous it could be if it did occur.
You should not become complacent because there have been days with high Fire Danger Ratings and no bushfires.
The Bureau of Meteorology issues the Fire Danger Rating after 4pm for the next day.
One of the best ways to identify whether you need to activate your Bushfire Survival Plan early is to find out the Fire Danger Rating for the next day.
Don't wait until there is a fire, activate your plan well before a fire starts on high fire danger days.
The most important thing on high fire risk days is to be alert to what is going on around you.
Most of your actions will be the same whether you are leaving early or staying and defending. They include:

- monitoring the radio
- checking the weather forecast
- ringing neighbours to share facts and opinions
- look at the Tas Fire Alerts website for information on fires in your area http://www.fire.tas.gov.au/
- going outside and looking for smoke every 30 minutes
- performing the actions that will allow you more time as the fire front approaches
- performing the actions that are part of your local community strategies, for example, checking on a vulnerable neighbour.

Bushfire behaviour

Three stages of a fire

During a fire, you and your property are at risk from several things, depending on the stage of the fire.

Stage one – before the fire arrives

The lead time is highly variable, but a general guide is up to 30 minutes.
Before the fire front arrives, the main threats are:

- ember attack
- thick smoke
- increasing fire noise
- increasing darkness

- it will also be hot and frightening.

You can deal with these threats by:

- ember proofing your home
- preparing a clear space around your home that you can defend
- dressing in protective clothing and wearing a protective mask
- preparing yourself psychologically for the ordeal
- patrolling inside and outside the house, extinguishing any spot fires
- sheltering in the house if conditions become too bad.

Stage two – during the fire

This is a relatively short period, but that does not make it less horrific. It will last from 5 to 20 minutes, depending on conditions. Although brief, this is the most dangerous stage and you should seek shelter inside.

As the fire front passes you will be subject to:

- radiant heat
- flame contact
- ember attack
- smoke
- loud noise
- darkness
- power failure.

Radiant heat

Radiant heat can kill.

- Radiant heat is many times hotter than the air temperature.
- The front of a moving fire radiates up to six times more heat than its back.
- Radiant heat only radiates *in straight lines* and will *not penetrate solid objects*.
- Although it may not set a building on fire, it can crack and break windows, allowing embers to enter your home.
- Bushfires radiate a more significant amount of heat than grassfires.

Stage three – after the fire front has passed

Many hours, sometimes days, after the fire front has passed, properties continue to be at risk from ember attack and smouldering fuel. You should extinguish small fires and check roof spaces and other likely places for embers.

How vegetation feeds bushfire

Vegetation fuels bushfires. How hot the fire becomes or how fast it spreads depends on the vegetation or fuels: the amount, type, condition and arrangement.

For example, long dry grass, twigs and leaves will burn very quickly; while heavy forest and scrub will burn slowly, but at a much higher temperature and at greater intensity.

Common fuel types include:

- grass usually after it is drying out or dead
- crops
- seaweed
- decomposing humus, peat and duff (fine ground litter)

- small shrubs and scrub (heath lands)
- plantation forest (eucalypts, pine trees)
- bush/scrub (eucalypts with under-storey vegetation, wattles, she-oaks).

Given the right conditions, most of these fuels will ignite and burn readily. All will burn with different degrees of intensity.

How different fuels burn

Grasses respond rapidly to changing moisture in the air. Very dry grass (a deep gold and brown colour) absorbs moisture from damp air overnight which is lost to wind and dry air very early on high fire risk days. Grass fires can spread very rapidly.

Scrub vegetation and trees drop leaves and twigs (fine fuel) on the ground around them. These fuels can accumulate in large quantities. This fuel burns slower than grasses, but gives off far more heat.

When the bark on trees is fibrous and dry, flames from a surface fire can pre-heat and ignite the bark. This helps a fire climb higher up the tree, adding to both the height of the flames and the heat of the fire.

When shrubs, branches and bark provide a continuous ladder of fuel up into the tree canopy, a bushfire can burn high in the trees and give off very large amounts of heat. This is called a crown fire.

Effects of humidity on bushfire

It is easy to recognise days when fuels are at their driest. This is more common in summer, on hot and windy days.

The strong winds, coming from arid inland Australia, dry out the bush and fan any fire that starts.

On a typical summer day the air may contain very little moisture; it has a low relative humidity. This means that vegetation cannot absorb much moisture from the air. When the air is dry, the bush or grasslands are also dry from very early in the day, adding to the fire danger.

Relative humidity

Humidity is the amount of water vapour in the air:

- Low humidity means the air is very dry.
- When humidity decreases to less than 30 per cent the fire danger increases.
- Low humidity evaporates moisture from vegetation and flammable materials, making them easier to ignite.

Effects of wind on bushfire

Strong winds are normally present during bushfires, which makes it harder for firefighters to bring the fire under control. The wind pushes flames closer to unburnt fuel and causes the fire to travel quicker.

In South Australia, winds are hottest from the north/northwest. Wind also dries out vegetation, making it more flammable, and bends flames over, allowing radiant heat to pre-heat unburnt fuel.

Effect of wind on fire

Wind influences:

- the speed at which a fire spreads. The higher the wind speed, the greater the fire danger
- the direction in which a fire travels and the size of the fire front. A change in wind direction will rapidly change the fire front and fire direction
- the intensity of a fire by providing more oxygen
- the likelihood of spotting. Spot fires ignite when winds carry burning pieces of leaves, twigs and bark (embers) ahead of the fire.

Effects of topography on bushfire

A fire will burn faster uphill because the flames can reach more unburnt fuel in front of the fire. The heat radiating from the fire pre-heats fuel on the slope ahead of the fire, causing the fuel to start burning more quickly.

As a rule, the fire will increase its speed by 4 times as it travels up a 20 degree slope.

The opposite applies to a fire travelling downhill: because the flames reach less fuel, there is less radiant heat to pre-heat the fuel ahead of the fire, so the fire travels slower.

How a bushfire spreads

Bushfires spread along the surface of the ground in three ways:

- direct flame contact
- radiant heat
- burning embers.

Direct flame contact - flames touch unburnt fuels and raise their temperature to ignition. This process is hastened by wind blowing the flames deeper into the fuel ahead or an upward slope presenting fuel to the flames sooner.

Radiant heat - radiant heat from the fire raises nearby fuel to ignition temperature, often before the flames reach it.

Burning embers - when embers land on fine fuels, they can start small fires. If left unchecked, these fires smoulder, grow and spread. Winds carry embers ahead of the actual fire - sometimes several hundred metres ahead. They can land on flammable material, causing small fires to start.

Fires spread vertically from the surface through middle and upper-level fuels. Fires only crown into the tops of tall trees if there is fuel from the ground all the way up to the tree tops.

As a rule, flame height is between 3 and 5 times the height of the fuel. This makes cutting or grazing grass well worthwhile!

Fire is typically teardrop-shaped when there is wind.

The back of the fire burns slowest, coolest and with the shortest flames.

The fire front burns fastest and hottest and is the most dangerous place.

The fire flank is also dangerous: in the event of a wind change the upwind flank will immediately burn at its maximum rate of spread.

- Planning to stay and defend

What to do in the event of a bushfire

If you live in a bushfire-prone area you need to have:

- a pre-prepared checklist

- a prepared and practised Bushfire Survival Plan listing what your actions will be in the event of a bushfire.

To make your checklist easier to follow divide it up into things to do:

- inside and outside the house
- before, during and after the bushfire has passed.

The actions below will assist if you are staying to defend your property or are unable to leave.

Remember, property can be replaced but lives cannot. If you intend to leave early, make sure that you do so either early in the morning or even the night before.

Before the fire front arrives

Inside

- Alert family and neighbours.
- Bring pets inside.
- Dress in protective clothing.
- Shut all doors and windows.
- Fill bath, sinks and buckets with water.
- Place wet towels in any crevices, such as gaps under doors.
- Take curtains down and push furniture away from windows.
- Place ladder in ceiling access ready to inspect ceiling cavity.

Outside

- Remove last minute combustibles from around the house including flammable blinds, wooden furniture and doormats.
- Start pump for fire hose and/or roof sprinklers. (Make sure to manage your water supply well, so that there is sufficient water left for when the fire front actually arrives).
- Wet down all areas on the side of house facing the direction of the fire.
- Dampen window ledges allowing water to penetrate any gaps.
- Plug drains and fill gutters with water.
- Wet down any pre-determined problem areas.
- Patrol for spot fires and extinguish any that start.

When fire front arrives

- Retreat inside your home.
- Bring buckets, hoses, mops and tap fittings inside with you.
- Patrol inside for spot fires and extinguish.
- Check the ceiling cavity.
- Drink plenty of water.
- Reassure family and pets.
- Make sure you are situated in a room with two exits.

After fire front has passed

- Return outside when safe to do so.
- Patrol for spot fires and extinguish any.
- Continue to patrol for 3-8 hours.
- Let family and neighbours know you're okay.
- Continue drinking plenty of water.

Vehicles in a bushfire

Being out on the road during a bushfire is EXTREMELY dangerous. Last minute evacuations are clearly not an option.

A well thought out Bushfire Survival Plan is vital for all residents in bushfire-prone areas. Plan to stay with your home and defend it, or go to a safe area well before the fire is expected to arrive.

Travel in the country during the bushfire season needs to be done with extreme caution and vigilance.

- Always carry woollen blankets and a supply of water in the vehicle. Dress in suitable non-synthetic clothing and shoes.
- Know the local bushfire warning system and tune in accordingly when travelling.
- Be attentive to your situation and as you drive make mental notes of solid structures, including farmhouses, buildings etc that could provide safe shelter in the event of a bushfire.
- Look for sites that have well managed, reduced vegetation.

If you see a bushfire in the distance, carefully pull over to the side of the road to assess the situation. If it is safe to do so, turn around and drive to safety. Depending on how close the fire is, consider using a solid structure that you may have passed previously to shelter in while the fire front passes.

If the fire traps you

If the fire has trapped you find a suitable place to situate the car and shelter from the intense radiant heat. There is a whole range of factors that may impact your survival chances. The following guidelines may help to minimise the level of risk:

Positioning your vehicle

- Find a clearing away from dense bush and high ground fuel loads.
- If possible minimise exposure to radiant heat by parking behind a natural barrier such as a rocky outcrop.
- Position vehicle facing towards oncoming fire front.
- Park vehicle off the roadway to avoid collisions in poor visibility.
- Park away from other vehicles.

Actions to take inside your vehicle

- Stay inside your vehicle - it offers the best level of protection from the radiant heat as the fire front passes.
- Turn headlights and hazard warning lights on to make the vehicle as visible as possible.
- Tightly close all windows and doors.
- Shut all the air vents and turn air conditioning off.
- Turn the engine off.
- Get down below the window level and shelter under woollen blankets.
- Drink water to minimise the risks of dehydration.

What to expect as the fire front passes

- Stay in the vehicle until the fire front has passed and the temperature has dropped outside.
- Fuel tanks are very unlikely to explode.

- As the fire front approaches, the intensity of the heat will increase along with smoke and embers.
- Smoke will gradually get inside the vehicle and fumes will be released from the interior of the car. Stay as close to the floor as possible to minimise inhalation and cover your mouth with a moist cloth.
- Tyres and external plastic body parts may catch alight. In more extreme cases the vehicle interior may catch on fire.
- Once the fire front has passed and the temperature has dropped cautiously exit the vehicle. (Be careful - internal parts will be extremely hot.)
- Move to a safe area e.g. a strip of land that has already burnt.
- Stay covered in woollen blankets, continue to drink water and await assistance.