

## Mallacoota unprepared – bushfire attack and aftermath

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### Introduction

My earlier Post (30 Dec 2019) lamented Mallacoota’s lack of recent control burning mitigation activity by fire authorities, fearing it was inadequate to deal with an impending severe bushfire attack.

But it was not a severe attack. I have been collecting evidence about the attack and find it was a lower-end severity attack – with low-ish density ember attack and no running flame within the residential area. By contrast, the fire authorities portrayed it as a severe bushfire attack.

Mallacoota is putting on a brave face, but has not fared well in this bushfire attack. Even though our information-miserly government has still not announced house losses, the media estimates suggest around 100 houses = a 10% house loss rate.

Q      Why so high in a lower-end bushfire attack?

A      House losses occur during ember attack (whether low or high density) when houses are vacant and undefended.

As you know, I promote and teach people to self-defend against severe bushfire attack. Similar principles apply to a property as to a town like Mallacoota. The aimed-for outcome is zero house loss. Why? [Because when you save the house you save the life and the house and this is what people want.](#) I put it to you that if a properly prepared town was attacked by this fire, the townsfolk, visitors and businesses would have resumed normal life next day.

It is too late now to help Mallacoota achieve this outcome. Pity. From evidence available to me, Mallacoota had sufficient basic-level infrastructure protection (like fuel bed discontinuity, wide streets, edge fire breaks) to survive an ember attack with very few house losses, but the people were unprepared and the core infrastructure of the town had not been protected (= water, power, access and communications). If the local fire authorities had obeyed the consistent fire authority HQ message of “remain indoors” people might have been inspired to self-defend at home rather than flee in fear to the water. However, as we saw, the town has become temporarily unliveable because its core infrastructure seized up. As a consequence of poor preparation, Mallacoota’s outcome is house loss and a brutal uprooting of the lives of townsfolk, visitors and businesses for years to come.

It is not too late to prepare for the next bushfire attack, but I am afraid the townsfolk will have to go it alone because there is no support from the Victorian government, who appear to tolerate the fire authority policies of suppression without preparation and of evacuation without care for house loss. [Oh and by the way, did you hear the Victorian government say that holiday houses do not qualify for public donation money? Are holiday houses not real houses now? Does NSW have this policy or is it a class war policy thing in Victoria – if so, half the houses in Mallacoota and many other towns are holiday houses, so do the Vic government house loss figures now refer to real houses only?]

This Post documents (with commentary) day by day events and happenings in the unprepared Mallacoota of 28 December 2019 and afterwards. My message to town leaders is to prepare your infrastructure and your people for self-defence and survival, or else your town will be in the hands of fire authorities forced into crisis management mode.

### ***Crisis management***

Management textbooks describe the phenomenon of “putting out spot fires” as a symptom of a badly run organisation that lurches from crisis to crisis. Management diverts resources to deal with each crisis rather than deliver what it is in business for.

When fire authorities respond to bushfire attacks in a town without strategic preparations or without mitigation works that allow the firefighters to protect people’s assets within a safe work place, they operate as crisis managers of a different type. Their crisis management is not harmful to them. It hurts the people who have not been prepared.

This fire came unexpectedly, generating panic and crisis. There was no preparation for what occurred here. Mallacoota is yet another victim of “putting out spot fires” crisis management. The irony is that spot fires literally occurred here and were the sole threat to the houses and cars, etc, but while the fire organisations managed the crisis, the spot fires were not extinguished.

### ***Three “secrets”***

Here are three principles that genuine forest fire professionals know. I will call them secrets because if the fire agencies know of them, they do not apply them yet.

First secret. If we apply the right bushfire behaviour knowledge to a given area in the right way, we control the damage potential on that area. We can actually eliminate damage potential.

Unlike fire authorities, I apply traditional disaster management principles.

Prevention, preparation, mitigation, response, recovery, rehabilitation.

Here is the second secret. Do the first three properly, and the last three become redundant.

Unfortunately, the fire authorities now focus on the last three.

Here is another secret. Bushfires are not a natural disaster. If the fire authorities ever reveal to Treasury that bushfires are not a natural disaster, Treasury might realise that bushfires can be prevented in any area they choose by strategic removal of bushfire fuel, and there will be a lessening need for response, recovery, rehabilitation in that area. Treasury would save a fortune if it required more areas to be strategically fuel reduced and would apply it to productive purposes like schools and hospitals and transport.

### ***Disclaimer***

This document is not a criticism of the people employed by the Victorian authorities. It is certainly not a criticism of the selfless volunteers. It aims to showcase aspects of the system the government has set up and to reveal its major policy flaws. Everybody is doing their best in their job, but the fires grow ever larger and wipe out ever more houses and government diverts ever more money to suppression and recovery and rehabilitation.

Eg, (1) The CFA Act delivers prevention of fire by declaring fire seasons and Total Fire Ban days. It requires the Shire to prepare a fire plan, but no “body” is accountable for its performance. It delivers suppression services with trucks manned by volunteers and everyone now craves aircraft, yet the only performance measure is to respond within x minutes. Despite their best efforts, bushfires escape firefighter control on windy days and they grow too large to control, at the exact time they are most dangerous. (2) The Emergency Services Act manages these escaped bushfires as emergencies and manages the recovery of communities after their inevitable decimation. The words prevention and mitigation are not in the Act. (3) In Victoria, each department is allocated an annual budget from Treasury, but when a bushfire is declared, the cost of suppression and rehabilitation is paid for separately by Treasury from a bottomless mystery pot. The more time staff spend on a bushfire, the more of their wages and expenses are available for allocation to other areas within the department. (4) There is no person or “body” accountable for the comprehensive bushfire protection of Mallacoota (or indeed, any town) yet there are many departments that have a protection role.

***What would a pre-prepared Mallacoota look like?***

Let’s now imagine a base-level 101 Mallacoota scenario pre-prepared under a three-step plan, geared to survive a severe bushfire attack.

Step 1 Clarify strong goals - zero life loss, zero house loss, minimal disruption to normal life and business. An influential local “body” takes accountability for monitoring and performance.

Step 2 Identify bushfire threats to houses and shops in surrounds, on boundaries and internally, then mitigate using current laws and landowner cooperation. Townsfolk are trained to deal with the residual threat. Eg, where threat of running-flame is eliminated from a given area by keeping flame well away and small, the residual threat is ember attack and stationary flames within that area. People are empowered to deal with residual threat professionally and collectively, either in cooperation with local brigade or in absence of brigade. Refuge for smoke-sensitive people is pre-organised.

Step 3 Identify bushfire threats to basic infrastructures into town and within town and mitigate them: eg, water supply, power supply, access roads, communications

Let’s keep this orderly approach in mind as we read the litany of preventable chaos and battering of the Mallacoota community and visitors on 31 December 2019 and afterwards.

## Unprepared Mallecoota –chronology of the attack and the aftermath

The left column in the Table below lists information and events of relevance to the people and township of Mallecoota from publicly available documents for each day in chronological order. They are often from a media source, but they are intended to capture the human and perhaps economic impact of happenings at that time.

The right-hand column shows missives and instructions to local people from emergency management HQ delivered via web site or text. They are time matched with the left-hand column entries as closely as possible. During the bushfire attack period, relevant weather details are provided together with Fire Danger levels. We need to remember that on low fire danger days, flame spread is slow and flame height is low.

Comments are inserted into both columns to point out a perspective view or a concern or a congratulation.

### Glossary

**Fire Danger Index** Initially designed as a scale of 0 to 100 to measure relative difficulty to control fire spread in a tall forest. This in itself is a nebulous concept, however, the scale derives from air dryness (derived from temperature and relative humidity) and wind speed. Has erroneously come to be interpreted as a measure of potential bushfire ferocity, eg, how fast and hot it burns. Despite such vagaries, it seems to work as a forecasting tool. It has been correlated with chance of fire incidence, spread rate of fire and damage toll.

**Total Fire Ban day** The trigger for declaration is approx FDI 50

**Weather data** is from Bureau of Meteorology web site.

**Wind speed** is measured at 10m height wind speed near ground level in an open paddock is 2/3 of 10m speed and if under forest canopy, is approx ¼ of 10m speed. By convention, fire behaviour is predicted and assessed using average wind speed, not wind gusts.

As we discover more about spread mechanisms, this simple convention is useful, but cannot be relied upon for accurate predictions or assessments. Its relevance depends on the flame's spread mechanism. Eg,

**The wind driven mechanism:** When a constant wind speed pushes flame across a surface fuel bed, it cycles between a wind driven phase and a convection phase. Net wind speed is related to average wind speed

- The wind driven phase sees the wind lay the flame along the fuel bed and pushes the convection column and sparks almost horizontally. The horizontal flame ignites unburnt fuel. Ignition by direct flame is very rapid. Spread rate is proportional to wind speed at ground level.
- The convection phase sees the flame rise tall and vertical, and spread rate virtually stops as the vertical air flow in the strong convection column is unmoved by the lateral air flow of the wind. Sparks are seen to rise vertically until the uplift air weakens and they move laterally in the wind.

**The tall flame / piloted ignition mechanism** In forests with flammable bark and / or tall undergrowth, wind direction at fuel bed level is useful but wind speed has negligible impact on spread rate of flame front. The tall flame radiates onto the unburnt surface fuel and throws sparks and embers into the wind stream, dropping them into the preheated fuel bed where they rapidly ignite. The spread rate can equal or exceed ambient wind speed. The Project Vesta video clearly shows this mechanism.

## Chronology of the attack and the aftermath

Weather and Events on fireground	Emergency Services advice to locals via tweet / media / text
<p>Saturday, 28 December</p> <p> <b>Wind at Mallacoota</b>            average wind speed 9am from NW and 17kph,  <b>Fire Danger Index 7 (= LOW)</b>            3pm from ESE but &lt; 10kph <b>Fire Danger Index 6</b>            Highest wind gust 41 kph from N at 11.30pm         </p> <p>           The Age (1/1/20) quotes Ms Mounsey, a local, saying “<b>the Bairnsdale CFA had warned them at a meeting that Mallacoota would be hard to defend</b>”.         </p> <p> <a href="https://www.theage.com.au/national/victoria/mallacoota-awakes-to-assess-damage-wrought-by-apocalyptic-fire-20200101-p53o23.html">https://www.theage.com.au/national/victoria/mallacoota-awakes-to-assess-damage-wrought-by-apocalyptic-fire-20200101-p53o23.html</a> </p> <p>The date of the meeting is not mentioned.</p> <p><b>Comment:</b></p> <p>As a forest fire professional, I know it is very defensible if we apply bushfire behaviour and risk management knowledge together with the power of the townsfolk. I urge fire authorities to do likewise.</p> <p>If such a negative comment is made by a fire agency, it is of great concern that it did not outline a plan to make it defensible.</p> <p>Nevertheless, if the fire brigade has declared defence too hard, the people now need to contact a forest fire professional like me to empower them to self-defend in safety without the brigade.</p>	<p><b>Emergency Services advice to locals via tweet / media / text</b></p> <p>“Everyone in East Gippsland must leave this area today due to the fire danger forecast for tomorrow”</p> <p>  Everyone in East Gippsland must leave the area today due to the fire danger forecast for tomorrow. Do not travel to this area. It is not possible to provide support and aid to all the visitors currently in the East Gippsland region.         </p> <p>Full info here: <a href="http://go.vic.gov.au/fysnt6">go.vic.gov.au/fysnt6</a></p> <p>East Gippsland Fires - Potential Fire Impact Area 29 Dec 2019 - 11:30</p>  <p>Order does not apply to Mallacoota, which is where many people go to:</p> <p>           CFA Updates Retweeted  <b>Martin Tomko</b> @dinomirMT · 28 Dec 2019            Replying to @CFA_Updates            Turned back in Cann river. Too many cars still heading to Mallacoota. Not worth the risk. stay back, the road is closed! #bushfires #EastGippsland         </p> <p><b>Comment:</b></p> <p>The CFA has been a bit naughty here - exceeding its legal powers with this notice it two ways:            (1) Its S 30 and 31 evacuation powers are limited to people <b>in or on any land, building or premises that is burning or threatened by fire</b> and this applies to only a few parts of the area encircled on this map.</p> <p>(2) it failed to declare the Section 31(4) exemption - <b>Nothing in this section or section 30 shall authorize the removal from any land building or premises of any person having any pecuniary interest therein or in any goods or valuables whatsoever thereon.</b></p> <p>Is it an honest mistake or are they pushing an agenda?</p>

**Bureau of Meteorology, Victoria** @BOM\_Vic · 28 Dec 2019  
 Dangerous fire conditions are expected across #Victoria on Sunday and Monday. Very hot temperatures are forecast, while strong and gusty NW'ly winds will develop on Monday. Stay up to date with advice and warnings from @vicemergency @CFA\_Updates and at ow.ly/2y9A50xJ6uW

**Victoria Fire Danger Ratings**  
 Issued at 4:00 pm EDT on Saturday 28 December 2019.

District	Sunday	Monday	Tuesday	Wednesday
Mallee	Severe	Extreme	Very High	High
Wimmera	Very High	Extreme	High	High
Northern Country	Very High	Extreme	Very High	Very High
North Central	Very High	Extreme	High	Very High
North East	Very High	Severe	Very High	Very High
South West	Very High	Extreme	High	High
Central	High	Extreme	High	High
West and South Gippsland	High	Extreme	High	High
East Gippsland	Very High	Severe	Very High	High

## Vague alerts risky

AT 12.22pm on Sunday, while I was sitting in the major provincial town of Bairnsdale, I received a text message, advising "you need to leave East Gippsland today for a safer location as fires are likely to impact this area".

East Gippsland is a vast area.

It takes three hours to drive across it from west to east.

It covers 21,000 square kilometres.

Parts are forest, parts are open rural, parts are major towns, parts are seaside villages and beaches.

Did the author of the text have any appreciation whatsoever of the region?

To broadcast such a warning at that time was, in my view, alarmist and misleading.

Warnings, to be of use, need to be timely and specific.

I believe that most people would have dismissed the warning as a cynical bum-covering exercise and it may undermine the credibility of future warnings.

There needs to be an urgent review of what warnings are broadcast and the manner in which they are approved for distribution.

Instead of being a useful source of information, meaningless communications such as this risk further losses.

**Len Weavers, Paynesville**

Herald Sun 31/12/19

Eg, a mechanism to incite fear and panic in the community or a trial in extending government control over people in large areas = thousands of people, as done in USA.

**The boy has cried wolf.** As we see in the left-hand column, tomorrow's daytime weather (29<sup>th</sup>) is much lower fire danger than forecast. [The next day's danger (30<sup>th</sup>) is lower than forecast. It reaches maximum FDI 40 at 4pm, then falls lower. The wind change is much delayed – it arrives at 5am on 31<sup>st</sup>. Thus, the two days following this draconian warning are milder fire weather days than forecast.]

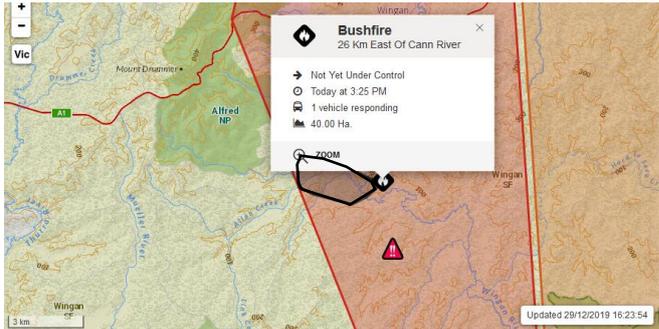
Basing an evacuation order on a forecast of "very high" fire danger is a bit alarmist and not rescinding the order when the day's local weather revealed itself is a bit irresponsible because it shows it is not based on fire behaviour considerations. Moreover, telling everyone they must evacuate indicates no regard for legal powers of CFA or common law rights of the people and no confidence by HQ in the fire fighters' ability to defend.

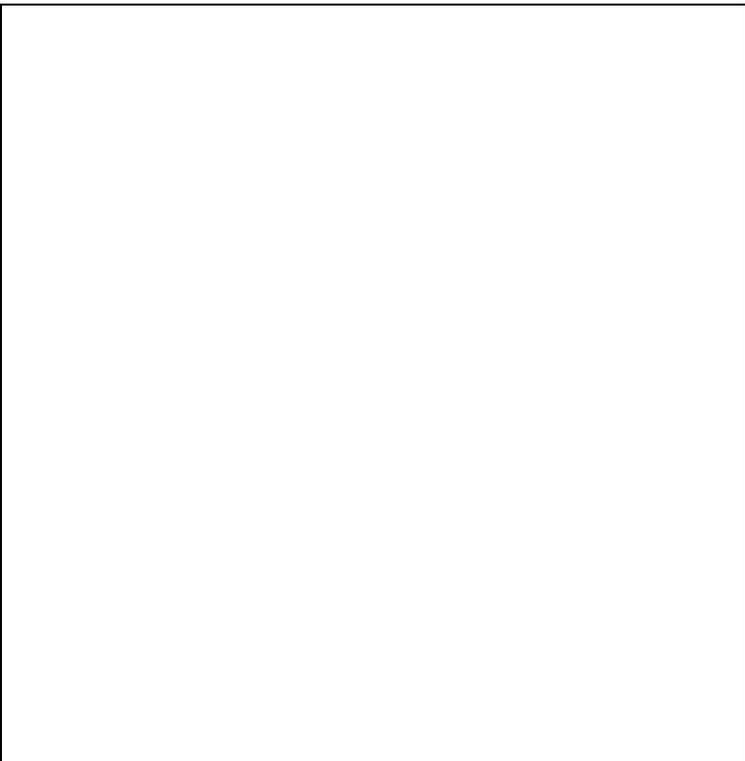
## The evacuation call makes locals unsettled

When we add wholesale evacuation to the list of impediments thrown at residents and visitors in recent months and years, the observer could be forgiven for thinking the government wants people out of East Gippsland all together, perhaps to return it to Nature and the ants.

- Government has decimated a big part of the local economy by progressively removing forestry from crown land.

- Government has allowed several fires to run for several weeks prior to this declaration through drought-afflicted forest and so create a mega-fire panic, when it had the capability to stop them in the first week.

	<ul style="list-style-type: none"> <li>- The government institutes no appropriate prevention or mitigation works to protect against the mega fire.</li> <li>- After each severe weather day makes the fires ever larger, the government-ordered road blockages incur maximum anxiety and delay to the evacuees and inflict maximum harm to farmers' and traders' recovery and future livelihoods.</li> </ul>
<p><b>Sunday, 29 December</b></p> <p>Wind at Mallacoota  average wind speed 9am = calm    Fire Danger Index 0  3pm from SSE but &lt; 10kph        Fire Danger Index 0  Highest wind gust 30 kph from NNW at 9:51pm</p> <p>Periods when average wind &gt; 20kph:  11pm to midnight    26 – 30kph from NNW</p> <p><b>2.30 pm        400ha not 40 ha.</b>  At 3.25pm on Saturday 29<sup>th</sup> a fire is reported at Wingan, spreading to West. Notice says 40 ha, but scale map shows 3+km by 1+km = 400ha. This means it started well before 3.25pm on 29<sup>th</sup>. When?</p>  <p>Emergency Services website</p> <p>The weather for the previous days was mild, meaning it might have been burning for a few days. Was this fire known about or missed in the smoke for a day or two? If known about, why was it not suppressed when small?</p> <p><b>Key questions:</b>  Who was appointed Fire Controller?  When?  What was suppression plan?  What suppression effort was applied today along tracks and waterways on the southern edge in particular?</p> <p>Until further evidence is provided, the answer to each will have to be zero.</p>	<p><b>Comment</b>  Look at today's local weather and then look at evacuation orders flying thick and fast. They are out of all proportion to local fire behaviour and current wind direction.</p> <p><b>“Leave Wingan and Tamboon now”</b></p>  <p>Leaving now is the safest option. More details: <a href="https://emergency.vic.gov.au/respond/#/!war...">emergency.vic.gov.au/respond/#/!war...</a></p>  <p><b>“Stay put in Mallacoota”</b>  If you are in Mallacoota, stay there. It is too late to leave. More details at <a href="https://emergency.vic.gov.au/respond/#/!war...">emergency.vic.gov.au/respond/#/!war...</a></p> 



“Leave Tamboon”

Leaving now is the safest option, before conditions become too dangerous. Emergency Services may not be able to help you if you decide to stay.

[emergency.vic.gov.au/respond/?fbdi...](https://emergency.vic.gov.au/respond/?fbdi...)



Later

The Princes Highway has now RE-OPENED in both directions

This comes after a road closure earlier today between Cann River and Genoa in far East Gippsland

The Princes Hwy may close again tomorrow morning (30/12/2019) at short notice due to fire conditions in the area



Monday, 30 December

**Forecast:** Monday 30th is a severe weather day forecast, strong NW winds followed by strong SW winds. Change forecast to reach East Gippsland late evening. Total Fire Ban Day declared a for whole state. [TFB is triggered when FDI forecast > 50]

Wind at Mallacoota  
 average wind speed 9am from N at < 10kph,  
**Fire Danger Index 10**  
 3pm from ESE and < 10kph **Fire Danger Index 7**  
**At 4pm Peak Fire Danger Index = 40 for brief period**  
 Highest wind gust 37 kph from NNE at 2.44pm

Periods when average wind > 20kph:  
 1 – 1.30 pm wind 22 kph from NE  
 4 – 4.30 pm wind 24 kph from NNE  
 7.30 – 8.30 pm wind 24 -28 kph from N

**Comment**

Look at today’s local weather and then look at the tone of messages proclaiming “emergency”. They are out of proportion to local fire danger level and current wind direction

“Leave Tamboon, Wingan now”

The bushfire at Wingan River is travelling in a southerly direction towards the coast. Leaving now is the safest option.

More details at [emergency.vic.gov.au/respond/#1/war...](https://emergency.vic.gov.au/respond/#1/war...)



Mallacoota warned

The bushfire at Wingan River is currently travelling in a south-westerly direction towards the Mount Everard on the coast.

More info [emergency.vic.gov.au/respond/#1/war...](https://emergency.vic.gov.au/respond/#1/war...)

#vicfires



**Before 6am on 30<sup>th</sup> cigar shape runs to SSW**



Emergency Services

**Comment:**

Plans should by now have been afoot within the control team to deal with the eastern flank ahead of the forecast SW wind change.

At Mallacoota, NNW wind blew 15 to 19 kph average from 10.30pm on 29<sup>th</sup> until 3.30am on 30<sup>th</sup>. However, the fire’s pathway was toward the SSW, suggesting the net wind at the fireground was from NNE.

This 5-hour period saw the fire run 20km to the coast in a cigar shape. This would be an average of 4kph through shrubby forest at night when temp was 25C and RH 50%, and Fire Danger Index = 8.

When wind above tree tops is 15 - 19kph it is around a quarter at fuel bed height (= 4 – 5kph). If the flame spread by the wind driven mechanism, its expected spread rate is less than 1 – 2 kph. But if the spread is by the [tall flame/piloted ignition mechanism](#), which is expected in this tall heathy understory, such rates are technically possible beneath the forest canopy.

Hopefully, the fire agencies have IR footage for closer analysis to discover if the cigar shape was the outline of the leading spot fires or was actually flame-filled.

Possibilities - The fire either ran 3 to 4 km wide all the way as a single front or in multiple narrower tongues in parallel that would have had the capability to generate large fire whirls in between that can throw mass ember dumps ahead to stimulate the speed.

**7.15am From “The Age” Blog**



**“Too late to leave Tamboon”**

It is too late to leave. Stay aware of the current situation, more details at [emergency.vic.gov.au/respond/#1/war...](#)



Mallacoota, Maramingo Creek, Wangarabell. There is a bushfire at Wingan River that is not yet under control and has travelled in a south-westerly direction towards on the coast. [emergency.vic.gov.au/respond/#1/war...](#)



Bushfire - Emergency Warning for Wingan River. For more info: [bit.ly/2QI9Cx](#) #vicfires



**CFA Updates** @CFA\_Updates · 29 Dec 2019  
As of 1pm Monday, the Princes Highway is closed between Cann River and Genoa due to increased fire activity in East Gippsland. If you cannot leave, you should seek shelter.



**“Tamboon – too late to leave, shelter in place” ???**

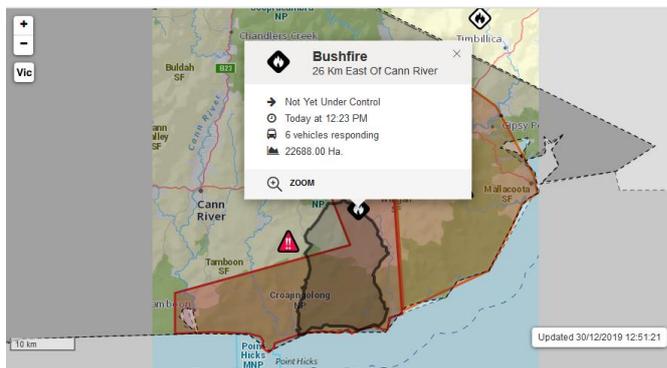
It is too late to leave. Shelter in place.

The Princes Hwy is now closed between Bruthen and Genoa intersection.

More details at [emergency.vic.gov.au/respond/#1/war...](#) #vicfires



12.51pm



Emergency Services website

9 pm



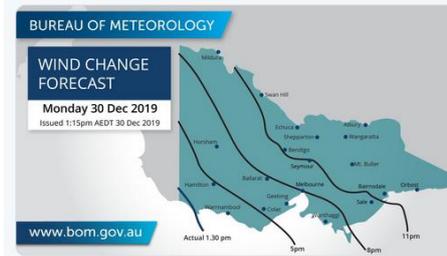
Emergency Services website

**Comments:**

Are the Wingan River or Betka River or Mallacoota Road suitable containment lines that could have been strengthened today?

No change in fire's shape all day long. Wind remains from north.

**Bureau of Meteorology, Victoria** @BOM\_Vic · 29 Dec 2019  
 The SW'y wind change has entered Victoria near Portland and will progress eastwards, arriving in Melbourne around 8pm. Temps to fall around 10-15°C following the change. Thunderstorms active across the state, warnings here: [ow...](#)  
[/4eSU50xEUx](#) #MelbourneWeather #VicFires



**Comment:**

Perhaps realisation sets in that Mallacoota might be impacted by a 15 km fire front.

Mallacoota, too late to leave, “shelter indoors immediately”

The safest option is to take shelter indoors immediately. It is too late to leave.

More details at [emergency.vic.gov.au/respond/#/war...](#)



Tamboon – warning downgrade, but “shelter in place” ???

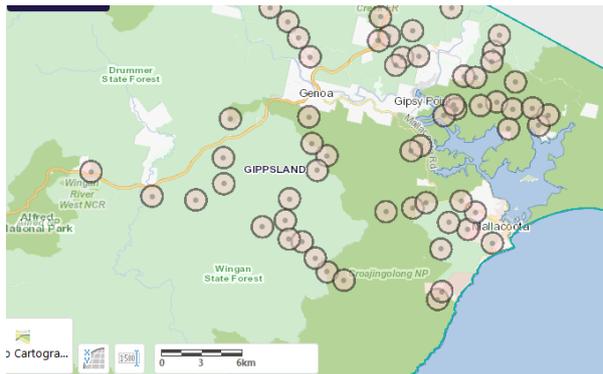
This replaces the Emergency Warning that was issued at 4:30pm today.

It is too late to leave. Shelter in place.

More details at [emergency.vic.gov.au/respond/#/war...](#)



Has the control team spared a thought for the Apiarist sites in the path of this fire?



“Mallacoota, take shelter indoors immediately to survive”

You are in danger and need to act immediately to survive. The safest option is to take shelter indoors immediately. It is too late to leave.

More info [emergency.vic.gov.au/respond/#/war...](https://emergency.vic.gov.au/respond/#/war...)



**Comment:**

**Act immediately? / to survive?**

Why? At 9pm, the fire is 25 km away and the wind is still from the North.

A baseless warning?

Why was it approved?

The Mallacoota weather station shows the SW change occurred at 5am tomorrow.

Tuesday 31 December

Wind at Mallacoota

average wind speed 9am from SW at 39 kph,

**Fire Danger Index 18**

3pm wind from SSW at 26kph **Fire Danger Index 8**

**At 8am Peak Fire Danger Index = 20 for brief period**

Highest wind gust 100 kph from S at 6.36am

Periods when average wind > 20kph:

4.20am to 5am Wind 22-26 kph from N / NE

6 to 7.30am Wind 25 -33 from SSW kph

7.30 to midday Wind 30 - 46 kph from SSW / SW

[8 - 9am >40 kph, Rest of time 30 – 35 kph]

Midday to 5 pm Wind 24 -30 kph from SW/SSW

From 5 to 8.30pm, wind 20-22 kph from SW/SSW

From 8.30 to 10.30pm, wind 17 - 19 kph from SW/SSW

**5.22am**



Emergency Services website

Issued Today at 5:22 AM.

Far East Gippsland including Mallacoota, Gipsy Point, Tamboon, Club Terrace & Combenbar

There are currently two bushfires that are not yet under control.

More Info: [emergency.vic.gov.au/respond/#/war...](https://emergency.vic.gov.au/respond/#/war...)

#vicFires



**7.26 am From “The Age” Blog**

Brendan is tweeting from Mallacoota. He says that it is pitch black in the town

The darkness in #Mallacoota is utterly surreal. Not far off pitch black when this should be a beautiful sunny morning.

**8am From Herald Sun Blog**

Footage of fire at Upper Wingan Road.

It shows forest fire behaviour at peak of wind speed. (See pics below)

**8.16am From “The Age” Blog**

A cooler westerly change crossed the firegrounds from 1am, only reaching Mallacoota at 5am, Rachel Eddie reports.

**8.22 From “The Age” Blog**

Reports suggest some 4000 people are on the jetty and foreshore at Mallacoota where they are being protected by several CFA firetrucks. The CFA told us they expected the fire to enter the town's boundaries about an hour ago.

Meanwhile, the Bureau of Meteorology's weather gauge at Mallacoota is showing 49 degrees, with winds gusting up to 80km/h.

[= a malfunction at the weather station, not a close flame!]

**8.34am From “The Age” Blog**

Emergency Management Victoria just issued an updated emergency warning for Mallacoota - it says fire is likely to impact the town within the next 30 minutes.

**8.40am From “The Age” Blog**

Don Ashby just spoke to ABC Gippsland. He's in Mallacoota, defending his property as a huge bushfire rages towards town. He says the CFA told the people in the town - about 4000 of them standing on the foreshore - that when the trucks activated their sirens, the townsfolk should get under the water. “The sirens just went off,” he says.

**9.29am From Herald Sun Blog**

Thousands huddle on Mallacoota Beach - Eliza Sum  
Emergency Management Commissioner Andrew Crisp told ABC News. “We have three strike teams in Mallacoota that will be looking after 4000 people on the beach as the fire goes into that particular town,” Mr Crisp said.

**Comment:**

This warning would hopefully have been made after advice from the fireground and checking the Mallacoota weather records of 5 and 5.11am.

I hope it was specific, ie, stating the SW change has set in.

As it reads here, it is meaningless.

The Princess Hwy closed between Bairnsdale and Genoa – time unclear.

The Princes Highway in East Gippsland remains closed between Bairnsdale and Genoa, due to the fires. Major road closures include the Bonang and Great Alpine roads, and Monaro Highway. Follow the direction of emergency services and check @vicemergency for local alerts. #victraffic

**Warning at 8.30am**

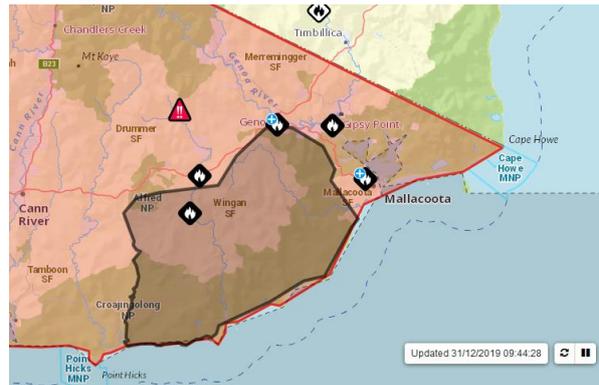
From “The Age” Blog

“Fire is likely to impact the town within the next 30 minutes”.

**Comment:**

We must wonder at the dearth of emergency service warnings or pronouncements for the rest of today as Mallacoota is allegedly being attacked by a substantial bushfire.

9.30am



Emergency Services website Leading edge is 5 km from Mallacoota, gross fire area 72,000ha.

### **Comment:**

If wind change to SW occurred at 5am, the map suggests an average spread of 5 kph (= 25 km in 5 hours) when Fire Danger Index is below 20. Feasible, as described above, Very doubtful that the whole area is flame filled. Likely to be large gaps unburnt between several running spot fires. Likely that the fire edge at Mallacoota Rd outlines the leading spot fires, not a solid mass of flame. Need confirmation from IR records.

### **9.37am From "The Age" Blog**

Incident Alert - an unofficial service that maps emergency service callouts - is now registering one structure fire and two grass fires on the outskirts of Mallacoota. If the report is correct it would suggest fire has now hit the town.



This map, from Incident Alert, indicates two grass fires and house fire on the outskirts of Mallacoota. Credit: Incident Alert

Reports from the town say about 4000 people are sheltering in the water of the foreshore, protected by CFA trucks. Other trucks are working as 'strike teams', putting out fires as they appear.

What is the fire control plan for this fire?

Who is fire controller?

Are more fire trucks or aircraft on the way?

The town is isolated - one road in and out and this road leads to the Princes Highway which is blocked.

My earlier Post showed there had been no recent protective burns, but Emergency Services HQ now say they have a Township Plan, suggesting this is somehow a safety measure.

Sadly, any township plan I have seen in Victoria is no help to protection of town or people or house.

They have told the Mallacootians to stay put.

They have told locals their town is difficult to defend.

They have deployed only 15 trucks to defend 4,000 people and 1000 houses.

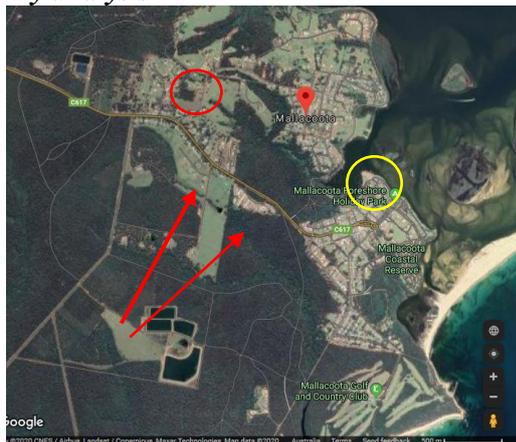
This deployment decision appears a token effort to "show the flag" rather than a full-blooded attempt to save Mallacoota's houses.

What is their real purpose?

This is one tenth of the required number to comfortably protect Mallacoota's houses from spot fires. A proper deployment would have considered the type of bushfire attack expected and the purpose of the deployment.

[Let me help: I can advise the bushfire attack in this weather will be light to moderate density ember attack, and 1,000 houses will need 1 truck to defend the surrounds of 5 – 10 houses from spot fires when small. This means they need 100 – 200 trucks to prevent house loss. If they had empowered the townsfolk with knowledge and skills to extinguish spot fires, they need proportionately less trucks, because extinguishment of small spot fires needs many hands.]

**My analysis**



Red circle is 9.37am Incident Alert area, suggesting some fire trucks are in action here.  
 Yellow circle is presumed location of the 4,000 and other fire trucks  
 Red arrows are SW and SSW wind directions

**10:03 am From Herald Sun Blog**

The Dubberley family, including dad Kelly, mum Stacey and sons, Tyrone, 14 and Nathan, 11, *fled to Mallacoota beach about 4pm yesterday*. They slept overnight alongside their kelpie, Brownie, and pugs, Rocky and Molly.  
 Mr Dubberley said he could see about 50 people and 20 boats scattered along the beach, and that "we can now see flames on the hills". "It's dark and gloomy with burning embers seen out here in the past hour," he said.  
 "There is a nine-month-old baby with the family beside us."  
 Mr Dubberley said many *people who evacuated to the beach during yesterday's extreme heat* had now been caught out by the cool change. "It was stinking hot and now it's bloody cold," he said. "That has caught a lot of people out by not having the right clothing. "We come out in our little boat ... luckily for us we have a big swag so we are out of the weather slightly." — Monique Hore

**10.07am From Herald Sun Blog**

People bunker down in Mallacoota hall - Eliza Sum  
 Luke McCrone is currently bunkering down at a hall in the middle of Mallacoota.  
 Hundreds of locals are sitting in darkness, awaiting direction as fires threaten to sweep through the town. "It's pretty full on here, this is the hall (pictured below)," he told the Herald Sun.



"It's dark, like night.

Note 1:

Emergency Services Website urges people to seek shelter indoors. On site fire fighters evacuate people from their houses to the waterfront, ie, in the open, and when they sound their siren, people are told to take to the water.

Note 2:

It appears that on-site CFA fire fighters began calls for evacuation from homes yesterday afternoon, and in some areas made repeated requests for evacuation.

I, the forest fire professional, would be proud if local people had been empowered for use as a resource to protect houses and other assets in Mallacoota during this low-density ember attack during this mild fire danger period.

"The car park at the wharf is full of cars, mainly tourists.  
 "Embers are falling in town now, although few and far between.  
 "The hall is packed, it's sweltering. (The) *CFA went up our street and told us all to get out.*  
 "You can hear the roar of the fire, although it's not as loud in town as it was at the house."  
 Mr McCrone said CFA trucks had set up outside the hall. "They removed a lot of the trees around it (the hall) last night and there are trucks outside," Mr McCrone said.  
 "It's about 100m from here to the lake, there are no moves to move anyone from here."  
 Mr McCrone's wife grew up in Mallacoota.  
 He, his wife, mother-in-law and kids are all at the hall.  
 Mr McCrone said there was an "orange glow" in the sky. "I (feel a) bit guilty for leaving my father and brother in law to defend the house but we've got two little kids so couldn't justify staying when *the CFA had told us a few times to get out,*" he said.

### **11.59am From "The Age" Blog**

Several houses have been lost in Mallacoota, says CFA chief officer Steve Warrington.  
 Three strike teams are based in the town, with some conducting recon on the fire and others staying back to protect the 4000-odd people on the foreshore. A medical has been centre set up.  
 "It is pitch black. *It is quite scary in that community. They right now are under threat.* But we will hold our line and they will be saved and protected," says Mr Warrington.  
 Several people have chosen to stay and defend their houses, rather than sheltering on the foreshore. *Trucks will not be able to reach and protect them, he confirmed*  
 "Literally as we speak the advice I am receiving from the fire ground is houses are visibly being lost. But the main CBD has been saved."

### **12.02 pm From Herald Sun Blog**

Mr Crisp (Emergency Services Commissioner) said he was satisfied with the advice given to people in Mallacoota in recent days.  
 "There wasn't actually an evacuation order for Mallacoota. We've been closely watching the fire that started in Wingan River."  
 Mr Crisp said a risk assessment was conducted with fire authorities and all options considered for Mallacoota.  
 "We had already significant fires to the west of where they were, so it would have been unsafe to move them back along the Princes Highway.  
 "At the same time you've got fires in southern New South Wales, and there's very few ways to actually move that move out of that area of Mallacoota.  
 "*And they do have a township protection plan.* "  
 — Ian Royall

### **12.11 pm From Herald Sun Blog**

Kammeron Cran, from Eltham, is on holiday with her four children, her daughter's boyfriend, and five other families in Mallacoota. The group are currently sitting tight at the Mallacoota wharf.  
 She said authorities are saying the northern end of town has been razed. "They are saying that the northern end of Mallacoota has gone up — I think there was a new school there and maybe a caravan park," she said.



"It was dawn and then the sky just went black; at 8am it was absolutely pitch black.

"Then it went bright red — I've never seen anything like it. The families were meant to be staying at the Foreshore Holiday Park but were told to get out about 6am this morning.

"The fire was very very close to where we are," she said.

"The CFA are coming down to the lake pumping water into the trucks. "We've got food and water. Worst-case scenario, we jump in the lake. "Not the holiday we were expecting."

— Alanah Frost

### 12.13pm From "The Age" Blog

Fires within Mallacoota

This map of incidents from Incident Alert appears to show a grass fire within the CBD of Mallacoota, where some 4000 people are sheltering.



This map, from Incident Alert, shows a grassfire has broken out in the Mallacoota CBD. Credit: Incident Alert

Three CFA strike teams are working to protect the town. A medical centre has been set up on the foreshore.

CFA chief officer Steve Warrington, from a news conference at 11am: "[Mallacoota] right now are under threat. But we will hold our line and they will be saved and protected."

**My analysis**

Red circle is 9.37am Incident Alert area  
 Blue circle is 12.13pm Incident Alert area, suggesting fire trucks are in action here.  
 Yellow circle is presumed location of the 4,000 and other fire trucks  
 Green area is site of multiple reported house losses – Terra Nova Drive and Bastion Point Rd  
 Red arrows are SW and SSW wind directions

**12.55pm From Herald Sun Blog**

The town of Eden in NSW's far-south coast has been inundated with Victorian holidaymakers who fled across the border from fire-threatened Mallacoota.  
 Roads in and out of Eden have now been closed, with smoke haze filling the coastal town.  
 SES volunteers are directing people to the town oval and the local school has also opened their oval to accommodate the overflow of visitors seeking refuge.  
 — Genevieve Alison

**1.47pm From Herald Sun Blog****Two bushfires bear down on Mallacoota**

The latest update from the State Control Centre is that two bushfires are continuing to burn out of control near Mallacoota. The Wingan River fire is burning across 72,898ha and has impacted the township.  
 A second fire is travelling southeast from Goongerah.

Holiday-maker Kammeron Cran said the conditions were "still very smokey and the wind seems to change direction constantly and it's strong".

**Comment**

HQ have just issued a statement about another fire in the vicinity, forgetting to mention that it is no threat to Mallacoota, which is now perfectly protected by the huge Wingan fire, now burnt out.  
 So, apparently the Herald Sun takes the information on face value and tells us all that two fires are bearing down on Mallacoota.



"There are houses going up everywhere apparently," she said.  
 "(At) Terra Nova and Bastion Point I think.

"My partner Ben and friends Brendan and Anton have walked up to the foreshore caravan park and are putting out spot fires up there with hoses and buckets." — Alanah Frost

### 2.27pm From Herald Sun Blog

Luke McCrone was able to head back to where his in-laws had been defending their home on Terra Nova Drv in Mallacoota. He said there were "at least 10 (homes) gone" along the one street. "(The in-laws) were able to save their house and probably five others," he said.



These next three pictures are taken at the height of the allegedly fearsome "attack" on Mallacoota.

The first picture is a wide street intersection in Mallacoota under a smoky sky. Very driveable. Very safe from a short flame in the grass verges. Very non-flammable for embers to ignite.

The next two pictures are in the Terra Nova area, one of the highest house loss areas.

We can see a burning house in the first and timber debris burning in the second, in the foreground with a burnt house behind.

We can see the unburnt green vegetation of the garden beds, and unburnt plastic rubbish bins.

This is evidence that there was no bushfire flame here. Embers have ignited these houses. The flame stopped at the edge of the forest on the Terra Nova firebreak.

Yet HQ officials declare this area a crisis and declare trucks will not be able to reach these houses. The pictures contrast with their "crisis" scenario.

The roads are in fact open and driveable throughout Mallacoota, even while red or night-dark sky is apparently scaring the refugees and their minders and HQ.

For the authorities that declare "we know fire", they might have dropped the ball here.

***If they know fire*** they would have known that Mallacoota, the town they could not evacuate, would be only ever attacked by embers and to defend 1,000 houses requires ten times the 15 trucks they deployed.

***If they know fire***, they would know that they need many hands to put the spot fires out while small and save the houses, and that they had 4,000 people at their disposal. But instead



— Alanah Frost

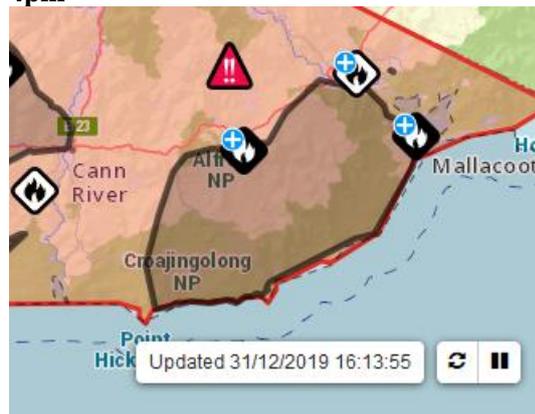
**3.53pm From “The Age” Blog**

**Wind change spares Mallacoota**

The Country Fire Authority’s Steve Warrington said there has been some "relatively good news" out of Mallacoota. He said the wind change has gone through the area and the fire had bypassed the town. "There was a public cheer at the jetty when that was announced," he said. "We'll take any good news we can get at the moment," he said.

**NOTE** There was no wind change recorded by Mallacoota weather station during the afternoon. It fluctuated between SW and SSW all day.

**4pm**



Emergency Services website

**4.26pm From Herald Sun Blog**

A wind change has meant the immediate threat to Mallacoota and Corryong has passed, Victoria's Emergency Management Commissioner Andrew Crisp has said. – Ian Royall

**NOTE** There was no wind change recorded by Mallacoota weather station during the afternoon. It fluctuated between SW and SSW all day.

of seeing the residents as a resource to save their own homes, they filled them with fear and led them to the water’s edge as the small spot fires grew and devoured their homes.

*If they know fire*, they would instead have empowered residents and visitors to deal with this ember attack and physically protect Mallacoota houses.

These warnings correspond with the 4pm map on the left. Helpful or not?

“Safest option is to take shelter indoors“

The safest option is to take shelter indoors immediately.

More details at [emergency.vic.gov.au/respond/#/war...](https://emergency.vic.gov.au/respond/#/war...)  
#vicfires



“Warning = too late to leave”

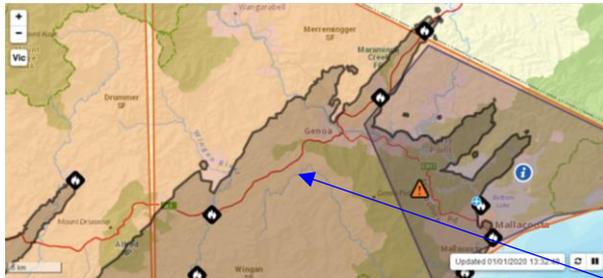
This EMERGENCY WARNING - BUSHFIRE is issued for Mallacoota, Gipsy Point, Karbeethong, Genoa, Tamboon, Club Terrace, Combiobar, Cann River and surrounds, replacing the emergency warning issued at 8.30am. It's too late to leave.

More details at [emergency.vic.gov.au/respond/#/war...](https://emergency.vic.gov.au/respond/#/war...)  
#vicfires



Wednesday 1 January, 2020

Wind at Mallecoota  
 average wind speed 9am from S at 7 kph,  
**Fire Danger Index 0**  
 3pm wind from S at 15kph **Fire Danger Index 3**  
 Highest wind gust for the day is 26 kph from S at 2.40pm



Emergency Services website

**Comment:**

We can see the long narrow tongues running to the NE. For example, the tongue NE of Genoa is approx 3 km wide x 10km long. It is likely their runs occurred when the winds were from SW, meaning late afternoon and night of 31 December. During this time, wind speed fell from 30kph to high teens, similar to the winds that kept a tongue narrow from Wingan River two days earlier.

Interesting but troublesome is that the fire agencies did not take advantage of the very mild weather and the virtual firebreak between Genoa and Mallecoota to stop the fire spread at the dash red line (see map below). Instead, they allowed spot fires to take hold (red arrows) beyond the wide water ways and paddocks and run to and eventually cross the border into NSW.

The largest tongue alongside the Princess Highway is highly troubling. Was it a backburn?

Until further evidence is presented, the outcome suggests there was no suppression effort at all to stop the fire spread here. Remember, the Fire Danger Index at the time was negligible, meaning low and slow flames.



Red arrows show escaped spot fires north of the virtual fire break (red dash line)

Warning on 1<sup>st</sup> Jan as fire tongue reaches border = watch and act

More details at [emergency.vic.gov.au/respond/#/war...](https://emergency.vic.gov.au/respond/#/war...)



**Question?**

See how the Princess Highway runs parallel to wind direction. The flank fire will be the threat today and fortunately, the fire danger is low. Why was it not pre-prepared or used as a control line?

A well-resourced back burn line would have held the flank fire at the Highway.

I suspect there was no fire controller appointed for the Wingan fire escape.

# Second death confirmed

**SUZAN DELIBASIC**

A MUCH-loved timber worker is the second victim of East Gippsland's bushfire tragedy.

Fred Becker, a third-generation saw mill worker, was found dead inside his fire-ravaged home at Maramingo Creek near Genoa on Wednesday night.

His body was discovered by his family, who are now understood to be leaving the town.

Ron Becker confirmed his brother's death to the *Herald Sun*, but said he had no further comment to make.

It's understood Mr Becker collapsed and suffered a heart attack after working around the clock to put out flames at his and neighbouring properties.

Fred's father, Alex Becker, established the saw mill 90 years ago. The business is described on Facebook as the area's last family-owned mill.

Mr Becker joined Buchan great-grandfather and town "larrikin" Mick Roberts, 67, as



**Fred Becker**

"It's just been the most horrible news to know there has been two confirmed fatalities — my thoughts are with their families and the community," Mr White said.

"It's also been so devastating to see the loss of homes and destruction to the community."

Mr Roberts' niece Leah Parsons told the *Herald Sun* her uncle had been painting his home with two mates before the bushfire hit.

"They ran into the river on

**Herald Sun 4 Jan 2020**

## Key questions:

Who was the fire controller? →

What was the suppression strategy for this fire? →

[The absence of a suppression plan east of Genoa is confirmed in a subsequent media article. According to Andrew Rule in [Herald Sun, 26 Jan 2020](#), a handful of residents stayed put at Genoa and another handful stayed put at Genoa. Both handfults put out spot fires for days and saved many properties. They had been promised a tanker from Mallacoota, but it was never sent due to risk of falling trees.]

## What is the house toll?

The state government is silent.

## 1 January 2020 The Age

<https://www.theage.com.au/national/victoria/mallacoota-awakes-to-assess-damage-wrought-by-apocalyptic-fire-20200101-p53o23.html>

Locals from the coastal East Gippsland town with a population of just over 1000 – which can swell by many thousands more thanks

## Answers deduced from outcomes:

Not known

No attempt at direct attack on running flame or building containment lines before fire reached Mallacoota-Genoa, or after spot fires took hold NE of Mallacoota - Genoa. Reports of house protection by brigades in Mallacoota.

to summer visitors – told *The Age* at least 60 properties had been lost in the inferno.

Fritz Seppl, who spends four weeks over summer at Mallacoota each year, drove around the town on Wednesday morning surveying the damage for those who couldn't get back into the area.

"I've seen at least 60 [homes destroyed]," Mr Seppl told *The Age*.

"Quite a few burnt. One specific area got hit really hard; Bastion Point, Stanley Avenue, Terra Nova Drive ... not everything is destroyed but I would say three quarters of that area is.

"A few things got saved. People put sprinklers on top of their houses and after the fire passed came back and put out the spot fires, which is really dangerous."



Aerial footage this morning revealed the extent of destruction in Mallacoota. *Credit:ABC News*

Local Rachel Mounsey said a whole street and one half of another had been lost near her.

"Half of the street has gone in my street. There's probably eight gone. Stanley Avenue is basically wiped out. A whole street gone," Ms Mounsey said.

Mallacoota Road remained closed from Princes Highway through to the township on Wednesday.

Co-owner of the Mallacoota IGA supermarket, Steve Jakovljevic, said locals were lined up at his shop at 6.30am on Wednesday to get supplies. He says they have enough food and water for a few days because they stock up ahead of the summer tourist rush.

"If they don't open the road into Mallacoota for three or four days it might be slim pickings," Mr Jakovljevic said.

He sheltered in the brick shop with about 30 tourists and his family, including babies and his two daughters, through the blaze.

"It was frightening," he said. "Later in the morning when it should have been daylight there was gas bottles going off and that was frightening."

Ms Mounsey said the Bairnsdale CFA had warned them at a meeting that Mallacoota would be hard to defend.

Ms Mounsey took refuge in the brick gymnasium hall with 500 to 700 others during the blaze.

"On Sunday everyone was out, raking up leaves," she said.

"A girlfriend of mine hid under her blanket with her dog on the wharf.

"I don't think people on the wharf had the best time ... *When they gave the notice to take shelter ... you could hear people saying 'I love you, I don't know if I am going to come out of this!'*"

Note: This pic shows burnt houses amongst green trees. It is the classic indicator of spot fire attack on vacant undefended houses where the only fuel that ignited was the house. There was no running flame between houses, therefore it was safe for defenders to stay. Absence of defenders ensured spot fires grew and ignited house after house after house.

Green tree crowns are evidence of low intensity (= low flame height) bushfire at this site.

Note: for people to believe they were at death's door here is a triumph of ignorance and fear conveyed by the authorities over truth and knowledge.

### 1 January 2020 Herald Sun

<https://www.heraldsun.com.au/news/victoria/up-to-100-homes-in-mallacoota-believed-to-be-destroyed-by-fire/news-story/5343e275067e17b625e5be2061c7b99d>

Up to 100 homes in Mallacoota are feared to have been lost as the small township comes to terms with the devastation left by this week's bushfires.

Locals and holidaymakers who sought refuge on the town's beach on Tuesday morning were picking up the pieces on Wednesday.

Many business owners who lost their homes stayed open on Wednesday to service the community and stranded tourists.

A community meeting was held on Tuesday night.

Hundreds of people who crowded into the Mallacoota Town Hall were told it was unclear when the power would be restored and when the roads would be reopened.

While up to 100 homes were feared to have been destroyed, most of the town centre was intact.

Peter Sands saved his Mallacoota home with a hose and a bucket, but all around him is complete devastation.

As the inferno roared towards Terra Nova Dr on Tuesday, Mr Sands fought to save the home he shares with wife Gail.

"Across from us there are six that are gone, boom, boom, boom," Mrs Sands said.

About half the homes on Terra Nova were lost.

Mr Sands watched in horror as the fire jumped from "fence paling to fence paling".

"He said the embers were just flying onto the wooden palings and then it would spread to the houses," Mrs Sands said. "So the wooden palings, that is something we are going to have to stop doing."

Alan Goodman battled through the night with just a garden hose to stop his holiday house burning to the ground.

Mr Goodman, who lives in Seaford, has owned a holiday property on Bastion Point Rd in Mallacoota since 2013.

"It was f---ing scary," he told the Herald Sun.

"I have had six hours sleep in three days.

"On Monday I cleaned the gutters and soaked the house. All the basic stuff. I filled the gutters up with water."



Mr Goodman woke up at 3am on Tuesday as the fire approached. He packed his car and sent his asthmatic son and partner to the town's relief centre as he stayed and fought the fire. As he battled to save his house he could only watch on helplessly as his neighbour's house succumbed to the ferocious blaze. Neighbours joined him to battle the fire before volunteer firefighters arrived and helped Mr Goodman save his house. "By 7.30am you couldn't see your hand in front of your face," he said. "All last night I was putting fires out all around here. "The volunteer firefighters were fantastic. They were under the pump. They are heroes."

In the **Postscript** below, I look for evidence of high intensity forest or shrub fire behaviour within the residential area, and I cannot find any.

Friday 3 January

The plan for Mallacoota



Herald Sun 3 Jan

Premier declares State of Emergency in the six Shires where the fires are.

Evacuate or stay put, depending on where you are ,,,,,

Mallacoota and Genoa are not on the list.

Last night, many families were preparing to be flown out of Mallacoota after close to 1200 people left the town by sea on navy vessels *HMAS Choules* and *MV Sycamore*.

The voyage southwest to Hastings was expected to take 20 hours and evacuees were due to disembark about lunch-time today.

About 30 people, mostly sick and frail, had earlier been taken aboard helicopters from Mallacoota to Sale.

A commercial supply vessel, the *Far Saracen* operated by Esso, has provided on-board accommodation for up to 30 sick people and emergency services personnel from Mallacoota over three nights.

A second Esso ship, the *Far Senator*, has left Melbourne loaded with 30 pallets of food and water and is expected in Mallacoota today.

Herald Sun 4 Jan

**EVACUATION ORDER**  
AT 10PM YESTERDAY

Freeburgh, Harrietville, Smoko, Wandiligong, Abbeyard, Bennies, Cheshunt, Cheshunt South, Dandongdale, Edi, Edi Upper, King Valley, Rose River, Whitfield, Whitlands, Suggan Buggan, Wulgulmerang, Wulgulmerang East, Bendoc, Bonang, Cabanandra, Deddick Valley, Delegate River, Dellicknora, Dinner Plain, Falls Creek, Haydens Bog, Roaring Camp, Tubbut, Boggy Creek and Bullumwaal, Buchan South, Bruthen, Bumberrah, Double Bridges, Mossiface, Ramrod

Creek, Tambo Upper, Wiseleigh.  
**TOO LATE TO LEAVE**  
Anglers Rest, Benambra, Bingo Munjje, Bingo Munjje North, Bundara, Cobungra, Dargo, Flourbag, Glen Valley, Glen Wills, Hinnomunjje, Mayford, Nelse, Omeo, Omeo Valley, Shannonvale, Swifts Creek, Tongio, Wentworth, Wade Junction, Goongerah, Nurrn, Nariel Valley, Lucyvale, Berringama, Koetong, Shelley, Burrowye, Biggara, Tintalra, Towong, Towong Upper, Walwa.  
Source: VicEmergency

Herald Sun 4 Jan

Sunday 5 January, 2020

on Friday due to heavy smoke.

Shortly after 2pm yesterday the sky turned red before darkness fell on the town.

More than 24 hours after 1100 people sailed away on-board *Choules*, worried mums and dads were asking authorities how long it would take to get their children to safety.

The town is still cut off by road due to the bushfires in East Gippsland.

People ran for cover when day turned to night early in the afternoon yesterday.

“When you get red skies in Germany there is a saying that the sky is baking biscuits. I think the oven has been on too long here.”

People remained calm yesterday but some were questioning why their children could not be shipped out on *Choules*.

Following a town hall meeting at 5pm they were told the navy was returning but this journey would be more of an ordeal than that undertaken by *Choules*.

<p>Families gathered in the Mallacoota Hall and the Mallacoota Hotel as dangerous winds swept through the town.</p> <p>Laura Langmead and her husband Nyall were on holiday in Mallacoota with their children Mack, 3, and Evie, 1, when the fire hit.</p> <p>They were last night waiting to be evacuated by air rather than endure the sea journey.</p> <p>"On Thursday we got a phone call at 6pm to say there was space on a flight at 7pm,"</p> <p>Kane and Laura Edwards from Geelong were on holiday with their children Fletcher, 4, and Lucy, 1.</p> <p>"You have to keep calm and not panic and let the authorities do their thing," Mr Edwards said.</p> <p>"We thought air evacuation would be the quickest and we want to get out for the kids.</p> <p>"It's difficult. You just have to be patient."</p> <p>david.hurley@news.com.au @davidhurleyHS</p> <p>Herald Sun, 6 Jan</p>	
<p>Wednesday 8 January</p> <p><b>JOSH FAGAN</b></p> <p><b>Pets lead</b></p> <p>A MIX of exhaustion and pride was how firefighter Samantha Rothman described the mood among CFA crews evacuated from Mallacoota by naval ship last night.</p> <p>After a week tackling catastrophic fires in East Gippsland, 66 CFA volunteers were among those reunited with loved ones after being transported to safety on-board HMAS <i>Choules</i>.</p> <p>A total of 280 passengers and 49 pet dogs were on the vessel, with the patter of paws leading the group onshore at</p> <p>the HMAS <i>Cerberus</i> naval base in Mornington Peninsula just after 7pm.</p> <p>Mrs Rothman said it had been a gruelling experience fighting the fires under difficult circumstances.</p> <p>The secondary school teacher from Maryborough in central Victoria, had been on the fire front for the past five days and was last night making the journey home to her family.</p> <p>"I think we're all extremely proud of the work we've done and also the crews before us," she said after disembarking from the 20-hour journey.</p> <p>"Everyone was tired but we were extremely well looked after in the community."</p> <p>She praised the work of the naval crew as "phenomenal".</p> <p>"The generosity, kindness, helpfulness of all the crew on the ship was amazing. It's an experience we'll never forget."</p> <p>Their safe arrival brought the total to more than 1700 people evacuated from Mallacoota in the past week – the largest maritime evacuation in Australian history.</p> <p>As of last night there were still 144 people in Mallacoota.</p> <p>A State Control Centre spokesman said those people had opted to stay in the coastal town.</p> <p>It comes after the area was cut off from road access and has largely been without power since New Year's Eve.</p> <p>Out of control bushfires in</p> <p>Herald Sun 9 Jan</p>	<p>Note: Resident population of Mallacoota is approx 1,000</p>
<p>Monday 13 January</p> <p><a href="https://www.abc.net.au/news/2020-01-13/highway-to-mallacoota-likely-to-be-closed-for-some-time-fires/11861030">https://www.abc.net.au/news/2020-01-13/highway-to-mallacoota-likely-to-be-closed-for-some-time-fires/11861030</a></p>	

Mallacoota could remain cut off from the rest of Victoria for weeks, according to local police.  
 At a town meeting on Sunday evening, residents were told there was "no timeline" for the Princes Highway between Mallacoota and Orbost to reopen.  
 "That road is extremely dangerous," Senior Sergeant Rod Findlay said at the meeting.

Holidaymakers who chose not to evacuate in order to stay with their vehicles and camping equipment had their first chance to leave yesterday, when the Princes Highway north of the town was briefly opened.  
 Police, fire trucks and an ambulance escorted 66 cars to the New South Wales town of Eden. More are expected to leave in another convoy tomorrow.  
 They leave behind campgrounds and parks filled with dozens of abandoned cars, boats and caravans. There is no timeline for when their owners will be able to return to collect them.

But there has been some good news for Mallacoota residents over the past 48 hours. Power has been restored to around 85 per cent of customers and convoys of fuel are now getting through — although customers are limited to buying \$50 worth of petrol or diesel each.

'What we need is for our locals to come back'



Christy Bryar, who lost her house at Gypsy Point in the fires, said it was enough to start functioning again. "Just being able to do simple things like your washing, have lights on and make a cup of tea is getting people's lives back to normal a little bit," she said.

Sunday 19 January

Authorities have also begun helping residents and tourists return to Mallacoota, where 4000 people were trapped for four days until Australian Defence Force ships arrived to rescue them.  
 More than 900 people have so far registered with the Police Assistance Line to return to Mallacoota, including 300 who asked to be airlifted. About 70 people will fly in on Monday morning  
 The Age on line 19 Jan

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Monday, 20 January

**THE** road to Mallacoota will reopen today for residents only, weather permitting; **SEVENTY** people will be flown by helicopter to Mallacoota today to be reunited with relatives there.

Herald Sun 20 Jan

Mr Crisp also revealed that the first group of evacuated Mallacoota residents were allowed to return to the town on Monday.

Those hoping to reunite with a family member still in the town, which has been isolated since fires hit on New Year's Eve, were being prioritised, Mr Crisp said.

One flight carrying 14 people left Essendon and another carrying two people left East Sale about lunchtime on Monday.

"Then it's about families that do have their home in Mallacoota and they want to go back in," Mr Crisp said.

"Then the third phase is what we do to support those holidaymakers that want to get back in and need ... to pick up vehicles, boats, caravans and the like."

The Princes Highway between Orbost and Cann River was opened to approved residents on Monday, while the remaining stretch to Mallacoota and into NSW would have also re-opened if not for the heavy rainfall.

The Age on line 20 Jan

Wednesday 22 January

<https://10daily.com.au/news/a200122bhxia/exclusive-first-look-at-the-road-to-mallacoota-since-the-bushfires-20200122>

The small town of Mallacoota, the epicentre of Victoria's bushfire crisis, is beginning to show signs that it's on the road to recovery but there's a long way to go.

***Reporters have been allowed to return to the town*** in the state's East Gippsland after it was gutted by fire.



Roads remain closed in parts of Victoria due to danger left since the bushfires. Image: 10 News First

The 10 News crew were allowed into the area to show the public why it is still too dangerous to reopen some of the roads. Part of one of Australia's major highways, the Princes Highway, remains closed because it's too dangerous to drive along. "Mum and Dad couldn't drive this road yet in their Volkswagen," Army Reserve Major General Jason Beck said.

### **Emergency Management impose strict controls on residents and visitors**

These instructions are copied from Emergency Services website on 26 Jan 2020:

#### **Residents and Permit holders returning to Mallacoota, Genoa and Gipsy Point**

##### **From Melbourne / East Gippsland**

The Princes Highway between Genoa and Cann River is open for local residents and permit holders from 8am to 8pm daily.

Speed restrictions are in place. Residents may be required to pass through traffic management points and show proof of residence. Permits can be obtained by attending the Orbost Incident Control Centre (ICC), or if you are unable to attend the ICC, you can obtain one over the phone by calling 5161 1222 and a permit will be issued via email.

##### **From New South Wales**

The road from Mallacoota to Eden, NSW will continue to be open to residents and permit holders.

##### **Proof of ownership and registration**

If you are returning to collect your belongings you will need to have a permit to travel via road. The roads continue to only be open to residents and permit holders due to ongoing works to repair the damage done by the fires. Drivers must follow the instructions of emergency services and road signage.

Roads, weather conditions and fire behaviour are being continually assessed and roads will be closed with little or no notice if required to keep people safe.

You must bring with you:

- ID
- Registration of vehicles, trailers, campervans and boats
- Proof of the accommodation you were staying in before you left or were evacuated
- Water
- Snacks
- Ensure your mobile phone is fully charged

##### **When you return you should be aware:**

Mallacoota, Genoa and Gipsy Point are still emergency areas, there will be limited amenities available to visitors. All visitors are asked to collect belongings and exit as soon as possible.

You should plan ahead, consider your fatigue and book accommodation.

Travel times into and out of Mallacoota will be reduced due to the state of the roads.

The impacts of the fires will be very apparent to people returning and you should be prepared to see:

- blackened, lifeless landscapes
- damaged buildings
- smell of burnt bush
- areas covered in ash
- road signs and familiar landmarks missing
- dead animals

There are a number support services available to assist you and your family to recover from the strong emotional or physical reactions you may be experiencing.

## Sunday 26 January

The following Emergency Services video explains that 323 visitor evacuees and 26 residents were flown back to Mallacoota on 7 military aircraft to collect their tents and vans etc.



The following stills are extracted from the video to analyse the condition of vegetation along the Mallacoota Road.

We can see that the canopy was scorched not burnt off, meaning the running flame stayed low in the undergrowth. This is expected fire behaviour in a low fire danger weather.





## Post script

### 1 What about the “supernatural” red sky and darkness during day time?

The dark sky and the red sky were side shows that had no influence on the fire’s impact in Mallacoota.

Strong SW wind pushed the dense smoke from the Wingan fire well ahead of the flames in the forest to the west of Mallacoota.

Smoke stayed low and went to the east of Mallacoota just as the ruby red morning sun rose.

When very dense smoke blocked the sun, the sky went dark.

When light density smoke blocked the sun, the sky went red.

The same sky colour was seen at Bairnsdale, probably from the smoke in the Bruthen fire.

**9:13 am      December 31, 2019      From Herald Sun Blog**

[Fires as seen from Bairnsdale](#) - Eliza Sum

[This is another view of the fires from the Bairnsdale rail bridge, captured by Josh Thorpe.](#)



*Comment:* Smoke may be from closer Bruthen fires

## 2 Evidence that Mallacoota was attacked by a low-end intensity bushfire

I look for evidence of high intensity fire behaviour within the residential area, but I can only find small localised areas amongst the predominance of zero or low flame areas. I welcome contrary evidence that the bushfire attack on Mallacoota residential area was severe.

Even though fire danger level was at the low end, there were patches of forest where fire was high intensity due to higher fuel loads. I have seen pictures of crown fires in short coastal vegetation where all vegetation layers were consumed. I have seen pictures of blackened stringybark trunks in densely packed forests where the undergrowth and trunks have been consumed together.

I look forward to seeing the aerial photos of unburnt, scorched trees and burnt out canopies to get a better understanding of fire intensity at the low fire damage level during the 25 km run of the 15km wide Wingan fire.

In the meantime, I present some evidence of low-end intensity fire behaviour in township on 31 December under three headings:

- Early in day at Wingan
- During the attack in Mallacoota
- Aftermath in Mallacoota

- **Early in day at Wingan**

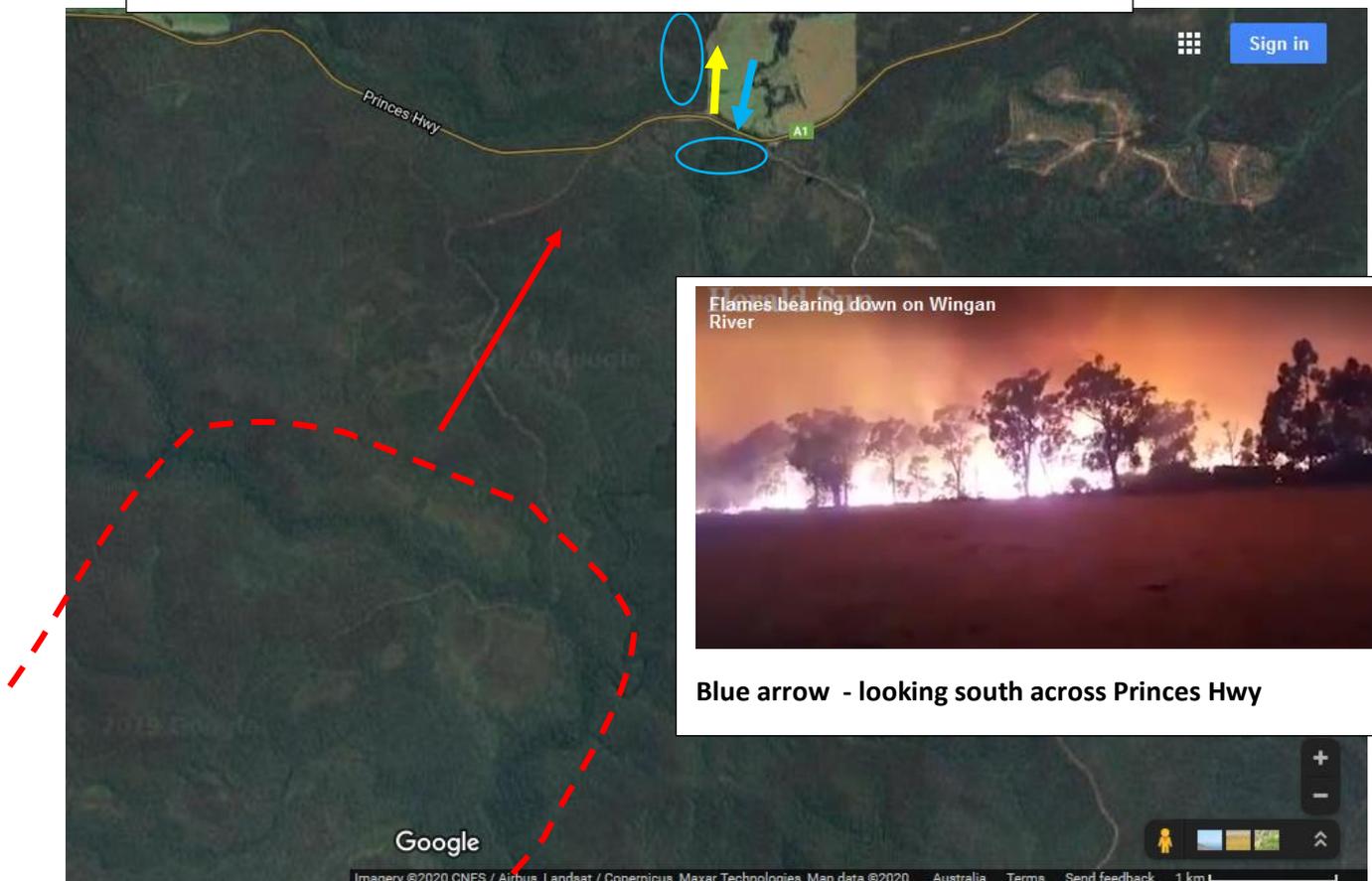
These stills show fire behaviour in forest just before 8am at Upper Wingan Road at height of wind speed and fire danger level soon after wind change to SW.

The highest fire danger index at Mallacoota weather station was 20 at 8am.

The stills are taken from a video provided to and published by the Herald Sun.

**8am From Herald Sun Blog**

Footage of fire along Upper Wingan Road.



Blue ovals = areas with flames as seen in inserts before 8am

Red dash line = estimated northern perimeter of fire at time of wind change to SW at approx 5am

Red arrow = Approx wind direction between 5am and 8am on 31 Dec 2019

Explanation: Northern edge came to life at 5am and by 8am, the leading spot fires were at the blue ovals, either in the forest south of Princes Highway in the farm across the Highway.

- **During the spot fire attack in Mallacoota**

**(1) View of Mallacoota from a boat in inlet**

Video stills taken from boats. Video sweeps along the coast.

Here, the only thing burning is the house. Location not identified. Time probably mid-morning.

<https://www.heraldsun.com.au/news/breaking-news/mallacoota-bushfire/video/fa515a7fd40abfe3a7a52d030>



Here, three isolated fires with tall flames which appear to be in the tea tree.

Two isolated low flame areas. Most of coast line has no flame. Time probably mid-morning.

<https://www.heraldsun.com.au/news/victoria/emergency-warnings-issued-haze-returns-as-bushfires-fl>





## (2) House fire during ember attack

2:27 pm December 31, 2019 From Herald Sun Blog





Luke McCrone was able to head back to where his in-laws had been defending their home on Terra Nova Drv in Mallacoota.

He said there were "at least 10 (homes) gone" along the one street.

"(The in-laws) were able to save their house and probably five others," he said.

— *Alanah Frost*

- **Aftermath in Mallacoota**

Evidence of houses burnt by spot fires amongst unburnt shrub vegetation and eucalypt crowns green. Live vegetation indicates that, if there was flame on the ground, it was very low. Large areas of zero fuel on ground, indicating highly discontinuous fuel bed that prevents flame from running.

**(1) Video A**

Stills taken from Video A: Bushfire has reduced entire streets of homes in Mallacoota to rubble.  
(ABC News)

<https://www.abc.net.au/news/2020-01-01/pictures-emerge-of-destruction-caused-by-fires-in-mallacoota/11835888>







## (2) Video B

<https://www.news.com.au/national/mallacoota-evacuees-video-shows-town-devastated-by-bushfire/video/db41bc5e58004ad72b8b3f330798747c>

The screenshot shows a news website interface. At the top, there is a navigation bar with the 'news.com.au' logo and categories: National, World, Lifestyle, Travel, Entertainment, and Technol. Below the navigation bar is a video player. The main video is titled 'Mallacoota Evacuee's Video Shows Town Devastated by Bushfire' and has a 'Continue watching' button. To the right of the main video is a 'UP NEXT' list of related videos:

- Prince Harry and Meghan Markle's bombshell... (1:19)
- Rain falls in NSW town of Eden proving welcome... (5:22)
- Devastating fate: Communities evacuated and... (1:52)
- State of Disaster declared in Victoria with a second... (2:17)

## Mallacoota Evacuee's Video Shows Town Devastated by Bushfire

Residents and holidaymakers in the fire-ravaged Victoria town of Mallacoota were evacuated by the Australian Navy on January 3. Among them was Shoma Subotic, who said he felt "blessed" to leave the town behind. Before he left, he recorded some of the devastation wrought on the town by bushfires. It was reported that up to 4,000 locals and tourists in the area had to take shelter at the wharf and near the beaches on New Year's Eve, as fires encroached on the town. Dozens of properties there were lost. The death toll from the unprecedented early season bushfires in Australia stood at 20 by January 3, with more people unaccounted for. Credit: Shoma Subotic via Storyful

### Observations

I counted at least 9 destroyed houses on this video.

The video confirms evidence of low flame height on the ground surface in the residential area during the attack.

This confirms the bushfire severity in the town during the attack was low and flame was patchy.

It confirms the streets were quite safe to walk or drive around during the attack.

It confirms the low flame stopped at pathways and roads and other fuel free areas.

It confirms there were large areas devoid of fuel on ground

It confirms the source of ignition on properties was embers.

Because all spot fires commence as small fragile flames, it confirms there were inadequate humans to extinguish them while small, meaning they grew large, and unrestricted, burnt houses down.

(3) **Image**

<https://thenewdaily.com.au/news/state/vic/2020/01/01/mallacoota-bushfire-destruction/>

Shows burnt out car in a clearing near forest with possibly burnt understorey and unburnt canopy. Perhaps car was parked with engine above a layer of dead leaves and twigs that was ignited by an ember.



Charred bushland and a burnt-out car remained in the bushland. *Photo: Supplied/Gus Goswell*