COURT: SUPREME COURT OF TASMANIA

CITATION: *Prestage v Barrett* [2021] TASSC 27
Thorne v Barrett
Howells v Barrett

FILE NOS: 3391/2018
3392/2018
3393/2018

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THORPE, Dianna Christina
W DOWNIE FAMILY TRUST
WADE, Wendy
WALKER, David
WHELAN, Vanessa
WILSON, Barry
v
BARRETT, Melisa Jane
ROBINSON, Hamish

THORNE, Michael
ACKERLEY, Jillian
ACKERS, Scott George
ANDERSON, Peter
ANDERSON, Lesley
APTED, Michael
AVERY, Simon
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THE ESTATE OF N A REARDON
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YOUNG, Jacinta
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ZOLYNIAK, Christine
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v
BARRETT, Melisa Jane
ROBINSON, Hamish

HOWELLS, Scott Francis
BARTON-JOHNSON, James Arthur
BENDER, Will Antony Kirwen
BLOOMFIELD, Karen Jane
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RANSLEY, Yvonne Patricia
RHODES, Sean Michael
RICHARDS, Heath Daniel
THOMPSON, Margot
VERNON, Desmond Frederick
YAXLEY, William Edward
YAXLEY, Helen Lyall
v
BARRETT, Melisa Jane
ROBINSON, Hamish

DELIVERED ON: 2 July 2021

DELIVERED AT: Hobart

HEARING DATES: 27 April 2021 – 19 May 2021, 2 June 2021, 2 July 2021

JUDGMENT OF: Estcourt J

CATCHWORDS:

Torts – Negligence – Damage and causation – Causation – At common law – Generally – Circumstantial case – Campfire lit in a tree stump and not fully extinguished – Bushfire spread to surrounding areas – Campfire cause of bushfire – Bushfire the cause of the plaintiffs' loss and damage.
Civil Liability Act 2002 (Tas), s 13.
Brocklands Pty Ltd v Tasmanian Networks Pty Ltd [2019] TASSC 26; *Wallace v Kam* [2013] HCA 19, 250 CLR 375, considered.
Langmaid v Dobsons Vegetable Machinery Pty Ltd [2014] TASFC 6, 24 Tas R 18, applied.
Aust Dig Torts [1178]

Torts – Negligence – Standard of care, scope of duty and subsequent breach – At common law – Generally – Relevance of defendant's breach of statutory prohibition not to light fire in tree stump to defendant's breach of duty – Breach of statutory prohibition in this case is a fact among others which combine to answer the question of breach of duty in favour of the plaintiffs.
Fire Service Act 1979 (Tas), s 69.
Mills v Meeking (1990) 169 CLR 214; *Adeels Palace Pty Ltd v Mourbarak* [2009] HCA 48, 239 CLR 420; *CAL (No 14) Pty Ltd t/as Tandara Motor Inn v Scott* [2009] HCA 47; 239 CLR 390, considered.
Sibley v Kais (1967) 118 CLR 424, applied.
Aust Dig Torts [1161]

Torts – Negligence – Standard of care, scope of duty and subsequent breach – Generally – Escape of fire – Higher degree of care of occupier – Duty breached by lighting a campfire in a tree stump, failing to extinguish the fire and failing to adequately respond to observations of steam from the area of the tree stump.
Civil Liability Act 2002 (Tas), ss 9 and 11.
Fire Service Act 1979 (Tas), s 69.
Burnie Port Authority v General Jones Pty Ltd (1994) 179 CLR 520, applied.
Woodhouse v Fitzgerald [2021] NSWCA 54; *Vairy v Wyong Shire Council* [2005] HCA 62, 223 CLR 422; *AD & SM McLean Pty Ltd v Meech* [2005] VSCA 305, 13 VR 241; *Benic v State of New South Wales* [2010] NSWSC 1039; *Roads and Traffic Authority of NSW v Refrigerated Roadways Pty Limited* [2009] NSWCA 263, 77 NSWLR 360, considered.
Aust Dig Torts [1160]

Torts – Negligence – Standard of care, scope of duty and subsequent breach – Generally – Where invitee lights a fire on occupier's land with occupier's permission and fire escapes from land – Occupier under a non-delegable duty to ensure invitee took reasonable care to extinguish fire – Duty not discharged.
AD & SM McLean Pty Ltd v Meech [2005] VSCA 305, 13 VR 24; *Brocklands Pty Ltd v Tasmanian Networks Pty Ltd* [2019] TASSC 26; *Leichhardt Municipal Council v Montgomery* [2007] HCA 6, 230 CLR 22, considered.
Aust Dig Torts [1160]

Torts – Negligence – Contributory negligence – Application of apportionment legislation in cases of contributory negligence – Generally – Liability of jointly negligent occupier and invitee under civil liability legislation – Non-delegable duty and apportionment – The apportionment regime of the *Civil Liability Act* 2002 applies in the case of a non-delegable duty – A non-delegable duty does not obviate the apportionment process – Responsibility for damage or loss apportioned between defendants accordingly.

Civil Liability Act 2002 (Tas), ss 3C, 43A, 43B, 43C, 43G.
Civil Liability Act 2002 (NSW) s 5Q.
Woodhouse v Fitzgerald [2021] NSWCA 54; *Leichhardt Municipal Council v Montgomery* [2007] HCA 6, 230 CLR 22; *Podrebersek v Australian Iron and Steel Ltd* (1985) 59 ALJR 492, considered.
Aust Dig Torts [1327]

Torts – Nuisance – Private nuisance – What constitutes and generally — Reasonable foreseeability of harm is an element of private nuisance – Failure to take reasonable care is not an element – Reasonable use of land in the context of a private nuisance is an enquiry into whether the use of the land is reasonable in how it impacts other properties – Unreasonable use of land – Defendants liable for private nuisance.
Fire Service Act 1979, (Tas) s 69.
Wrongs Act 1954, (Tas) s 3.
Southern Properties (WA) Pty Ltd v Executive Director of the Department of Conservation and Land Management [2012] WASCA 79, 42 WAR 287; *Burnie Port Authority v General Jones Pty Ltd* (1994) 179 CLR 520; *Herridge v Electricity Networks Corporation (No 4)* [2019] WASC 94; *Hargrave v Goldman* (1963) 110 CLR 40; *Goldman v Hargrave* [1967] 1 AC 645, considered.
Aust Dig Torts [1382]

Torts – Nuisance – Private nuisance – Application of apportionment legislation – Liability in private nuisance is not apportionable under the *Civil Liabilities Act* 2002 – The *Wrongs Act* 1954 applies to the defendant's contribution proceedings for damages for private nuisance – Contribution assessed accordingly.
Civil Liability Act 2002 (Tas), s 13.
Wrongs Act 1954 (Tas) s 3.
Aust Dig Torts [1382]

REPRESENTATION:

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Defendant:	K Read SC and B Brewer

Solicitors:

Plaintiffs:	Hall and Wilcox
Defendant:	Dobson Mitchell Allport

Judgment Number:	[2021] TASSC 27
Number of paragraphs:	784

Serial No 27/2021
File Nos 3391/2018
3392/2018
3393/2018

ALAN MICHAEL PRESTAGE AND OTHERS
v MELISSA JANE BARRETT, HAMISH ROBINSON
MICHAEL THORNE AND OTHERS
v MELISSA JANE BARRETT, HAMISH ROBINSON
SCOTT FRANCIS HOWELLS AND OTHERS
v MELISSA JANE BARRETT, HAMISH ROBINSON

REASONS FOR JUDGMENT **ESTCOURT J**
2 July 2021

Introduction

1 On the evening of 28 December 2012 the first defendant (Ms Barrett) and the second defendant (Mr Robinson) lit a campfire within the remnants of an old tree stump (the old stump), a short distance east of the residence on Ms Barrett's property at 242 White Hill Road in Forcett (the Barrett property). It was a cool night. They lit the fire for warmth and for the enjoyment of Mr Robinson's 10 year old son.

2 The plaintiffs have settled their action against Mr Robinson and have discontinued their action against him. There remain contribution proceedings between Ms Barrett and Mr Robinson.

3 It is alleged that Mr Robinson and Ms Barrett set and lit the campfire or, alternatively, that Mr Robinson set and lit the campfire, with Ms Barrett's permission or acquiescence, and they sat by it for some hours. The fire burned down to coals. Some steps were taken by Mr Robinson, and then by Ms Barrett, to extinguish the fire. Mr Robinson says he checked the fire pit the next morning and was satisfied the fire was extinguished.

4 It is alleged that on or about 1 January 2013 there was some rain and that Ms Barrett who was at the property noticed steam rising from the area of the old stump but did nothing about it.

5 It is alleged that at around 2pm on 3 January 2013 Ms Barrett looked out from her residence toward the old stump and saw the grass around it on fire. It was a hot, windy day and the plaintiffs' case is that the gusty wind, blowing from the west-northwest, drove the fire immediately into a steep, wooded gully to the south and east of the Barrett residence. The fire then spread rapidly to the east and southeast of Forcett, through Dunalley and eventually across much of the Tasman Peninsula, even jumping across Eaglehawk Neck to the Taranna area.

6 This is what is referred to as the "2013 Forcett Bushfire". Some 25,520 ha were burned in total, including the property of the test case plaintiff, Ms Sonia Daly, at 12 Fulham Road in Dunalley.

The proceedings

7 Pursuant to r 559 of the *Rules of the Supreme Court* 2000 (the Rules), it was ordered on 2 September 2019 that subject to further order of the Court, there be an initial trial of all issues raised by the pleadings in the proceedings, including the fact and quantum of losses suffered by such plaintiffs as may be agreed or ordered (test case plaintiffs), but not including the fact or quantum of losses suffered by other plaintiffs (initial trial).

8 There are some 400 plaintiffs involved in the present proceedings. It is alleged that the test case plaintiff and the other plaintiffs, as at 3 January 2013, all owned real and/or personal property located at the addresses that are identified in respect of each of them in Schedule 1 to the uniform statement of claim filed in respect of each of three writs which comprise the proceedings.

9 The proceedings are not, therefore, "representative proceedings" or "class actions" under Part VII of the *Supreme Court Civil Procedure Act* 1932 (SCCPA). Rather, the Court made orders pursuant to the Rules to the effect that there be an "initial trial" in which the claim of a "test case" plaintiff or plaintiffs would be determined to finality, and in relation to the other plaintiffs the issues raised by their claims, other than the fact or measure of any loss or damage, would be determined, with questions of loss or damage to be reserved to a further hearing if required.

The plaintiffs' case

10 On the trial evidence was given, on behalf of the plaintiffs, by the Tasmanian Fire Service (TFS) officers, Messrs Bones and Walkley, of their examination of the weather records (in particular lightning) for the time of the fire, of possible links to other scrub fires in the recent past, of the possibilities of inadvertent ignition (for instance, from a discarded cigarette butt), and the possibilities of ignition somewhere on the Barrett property away from the old stump.

11 The investigators gave evidence of the physical indicators as to the point of origin of the bushfire. Their conclusion was that the fire was caused by the 28 December 2012 campfire burning down into the bole of the tree stump, and smouldering underground through the root system until it emerged through a crack or hole in the ground and flared into a flame amidst surrounding dry grass on 3 January 2013.

12 The plaintiffs have sued in negligence and private nuisance.

13 As to negligence, the plaintiffs argue that ignorance of the law is no defence and that quite apart from the sheer foolishness of lighting a campfire in a wooden receptacle, s 69 of the *Fire Service Act* 1979 (FSA), which prohibits the lighting of fires in tree stumps, is decisive as to the questions of foreseeability and as to the unreasonableness of the defendants' conduct.

14 The plaintiffs argue that there can be no dispute that the defendants had control over the risk of harm, namely, the risk that a fire ignited on the Barrett property could escape and become a bushfire, and that the owners of surrounding properties were vulnerable to the defendants' management of that risk.

15 In short, the plaintiffs contend that there can be no tenable dispute that Ms Barrett and Mr Robinson owed a duty of care in negligence to persons who owned or had an interest in property, or carried on business in the area around the Barrett property.

16 The plaintiffs say that once a duty to take reasonable care is established, the question as to whether there was a breach of duty amounting to negligence depends upon the analysis mandated by Part 6 of the *Civil Liability Act* 2002 (CLA). The plaintiffs allege breach in four respects:

(a) lighting the fire on 28 December 2012;

(b) failing to extinguish the fire on 28 December;

(c) failing to inspect the fire pit after 28 December; and

(d) failing to respond to observations of steam on 1 January 2013.

17 The plaintiffs argue that the defendants must be held to a particularly high standard of care as fire is a notoriously dangerous substance, and fire in a forested area in southeast Tasmania in the summer

months is especially dangerous. They say that the stringency of the test to be applied to a defendant will vary according to the inherent risk of the activity being undertaken: *Burnie Port Authority v General Jones Pty Ltd* (1994) 179 CLR 520.

18 As to the breach of that duty by lighting the fire, the plaintiffs rely on s 69 of the FSA, arguing that non-compliance with a legislative norm is prima facie evidence of negligence: *Sibley v Kais* (1967) 118 CLR 424 at 427. They concede that it is not conclusively so, but argue that in the circumstances of the present case it is compelling. That is to say, that the section is clearly explicable by the risk of hard to detect and hard to extinguish fires in trees or stumps. That provision they say, ought to be taken as the legislative expression of community expectations both as to foreseeability and as to the appropriate reflexive behaviour, namely, "don't light fires" in those places.

19 Moreover, the plaintiffs contend that:

(a) public information campaigns in Tasmania warn against lighting fires in any stump, log or standing tree;

(b) Ms Barrett was interviewed by Tasmania Police and the TFS following the fire, and disclosed that:

(i) she was aware a permit was required to light outdoor fires during bushfire season;

(ii) her normal practice was to only do burn-offs in winter and autumn;

(iii) she was aware that only a month or so earlier a fire had escaped from a neighbour's property when he was attempting to conduct a burn off;

(iv) she knew it was unwise to light a campfire in the tree stump during summer - and did not think it was a good idea at the time; and

(v) she knew a fire in a tree stump may burn for days.

20 The plaintiffs contend that the foreseeability of the particular risk of harm, namely, that a fire ignited in the stump could smoulder and flare up some time later, is clearly established, and that there were obvious precautions readily available to Ms Barrett and Mr Robinson. They say that even if a fire were allowed on 28 December, a separate fire pit could have been dug, away from combustible material.

21 They say that the same considerations as to the foreseeability of a risk of harm from lighting the fire apply to the second and third alleged breaches, namely the failure to extinguish it, and the failure to inspect the pit after 29 December. They say that the risks were actually foreseen, as both defendants took some steps to douse the fire, either by kicking soil over (Mr Robinson) or dousing with a bucket of water (Ms Barrett).

22 As to the fourth alleged breach, namely, lack of response to the emission of steam from the stump, the plaintiffs claim that Ms Barrett told Mr Robinson, the fire investigators and the police investigators about her observation of steam rising after a rain shower on or about 1 January 2013, which was nearly three full days after Mr Robinson had examined the fire pit on the morning of 29 December. They say that was an obvious sign of a heat source in or near the tree stump which demanded investigation, and if no obvious sign of burning was apparent, then someone needed to dig into the fire pit and around the tree stump to identify the source of heat sufficient to cause steam.

23 The plaintiffs also plead that Ms Barrett owed them a non-delegable duty and is responsible for the conduct of Mr Robinson as she was the landowner and he was an invitee or licensee on her property. She had a legal right to direct him not to light a fire, and how to manage any fire he did light. The plaintiffs say that if Mr Robinson in fact lit the fire, he did so with Ms Barrett's authority, or at least her acquiescence. The plaintiffs say that Ms Barrett retained a right and an obligation to ensure that

Mr Robinson turned over the coals and thoroughly extinguished the fire before he left the property, and that she is liable for his failure to do so.

24 As to the plaintiffs' action in private nuisance, as an unreasonable interference in the use or enjoyment of interests in land, they say that no issues of "duty" arise and the question is simply whether the defendants caused or allowed an interference in the enjoyment of rights in land by persons entitled to exclusive enjoyment of those rights (whether as owners, lessees or licensees in exclusive possession), which interference was not such as ought reasonably be regarded as an ordinary incident of the particular rights or the particular land. They say that Ms Barrett as owner of her land, and Mr Robinson as an invitee or licensee, can each be liable for any nuisance thus created.

25 The plaintiffs say that given s 69 of the FSA, there can be no doubt that the lighting of the campfire was a non-reasonable use of the Barrett property. Nor, they contend, can there be any doubt that the escape of the fire onto other lands resulted in an unreasonable interference in the enjoyment of rights in those lands, by the persons holding those rights.

Ms Barrett's case

26 Ms Barrett on the other hand, contends that this case is principally a causation case. She says that in order to prove that the fire on her property on 3 January was a necessary element of the harm to the plaintiffs, it must be proved that the campfire caused a fire to ignite six days after it had been alight in the immediate area around the tree stump and that it needs to be proved where that fire went. The defence case is that neither of those matters are capable of proof.

27 Along the lines of a "*Merck* order" in a class action, (*Merck Sharp & Dohme (Australia) Pty Ltd v Peterson* [2009] FCAFC 26, 355 ALR 20), I ordered, by consent, that the parties formulate "key issues" in the form of questions to be answered in my reasons for decision upon the initial trial.

28 The parties prepared a document entitled a Key Issues Statement. That document is as follows:

> "**Causation**
>
> 1 What was the cause of the Forcett Bushfire?
>
> a Did a smouldering burn in the tree stump and its root system ignite grass on the surface of the ground in the immediate area around the tree stump as pleaded in paragraph 12 of the Statement of Claim?
>
> b If 'yes' to 'a', was that smouldering burn the result of the campfire lit in the tree stump on 28 December 2012?
>
> c If 'yes' to 'b', was the fire seen by Barrett on her property on 3 January 2013 a necessary element of the occurrence of the harm caused to the plaintiffs, alternatively the test-case plaintiff?
>
> 2 What was the fire area (footprint) of the Forcett Bushfire?
>
> **Negligence**
>
> 3 If 1 a b and c are all answered favourably to the plaintiffs, did the defendants breach a duty of care owed to persons including the plaintiffs, by:
>
> a lighting the fire,
>
> b failing to extinguish the fire on or after 28 December 2012, or
>
> c in the case of the first defendant (Barrett) – failing adequately to respond to observations of steam alleged by the plaintiffs to be from the area of the tree stump and alleged to have been on or about 1 January 2013?
>
> 4 If Barrett owed a duty of care as alleged:
>
> a was the duty non-delegable; and

b if so, is Barrett liable for any conduct of the second defendant (Robinson) within Questions 3(a) or (b) above?

5 If the defendants are or either of them is liable to the plaintiffs in negligence, what apportionment should be applied under the Civil Liability Act (CLA) and the Wrongs Act 1954:

a if Barrett's duty was not a non-delegable duty; alternatively

b if Barrett's duty was a delegable duty.

Nuisance

6 If the campfire was the (or a) cause of the Forcett Bushfire:

a what is the role of reasonable foreseeability in a claim for private nuisance?

b what is the role of reasonable use of Barrett's land, in a claim for private nuisance?

c what is the role of reasonable care, in a claim for private nuisance?

d did the fire cause unreasonable interference with the plaintiffs', alternatively the test-case plaintiff's land?

e is an action in nuisance an apportionable claim under the CLA?

f do the provisions of the Wrongs Act apply to this claim?

Test case plaintiff

7 What is the quantum of loss suffered by the test-case plaintiff (Sonia Daly) and how is the figure derived?"

29 By reference to the first key issue as to causation, namely whether a smouldering burn in the old stump and its root system ignited grass on the surface of the ground in the immediate area around the tree stump, Ms Barrett says that when the origin of the fire on her property was investigated by the TFS on 5 January 2013, the view was formed, and the police were advised, that the fire had started in the area between "the big log" and "the septic tank" which is an area to the south of the old stump.

30 She says that her evidence, consistently with her police interview of 5 January 2013, when she said that the fire when first seen by her was 10 to 15 metres to the east of the tree stump and creeping towards it and her house, indicates that the fire could not have started in the immediate area around the tree stump.

31 She says that the plaintiffs do not plead a case with a point of origin of the fire at least 10 to 15 metres east of the old stump, and that neither the pleading nor the investigation relied on to support the plaintiffs' case can accommodate a finding that, when first seen by her, the fire was 10 to 15 metres to the east of the stump.

32 With respect to the second of the key issues as to causation, namely, was the smouldering burn the result of the campfire lit in the old stump on 28 December 2012, Ms Barrett says that the evidence shows that the TFS investigators did not trace the root they concluded was responsible for the fire, back to any particular tree or stump, and hence they are not able to provide any direct evidence of connection.

33 Ms Barrett also says the evidence of Mr Colin Thomas who was commissioned to excavate the area around the stump establishes that his "detailed examination" of the stump revealed no evidence of fire extending from the stump itself via the root structure.

34 Further, Ms Barrett says that the evidence of arboriculture expert, Mr Philip Jackson, establishes that the roots with apparent orientation almost perpendicular to the subject stump belong to a tree other than the subject stump.

35 Finally on this key issue, Ms Barrett says that it is possible for a fire to smoulder in old trees or stumps containing much rotted wood internally, for as long as nine months, and that the evidence will indicate a far more vigorous fire than the campfire on 28 December had been lit in the stump in September 2012. Thus, she says, it is to invite speculation to suggest a finding can be made that the December campfire caused a fire to smoulder rather than the September fire.

36 As to the third issue as to causation, namely, whether, if fire did emanate from the old stump, the fire seen by Ms Barrett on her property on 3 January 2013 was a necessary element of the occurrence of the harm caused to the plaintiffs, Ms Barrett says that her property is situated about 850 metres to the north-west of a property owned by Darren Lawrence at 112 Inala Road, and that whilst the first 000 call in respect of fire in this region on 3 January 2013 was a call at about 2.12pm reporting a fire burning on the Barrett property, which was a small fire likely to be in its early stages, the case to be met pleads that this fire started at around 2pm.

37 Moreover, Ms Barrett says, that at about 2.15pm a 000 call was made reporting a fire at Inala Road and that the evidence shows that this fire had been under observation by a member of the public from well before 2pm and thus could not be a result of the fire at the Barrett property.

38 Ms Barrett says that within less than 20 minutes following that latter call, TFS personnel were at 112 Inala Road and by then the fire was well established and had moved from a south westerly position in the vicinity of some dams to the south west of the property at 112 Inala Road, northerly around the property and then continued in an easterly direction. By 3pm, Ms Barrett says, the Inala Road fire was burning at Gangells Road approximately 1.5km from the property at 112 Inala Road. Accordingly, Ms Barrett says that it was the fire that started at Inala Road that caused harm to the plaintiffs and not the fire on her property.

39 Ms Barrett also says that the question of breach of duty is a live issue and that the evidence establishes that Ms Barrett (and Mr Robinson) acted with the foresight, reactions and conduct of ordinary members of the community.

40 Further, she says that the risk of harm for the purposes of s 11(2) of the CLA is the risk of the campfire igniting surrounding combustible material and escaping, that the circumstances relevant to the judgment required by s 11(1)(c) of the CLA are those surrounding the particular fire on the Barrett property on the days of the alleged breaches, and that the following facts are important:

(a) Ms Barrett had spent much time clearing around her home to minimise the risk of fire damage to the residence.

(b) She had lit prior campfires and much larger bonfires in the same location on a number of occasions, and there had been no issue.

(c) There has never been any suggestion that one or more of these fires continued to burn underground.

(d) There has never been any suggestion that one or more of these fires escaped or burnt surrounding vegetation.

(e) It was common practice in the Forcett community to eradicate dead stumps by lighting fires in them in this way. Ms Barrett was directed by a neighbour to get rid of the old stump by lighting fires in it.

(f) 28 December 2012 was not a day subject to a declaration of total fire ban. The first declaration of fire ban was made on 2 January 2013.

(g) It was a small campfire.

(h) It was lit to enhance the camping experience of a young boy. He and his father slept next to it that night once it had been extinguished.

(i) There is no suggestion that sparks or embers from the fire escaped or caused damage on the night of the camp fire.

(j) When Ms Barrett and Mr Robinson decided to retire the fire had "burnt down", soil was placed on it, and then approximately 15 litres of water poured on it.

(k) The fire pit was examined on the day after the fire and no evidence was found consistent with the fire continuing to burn.

(l) Ms Barrett saw a wisp of steam coming from the pit when it was raining.

(m) It rained in the days after Ms Barrett saw the steam, and at no time after she saw it did she notice anything unusual, or any sign to indicate that the small campfire had not been extinguished.

(n) She did not observe any further signs of smoke, steam or fire coming from the stump remains. She would pass the old stump by foot and by car on numerous occasions each day.

(o) Steam from the stump does not provide evidence that the roots were combusting.

(p) There was a gap of 6 days from the camp fire to the time the plaintiffs say the fire ignited.

41 As to the plaintiffs' cause of action in nuisance, Ms Barrett says that the pleading adds nothing to the plaintiffs' pleading in negligence because in order to succeed in nuisance the plaintiffs would have to prove that Ms Barrett's interference with a property right of the plaintiffs was unreasonable, and that "if her actions do not depart from the scope of her duty in negligence, neither will they have been unreasonable". And, Ms Barrett says, "the negligence causation issues also apply to nuisance".

42 Finally as to apportionment, Ms Barrett says that the campfire was lit by Mr Robinson; the decision to light it was his; it was lit for the benefit of his son who was camping beside the stump, and Mr Robinson had the same opportunity as Ms Barrett, to observe the stump and take any precautions which might be found should have been taken. Ms Barrett says that Mr Robinson, by reason of his relationship with her, had as much effective control over the fire and the land as she did.

The plaintiffs' action in negligence

The legal framework

43 There can be no doubt that Ms Barrett and Mr Robinson owed a duty of care in negligence to persons who owned or had an interest in property, or carried on business, in the area around the Barrett property. So much is admitted in the further amended defence of the first defendant. The defendants had control over the risk of harm that a fire ignited on the Barrett property could escape and become a bushfire, and owners of surrounding properties were vulnerable to the defendants' management of that risk.

44 As to the question of Ms Barrett's duty of care and the question of the standard of care, the stringency of the test to be applied to a defendant will vary according to the inherent risk of the activity being undertaken: *Burnie Port Authority v General Jones Pty Ltd* (above).

45 As to questions of breach of duty, the standard of care, proof of causation and the onus of proof, ss 11, 12, 13 and 14 of the CLA provide a statutory framework, as follows:

"**11 General principles**

(1) A person does not breach a duty to take reasonable care unless –

(a) there was a foreseeable risk of harm (that is, a risk of harm of which the person knew or ought reasonably to have known); and

(b) the risk was not insignificant; and

(c) in the circumstances, a reasonable person in the position of the person would have taken precautions to avoid the risk.

(2) In deciding whether a reasonable person would have taken precautions against a risk of harm, the court is to consider the following (among other relevant things):

(a) the probability that the harm would occur if care were not taken;

(b) the likely seriousness of the harm;

(c) the burden of taking precautions to avoid the risk of harm;

(d) the potential net benefit of the activity that exposes others to the risk of harm.

(3) For the purpose of subsection (2)(c), the court is to consider the burden of taking precautions to avoid similar risks of harm for which the person may be responsible.

12 Other principles

In a proceeding relating to liability for breach of duty –

(a) the fact that a risk of harm could have been avoided by doing something in a different way does not of itself give rise to or affect liability for the way in which the thing was done; and

(b) the subsequent taking of action that (had the action been taken earlier) would have avoided a risk of harm does not of itself give rise to or affect liability in relation to the risk and does not of itself constitute evidence of liability in connection with the risk.

13 General principles

(1) Prerequisites for a decision that a breach of duty caused particular harm are as follows:

(a) the breach of duty was a necessary element of the occurrence of the harm ('factual causation');

(b) it is appropriate for the scope of the liability of the person in breach to extend to the harm so caused ('scope of liability').

(2) In deciding in an exceptional case, in accordance with established principles, whether a breach of duty, being a breach of duty that is established but which can not be established as satisfying subsection (1)(a), should be taken as satisfying subsection (1)(a), the court is to consider (among other relevant things) whether or not and why responsibility for the harm should be imposed on the party in breach.

(3) If it is relevant to deciding factual causation to decide what the person who suffered harm would have done if the person who was in breach of the duty had not been so in breach –

(a) the matter is to be decided subjectively in the light of all relevant circumstances, subject to paragraph (b); and

(b) any statement made by the person after suffering the harm about what he or she would have done is inadmissible except to the extent (if any) that the statement is against his or her interest.

(4) For the purpose of deciding the scope of liability, the court is to consider (among other relevant things) whether or not and why responsibility for the harm should be imposed on the party who was in breach of the duty.

14 Onus of proof

In deciding liability for breach of a duty, the plaintiff always bears the onus of proving, on the balance of probabilities, any fact on which the plaintiff wishes to rely relevant to the issue of causation."

46 This is a largely circumstantial case in which the plaintiffs allege breach in four respects. It is as well therefore to note what was said recently by this Court in *Brocklands Pty Ltd v Tasmanian*

Networks Pty Ltd [2020] TASFC 4 and also earlier in *Langmaid v Dobsons Vegetable Machinery Pty Ltd* [2014] TASFC 6, 24 Tas R 18.

47 In *Brocklands*, Blow CJ said at [37]-[47]:

"**Circumstantial evidence (Ground 2)**

37 … his Honour said that he was satisfied, on the basis of the respondent's expert evidence, supported by the modelling evidence from one of its expert witnesses, Dr Muthumuni, that the appellant had not established a surge event of the magnitude alleged, nor that the respondent's acts or omissions were a necessary element of the harm to the PLC. He went on to set out his reasons for that conclusion at [212]-[258], referring in detail to the evidence of the parties' expert witnesses. At [259] he repeated his conclusion that the appellant had 'not established on the balance of probabilities that there was a high voltage surge event in December 2010 which damaged the PLC'.

38 The proper approach to a case based on circumstantial evidence is as stated by Lord Cairns in *Re Belhaven and Stenton Peerage* (1875) 1 App Cas 278 at 279:

> '… in dealing with circumstantial evidence, we have to consider the weight which is to be given to the united force of all the circumstances put together. You may have a ray of light so feeble that by itself it will do little to elucidate a dark corner. But on the other hand, you may have a number of rays, each of them insufficient, but all converging and brought to bear upon the same point, and, when united, producing a body of illumination which will clear away the darkness which you are endeavouring to dispel.'

39 The case law as to wholly circumstantial civil cases was usefully summarised by Porter J in *Langmaid v Dobsons Vegetable Machinery Pty Ltd* [2014] TASFC 6, 24 Tas R 18 at [119]-[126]. The following propositions were made clear by his Honour's analysis:

- '*Where circumstantial evidence is relied upon, it is not in general necessary that all reasonable hypotheses consistent with the non-existence of a fact, or inconsistent with its existence, be excluded before the fact can be found*'. '*A rational choice between competing hypotheses, informed by a sense of actual persuasion in favour of the choice made, will support a finding, on the balance of probabilities, as to the existence of the fact in issue*.' *Nguyen v Cosmopolitan Homes (NSW) Pty Ltd [2008] NSWCA* 246 per McDougall J (with whom McColl and Bell JJA agreed) at [55].
- '*All that is necessary is that according to the course of common experience the more probable inference from the circumstances … should be that the injury arose from the defendant's negligence. By more probable is meant no more than upon a balance of probabilities such an inference might reasonably be considered to have some greater degree of likelihood*.' *Bradshaw v McEwans Pty Ltd* (1951) 217 ALR 1 at 6.
- 'Evidence of possibility is capable of supporting a probative inference, and expert evidence of possibility may, as circumstantial evidence, alone or in combination with other evidence, establish causation': *Langmaid*, per Porter J at [124], citing *Seltsam Pty Ltd v McGuiness* [2000] NSWCA 29, 49 NSWLR 262 per Spigelman CJ at [89]; *McDonald v Girkaid Pty Ltd* [2004] NSWCA 297, Aust Torts Reports 81-768, per McColl JA (with whom Beazley JA and Young CJ in Eq agreed) at [104].

40 In *Langmaid*, the appellant's case was that 'hot work' undertaken by the respondent had caused a fire. There were two other possibilities that had to be considered, namely a possibility that the fire was not caused by hot work at all, and a possibility that it was caused by hot work undertaken by an employee of one of the appellants. At [126], Porter J indicated that it was necessary to acknowledge 'the combined strength of the possibilities that the fire was not caused by hot work at all, and that it was caused by the hot work of the first appellant's employee'. Similarly, in this case, it is necessary to evaluate the 'combined strength' of the possibilities asserted by the appellant.

41 That is not what the learned trial judge did. At the beginning of the passage in his reasons relating to causation, he said, at [157], 'Each of the factual matters upon which the plaintiff relies to prove causation must be proved by it on the balance of probabilities'. His Honour seems to have regarded it as axiomatic that proof of causation

in this case required the identification of at least breach of duty that was established on the balance of probabilities to have caused or materially contributed to the appellant's damage. Similarly, counsel for the respondent, in their submissions to this Court, appear to have regarded that as axiomatic. The respondent's submissions as to causation appear to assume that a claim for damages for negligence cannot succeed without the claimant establishing on the balance of probabilities that there has been both a breach of a duty of care and a suffering of harm resulting from that particular breach. *However the appellant's contentions are based on the premise that, where there are pieces of circumstantial evidence akin to strands in a cable, it is sufficient to establish on the balance of probabilities that there were breaches of duty, that harm was suffered, and that the harm must have resulted from one or more breaches of duty, even if no individual breach of duty can be identified as causative*.

42 This is no ordinary case. I have been unable to find any civil case in which findings have been made as to multiple breaches of duty, damage resulting from one or more of those breaches of duty, and insufficient evidence for the causative breaches to be established. There are certainly cases that stand for the proposition that a plaintiff does not need to establish precisely how an injury was suffered: *Hamilton v Nuroof (WA) Pty Ltd* (1956) 96 CLR 18 at 23-24; *Kuhl v Zurich Financial Services Australia Ltd* [2011] HCA 11, 243 CLR 361 at [53]-[54]; *Duma v Mader International Pty Ltd* [2013] VSCA 23, 42 VR 351 at [3]; *Langmaid v Dobsons Vegetable Machinery Pty Ltd* (above) at [141]. However those cases did not involve distinct breaches of duty, competing possible causes of harm, and a shortage of evidence pointing to one or more particular causes.

43 A criminal case involving multiple possible causes of harm has been considered by the English Court of Appeal: *Attorney-General's Reference (No 4 of 1980)* [1981] 1 WLR 705. That reference related to the trial of a man who was acquitted on a charge of manslaughter. The Crown alleged that he had killed a woman, but the woman's body was never found. On the evidence there were three possible causes of death. She might have died as a result of the accused pushing her and causing her to fall and hit her head, or as a result of the accused strangling her with a rope, or as a result of him cutting her throat. The trial judge held that the Crown bore the burden of proving beyond reasonable doubt which act caused the woman's death, and that the evidence was insufficient for the jury to be satisfied beyond reasonable doubt that any particular act was the cause of death. He therefore directed an acquittal. Ackner LJ, reading the opinion of the Court of Appeal, said, at 710:

> '... this reference raises a single and simple question, viz: if an accused kills another by one or other of two or more different acts each of which, if it caused the death, is a sufficient act to establish manslaughter, is it necessary in order to found a conviction to prove which act caused the death? The answer to that question is "No, it is not necessary to found a conviction to prove which act caused the death". No authority is required to justify this answer, which is clear beyond argument ...'.

44 For a jury to convict on circumstantial evidence alone in a criminal case 'the circumstances must exclude any reasonable hypothesis consistent with innocence': *Chamberlain v The Queen (No 2)* (1984) 153 CLR 521 per Gibbs CJ and Mason J at 536. There is nothing in that principle that requires a jury to conclude that an accused person committed the crime charged in a particular manner when the evidence leaves open the possibility that the accused committed the crime in two or more ways, each of which are consistent with guilt.

45 In civil cases, when harm is shown to have resulted from one or more breaches of duty by a tortfeasor, and there is uncertainty as to which breach of duty caused the harm, it would be extremely unjust if plaintiffs were required to establish on the balance of probabilities which particular tortious act or acts resulted in the harm. It would be most unjust if a tortfeasor could escape liability as the result of a plaintiff being unable to discharge such a burden. A plaintiff might establish on the balance of probabilities that he had suffered damage as the result of a defendant's negligence, but recover no damages because there were two or more breaches of duty that could have caused the harm, and no individual breach of duty could be identified as causative. Furthermore, tortfeasors committing multiple distinct and varied breaches of duty would enjoy an advantage not shared by tortfeasors responsible only for single breaches of duty.

46 A number of the leading cases about causation in the law of negligence contain statements of principle which, at face value, might be taken to suggest that a plaintiff bears the burden of establishing causation by a particular breach of duty. For example, in *Chappel v Hart* (1998) 195 CLR 232 at [23], McHugh J said that 'causation theory insists that the plaintiff prove that the injury is relevantly connected to the breach of duty'. However such pronouncements should not be taken out of context and treated as authority in relation to a point of law that they were not intended to relate to.

47 *As a matter of principle, if a plaintiff establishes on the balance of probabilities that a defendant owed him duties of care, and breached them, and that he suffered damage as a result of the plaintiff breaching such duties, then that plaintiff must be entitled to recover damages, even if it is not possible to establish on the balance of probabilities which breaches were causative*. It follows that the learned trial judge was required to treat this case as a 'strands in a cable' case, and to assess the combined strength of the possibilities that the appellant's damage had been caused by the various asserted breaches of duty on the part of the HEC and Aurora. By considering the evidence as to each asserted breach of duty in isolation from the evidence as to the other asserted breaches, his Honour erred in the manner asserted by ground 2 of the notice of appeal." [Emphasis added.]

48 In *Brocklands* I said at 169-176

"169 Factual causation in this case of course involves consideration of s 13(1) of the *Civil Liability Act*. The 'but for' test is the relevant inquiry: *Adeels Palace Pty Ltd v Mourbarak* [2009] HCA 48, 239 CLR 420 at [42]-[45]; *Strong v Woolworths* [2012] HCA 5, 246 CLR 182 at [18].

170 Notwithstanding a somewhat ambiguous statement by the learned trial judge at [157] of his reasons, as to the role of s 14 of the *Civil Liability Act*, that section is concerned with the onus of proof of factual causation, that is to say, causation as a fact. *The words of the section '[i]n deciding liability for breach of a duty, the plaintiff always bears the onus of proving, on the balance of probabilities, any fact on which the plaintiff wishes to rely relevant to the issue of causation', cannot sensibly be construed as requiring that every intermediate fact asserted as a strand in the cable of a circumstantial case going to causation must itself be proved on the balance of probabilities*. Nonetheless, the respondent embraces such a construction in its submissions on this appeal, relying on *Chamberlain v The Queen (No 2)* [1984] 153 CLR 521 at 536. Chamberlain is no longer authority for the proposition advanced by the respondent.

171 As was pointed out in *Neill-Fraser v Tasmania* [2012] TASCCA 2 at [156]-[160] by Crawford CJ, with whom the other members of the Court of Criminal Appeal agreed:

> '156 It was submitted for the appellant that the direction was erroneous and that the judge should have directed the jury that they could not return a verdict of guilty unless they were satisfied beyond reasonable doubt of the facts essential to their reasoning towards proof beyond reasonable doubt of each element of the crime.
>
> 157 Although arguments of that kind would have been expected following *Chamberlain v R (No 2)* (1984) 153 CLR 521, their validity was put to rest, for the circumstances of this case, by *Shepherd v R* (1990) 170 CLR 573. A direction that an intermediate circumstantial fact must be proved beyond reasonable doubt before it may be used as a basis for inferring guilt, is not usually required.
>
> 158 What is often quoted as a classic statement on the position is that of Lord Cairns in *Re Belhaven and Stenton Peerage* (1875) 1 App Cas 278 at 279:
>
> > "… in dealing with circumstantial evidence, we have to consider the weight which is to be given to the united force of all the circumstances put together. You may have a ray of light so feeble that by itself it will do little to elucidate a dark corner. But on the other hand, you may have a number of rays, each of them insufficient, but all converging and brought to bear upon the same point, and, when united, producing a body of illumination which will clear away the darkness which you are endeavouring to dispel."

159 In *Shepherd v R*, Dawson J, at 579, explained the position concerning whether an intermediate fact must be proved beyond reasonable doubt. His Honour said:

> "On the other hand, it may sometimes be necessary or desirable to identify those intermediate facts which constitute indispensable links in a chain of reasoning towards an inference of guilt. Not every possible intermediate conclusion of fact will be of that character. If it is appropriate to identify an intermediate fact as indispensable it may well be appropriate to tell the jury that that fact must be found beyond reasonable doubt before the ultimate inference can be drawn. But where – to use the metaphor referred to by *Wigmore on Evidence*, vol 9 (Chadbourn rev 1981), par 2497, pp.412-414 – the evidence consists of strands in a cable rather than links in a chain, it will not be appropriate to give such a warning. It should not be given in any event where it would be unnecessary or confusing to do so. It will generally be sufficient to tell the jury that the guilt of the accused must be established beyond reasonable doubt and, where it is helpful to do so, to tell them that they must entertain such a doubt where any other inference consistent with innocence is reasonably open on the evidence."

160 Where, therefore, the evidence consists of a number of strands in a cable from which guilt is sought to be inferred, no fact or facts being by themselves necessary for the ultimate inference of guilt, the jury should not be instructed that they must be satisfied that each such fact must be proved beyond reasonable doubt. Instead they may consider the accumulation of the evidence and draw an inference of guilt from a combination of a number of facts, none of which alone would justify a finding of guilt. The matter was explained in *Shepherd v R* by Dawson J at 579 – 580:

> "As I have said, the prosecution bears the burden of proving all the elements of the crime beyond reasonable doubt. That means that the essential ingredients of each element must be so proved. It does not mean that every fact — every piece of evidence — relied upon to prove an element by inference must itself be proved beyond reasonable doubt. Intent, for example, is, save for statutory exceptions, an element of every crime. It is something which, apart from admissions, must be proved by inference. *But the jury may quite properly draw the necessary inference having regard to the whole of the evidence, whether or not each individual piece of evidence relied upon is proved beyond reasonable doubt, provided they reach their conclusion upon the criminal standard of proof. Indeed, the probative force of a mass of evidence may be cumulative, making it pointless to consider the degree of probability of each item of evidence separately".* [Emphasis added.]

172 Porter J in his judgment in *Neill-Fraser*, further explored the notion of indispensable links in a chain of reasoning towards an inference of guilt and the place for a 'prudential direction'. He said at [226]-[228]:

> '226 By ground 6 the appellant complains that the trial judge was wrong in directing the jury that the facts and circumstances from which a conclusion of guilt may be drawn need only be established to the satisfaction of the jury. The appellant argued that the trial judge should have directed the jury that they could not return a verdict of guilty unless they were satisfied beyond reasonable doubt of the facts essential to their reasoning towards proof beyond reasonable doubt of each element of the crime. Ground 7 makes that complaint specifically referable to the issue of motive.
>
> 227 As Crawford CJ has held, the primary answer to the appellant's submissions is to be found in *Shepherd v R* (1990) 170 CLR 573, and the well-known statements of Dawson J at 579 – 580, the particularly relevant parts of which have been set out in the learned Chief Justice's reasons at [159] – [160]. It is not the law that in all cases a trial judge should instruct the jury that they must be satisfied beyond reasonable doubt of all facts essential to their reasoning leading to satisfaction of guilt. However, it may sometimes be necessary or appropriate to identify an "intermediate fact" and to tell the jury that they must be satisfied beyond reasonable doubt of such fact before the ultimate inference

of guilt can be drawn: *Shepherd* per Dawson J at 579, *R v Merritt* [1999] NSWCCA 29 at [70]–[71].

228 In Shepherd, Dawson J said that such a warning would not be appropriate where the evidence consisted of strands in a cable rather than links in a chain, the metaphor of Wigmore's which Callaway JA has described as helpfully describing "two distinct kinds of reasoning": *R v Kotzmann* [1999] 2 VR 123 at 129 [16]. As Callaway JA went on to point out at [17], it does not follow that "wherever sequential reasoning is necessary or appropriate, each link in the chain must be established beyond reasonable doubt". [Original emphasis] Much depends on the fact or issue in question. As his Honour explained: "One or more of the individual facts may be established only by sequential reasoning but that chain itself be simply one of the strands in the ultimate cable.'

173 His Honour went on to say at [231-[232]:

'231 At least in Victoria, there is an abundance of authority for the express proposition that a judge may choose to direct, as a matter of prudence, that a particular fact or matter in a circumstantial case should not be used unless the jury is satisfied beyond reasonable doubt of that fact or matter. A judge is not required to form the view that the evidence is an indispensable link in a chain of reasoning before giving such a direction. Consciousness of guilt evidence is often the subject of a "prudential direction": see for example the discussion in *R v Ciantar* (2006) 16 VR 26.

232 In *R v Kotzmann* (above) it was held that the standard of proof of "additional facts" in a circumstantial case was as explained in Shepherd, and that it did not follow from later High Court cases that there were some additional facts that had to be proved beyond reasonable doubt even though they were not, in the strictly logical sense, indispensable links in a chain of sequential reasoning. Callaway JA referred to the need to direct a jury that it must be satisfied beyond reasonable doubt of a lie, if the lie said to constitute the admission is the only evidence against the accused or is an indispensable link in a chain of evidence necessary to prove guilt, and at 130 [21] said:

> "Similarly, it is customary to direct a jury, for prudential reasons, that they should not act on a confession unless they are satisfied beyond reasonable doubt that it was made and that it was true … The confession may simply be part of the evidence. It may be the proverbial straw that breaks the camel's back." [My emphasis.]

174 In the present case I can identify no indispensable link in a chain of sequential reasoning. To my mind the case is purely a 'strands in a cable' case, albeit some individual strands may rely on sequential reasoning.

175 The respondent's written submissions are permeated with the contention that no error has been identified by the appellant as to the trial judge's findings because:

> 'As identified by His Honour at [157], Brocklands bore the onus of proving each fact on which it relied, relevant to the issue of causation, on the balance of probabilities. Proving that something "could" have occurred does not meet that onus.'

176 If that is what the learned trial judge meant at [157] and I do not believe it was, then as a statement of law it is incorrect. That such a finding has not been the subject of a specific ground of appeal is of no consequence as this Court, in reviewing the whole of the evidence, is required to approach the circumstantial evidence in accordance with the law."

49 The full text of that which was written by Porter J in *Langmaid* (above) at [119]-[126] is as follows:

"**Questions of proof – the relevant principles**

119 By virtue of the *Civil Liability Act*, s13(1)(a), the appellants need to establish that it was more probable than not that the respondent's breach of duty was a necessary element of the fire's occurrence. That involves the drawing of inferences. The discharge

of the civil burden of proof was discussed by McDougall J (with whom McColl and Bell JJA agreed) in *Nguyen v Cosmopolitan Homes (NSW) Pty Ltd* [2008] NSWCA 246. At [55], his Honour summarised the position as follows:

> '(1) A finding that a fact exists (or existed) requires that the evidence induce, in the mind of the fact-finder, an actual persuasion that the fact does (or at the relevant time did) exist;
>
> (2) Where on the whole of the evidence such a feeling of actual persuasion is induced, so that the fact-finder finds that the probabilities of the fact's existence are greater than the possibilities of its non-existence, the burden of proof on the balance of probabilities may be satisfied;
>
> (3) *Where circumstantial evidence is relied upon, it is not in general necessary that all reasonable hypotheses consistent with the non-existence of a fact, or inconsistent with its existence, be excluded before the fact can be found; and*
>
> (4) *A rational choice between competing hypotheses, informed by a sense of actual persuasion in favour of the choice made, will support a finding, on the balance of probabilities, as to the existence of the fact in issue*.'

120 In *Bradshaw v McEwans Pty Ltd* (1951) 217 ALR 1 at 5 – 6, the High Court noted the distinction between the application of the criminal and the civil standards of proof to circumstantial evidence, saying as to the civil standard:

> ' … *you need only circumstances raising a more probable inference in favour of what is alleged. … [W]here direct proof is not available it is enough if the circumstances appearing in evidence give rise to a reasonable and definite inference; they must do more than give rise to conflicting inferences of equal degree of probability so that the choice between them is a mere matter of conjecture* …
>
> *All that is necessary is that according to the course of common experience the more probable inference from the circumstances that sufficiently appear by evidence or admission, left unexplained, should be that the injury arose from the defendant's negligence. By more probable is meant no more than upon a balance of probabilities such an inference might reasonably be considered to have some greater degree of likelihood*.'

121 In *Jones v Dunkel* (1959) 101 CLR 298 Dixon CJ at 304 said *that an inference must not be drawn where it is but 'a choice among rival conjectures'. There must be '... evidence supporting some positive inference ... and it must be an inference which arises as an affirmative conclusion from the circumstances proved in evidence and one which they establish to the reasonable satisfaction of a judicial mind'.* His Honour referred to the above extract from Bradshaw (then unreported but the passage was set out in *Holloway v McFeeters* (1956) 94 CLR 470 at 480–481), and observed:

> '*But the law which this passage attempts to explain does not authorise a court to choose between guesses, where the possibilities are not unlimited, on the ground that one guess seems more likely than another or the others. The facts proved must form a reasonable basis for a definite conclusion affirmatively drawn of the truth of which the tribunal of fact may reasonably be satisfied*.'

122 It follows, of course, that 'a court is not authorised to choose between guesses, even on the ground that one guess seems more likely than another or others': *ACCC v Metcash Trading Ltd* (2011) 198 FCR 297 per Buchanan J at 306 [31]. However, a court is entitled to draw an inference from 'even slim circumstantial facts that exist so long as that goes beyond speculation': *Progressive Recycling Pty Ltd v Eversham* [2003] NSWCA 268 at [7] per Young CJ in Eq (Ipp JA and Davies AJA agreeing); *Condos v Clycut Pty Ltd* [2009] NSWCA 200 per McColl JA at [68] (Campbell and Macfarlan JJA agreeing).

123 Expert opinion of a possibility can be used as circumstantial evidence, and a finding of factual causation may be made where the expert evidence 'does not rise above the opinion that a causal connection is possible'; the evidence will be sufficient if, but only if, the materials justify an inference of probable connection: *Fernandez v Tubemakers of Australia Ltd* [1975] 2 NSWLR 190 per Glass JA at 197. See also

Seltsam Pty Ltd v McGuiness (2000) 49 NSWLR 262 per Spigelman CJ at 274 – 275 [79] – [83] and, in the context of a 'fire' case, *McDonald v Girkaid Pty Ltd* [2004] NSWCA 297 per McColl JA (with whom Beazley JA and Young CJ in Eq agreed) at [103], [107].

124 Evidence of possibility is capable of supporting a probative inference, and expert evidence of possibility may, as circumstantial evidence, alone or in combination with other evidence, establish causation: *Seltsam* (above) per Spigelman CJ at 276 [89]; *McDonald v Girkaid Pty Ltd* (above) at [104].

125 As to the ultimate question of proof on the balance of probabilities by inference, in *Lithgow City Council v Jackson* (2011) 244 CLR 352 at 386 [94], Crennan J noted that whilst a more probable inference may fall short of certainty, it must be more than an inference of equal degree of probability with other inferences so as to avoid guess or conjecture. Her Honour continued:

> 'In establishing an inference of a greater degree of likelihood, it is only necessary to demonstrate that a competing inference is less likely, not that it is inherently improbable.'

126 *It is no answer to the question of whether something has been demonstrated as being more probable than not to say that there is another possibility open; the determination of the question turns on consideration of the probabilities*: *Kocis v S E Dickens Pty Ltd* [1998] 3 VR 408 per Hayne JA at 430; *Strong v Woolworths Ltd* (2012) 246 CLR 182 per French CJ, Gummow, Crennan and Bell JJ at 196 – 197 [34]. In this case, it might be shown that it is more probable than not that the respondent's hot work caused the fire, while at the same time acknowledging the combined strength of the possibilities that the fire was not caused by hot work at all, and that it was caused by the hot work of first appellant's employee, Mr Michael Cooper." [Emphasis added.]

50 Porter J also observed in *Langmaid* at [132]-[133]:

"132 As to whether hot work caused the fire, the relevant omissions are the same irrespective of whose hot work it was. The appellants call in aid the approach described by Dixon J in *Betts v Whittingslowe* (above). The question is whether the omissions amounting to the breach, coupled with an accident of the kind that might thereby be caused, is enough to justify a factual inference about a causal link. In *Amaca Pty Ltd v Booth* (above) at 57 [49], French CJ highlighted the words 'that may thereby be caused', and explained that the logic in the approach 'encompasses the case of an ex ante probability, of accident given breach, supported by a causal explanation linking breach and accident'. Causal explanations can lie in expert evidence. No doubt those explanations can be general, as in that case, or specific.

133 Whilst in some cases the inference might be drawn on that basis, that is not a rule of law; *'It is an aspect of an available process of drawing of conclusions about causation*': *Bauldserstone Hornibrook Engineering Pty Ltd v Gordian Runoff Ltd* [2008] NSWCA 243 per Allsop P (Beazley and Campbell JJA agreeing) at [240]. In *Roads and Traffic Authority v Royal* (2008) 82 ALJR 870, Kirby J at 888 [88] said that Dixon J in *Betts* had helpfully explained the way in which a finding of a breach of duty 'may open the way for (whilst not compelling) an inference of causation-in-fact.' See also Kiefel J at 897 [139]–[140]. For that process to alone justify drawing the inference, 'the facts proved need to be compelling': Stitz v Manpower Services [2011] QSC 268 at [109]. 'The facts must warrant no other inference inconsistent with a defendant's liability': Betts per Dixon J at 649." [Emphasis added.]

51 And finally of relevance, at [139]-[141] Porter J said:

"139 It might be thought that it is unlikely a fire would occur in the circumstances established in this case, but there is a clear distinction between the prospective assessment of a risk of something happening, and the retrospective exercise of making findings of fact about what has happened. In *Amaca Pty Ltd v Booth* (above) French CJ said (omitting references):

> '42 It is necessary, nevertheless, to reflect upon the relationship between risk and causation. In ordinary usage "risk" refers to a hazard or danger or the chance

> or hazard of loss. Assessment of the risk of an occurrence is prospective in character. It can be expressed as an ex ante probability that the occurrence will occur. If quantifiable, that probability may be expressed numerically as a figure greater than "zero" up to "one" which denotes certainty. The range of probabilities may be traversed by terms such as "mere possibility", "real chance", "more likely than not", "highly likely" and, ultimately, "certainty".
>
> 43 The existence of an association or a positive statistical correlation between the occurrence of one event and the subsequent occurrence of another may be expressed as a possibility, which may be no greater than a "real chance" that, if the first event occurs, the second event will also occur. The mere existence of such an association or correlation does not justify a statement, relevant to factual causation in law, that the first event "creates" or "gives rise to" or "increases" the probability that the second event will occur. Such a statement contains an assumption that if the second event occurs it will have some causal connection to the first. However, if the association between two events is shown to have a causal explanation, then the conclusion may be open, if the second event should occur, that the first event has been at least a contributing cause of that occurrence. *An after-the-event inference of causal connection may be reached on the civil standard of proof, namely, balance of probabilities, notwithstanding that the statistical correlation between the first event and the second event indicated, prospectively, no more than a "mere possibility" or "real chance" that the second event would occur given the first event*. There may of course be cases in which the strength of the association, as measured by relative risk ratios, itself supports an inference of a causal connection.'
>
> 140 Lack of evidence about the precise mechanism of how injury or damage came to be suffered does not necessarily prevent the inference being drawn about the causal link. To begin with, a plaintiff does not have to establish that the precise sequence of events leading to the particular damage was foreseeable. It is sufficient if the general kind or type of injury is reasonably foreseeable: *Chapman v Hearse* (1961) 106 CLR 112 at 121; *Rosenberg v Percival* (2001) 205 CLR 434, per Gummow J at [64]; *Metrolink Victoria Pty Ltd v Inglis* (2008) 25 VR 633 per Neave JA at 636 [12] .
>
> 141 *As to causation, the law does not insist on the need to demonstrate the mechanism of loss or damage 'to a fine degree*': *Duma v Mader International Pty Ltd* [2013] VSCA 23 per Neave JA at [3]. See also *Strong v Woolworths Ltd* (above) at 196, [34], and *Kuhl v Zurich Financial Services Australia Pty Ltd* (2011) 243 CLR 361 per French CJ and Gummow J at 381 – 382 [53] – [54]." [Emphasis added.]

Evidence as to the behaviour of the fire at White Hill Road

Melissa Barrett

52 Ms Barrett was interviewed by police on video on 5 January 2013 and again on 7 January at her property in a video recorded walk around the fire scene. She also gave evidence on the trial and was cross-examined.

53 It is necessary to approach with some caution all that she has said as to the first sighting by her of the fire on 3 January. First she was no doubt traumatised by the sudden outbreak of the fire and was naturally more concerned to stop it threatening her house and her horse and her neighbours than she was to observe the precise dynamics of the fire. Second Ms Barrett appears to be constitutionally discursive and such descriptions of the outbreak of the fire as she was able to give are very hard to follow. Third, she obviously believed when she was interviewed by police, at first at least, that the fire started as a result of the campfire that was lit in the old stump on 28 December 2012 and to my mind she was, understandably, defensive in her statements.

54 In general I am inclined to place more weight on her recollections as conveyed to police when her memory was fresh in early January 2013, than I am on her recollections given in evidence on the trial, over eight years later. And I place no weight on her evidence where it conflicts with the evidence of fire fighters who attended her property on the day and subsequently.

55 The very first account of observing the fire made to police by Ms Barrett was as follows:

> "Went out on the deck and went to light the cigarette and that's when I saw everything on fire … I was holding out to have that cigarette and that yeah um and that's when I looked to the right and saw both my um both oh my property on both sides of the um um the little flat sort of driveway on fire, that was already on fire … Cause I just, I just saw th... I just saw the flames and it was coming towards the house and it was coming towards the rocky, my rocky steep driveway as well. *Um so it was burning towards me... And it was also burning the other was so it was burning both ways*. Um and that's yeah so I don't know how steep my other one but I would say, say if that, say if that driveway was um, it just, it just seemed be um I saw the fire just um on that right side, it, it's at that slightly little gentle slope. So it's like a sort of a peak area um so I'm just trying to think from the house, if I walked it from the house um I reckon it would have been twenty or thirty meters away from the house." [Emphasis added.]

56 A little later in the first police interview Ms Barrett added:

> "Um and I was, I was actually running out of air and collapsing cause I was constantly filling those water things up and I was doing from the top cause it was just coming to the house and coming to Doug's paddock on the bottom like would have jumped the rocky road."

57 In her second interview she said:

> "Just about to light the cigarette, looked to the right of me now um, yeah my right, sorry I get confused with my left and right, looked to the right of me and straight away I saw um, whether that's five or ten metres wide of um, very light colour flames … Um, and they would have been a good um, that red, ah, sorry that far pink line you can see … It actually started beyond that and then um, I just froze and said a lot of swear words um, and then went into shock and thought what do I do and I, then I realised how far away it was, I thought great I need to, as I'm running back inside I can control this. Dropped everything inside, came back out, when I came back out and looked again it had actually ignited um, the other side of the ah, just um, well the driveway that just slightly inclines it had actually leaped across and both of them were travelling um, just seconds they'd reached down the bottom of the road and I knew the other bit was then coming forward and it was actually starting to go around um, down the steep drive um, in the paddock, well in the part there of the land."

58 The reference to "that far pink line" is a reference to a pink line that had been painted on to the ground by Ms Barrett, at the request of TFS investigators on 6 January 2013, in order to mark the point where she had told them that the fire was in relation to her house when she first saw it, looking east from her deck. She told police that from first seeing flames until putting water on the fire, it had crept about two or three metres to within six metres of the house. She said that it was like an even line coming towards her.

59 It is difficult to glean much more of assistance from Ms Barrett's police interviews as to the state and behaviour of the fire when she first saw it, and her evidence on the trial was not given with any greater precision. It is clear that when she first saw flames the fire had already taken hold and that it was coming towards the house as a grass fire, backing against the wind, and was also burning strongly to the east among trees as far as she could see down towards the lower part of what she called her flat driveway, as well as burning to the west back to her adjacent rocky driveway towards the paddock where she kept her horse.

60 I set out the extract from the trial transcript where Ms Barrett was examined in chief on this issue:

> "MR READ SC: Yes. (Resuming): So we'll come to the 3rd, a farrier came to look after Doug, we've heard about that, and he left and you were – and I'll try and put it politely,

fiddling around wondering what you were going to do?……That's right, it was a dam hot day.

Yeah, and you walked out onto your balcony and you saw some – you saw something over to the east?……That's correct.

Right, now what did you see?……It was – because it was such a hot day, a bright day, I could just see – it's very hard to explain, but it was so far in the distance and it was – it was like a white light or spark, it was just like say, if you had a bit of metal or a bit of glass there and that's – and that's what I first saw.

Right, and what – what followed from that?……I did a double – double take and then I realised that's moving because it was – wasn't on the top of the property it was coming up the hill but I can't see down my hill because of where I stand, that I just saw it reach where it starts to come up my hill and that's when – then I saw other flames or just this white flickering going on and that's when I ran for my life and knew that it was a – there was fire on my property.

Now you've been using your hands during all of that.……Yeah –

That's fine, Ms Barrett, but I just need to record for the transcript - ……Yeah, yeah.

- you were indicating moving towards yourself, so that - ……So from the distance –

Yes.…….- when I actually looked out to the east, I actually looked – I had to look past the pit –

Yes.…….- the camp – and to actually just see the flickering in amongst, I have gum trees there –

Yes.…….- and that's when I saw it first flicker there, and then as my eyes darted, you could see little flickers elsewhere coming up the hill.

Right. Now, up the – ?.....There was nothing on the hill.

Yes. So up the hill, is that towards your house or away from your house or – ?.....That's towards my house. So that's, say, the east coming towards the west.

Thank you?.....Directly in line with my house.

Right. Now, leaving aside calls to emergency services and just cutting to the chase of what you did in relation to that fire, you got some water and went down there; is that right?.....That's correct.

Yep?.....I raced –

Right. Well, just a moment, please. When you went down there, what it is that you saw?.....When I went down there?

Yes, you took some water down. What did you see?.....When I took my watering can, I then – when I got to before (indistinct word) down my property, when I actually stood there and could see all the rest of my property, that was all on fire.

Right?.....Going that way. It was dancing all over the place, coming up – going up –

Going – you're indicating going to the north?.....It was going to the north. It was coming up to the west and that was what I was focussing on.

Right. Now, what did you do with the water?.....I tried to put bits out because there was – it was coming towards the house and it was going around towards Doug's paddock.

Right. The first can of water that you had – ?.....Yep. I had a bucket – what I can remember is that I had a bucket –

Right?..... – and I had a watering can and I found that I was – with the bucket, it was useless.

Yes. All right. Just – the very first lot of water, which bit of the fire did you put it on?.....I put it on the first bit that I saw coming up, because that was my first threat.

Coming up towards the house?.....Yes, correct.

Right. Thank you. And you continued to go backwards and forwards to get more water?.....I did.

> Right. And what happened to the fire?.....It just kept on burning.
>
> In what direction?.....Everywhere. Coming – it kept on coming up, crawling towards the house and it was just beaming around the sides of the hill still coming north-westerly to go around the front of the property and take the paddock out that Doug was in.
>
> That Doug was in?.....That –
>
> Doug's paddock. Yep. Okay. Now, as a result of that, did you go down what we know as your steep driveway?.....There was – yes, there was, but there was no point. It was everywhere. So my focus was just trying to – it was sporadically coming up at all different ways, so I was just running around trying to do whatever was closest to the house, just kept on trying to put that – because it was on both sides coming up. So it wasn't only on that east side directly in line with the house. It had also come up on the other side of the driveway towards – so I was just trying to run between everything with a nozzle.
>
> Thank you. Well, when you were down in the steep driveway, a fire truck arrived?.....Yes. In the end, it had got so close to the – I had to protect my horse and leave the rest.
>
> Yes. But a fire truck arrived?.....But a fire truck arrived –
>
> Thank you?..... – and I met them down the bottom of the driveway." [Emphasis added.]

61 There are three other aspects of Ms Barrett's evidence that are important. The first is the lighting of the campfire in the old stump and her subsequent observations of it. The second concerns her various statements as to the question of the burning of the area of the septic tank near an old fallen log to the east and south of her house. The third is her conversation with Mr Butler from the Seven Mile Beach fire brigade as to his observations of a glowing tree root near the old stump. That exchange is documented below when dealing with Mr Butler's evidence. I will now turn to each of the other matters.

62 During her first police interview Ms Barrett was asked when the last time was that there was any kind of fire at her property. She replied:

> "I think it would have been *two or three weeks ago um it was, it was two or three weeks away* and it was, we'd had two weeks of freezing cold or something, and Lochie, little Lochie wanted you know he said, '*Oh can we just have um a little fire to keep warm*'. So we threw about, *there was three weeks, two or three weeks ago*. Probably about, cause it was his bedtime, so it wasn't, it was too late really, well for him if you know what I mean? So we put about um three little logs and if that and then half an hour he went to bed and we put it out." [Emphasis added.]

She then said that the fire was lit "in the hole". She explained that in the old stump there was "a dirt hole".

63 In her second interview with police she said that she could not remember whether she and Mr Robinson had lit the campfire before or after Christmas. She said:

> "Um, and lit it up just in um, the area here, not back in there, we set it up in here um, (inaudible) a pit and it probably burnt for a couple of hours, three hours, put him to bed. *Hamish kicked it over*, I run around *always* and put things out with water, end of story and then *it rained that week* as well so yeah um, so that's what happened a couple of weeks ago." [Emphasis added.]

64 Then came the following exchange in the interview:

> "Q And you haven't seen the stump smouldering at all or smoking at any stage over the last couple of weeks?
>
> A *Um, it did when we had the rains*.
>
> Q Yes.

> A *Um, yeah it, a bit of steam in the wood bit here*.
>
> Q Yes.
>
> A Um, but other than that, no um, only when it rains, we always go over and check it, *even on the day of the fires um when the seven, Seven Mile Beach firey guy was here, the lovely man with the red beard and that, he even said there's no ember, like it wasn't even red, it wasn't glowing and because of the fire had come back around here this was just smoking a little bit but yeah*." [Emphasis added.]

65 In her evidence on the trial Ms Barrett agreed that there was a campfire lit on the property on 28 December 2012 by Mr Robinson. She said that she handed him the lighter. She said it "was set inside the pit" of the old stump. She said that there were only about three small logs on the fire and so she thought it had burned for about three hours.

66 Ms Barrett said that when it came time to go to bed she got buckets of water from her swimming pool and poured water on the fire. She said "Hamish also made sure there were no coals and – well, I can't really say with Hamish but I definitely poured water in it… On numerous occasions". She said that she was of opinion that the fire was out. In cross-examination Ms Barrett said that she saw Mr Robinson kick at the fire to make sure that there were no coals around the outside of what was left of it and then "kick a bit of soil in." She said that she put about two half full, slightly wider than normal, buckets of water over it.

67 She said that the next morning she saw that the pit was not hot and it still looked damp. That is she did not confirm what she told police in terms that "it rained that week". She disagreed that weather records shown to her were correct in recording no rain for the next day, or the next few days, up until 1 January 2013. She said:

> "… it was the slightest little wisp and I was only being honest that I said that I saw that and there was in a blink of an eye, I never saw it again. I even went over to that site; nothing."

68 Her evidence was that the next morning "it was very overcast, cold and it started to spit". She was asked whether she saw something in the area of the stump that morning and she replied "I thought I saw when the rain started – when it started to spit, a small bit of steam... A wisp." She was asked to describe the "wisp", with a little more clarity and she responded:

> "It's a bit hard but in the end the only – I suppose the explanation I could give if a kettle is boiling and you just see a little bit of translucent steam or if, for example, it's been a hot day and you have a shower and the ground steams a little bit from the heat, on a hot day, sort of that."

69 She said that she did not see anything of that sort again that day or in the days that followed, and that she did not see any smoke at any time.

70 As to this question of steam, the following passage of cross-examination recorded in the trial transcript is of relevance:

> "All right. Now, could we go back to your statement to the solicitors in par32 again. You say at the end of the par32, Ms Barrett, that you were not concerned about what you'd seen by way of the steam – the wisp of steam? I take it that's accurate?.....That's correct.
>
> And given you were not concerned about it, I take it as well that you didn't do anything in response to that observation?.....Yes, I go and observe things. So in the end, it was in the blink of an eye, there was nothing there. *Who knows whether I saw it or I didn't*, but I'm just being honest saying I thought I saw a little bit of steam. I – in the end, I went up there. There was nothing else. Blink of an eye. It was gone.

> Well, Ms Barrett, you say you weren't concerned about it. Again, I need to put it to you that because you were not concerned about it, you didn't do anything. You didn't go over to the stump and you didn't check to see what might be causing steam to come off it?.....*I did go over to the stump, just like I go over to all of the things that are on my property that I've been doing, and I checked it and if I would've seen (indistinct word) steam coming out of that, I then would've gone and got water and put it on there, but from the look of it, it was damp*.
>
> All right. So again – ?.....It was damp like it was from the night before.
>
> I think you've already said that you looked at it and then not seeing any further signs of steam, you went away again?.....*I looked at it. I knew it was wet. I stood there. It spelt wet. There was nothing – no fire, no flame, no redness, no nothing. It was wet and it was out.*
>
> All right?.....And then *I even question myself whether I saw that bit of steam*." [Emphasis added.]

71 As to the question of the possibility of the fire on Ms Barrett's property originating not from the pit of the old stump, but from an area to the south of that, between the septic tank drainage area and the fallen log, the following evidence of Ms Barrett is relevant.

72 In her first interview with police she said, referring to events that occurred well after she first saw the fire and it had backed up into the valley to the south and east of her house:

> "The Firey's stayed with it the whole time as it burnt around. They wanted it to burn around the back of the house and go all the way along but the helicopters ended up coming in and putting it out on them but of course it lit up again and yeah …
>
> Um they obviously they were but then other fire trucks coming in um yeah they hosed down and then they were worried because of um it had, it had actually had um where I've got a lot of just um thin gums um right next to my big cleared septic um which is a huge big area. Um which is great cause it's a clearance to the house. Um the fire, cause the wind, it was just all in there so they, *they stayed and other units went through* and that and um and yeah they said then, *watching it come up to the septic um and then as I said um they wanted it to burn so yeah*." [Emphasis added.]

73 Later in the interview she said, "[s]o my whole septic area never catched [sic], the whole rest of the thing did so yeah and that's where the log sits." And referring to one of the plastic septic tank vent pipes, Ms Barrett said, "[a]nd my little, I know one of my little septic nozzles um melted *the other night um but other than that yeah*." [Emphasis added.]

74 A little later still, she said:

> "Cause we're not allowed to touch the septic. We are not allowed um they told us um no way are you allowed to drive over it. Um even the Midway Point fires were saying, Hamish and I were saying st...you know make sure, *cause it was coming* and they said, Make sure you save the septic." [Emphasis added.]

75 She was asked when she was saying that fire damage may have occurred to the area where the vent pipe was, and she answered, "I don't know because I've been up and down there you know ...".

76 In her second police interview Ms Barrett was asked about the pink lines that she had painted on the ground for the TFS investigators to indicate her estimates of where she first saw flames near her house. She said:

> "… on the corner there um, pretty much yeah, just over um, to the line up to there there was a full (inaudible) just naked flames um, because it was quite dry and not much um, it was pretty just, this dry level grass, (inaudible) that was through there. (Inaudible) so that's (inaudible) um, flames and at the same time *it was creeping back over that pink far line coming this way towards the house*." [Emphasis added.]

77 Ms Barrett's final statement in that second interview, as to where, to the best of her knowledge the fire actually started was:

> "um, and I can see by the way these little, two bushes have burnt from the back that it did start over that, *the fire was already lit over that side and it travelled back to here* so um, and I said the Tas Fire (inaudible) *so obviously something's ignited there flown there and then burnt back*, but yeah she was definitely (inaudible) pass that pink line." [Emphasis added.]

78 In cross-examination on this subject, the following extract from the trial transcript, lengthy though it is, demonstrates the extent of Ms Barrett's understanding of any fire activity in the area of the fallen log and the septic tank:

> "MR ARMSTRONG QC: Thank you, your Honour. (Resuming) I apologise, Ms Barrett. So when that crew with the red-bearded gentleman arrived, that crew was not actively engaged in fighting any fire around your property, were they?.....Yes, they were. The – when I walked up and was getting to the peak of the hill and I saw the red truck there and *I saw someone get out with a hose*.
>
> All right. And the – that fire truck, Ms Barrett, could you tell his Honour, by reference to this photograph, whereabouts on the property it parked?.....Yes. If you want to come way over to the right. Keep on coming. Keep on coming. Keep on coming…
>
> WITNESS: Yep. There. At – there. So they parked around there. I had fire trucks parked there the whole – from one to three at times parked there, from there through to the side of my house.
>
> MR ARMSTRONG QC: (Resuming) All right. I don't need – ?.....On the east side there. When I walked up the hill, I remember I was hysterical because I didn't know what was going on, and I do remember Hamish saying, 'Calm down. Calm down. It's all over', and even the red – I remember the red-bearded man said, 'No, it's not. It's all in the back gully. The fire's all in the back gully, so I'd tell you to get those kids out of here now'.
>
> Okay. Now, just for the record, you've indicated that that – the truck that the red-bearded man was in had parked roughly between the eastern end of your house and the pit; correct?.....Well, where the arrow is at the moment.
>
> And would you agree that that's roughly between the house and the pit?.....Yep.
>
> And can you see over to the right of the cursor on the screen, the grey line, that's the big log that's a bit of a garden feature in that part of the property, isn't it?.....Yes, my big log.
>
> Yep. And – ?.....It's up in the – if you want to take the cursor over. Yep, that's it.
>
> Thank you. *And the area around the big log was not burning and had not been burnt at that point, had it?.....I was not at that area, so I could not tell you whether it was or not.*
>
> And – ?.....It was – sorry, go on.
>
> No, no, sorry. Please finish the answer?.....*I know it was speckled through there, but I don't – I couldn't tell you.* I just know that the fire is – there was all fire in amongst the gum trees there that they were dealing with. I was too busy concentrating on mine.
>
> And when you say 'amongst the gum trees', do you mean the gum trees that we can see further to the south-east of the property or – ?.....That's correct.
>
> Right. And no fire yet in the area immediately to the right, that is, due south of the big log, was there?.....And I'd go for that one again. It was – I got told by the firies that there's burning *in there*, and that's all I can tell you.
>
> *All right. And by 'in there' – ?.....And because of if you can see my septic is – there's a big dry dirt area and they said they were going to try and stop from burning the septic.*
>
> *Right?.....So it didn't burn my septic.*
>
> *Okay. And – ?.....But it was all in –*

> *So the fire was over further to the south-east and south of the septic area; is that right?.....That's correct.*
>
> All right. Thank you. Now – ?.....As I was told by the firies and then later on I saw, yes, it was all there. So in the end – I'm not an expert – there's a lot of bush. There's – it's hard to see through thick scrub, but I knew there were fires through there.
>
> All right. And that area around the big log, in fact, did end up getting burnt, but it wasn't until much later in the night of the 3rd of January; is that right?.....It speckled through there because there you've got the log. Then you've got an area of just a little bit that was bush originally and then you've got the big septic that was – and I knew the septic was clear between the log and the septic, in that strip there. *It was from the January right through – it could have happened at any of those times. From the 3rd of January till the fire investigation was on the Sunday. So from the Thursday to the Sunday my property just kept on burning over itself so it's the best to my knowledge*.
>
> *So to the best of your knowledge, that area to the right of the log in the photograph ended up burning much later either in the evening or the night of the 3rd of January or perhaps into the – sometime into the 4th of January, is that right?.....As I said, I wasn't overly in that area. That was the fire both – all the fire trucks were there to save my septic. It was speckled a bit through there and that's all I can really tell you. Then it just – over the days more and more got burnt and burnt and burnt. So only – you know, I'm not a fire person. The fire was – everywhere burnt*." [Emphasis added.]

Hamish Robinson

79 Mr Robinson was interviewed by police on 5 January 2013. He said that he received a telephone call from Ms Barrett at about 2.22pm on 3 January telling him that her property was on fire. He said that when he arrived on the property there was a fire on the left as he came up the steep driveway, and when he got to the top where the house is there was a fire brigade unit present. He said that the fire was heading in a south easterly direction. He said that it appeared that the fire started on Ms Barrett's property. He told police that he had lit a campfire for his son about eight days earlier which probably lasted for one to two hours. He said that he had made sure that he had extinguished the fire and that there were two days that followed when there had been quite heavy rain.

80 Mr Robinson said that he had returned to his home in Sandy Bay after initially having gone to the fire and that he returned again somewhere between 4.30pm and 6pm. When he arrived on that second occasion he said that there were two fire brigades present.

81 In his police interview Mr Robinson was not clear on when the fire was "creeping back" towards the area of the septic tank or what time he was referring to when he said that the fire had not gone any further than the pipes, and what he meant by saying, "towards the end it hit …the plastic pump" [sic]. In his evidence-in-chief he said that he was talking about his first visit and that the fire had already gone through and was starting to burn back onto the property in the area of the septic tank. In cross-examination he said that he could not answer as to what he meant by "towards the end", in relation to when the fire "hit" the plastic pipe. He thought it was before the Wattle Hill fire brigade arrived at about sunset – perhaps "just prior to a fire brigade unit turning up".

82 Mr Robinson gave the following evidence as to extinguishing the campfire:

> "How long did the campfire burn for?.....Approximately two hours, maybe three.
>
> Later – I'm sorry, towards the end of that two to three hours it was time for bed?.....Correct.
>
> What was the state of the fire when you made the decision it was time for bed?.....Well, the decision –
>
> Not when you went to bed. When you made the decision?.....Well, the decision was made to go to bed because there wasn't much left of the fire and *it really wasn't keeping us warm*. So it was mainly just coals left. Maybe half a log if we were lucky, yeah.

> So what did you do?.....Basically what I've done with all other campfires I've had. *I placed dirt or kicked dirt all over the top of it just to make sure that the embers that were left wouldn't blow anywhere or cause any problems if the wind got up to in the night.*
>
> What about – after you'd done that what about exposed coals?.....*Well, there wasn't any exposed coals after I'd kicked all dirt over it.*
>
> You went to bed?.....I did.
>
> Did you hear Mel doing something?.....I did. *She was frantically putting buckets of water on top of what was the fire basically which was now just dirt*.
>
> Where was she getting that water from, were you able to tell?.....Well, just from my memory I think she was getting it from the tap. I don't know how accurate that is. I'm going back many years now.
>
> Now, the next morning no doubt you got up because you're here now. Did you do anything in relation to the tree stump when you got up?.....Yeah, I did. Like typical – I've walked over to that area where I'd had the fire to make sure it was out and it was cold and it wasn't going to pose a risk.
>
> What did you find when you went over there?.....*Well, I went over there and I stared at it and there wasn't much left of it at all and I put my hand over the top of it and hovered it and there was no heat emanating from it. There was no smoke. It was absolutely bone cold and I was satisfied that that was out.*
>
> When you put your hand over it and hovered it?.....Yes.
>
> What distance was your hand?.....Oh, an inch, a couple of centimetres. Very close.
>
> An inch above the surface of what had been the campfire?.....That's correct.
>
> Thank you. Was there any smoke coming from the area?.....No.
>
> Any other sign that it might still be burning?.....No, like I said, it was out and cold and was dead, that fire." [Emphasis added.]

83 On the subject of seeing steam at the property, Mr Robinson said that the property has a lot of exposed rock and that he had noticed when it had been drizzling and raining and the sun comes out one can see steam or water evaporating from the rocks.

84 As to the weather between the day after the campfire and 3 January Mr Robinson said that "most of the time it was overcast and drizzly" and that it had rained on the Sunday (30 December 2012) and the Monday (31 December 2012). When his attention was drawn to nearby weather station records to the contrary he said "I stand by what I said … from my memory back then … if I said that."

The Dodges Ferry fire crew

85 The first witness to give evidence from the Dodges Ferry brigade was Mr Oliver Torenius. Mr Torenius is a TFS fire fighter. He has been so for the last four years. Prior to that he had been a volunteer fire fighter with the TFS volunteer wing attached to the Dodges Ferry brigade since 1999.

86 His fire truck crewed by himself and Mr Perry Sward and Mr Grant Hawkes, was the first firefighting unit to arrive at the Barrett property. He received a call on his pager to attend a vegetation fire at Forcett from his Communications Dispatch Centre at 14.13.31 hours. His unchallenged evidence was that his unit arrived at the bottom of the driveway to the Barrett property between 2.25pm and 2.30pm. Mr Torenius said that it took him only three minutes from the receipt of the page to arrive at the brigade station, ten minutes more before the fire truck left the station, and only a few minutes to travel to White Hill Road. Mr Hawkes was driving the truck and Mr Torenius was the front seat passenger.

87 As the fire truck travelled north along Old Forcett Road towards White Hill Road, Mr Torenius observed to his right, a significant smoke column in the sky which was bent over at the bottom,

indicating to him that it was a wind driven fire at White Hill Road travelling in a south easterly direction. He also observed, to his left, another significant smoke column rising from the Richmond area, which he said had no connection with the fire that he and his crew were going to. He said that he saw no other signs of smoke further to the right of the column he saw rising from White Hill Road.

88 As Mr Torenius and his crew were travelling to the fire he heard on the radio that there had been calls to the fire dispatch centre advising that there were properties at risk at Inala Road which lay to the east or south east of White Hill Road.

89 As the crew turned into the shared driveway of the Barrett property and the neighbouring property of 244 White Hill Road, Mr Torenius was able to get a clearer view of the increasing smoke plume travelling in a south easterly direction, and as he did so he encountered Ms Barrett at the bottom of her driveway. She advised that she had had a fire burning on her property within the last week, and she pointed in the direction of the vicinity of that fire. He observed an area of burnt vegetation to the south easterly side of the house at the top of the driveway.

90 By then the fire had moved on and was threatening number 244 to the south east of the Barrett property and Mr Torenius' priority was to get up to there to protect that property. When the crew reached number 244 the fire was about 200 metres wide, but the front had already progressed quickly and moved through that property. Nevertheless they spent some there time on asset protection, working on the flank of the fire.

91 While there, Mr Torenius noted that the fire had moved into heavy vegetation and was climbing trees and "crowning" towards Inala Road. That is to say, that the ground level fire had moved up the trees and into the canopy of the treetops and had been moved along by the strong winds and the heat. The flames had crested a nearby ridge to the south of number 244 and were moving quickly and spreading rapidly.

92 As to any question as to whether there had been a separate fire that had started before the fire at the Barrett property, somewhere to the east of it and closer to the properties at the northern end of Inala Road, Mr Torenius said that he could not see it feasible that there was any fire activity in that vicinity. He said that he knew the area reasonably well, having lived there his whole life, and that if a fire in those conditions on that day had started further on from the fire in White Hill Road, it would have been significantly visible from multiple areas and it would have moved in a very fast and rapid rate from its point of origin in a south easterly, south - south easterly direction.

93 Mr Torenius was met by his district officer Mr Andrew Skelly who had been mobilised not long after he had been. Mr Skelly came directly to number 244 and Mr Torenius went with him in his vehicle towards Inala Road. They took the same driveway from number 244 back out to White Hill Road and it then took them between five and ten minutes to get to Inala Road. When they got to Mr Darren Lawrence's property at that location, the fire had already moved quickly through, with trees crowning, and had burned in a south easterly direction towards Gangells Road.

94 The next witness to be called was Mr Sward. He generally confirmed the evidence given by Mr Torenius. He thought it took him only about two minutes from the time he was paged until the time he arrived at the brigade station and about eight minutes from there until the truck arrived at White Hill Road. He also saw plumes of white and black smoke and he thought the wind was blowing from the north at about 40kmh.

95 Mr Sward also recalled Ms Barrett say that she thought that the fire may have started from a campfire that she had a few days previously, but which she thought had been put out. He confirmed that he proceeded about 800 metres to number 244 White Hill Road with flames travelling up the hill ahead of them. He said that he and his crew worked on the flank of the fire at number 244 for about an hour and he said that he could not see the fire front as all he could see was mostly black smoke which he said

indicated quite a fierce fire which he said was travelling in an easterly or north easterly direction. His crew, minus Mr Torenius who had joined Mr Skelly, were then redeployed to Gangells Road. When he arrived at Gangells Road at around 4pm he said that the fire had already gone through there to a hill known as Mother Brown's Bonnet or Red Hill.

96 The third member of the Dodges Ferry fire crew, Mr Grant Hawkes, was called next. He said that it took him only three or four minutes to get to the station from the time he was paged and about 10 or 12 minutes to get to the turn off to the Barrett property and 244 White Hill Road. He first saw smoke to the east as the unit turned into Delmore Road. On arrival at the driveway to her property, he saw Ms Barrett come down her driveway and heard her say that she had a campfire on her property a few days earlier and that she thought that the fire had come from there. Mr Hawkes said that Ms Barrett asked them to go and make sure that her neighbour was ok. As a result the crew headed to 244.

97 Mr Hawkes said that on arrival at 244 the front of the fire had already gone through, down into a gully to the side of the house, and was travelling with the wind in an easterly direction, but that the left flank was coming up slowly towards the house. He said that his crew dealt with the approaching flank for about half an hour but the house was not under threat and the unit was redeployed to a property between where they were and Inala Road which was "further around", and Gangells Road which was "further again". He said that the house at that property was on a knoll and the fire was going down a gully wall opposite the house and was not threatening the property.

Andrew Skelly

98 Mr Skelly is a Senior Station Officer with the TFS. He joined the TFS as a volunteer firefighter and thereafter became a career firefighter in 1984. He has in total almost 40 years' experience. He spent 10 years as a volunteer firefighter with the Bridgewater Country Fire Brigade. In 1984 he took a job as a trainee firefighter, and at the end of that employment he transferred to the country division to undertake a three-year traineeship as a country fire officer. He was promoted to Station Officer in 1990. In 2000 he was asked to start up the Remote Area Firefighting Team, concentrating on bushfires. He has had 30 years' experience as a station officer and a senior station officer, and been to a number of bushfires over that time, including six deployments to the mainland leading teams.

99 On 3 January 2013 Mr Skelly was on duty at the East Coast District Office at the regional operations and incident management team centre at Cambridge when he saw a very large column of smoke in the Tea Tree, Richmond area. He headed out towards Richmond and en route, not far out of Cambridge on the Richmond Road, he saw a very small wisp of smoke in the Forcett area.

100 Mr Skelly gave evidence that the smoke he could see in the Forcett area was very small in size at the time, white, and "rising vertically a fair way above the hill, and then sort of dissipating with a little bit of wind." He said that although he was thinking that it was small in nature at that moment, he thought to himself, "we really need to hit it as quick as we can with as many resources as we can".

101 He then headed out to White Hill Road and by the time he had got to the Sorell causeway the single column of smoke he had observed had grown fairly significantly. He arrived at White Hill Road at 2.55 pm. He had already had a radio call from Mr Torenius and had arranged to meet him at 244 White Hill Road. When they met, Mr Skelly said:

> "We had a conversation just to see what he'd been doing. From my observations, especially from the road and the driveway in, we had a significant fire moving away from White Hills Road. So we needed to look at a good plan of attack and putting some systems in place. There's a point in time where the brigade chief from Dodges Ferry and the group officer Gavin Rainbird has arrived at Inala Road. From my perspective it was really important to get in front of the fire and also meet up with Mr Hall, Mr Rainbird, Mr Torenius, so that we could all make sure we're on the same page and we've got a plan moving forward."

102 Mr Skelly said that his recollection was that Mr Torenius' crew was "on the fire edge towards 244 working on the fire edge at that time". He said that, referrable to the house at 244, he was positioned when making these observations:

> "Pretty well from coming off White Hills Road up the driveway so that 244 is on my left-hand side, 242 is on the right-hand side. So Dodges Ferry 4-1 was towards that 244 and the fire edge in that area. My observations was it was burning in fairly light fuels at that stage and with the way the wind was blowing that it was a backing fire and not the main head fire [that was threatening 244]."

103 Mr Skelly was not cross-examined.

The Seven Mile Beach fire crew

104 The Brigade Chief of the TFS Seven Mile Beach Volunteer Fire Brigade, Mr Anthony Butler, has 34 years of experience as a firefighter and 25 years as Brigade Chief. He has had training in fire scene preservation and in the investigation of the causes of bushfires. He received a pager message at 14.35.08 hours. It took him two to three minutes to get to the fire station where he was joined by other crew members – his son Matthew Butler, Mr Robert McManus and Mr Adrian Cotton. It took five or six minutes to gear up and leave the brigade house and then about 12 minutes to drive to White Hill Road.

105 He was the front seat passenger in the fire truck and he saw a single white or grey plume of smoke east of Forcett. He said the wind was blowing in an easterly direction. The crew went to 242 White Hill Road where he saw Ms Barrett, "her boyfriend" and a child or a young adult. The crew parked the fire unit on the southern side of the house towards the back corner. He said that there was no active firefighting from his crew at that point and that there was no sign of burn marks in the area where they parked. Importantly Mr Butler said that there was no signs of fire having passed over the area of a fallen log near the far corner of the house.

106 Mr Butler next said that he walked to a blackened area near a tree stump where he saw what he thought was a "V-pattern" and he asked Ms Barrett, "[d]id this fire start here". He said that she replied, "I had a farrier up here today who's a cigarette smoker" to which he replied, "[n]o, no, no, have a look up under here", and he showed her "the tree root that was under – attached to the stump". Mr Butler said "[t]here was obviously smoke coming off the tree stump and/or the tree root, and there was a hole, and I – you could look up into the hole and there was a gap or an opening where a tree root was … Or still is – still was burning". He said "[w]ell it was – in it was white-ish and looked quite hot. Obviously, you're not going to touch it, and if it got – it was obviously blowing [sic]. At times, you'd see a little glow – you'd see a bit of a glow". He described it as about 500mm long and roughly 50-70mm in diameter.

107 The following passage from the trial transcript records Mr Butler as he was asked to repeat the evidence he had just given:

> "Could you explain to his Honour, again in as much detail as you can recall, the course of that conversation that you had with Mel ... Right. I asked Mel, 'Did this fire start here?', and she said, 'We had a farrier up here today and he was a smoker', and I said, 'No, no, have a look up under this tree root', and then she went on to say, 'My boyfriend had a fire in the stump a few days earlier with one of the children', and I – she said she was against him lighting it, but then went on to say that, 'Sometimes men don't listen to (sic) well', and then the conversation tapered off and I went back to our crew and told them what I – what had just happened."

108 The last question Mr Butler was asked in examination-in-chief was a reference back to the question of whether any area in the vicinity of the fallen log had been burnt at the time his crew were at the Barrett property. The question and answer appear in the transcript as follows:

> "… And at the time that you were at 242 White Hill Road, again looking by reference to this photograph, the area to the right of the tree stump and to the left of the grey log that we referred to earlier, did you observe whether there were any signs as to whether that area had been burnt?.....I don't believe so because we would have put water on it."

109 In cross-examination Mr Butler agreed that while he was at the property there would have been flames coming up and/or across the gully on the southern side of the property at some stage. He said the fire wouldn't actually burn up the hill but it would "burn back" as well. He said it would have been slowly creeping from east to west but it was down in the gully below the tree line and was not coming towards the house. He said that he did not walk past the fallen log towards the fire in the gully as "there was no need to".

110 Mr Butler was asked about what he had described as a "V pattern" and he agreed that the fire was a grass fire when it ignited but would then have turned into a bush fire. He also agreed that typically one would expect to see a head and flank and a back in a grass fire. He said that "everything that has an ignition point has to start somewhere and it gradually gets wider". He agreed that such a fire would usually burn in a "U shape" or a "cigar shape" but that he had heard the phenomenon described as a "V shape". He pointed out that the pattern he observed was a lot thinner than a cigar shape in a drawing that he was shown, "because there wasn't much to burn for a start and the wind was blowing at 40 knots so it didn't have time to spread widely at the start without much grass there to burn."

111 Mr Butler was shown a portion of a video record of interview between Ms Barrett and Detective Sergeant Adams at the Barrett property on 7 January 2013 which recorded the following exchange:

> "Q And you haven't seen the stump smouldering at all or smoking at any stage over the last couple of weeks?
>
> A *Um, it did when we had the rains*.
>
> Q Yes.
>
> A Um, yeah it, a bit of steam in the wood bit here.
>
> Q Yes.
>
> A Um, but other than that, no um, only when it rains, we always go over and check it, even on the day of the fires um when *the seven, Seven Mile Beach firey guy was here, the lovely man with the red beard and that, he even said there's no ember, like it wasn't even red, it wasn't glowing* and because of the fire had come back around here this was just smoking a little bit but yeah."[Emphasis added.]

112 Mr Butler was then asked whether he recalled telling Ms Barrett that "it wasn't red and it wasn't glowing". He responded "I did not say that".

113 Finally, he agreed in cross-examination that he did not take any steps to protect the scene.

Evidence as to the behaviour of the fire at Inala Road

Darren Lawrence

114 The next witness to be called was Mr Darren Lawrence of 112 Inala Road in Forcett. He first gave evidence as to a fire that had occurred on a neighbouring property in October 2012.

115 He said that the fire was a fuel reduction burn that occurred on a day of high winds and he had been hopeful that it would be contained within its limits. He said that the wind got up very strong and he received a phone call in the afternoon to say that there was heavy smoke in the area. He made his way home and there was a lot of smoke. Then within about 10 or 15 minutes of being home a fire truck came through and cut through the fence from the adjacent property onto Mr Lawrence's land.

116 Eventually three volunteer fire brigades were in attendance and the crews conducted a back burn on a quadrant of Mr Lawrence's property to contain the fire. The back burn extended for about 200 metres to the north of his fence and the fire was ultimately fully extinguished. Mr Lawrence said that he saw no signs of fire activity from that fire between the time it was extinguished and the 3 January 2013 fire.

117 On that day Mr Lawrence was at home and at around 1.45pm or 2pm he decided to visit a neighbour at 88 Inala Road about 200 metres away. He was at that property for only about 10 to 15 minutes when he received a phone call from his father, who lives at 110 Inala Road, to say that there was smoke wafting across 112 Inala Road behind the house. He asked his father to ring the fire service and then he returned to his home.

118 On his way home Mr Lawrence said that he could see a column of smoke coming from around an area in the vicinity of White Hill Road and "drifting through" towards his property. He said "[i]t was like a mist, like a light smoke sort of haze coming through." He thought the smoke was coming up from over a ridge that separated his property from 244 White Hill Road.

119 After he had been home for up to ten minutes he still could not see any signs of a source of fire or smoke on his side of the ridgeline. According to the metadata on a photograph taken by Mr Lawrence, by about 2.42pm the Primrose Sands and Dodges Ferry fire crews had arrived, and about 10 to 15 minutes later the fire front struck. He first saw flames about 15 to 20 metres west of his western boundary where his wood pile was stacked. He said:

> "There was a lot of smoke as the fire front got closer to us. There was a lot of heavy smoke and I could only – I could only see where I was standing near the wood pile or back from it, and, yeah, you could just see everything started to glow – like, come up orange to a view of that perspective, I suppose …".

120 From a photograph taken by Mr Lawrence at 3.52 pm it can be seen that the front had passed through his property but his wood pile was still burning. He said that the fire would have "spotted" and it tracked to the north of his property, burning a 50 metre stretch of land that had been left unburned in the October 2012 fire. He said that the fire then continued east over the top of White Hill, burning "all through" what he described as the "east facing hill". Mr Lawrence identified the area by means of a photograph of that area taken later that evening.

121 Mr Lawrence was asked to turn his mind back to when he first got back to his property and when the TFS brigades were there, and he was asked whether during the course of the afternoon he saw Mr Peter Sutcliffe or a vehicle he knew to be his. He answered that he did not see Mr Sutcliffe but saw a vehicle known to be Mr Sutcliffe's parked at the end of Inala Road.

122 Mr Lawrence was not cross-examined.

Adam Hall

123 Mr Hall was the Brigade Chief of the Dodges Ferry volunteer brigade. He was working at Cambridge on the eastern side of Mt Rumney when he received a pager message "a bit after 2.00pm". From where he was he could see a fairly well developed smoke column in the area of White Hill Road. It was laying over to the right which indicated to Mr Hall that it was being pushed by the wind. It was light grey in colour and it was travelling east-south-east. He drove towards Forcett and while en route he rang Ms Beth Foster, who was by then on her own at the fire station, and he asked her to drive the "light tanker" into Forcett and to bring his firefighting gear with her.

124 Mr Hall had been initially dispatched to White Hill Road but he responded to Inala Road, in particular to Mr Darren Lawrence's property. As he was approaching that property he observed smoke to the north west of it. He was only at the property for a very short time, about ten minutes, but while

he was at the house there was no smoke blowing through his location. At 14.49.49 hours he reported that he was going down to Gangells Road to "establish a cut off point for this fire".

125 Mr Hall described what he observed before he left Inala Road. He said:

> "No flame, but there was obviously the smoke coming from west to east to the north-west of my location on Inala Road, and I could also see further east from the end of Inala Road smoke starting up in some of the Hill there which appeared – or I identified as spot fires starting from the fire front west of Inala Road."

126 Mr Hall was asked whether he saw a Mr Kevin Daly at Inala Road when he was in attendance at Darren Lawrence's property and he replied:

> "No, not that I recall. From my recollection, it was only myself and Beth Foster which [sic] was in the light tanker and the Dodges Ferry heavy tanker crew which turned up and then the Sorell Group officer who was Gavin Rainbird at the time. I don't recall any Dunalley officers there at Inala Road.

127 In cross-examination Mr Hall was asked to and did mark on an image of map of the area north west of Gangells Road where he said he saw smoke north west of Inala Road when he was at Mr Lawrence's property.

128 At 14.58.47 hours Mr Hall was at Gangells Road and he is recorded as having radioed the Sorell Group Officer that the fire was at grid reference 567/602. He said on the trial that he had never marked that grid reference accurately on any map and so he was asked to do so and return to court when he had.

129 There was later produced, by consent, a map with the grid reference marked on it and it was agreed that the grid reference in the radio record had been incorrectly advised or recorded, some of the numbers having been transposed. The correct grid reference as marked on the map was said to be 576/602 and not 567/602. When he was recalled, Mr Hall gave further evidence about spot fires he observed on 3 January 2013 in the area of that grid reference and further to the south and east.

Peter Sutcliffe

130 Mr Sutcliffe is a builder who lives at 42 Inala Road, Forcett. He gave evidence that on 3 January 2013 he was driving home over the causeway leading to Sorell when he saw some smoke. He said that he continued home and parked at the end of Inala Road and walked across what was Darren Lawrence's property and stood at the back of a fire and had a look to see what was going on with it.

131 Mr Sutcliffe said that there was fire, a lot of smoke so thick that he could not see exactly where it started. He said that he saw the fire was burning from Mr Lawrence's fence line near his house and uphill into the bush, that is towards Forcett from the house.

132 He said that he was standing on the bottom side of the fire but he would estimate that it could have been a one hundred and fifty metres by two hundred metres fire. He said that he would have stood there between twenty minutes and half an hour at least and then he walked back, and as he was walking he rang his wife and asked her to call the fire brigade.

133 In cross-examination it was put to Mr Sutcliffe that he had made a statutory declaration in May 2013 in which he had stated that *his wife had called him* and said there was a fire near their property. He responded that such a statement did not seem right to him. He accepted that the fire call log in evidence on the trial showed that his wife had called in the fire to 000 at 14.15.31 hours.

134 Mr Sutcliffe said that after he had telephoned his wife and had gone home he went back to look at the fire again and had a conversation about the fire with a firefighter Mr Kevin Daly. Mr Daly was not called on the trial.

Ann Sutcliffe

135 Mrs Sutcliffe gave evidence that the first contact she had with her husband in relation to the fire on that day was when he rang her when she was on her way home from work. She said that he told her that there was smoke and fire at the end of Inala Road and asked her to ring the fire brigade. She said that she did ring the fire brigade when she got home. She explained that she was only a couple of seconds away from coming into their driveway when she received her husband's call so she rang them without delay when she got in the house. She said when she got inside the house her husband was laying on the couch. She said that "he had a crook back" and that he was half asleep.

Andrew Skelly

136 Mr Skelly, whose evidence has already been touched upon above, also gave evidence as to his observations at Inala Road and Gangells Road. As already noted, he was not cross-examined,

137 After making observations at White Hill Road, Mr Skelly set off with Mr Torenius. He said initially they were going to head into Inala Road and meet Mr Rainbird and Mr Hall there, but from what they could see of the way the fire was moving at the time they knew they had to get into Gangells Road. They had "a quick look" up Inala Road and then continued on to Gangells Road.

138 Mr Skelly said that it took about 15 to 20 minutes to reach Gangells Road and he arrived about 3.30pm or 3.40pm. He said that he drove past the house at the end of the road and that there were a couple of other fire trucks already there putting the hoses out in anticipation of protecting the house. He said that his observations were that the paddocks in the area were pretty clear of vegetation as they had stock on them. He said that he thought it was "a horse property". He said the paddocks had a low amount of fuel and the area was fairly open. He said that it appeared that the fire was travelling north at Tanners Creek and burning through the hilltops to the north of Gangells Road.

139 Mr Skelly said that "the big thing" while he was up in Gangells Road was that the fire front did not stay there very long. He said that it moved fairly rapidly towards Mother's Brown Bonnet to the east. He said, "… you could see a fair bit of spotting in front of the fire and it seemed to keep travelling along that hill – the series of hills above Tanners Creek to the north of where we were at that last farmhouse. Again, straight towards the western side of Mother Brown's Bonnet". He said "[i]t was mainly one big smoke column but you could clearly see smoke coming up from spot fires in front of the main fire edge". He said, "[a]gain a lot of it was just like the strength of the wind that was increasing the fire intensity and the amount of bushing [sic] in those hills."

Evidence as to the origin of the fire

Geoff Wrigley

140 Mr Wrigley is a blacksmith farrier who was at Ms Barrett's property on the morning of 3 January 2013 to attend to her horse. He said that he was driving his four wheel drive Isuzu twin cab utility and that he did not park in the area of the pink lines shown in the photographs taken by fire investigators but rather he drove straight over to the horse to the west of those lines and then left via the same driveway that he came in by at about 12.30 pm.

141 He said he was a smoker and that he thought he would have smoked while he was at the property. He was asked what he did with his cigarette butts, and he replied:

> "I'm very strict on myself with cigarette butts all the time. I put them out on my boot or squeeze them out and put them in my pocket. If I'm in the car, I've always got a container in the car."

142 He said that he was interviewed by a police officer shortly after that morning and that she asked him what he did with his cigarettes. He said:

> "Well, I explained to her what I do with them, and when she was actually there for – well, to see me, I'd only just got out of the shower, so I went straight back into the bathroom, grabbed my jeans that I'd worn that day and removed a handful of cigarette butts out of my pocket."

Stephen Walkley

143 Mr Walkley is a retired officer of the TFS. He commenced as a firefighter 41 years ago, and he went through the process of being promoted to station officer and then training officer before commencing the role of regional fire investigator, a position he held for approximately eight years. After that, he worked with the volunteers on the East Coast of Tasmania, managing their brigades. Whilst he was doing that job he was promoted to senior station officer. He continued that role, working with volunteers in several areas in Tasmania, in the South West, Midlands and again on the East Coast. He acted as a district officer in those areas as well. He was also acting district officer for the TFS training division. He then went back to his role as an operational fire fighter about four years before the end of his career, and during that period of time, he managed one of the shifts out of Hobart Fire Brigade.

144 In early January 2013 he was employed managing logistics, providing provisions and any needs to various crews that were working in fires in various areas of southern Tasmania. He believes it was on 5 January 2013 that either Barry Bones of the TFS or the station officer at the time at Dodges Ferry telephoned him and asked him, as one of the two most experienced fire investigators in Tasmania, particularly in bushfires, to assist Mr Bones in investigating the Forcett bushfire, and to go with Mr Bones to the property where he believed it started, on the next day.

145 He went there on 6 January around 10am with Mr Tony Johnson, a station officer from the Tasmania Fire Service in Launceston and several police officers. On arrival he and Mr Bones walked around various areas of 242 White Hill Road. Mr Bones explained things that he had seen on investigation on the day before, of which he had made note, and together they looked at various indicators of where the fire had left burn patterns which might help them to get back to where the fire started. He described fire indicators such as charring to trees, "leaf freeze", burn patterns on rocks and "cupping" to grass stems.

146 As to charring to trees, he explained that as a fire is burning from a particular direction, the charring on the side closest to where the fire is coming from is lower than on the far side where the flames are drawn into an area of negative pressure and go up the tree in a plume. Mr Walkley and Mr Bones walked around the area looking at different things and he said that in that whole area the patterns on the trees were similar and all indicated that the fire was coming from the same direction, namely from west to the east.

147 As to "leaf freeze", even although it bears that name, it is a phenomenon that is not restricted to leaves. It occurs when a fire is burning under the control of the wind that is driving the fire and the more flexible type of small plants, leaves, branches, twigs and some grasses, like bracken fern, bend in the direction that the wind is blowing to and freeze in that direction as they burn. They behave in that way because they are flexible and contain moisture, but while they are bent in that direction the fire dries the plants out and they becomes less flexible so that when the fire has passed they tend to stay frozen in that same direction. It is regarded as the best indicator of fire direction because as the plants freeze they do so pointing in the same direction as the fire is moving. Observing leaf freeze at the scene made it again apparent to Mr Walkley that the fire had been burning from the west towards the east.

148 As to rock staining he explained that they will be blacker on the side where the fire has come from due to soot staining but a second phenomenon which to Mr Walkley was more reliable was that

on the side of rocks closest to where the fire is going away there will often be found small pieces of unburnt grass or partially burnt grass and twigs, whereas on the side that the fire has originated from most of those small fragments of combustible materials will have burnt away. These things again indicated to Mr Walkley that the fire travelled from the west to east.

149 As to "cupping", grasses such as sag grass come to a point in the direction of fire travel. Mr Walkley explained that as the fire is coming onto them the fire on the side where the fire is coming from will tend to burn the grass in an upward manner, leaving a C-shape or a cup shape on that side. It may be very small and sometimes very hard to see he said. He explained, "what does make it easier to find and identify it is by rubbing your bare hand across the grass and then it feels like rubbing across the grain of wood rather than with the grain of wood. The C-shape which gives that roughness and that feeling of running against the grain, is always pointed towards the direction that the fire comes from."

150 Mr Walkley's evidence was that the cupping on the grass was not a relevant indicator that he could observe at two of the locations he examined, and that he could not recall if he looked for it elsewhere. He did not go down into a gully to the south of Ms Barrett's house.

151 Around lunchtime on 6 January, Mr Walkley spoke with Ms Barrett. He asked her where she first saw the fire. He said that they were standing on her wooden deck at the front of the house and were right up against the eastern rail of the deck. He said that she pointed out to him where she saw the flames first, and she explained that it was approximately 20 metres from the house and that it was to the left, which was to the north of the old stump.

152 Mr Walkley said that he then asked Ms Barrett if she would walk with him over to where she was pointing to and spray some lines on the ground where she saw the fire burning. He said that she did that but after a little while she said, "[h]ang on, it might have been a bit over further than that" and she sprayed another line where she thought it was. That second line was further to the east.

153 After lunch Mr Walkley said that he and the other investigators started looking at little rocks in the area to see which were burnt on the other side and which were not, and that doing so once again corroborated what they had already thought, namely that the fire had burnt in the direction of a green arrow sprayed between the pink lines pointing in a general easterly direction. He said that he determined an area of origin within an "area of confusion" and that the area of origin was the area in the photographs that had been taped off by pink tape and containing Ms Barrett's pink painted lines and the painted green arrow.

154 Mr Walkley gave evidence that he was "clearly of the opinion" that he had identified the area of origin. He said, acknowledging the use of the plural "we":

> "We then discussed the information that the lady had given us about the campfire and with nothing else we'd seen at that time to indicate anything else that could have caused the fire, we were of the opinion that the relationship between the log stump burning that she told us about, which had been a few days beforehand, more than likely had some correlation between that log and the fire, because there was nothing else we knew of at that stage that would change – that would cause it. So, we then begin – we were all of that opinion and then started looking very closely at anything on the ground within that area of origin, and looking for anything that – that could have caused it and, in particular, looking to see if there was any indication where a root of a tree could have burnt through to the surface in that area."

155 He said that he found a circle of charcoal on the surface of the dirt which did not match with the grass that was burnt around that circle. He thought it may have been a root or part of a root that had been burnt and that he then very slowly started excavating around it. He described the process as follows:

> "Well, our intention was to try and find where that root went underground and trail it back to its source, and the way we did that was very carefully scraping the dirt from above it until we found the charcoal underneath the dirt, and then dig deeper to remove the dirt from either side of that bit of a root so that we had basically, you know, a three-dimensional root or remains of a root in charcoal shape and trace it back to where it came from. We kept on doing that for a period of – I don't know how long, but I think it was hours, very carefully scraping the top off. Now, that became more difficult the further we went because the root went deeper into the ground. So it started at the surface, but by the time we'd finished, it was about 50 centimetres under the ground that we were excavating with these little trowels. We did use a shovel, but the shovel was used to move out of the way the dirt we'd already scraped off. And so we excavated an area of about, from memory, two to three metres from where we first observed the root at the surface to where we were having so much difficulty keeping the dirt from destroying the stuff underneath, because every time we moved it from the top of it, it would cave in, and the charcoal was so fragile it would just nearly turn to dust, and we were losing it all the time, and then we'd pick it up and then we'd find it again and – we might lose it for that far, an inch, and then we'd pick it up again because the first kept on falling on it and destroying it. However, after going that two or three metres, then at about a depth of about 50 centimetres, we stopped the excavation."

156 Mr Walkley said that he did not excavate all the way back to the stump for the reason that as they were digging down dirt was falling on top of what they were finding and it was destroying the evidence. He said:

> "It was, in a sense, becoming just too difficult without destroying the scene and what we were looking for. It was sort of a no win situation. We were finding what we were finding but as we were finding it was getting destroyed again and we didn't … It was going deeper and deeper and it was getting more and more difficult. If you can see there's – in that photograph right next to photo 20, some of those rocks that we've dug out, those rocks were falling on the charcoal and they were destroying it. The charcoal was extremely delicate and to maintain it as what it was very, very difficult."

157 Mr Walkley was asked what conclusions he reached as a result of what he found. He responded as follows:

> "Well, that root was clearly charcoal at the surface where we first found it. It was clearly charcoal from that point back to where we stopped excavating. So it had been burning underground clearly otherwise it couldn't have been charcoal. We hadn't found any other indications of any other possible cause and concluded that the fire had been started by the fire of the root of that stump that had been burning underground for several days since the campfire first was last seen burning by the people who live there."

158 He was asked why he concluded that the burning root led to the fire rather than a fire on the surface causing burning of the root. He responded as follows:

> "… it's highly improbable that the grass burning on the surface could have ignited that root purely because of the fact that grass is grass. It's a very small fuel, a very fine fuel and gives off very minimal heat. What heat there is, heat rises – the majority of heat rises. Heat moves in three different ways; convection, conduction and radiation. Now, in this case of grass burning at least 90 percent of the heat rises into the atmosphere. It doesn't go down into the ground. So what I'm saying is the flame from the grass would not have enough heat to burn down into the root to catch the root on fire and even if it could there was so little grass there, it was very fine, it wouldn't have enough heat available to it when it was burning to be able to ignite a root on fire."

159 Mr Walkley was asked what caused him to think that the root had come from the stump given that he had not excavated all the way back to the stump. He responded:

> "When we started excavating the root was about as round as a ten cent piece. By the time we got to where we finished excavating the width of the root was, from memory, probably twice the width of that. So the root was gradually increasing in diameter as

> we went back towards the stump, and it was going in the direction of that stump. There was no other stump in that nearby vicinity that we could identify that the root could have come from."

160 Mr Walkley was asked about other possible causes of the fire. He said that he discussed the possibility of lightning, but that had already been investigated by Mr Bones and there had been no lightning strikes. He asked was there any information that would indicate that somebody could have lit this fire deliberately, or even children lighting it, and he said that no information was given to him that would indicate that was a possibility. He said that there were power lines in the general area and Mr Bones had an electrical inspector check them, and he was told that was "pretty much out of the question". He said that there was just nothing else that he found that could have caused the fire. He was taken through numerous speculative possibilities and he discounted them all. He said that "[t]he only plausible explanation I found during the examination I did was the root – or a root associated with the root system and the stump of that tree". He concluded:

> "What I've done is identified that there was a root burning under the ground and that that root, at some stage, has been at the surface of the ground. I'm not saying that that was the specific root that caused this fire or the fire started from that specific root. What I'm saying is that this fire started from the root system of the tree."

161 Mr Walkley, was asked about the possibility that the cause of the underground smouldering root was a rubbish burn off fire that was lit on, in or around the stump in about September 2012. He said that based on his examination of the soil conditions, vegetation and all of the features of the area of confusion that he considered relevant, the suggestion that the burning root system that he identified might have been burning since about September 2012 was "pretty unbelievable, to tell the truth". He said that the only fires he knew of that would burn for three months without either using up its own fuel and going out "because there was no fuel left to burn, or because the weather conditions put the fire out, were really big windows."

162 Mr Walkley was cross-examined about his methodology in carrying out his investigations and particularly in relation to his excavation of the tree root. The cross-examination was directed, amongst other things, to a lack of connection between the excavated root and the old stump. It was also put to him that the "fire language" that was available in the area of origin identified by him suggested that the fire was moving from the south. Mr Walkley disagreed, maintaining that within the area of origin, the fire was moving in various directions, as would expected in an "area of confusion".

163 I do not stay to set out the cross-examination in detail but will refer to it further if any part or parts of it become significant for the purposes of my dispositive reasoning.

164 Finally, Mr Walkley agreed with the findings of the TFS fire investigation report prepared by Mr Bones following his investigations and those of his own and Mr Johnson's. The conclusion of that report, after what was said to be a careful examination of the area of origin and the excavation of burnt root remnants, was that the probable cause of the Forcett bushfire was a smouldering burn within the stump and its root system, which ignited fine fuels in the area of origin on 3 January 2013, and that the smouldering fire in the stump and its root system was caused by the defendants' campfire in the stump on 28 December 2012.

Barry Bones

165 Mr Bones' report detailed the investigation methodology implemented by the TFS investigators to identify the area of fire origin. Their approach was to locate and examine fire language or fire indicators, to establish the direction of fire travel. Having done so, they said they then followed the path of the fire back to its source in order to establish the "area of origin".

166 The fire language or fire indicators have already been described when narrating Mr Walkley's evidence above. They include charring to trees, leaf freeze, staining or smoke sooting on rocks, protected fuel and grass cupping.

167 As detailed in the TFS fire investigation report, this methodology was implemented by Mr Bones and Mr Johnson on 5 January 2013. They arrived at the scene at approximately 4.30pm and carried out an initial inspection of the area.

168 After identifying and following fire indicators, Mr Bones formed the preliminary view that the fire had originated in one of two areas:

> "*Area 1* – the area referred to during the trial as the 'big log'/septic tank area, located south-east of the residence; or
>
> *Area 2* – the area just to the east of the house, around the old stump (also referred to variously as '*the stump*' or '*the pit*')."

169 Mr Bones gave evidence the preliminary view formed on 5 January was made before the TFS investigators had an opportunity to speak to the first firefighters to arrive at the scene, including Mr Butler, or make any other enquiries. It was also before a further site inspection the following day. It was a view formed in the alternative based on the initial examination of the fire indicators seen on 5 January 2013.

170 Mr Bones gave evidence that he requested the assistance of Mr Walkley, one of TFS' most experienced bushfire investigators, and from about 10am on 6 January 2013 Messrs Walkley, Bones and Johnson conducted a further site inspection at the Barrett property. Mr Walkley led the inspection.

171 As already noted Mr Walkley explained that they examined fire indicators as they walked around the property, and the fire language allowed them to exclude the area of the big log as a potential area of origin, that there was backing and running fire through that area, but that it was not an area of origin. The fire indicators pointed them with confidence to an "area of confusion" around, but mostly immediately east of, the old stump.

172 Mr Bones was cross-examined at length as to asserted inadequacies in the investigation carried out by him and the other two investigators. I will return to what is said by the first defendant to have emerged from that cross-examination when discussing the location of the area of origin of the fire in the context of causation under Key Issue 1(a).

Jonathan Marsden-Smedley

173 The plaintiffs engaged the very highly qualified Dr Jonathan Marsden-Smedley to provide his expert opinion as to a number of matters relevant to the Forcett bushfire, including its progression after ignition and subsequently its probable final area or footprint. There was no dispute as to Dr Marsden-Smedley's qualifications and his expertise, including as to fire-mapping.

174 There was no challenge to his evidence as to the fire's footprint at any given point in time or as to the final footprint. The evidence was recorded in his "first" and "fourth" reports tendered on the trial and in his 2014 report prepared for the purpose of an inquiry conducted for the Tasmanian Government into a number of the January 2013 bushfires in Tasmania (the JMS 2014 Report).

175 Relevantly for present purposes, in his oral evidence and as is set out in his reports as to preparing the maps and reaching the conclusions outlined in his reports, Dr Marsden-Smedley outlined that he:

(a) examined:

(i) observed rates of fire spread, including mapped fire line lengths where the TFS flew a helicopter around the area impacted by the fire in order to survey the fire location;

(ii) line scans (being an infrared scan of the fire) recorded using equipment supplied by the (then) Victorian Department of Sustainability and Environment;

(b) is intimately familiar with the topography, rate of growth and understorey of vegetation relevant to the Forcett area. He performed fire assessments in 2006 along what became the northern flank of the Forcett bushfire (stretching from Forcett to Mother Browns Bonnet);

(c) relied on the work he completed between April and June 2013, including undertaking field work to determine the direction of fire spread and intensity of the fire at various times and locations. This included careful consideration of fire spread direction indicators, including:

(i) the degree of scorch (eg fires will be of lower intensity close to their ignition point);

(ii) stem cupping (eg on average the bases on burnt grasses and twigs will be higher on their lee side);

(iii) differential charring on trees and rocks (eg on average the char will be higher on their lee side);

(iv) leaf freeze (eg where incompletely burnt leaves and stems are dried out and "frozen" pointing in the direction of fire spread);

(v) staining on non-combustible objects (eg on average the rocks, metal and glass will have deposits on the side from which the fire has come from); and

(vi) protected fuels (eg when uncovered, unburnt fuels under objects will have a tighter line on the side that the fire is coming from than on the other side).

The results of the data collected are summarised in Appendix 2 of JMS 2014 Report and as outlined in his subsequent reports.

Dr Marsden-Smedley conducted a site inspection to 242 White Hill Road and its surroundings on 15 September 2020. He:

(d) used fire behaviour models to predict the fire's location when direct data was unavailable. In order to do this, he used the fireline information received from the TFS as a starting point and then used the Project Vesta fire behaviour model to predict and or verify the fire's rate of spread. This information was then transformed into estimates of the distance that the fire had travelled at different times;

(e) performed mapping using the MapInfo Geographic Information System (GIS) by comparing the TFS mapped firelines with other available information (such as the DSE linescans, aerial photographs, the outputs from the Project Vesta fire model, observations of fire location from fire crew along with information he collected from the Forcett fire ground between April and June 2013. He then checked these maps against the data from the Sentinel Hotspots from Geoscience Australia and Bureau of Meteorology weather radar.

176 Dr Marsden-Smedley's evidence as to fire progress and final footprint was not challenged in cross-examination. His opinion was that:

> "(a) between about 2.00pm and 3.00pm on 3 January 2013, the bushfire front spread under a west-north-westerly wind southeast down a –5° slope, at an average speed of about 6-8 m/min. During this period, the fire area increased to about 2.5 ha, its perimeter to about 0.7 km, flame height to about 4-5 m, intensity to about 2500 kW/m, and with a potential spotting distance (according to the modelling he undertook, of up to 6.9km;
>
> (b) the bushfire progressed as sequenced in maps 5-20 in his first report (and in the JMS 2014 Report), at the various times recorded; and

> (c) the bushfire ultimately burnt an area of approximately 23,960 ha over a perimeter of some 309km before it was contained on 18 January 2013."

Colin Thomas

177 Mr Thomas is a fire investigator who was called by the first defendant. In his first report prepared for Ms Barrett's solicitors he opined that the root identified by the TFS had ignited as a consequence of the bushfire, rather than being the cause of it. His evidence was that in the course of his excavation he identified roots with burnt ends near the surface in the area of the old stump, but he opined that "any charring visible on the roots excavated occurred as the result of fire and was not the cause of the fire" that was seen on the Barrett property. He said that he also found a root that had a burnt end with no evidence of burning extending from the stump.

178 Mr Thomas attended the Barrett property on 20 August 2013, then again in March and April 2014 at which time he conducted an excavation around the old stump. He was initially briefed to review the TFS fire investigation report but later conducted an excavation of the stump. His conclusions as to the cause of the fire, by way of his reasons for disputing the TFS conclusions, were as follows:

> "4.1 My detailed examination of the subject stump revealed no evidence of fire extending from the stump itself via the root structure.
>
> 4.2 The root which was charred and shown at close range in ***Photograph 7*** again revealed no evidence of charring extending away from the stump. This would suggest the charring visible occurred as a consequence of a fire not the cause of this fire as detailed in the Tasmania Fire Service Report."

179 Under cross-examination he effectively abandoned his "consequence not cause" position, conceding that there was only very light fuel in the area of origin which would have been almost immediately consumed by any flame that happened to hit it, and that fuel of this kind, burning in the conditions present on 3 January 2013, was very unlikely to have transferred sufficient heat to a root of 10-20mm, such as that excavated by Mr Walkley, as to cause it to develop a self-sustaining, smouldering burn.

180 I was told that there was a gap of approximately five years between Mr Thomas' site visits in 2013 and 2014 and his report of 17 December 2018, in which he addressed a number of questions posed by the solicitors. Apart from a rough sketch of the site, he took no notes during his site visits to assist him in drafting his report. After such a long interval, he said that he relied entirely on his memory and photographs he took at the scene.

181 On the question of Ms Barrett's observation of steam emanating from the stump, Mr Thomas' evidence was that he discounted the relevance of steam because his excavation demonstrated that fire had not extended from the stump; that whilst steam may indicate there was heat in the stump, it does not substantiate a heat source was within the root structure; the ground around the roots would have absorbed any of that heat, had it existed and there is a difference between heat and burning.

182 On the question of whether TFS investigators would have uncovered any more had they continued their investigation, Mr Thomas disagreed that the root would have fully combusted, leaving no trace to find. He said in cross-examination that there would be some residue of the root remaining which he likened to the residue remaining in a wood heater after logs have burnt.

183 As with Mr Bones, I will return to Mr Thomas' evidence in the context of the parties' submissions as to the location of the area of origin of the fire in the context of causation under Key Issue 1.

Phillip Jackson

184 Ms Barrett's expert arborist, Dr Phillip Jackson, gave evidence that a mature eucalyptus tenuiramis (silver peppermint), like the tree that became the old stump, would have formed several types of roots over its life. He said that as a sapling it would have had tap roots, but as it matured the tap roots would have become less prominent in favour of woody sinker roots, woody lateral roots, fibrous lateral roots and filamentous roots. And he said that the spread of roots around the stump (the root plate) would have had a diameter of 20-40m and would have spread through the plate area at different depths below the soil surface.

185 He opined that given the relatively open textured sandy clay loam on the site, the large woody sinker roots close to the base of the tree, exposed by Mr Thomas in his excavation, would have extended vertically unless impeded by impervious elements, but that it should be noted that the exposed roots were clearly emanating from more than just a single source, that is, the old stump, and that some of them definitely belonged to at least one other individual tree.

Mark Gilmore

186 The principal thesis of Ms Barrett's second fire investigator, Mark Gilmore, was in relation to fire movement in the TFS identified area of origin. Mr Gilmore pointed to indicators which he said suggested that fire travelled towards rather than away from the TFS point of origin. He thought in particular that the burning to a tussock shown in one of the tendered photographs indicated that fire moved from left to right towards the point of origin identified by the TFS rather than away from it.

187 Mr Gilmore also said that the burning to another tussock shown in another photograph in the TFS fire investigation report indicated that fire had travelled in a general south to north direction towards that tussock, which was also consistent with fire travelling to this tussock from the area south of the big log above the septic tank area, and was thus inconsistent with the fire travelling from the TFS point of origin in an easterly direction to the tussock.

188 Mr Gilmore maintained his opinion regarding the direction of fire spread in the area south of the big log above the septic tank during cross-examination and, in re-examination, again confirmed his evidence and illustrated the direction of fire spread on a screenshot of one of the photographs.

189 In November 2018 Mr Gilmore also carried out an excavation "in and around the old stump" with his colleague Fabian Crowe. By that time the stump itself had been completely removed, a grave for one of Ms Barrett's dogs had been dug, filled and marked with stones and fencing wire over what seems to have been the area excavated by Mr Thomas. A new sapling had grown to a height of at least a couple of metres, itself a couple of metres south east of the dog's grave.

190 Mr Gilmore gave evidence that he dug a hole immediately next to the new sapling, and located a stump beneath the surface that appeared to be one of the two small burned stumps appearing to the left of the area of the area shown in Figure 13 to Mr Thomas' excavation report. But Mr Gilmore was not sure which stump and when he nominated one, its alignment with other roots around it seemed to bear little resemblance to anything seen in Mr Thomas' photograph. This hole was around 250-300mm deep. Mr Gilmore dug another hole immediately east of the grave, again not more than 300mm deep.

191 Mr Crowe scraped away the top-soil in the area of the old stump, to a depth of around 100mm, and found a "cone-shaped" lateral root suggesting it had been attached to a mature tree like the old stump, and he dug another 100mm deep hole a couple of metres north of that hole, although the purpose of such a shallow excavation appears unclear.

192 None of those excavations was in the actual area of the excavation made by Mr Walkley and the TFS investigators in January 2013, and none of them was to the depth of the TFS excavation. Indeed

in answer to a question I asked of him he confirmed that he and Mr Crowe were not attempting to follow the path of the root excavated by Mr Walkley.

193 Finally, Mr Gilmore gave some evidence about fire behaviour between Inala Road and Gangell's Road in response to the evidence given by Constable Hall and Dr Marsden-Smedley when they were recalled after Constable Hall had marked the corrected grid reference on a map. I will deal with that and other aspects of Mr Gilmore's evidence in the context of the location of the area of origin of the fire in the context of causation under Key Issue 1(c).

Key Issue 1(a) – the first causation question

194 It will be recalled that Key Issue 1(a) and (b) involves the provision of answers to the following questions:

> "**Causation**
>
> 1 What was the cause of the Forcett Bushfire?
>
> a Did a smouldering burn in the tree stump and its root system ignite grass on the surface of the ground in the immediate area around the tree stump as pleaded in paragraph 12 of the Statement of Claim?
>
> b If 'yes' to 'a', was that smouldering burn the result of the campfire lit in the tree stump on 28 December 2012?"

195 The plaintiffs contend that there is only one answer to the questions posed by Key Issues 1(a) and (b) that is suggested by (or even consistent with) the reliable evidence. They say that a small campfire set on 28 December 2012 in the pit of the old stump some metres east of Ms Barrett's residence led to a smouldering underground burn in the stump and a root (or roots) extending from it which, over the period to 3 January 2013, transmitted along the root(s) to a point where it or they broke the ground surface. They say that when the smouldering burn reached that point and had uninhibited access to oxygen it became a free burn – a glowing burn or a flame – and ignited dry grass or leaf litter on the ground. And they say that fuel was fanned by the strong westerly wind into a running grass fire, that swiftly reached the tree line a few metres further east, from which point it grew into the Forcett bushfire.

196 The plaintiffs say that there was no other, unrelated ignition event that caused or contributed to the Forcett bushfire and that all the fires that later developed across the "fire area" mapped by Dr Marsden-Smedley were incidents (spot fires) of the original fire.

197 The lighting of the campfire is not in doubt. Mr Robinson set the fire within the stump, albeit on the side of the pit away from the main section of protruding wood. Ms Barrett handed him the lighter to light it.

198 The campfire burned for a few hours and used up somewhere between three to six logs of firewood. Eventually Mr Robinson considered the fire was not providing adequate heat, and it was time for bed. He kicked some soil over the coals, not to smother them but rather to stop them blowing away if the wind got up overnight. He and his son then went to bed in the tent outside Ms Barrett's house. He heard Ms Barrett filling buckets of water from the tap against the house. Ms Barrett told the police and Mr Bones that she half-filled her bucket twice. This, Mr Bones understood, based on her explanation to him, would have equated to around 15 litres of water.

199 The morning after the campfire Mr Robinson checked the pit to ensure the fire was out. He saw no flames, coals, smoke or steam. He held his hand over the soil and ashes but did not disturb the surface. He concluded the fire was out and the pit was cold.

200 As has already been noted, Ms Barrett gave evidence that she saw a wisp of steam coming from the old stump when it rained the next day. I do not accept her evidence that her observation of steam

was made the next day. I have already noted that she appears to be constitutionally discursive and that she obviously believed when she spoke to first responders and when was interviewed by police, at least at first, that the fire started as a result of the campfire, and to my mind was, understandably, defensive in her statements. However, in the case of her evidence that it rained the day after the campfire, I am of the view that she was dissembling.

201 None of the weather stations at Hobart Airport, Dodges Ferry, Wattle Hill and the Sorell Abattoir recorded any rain at all until 1 January 2013. Ms Barrett insisted that it often rained at her property when it was dry down in Forcett. I can accept the concept of a localised shower but in circumstances where not one of the weather stations anywhere in the wider area around White Hill Road recorded any rainfall, I find it more probable that her memory is wrong as to the precise timing of the rainfall after the campfire. It is notable that she did not inform Mr Robinson that she had seen steam.

202 It must be remembered that Ms Barrett told police that she thought it would have been two or three weeks earlier that the campfire had been lit, a statement I find that she could have no faith in when it had in fact been only between 6–8 days earlier, depending on whether she intended her answer to date back from the date of the police interview or 3 January 2013. She later said, "… then it rained *that week*". [Emphasis added.]

203 It must also be remembered that Ms Barrett told Mr Bones when he interviewed her that there was some rain *a few days later* and that she observed some small amounts of steam coming out of the area. Mr Robinson knew nothing of Ms Barrett's observation of steam until he overheard it when she was having the interview with Mr Bones.

204 I do not believe her evidence on the trial that Mr Robinson had admonished her for leaving his tent up, so that he had to pack up wet fabric. She said in answer to a question in cross-examination:

> "It was on the 29th of December. It was that morning after and it was just where – I couldn't recollect whether I was in the car or on foot standing near the deck. But I know that that was on the 29th – is when it had rained at my place and that morning because Hamish came back to grab and pull the tent down because he also knew it was – the clouds were coming over and I actually got told off for not pulling it down earlier because it actually got damp."

205 And of course, Mr Robinson was staying at the Barrett property until 2 January so there was no obvious reason for him to be concerned about packing up his tent on 29 January. Mr Robinson was not asked about this in his evidence-in-chief, and for me to infer that he was going to pack it up because he was not going to use it again, it having proved too cold for his son the previous night, would be pure speculation.

206 Consistent with the records from surrounding weather stations, and my absence of faith in Ms Barrett's reliability generally and in her veracity on this particular point, I find on balance that no rain fell on the Barrett property between 28 December 2012 and 1 January 2013. I find that it was on or after that day that Ms Barrett observed steam coming from the old stump. I place no reliance on any suggestion advanced that what she may have observed might have been some vapour other than steam. She described it as steam and attributed its presence to rain and described the surface of the area she inspected after observing it, as damp. That forecloses the issue to my mind. I am not impressed by her evidence that she even doubts whether or not she saw steam. She described the steam she says she saw with rare precision.

207 The first defendant says that I cannot be affirmatively satisfied that the campfire caused a root emanating from the stump to burn. Although roots burning underground is possible, in this case, she says, there is no evidence to support that this occurred. She says that the fact that it is a well-known phenomenon says nothing about the frequency of its occurrence or the conditions necessary to make roots likely to burn following a fire of the type in question. She says the fact that it rained in the days

following the campfire and that no evidence was found consistent with the fire continuing to burn is inconsistent with the TFS investigators' hypothesis. She says that the observation of steam by her is not proof that a heat source was continuing to burn in the stump/root structure, and that she did not observe any further signs of smoke, steam or fire coming from the stump remains suggests that any heat coming from that area had disappeared.

208 My finding that it did not rain on the property prior to 1 January 2013 negates part of that thesis. The answer to the balance of it requires, first, an examination of Ms Barrett's evidence as to where she first observed the fire and then, an examination of the evidence of Mr Butler who first noticed a glowing root in the vicinity of the old stump. Only after that interrogation does the question of the fire indicators and fire language observed by investigators, and their investigations, begin to have any work to do in respect of Key Issues 1(a) and (b).

209 I do not lose sight of the fact that Ms Barrett suggested in re-examination that the stump did not have the appearance before the fire that it did in the photographs after the fire. She said the photographs showed it as more charred, and showed that some rocks had been pulled away from it. Mr Robinson likewise said that the stump before the fire had been less exposed.

210 As submitted by the plaintiffs however, this evidence should be doubted. There is no evidence of fire at the tree stump after 2pm on 3 January 2013, nor did Ms Barrett see any fire-suppression work directed at the stump. Her evidence about seeing the TFS volunteers hosing down the area around the stump turned out to be merely seeing hoses on the ground nearby. The grassed area north of the stump, and east of the stump extending either side of the disused driveway, was already burned but the fire itself had moved on. There was no fire on either side of the big log or between the big log and the septic tank area, and that area had not burned. And there is nothing to suggest that anyone, for any reason, disturbed the stump or the ground around it before it was photographed by investigators on 5 January 2013.

211 I have set out earlier in these reasons what I regard as the relevant part of Ms Barrett's evidence of her first observations of the fire. I will deal in turn with the synthesis of that evidence advanced on her behalf and then that advanced on behalf of the plaintiffs.

212 Ms Barrett says that "contemporaneous" evidence concerning where she first saw fire and the initial movement of fire is found in the transcripts of her interviews with Tasmania Police on the evening of 5 January 2013 and at her property on 7 January 2013, and the video recordings of those interviews. She says that her "consistent and contemporaneous evidence" in those interviews is that when she first saw fire it was outside "the TFS area of origin and it was creeping back towards that area".

213 She also points to her evidence that when walking back up her steep driveway, after speaking to the Dodges Ferry fire brigade, she observed that fire had continued to creep towards her house and had gone past the area of the stump.

214 She says that her explanation of the "pink lines" in her video police interview at her property on 7 January 2013 is a contemporaneous and reliable account of what the pink lines represent, and that is clear that the fire she first saw was down the hill east of the furthest pink line.

215 As to the hypothesis that the fire started in the area south of the big log, she notes that in her police interview on 5 January 2013, in response to a question regarding whether she could see burning or fire damage in this area, she said that it was "speckled" through there.

216 She accepts that further on in her interview she did say that the area burnt "later", but she says that "on a fair reading of her interview as a whole … when she said that she had just been confronted with an entirely unexpected and unfounded accusation that the fire had been lit in this area by her or by the second defendant's ten year old son and his friend", her focus was on rebutting that accusation rather

than indicating with any precision when the area was burnt. She notes that her evidence of there being "speckling" through there, was confirmed by her in cross-examination.

217 She also says that when questioned in cross-examination concerning whether the area to the south of the big log was burnt, and when it was burnt, her evidence was not only that "the area was speckled a bit through there" but also that "the fire trucks were there at the time to save the septic". This, she says, is consistent with the evidence of the second defendant that the fire was creeping back in the area at that time and burnt one of the septic air vents "later". It was this fire that she says she was referring to in her police interview as having burnt the area "later".

218 I will return to this issue in due course when discussing the value of Mr Robinson's evidence as it affects the first defendant's hypothesis that the origin of the fire was in the area of the septic tank south of the big log, and the significance of that theory. His evidence of course cannot speak to the point of origin or extent or reach of the fire and its direction of travel when Ms Barrett first observed it as he was not present.

219 For the moment, as to Ms Barrett's evidence, the plaintiffs submit that it "somewhat tortuously" established that from her vantage point on the deck looking east, she could see the top part of the "steep" driveway before it was obscured by the slope as it passed her horse's paddock; the near section of the "gentle" driveway before it dipped out of view before joining the driveway up to 244 White Hill Road (the driveway up to that other property is visible above the "horizon" where Ms Barrett's land dips), and the old disused driveway between the old stump and the tree line to the south, on the near edge of the gully to the south.

220 The plaintiffs say that the effect of Ms Barrett's evidence is that she saw the first flicker of fire in an area between the old stump and the trees behind, that is, to the east of the stump, and that at trial she placed that flicker near the trees. They say that given her oblique view toward the area from the deck, and the consideration that the flicker might be the top of a flame rather than its base, it is impossible now to know how far east of the stump the flame that first caught her attention was.

221 They say that either from the first glance or within a very short moment, she observed that there was a wall of low flame between the gentle driveway and the disused driveway, and then over the southern side of the disused driveway, toward the gully, and that she told the police it was about 5 metres long on either side of the disused driveway. They say that nothing turns on the precise distance but that what matters is that, given Ms Barrett's description, what she was seeing was not the first flames but rather an already established grass fire, as she herself described it to the police.

222 As to the question as to the extent or reach of the fire when Ms Barrett first saw it, the plaintiffs say that her evidence seemed to be that, within the first minute or so, her impression was that the fire had reached the area beyond the dip in her land, down near the junction of her gentle driveway and the driveway to 244 White Hill Road. However, given her oblique angle of view, and her immediate panic, her placement of the far edge of the fire must be questionable.

223 As to the question of the direction of travel of the fire when she first saw it, the plaintiffs say that Ms Barrett was very clear with the police and then in cross-examination that the two pink lines that she drew for the TFS investigators marked the near (backing) edge and the far (running) edge of the fire when she first saw it but that at other times she said that both lines marked the near edge of the wall of flames, but the second (eastern) line was her more considered effort. They note that at trial Ms Barrett in fact said that even the second pink line was too close and should have been further eastward again. She also described the fire as "creeping back" toward the house.

224 The plaintiffs submit that Ms Barrett had been under stress at the time of the fire, in its aftermath, and at the trial, and that in their submission, the most coherent synthesis of her conflicting accounts is that her first observations were of an established grass fire only slightly east of the stump;

that the fire spread not merely eastward but also burned back into the wind (hence the "creeping") and also laterally across the wind (as a flanking fire); that the point of origin was no further east than her first pink line, and in fact probably nearer the stump; and that the far (running or downwind) edge of the fire was already near or in the treeline and quickly spreading down the slope toward her neighbours driveway at 244 White Hill Road.

225 Based upon a careful examination of each of the court book and transcript references relied upon by Ms Barrett and the plaintiffs, set out in the written closing addresses and upon my own observations of Ms Barrett's demeanour and narrative style, both in her interviews with police and her evidence before me, I accept the synthesis advanced by the plaintiffs and I find accordingly.

226 I turn now to the evidence of Mr Butler. Before he arrived at the Barrett property, the scene needs to be set. By 3 January 2013 the cool weather had passed and conditions were forecast to be very dry, very hot, and windy. It was a day of total fire ban across Tasmania. The forecast was for temperatures up to 35 degrees in Hobart. Ms Barrett had called in the fire on her property to the emergency number 000 at 14.14.32 hours. She was not the first to have done so. A neighbour some half a kilometre to the north, whose property overlooked the Barrett property, called in the fire at 14.12.57 hours. And Ms Sutcliffe did the same at 14.15.31 hours.

227 Before Mr Butler and his Seven Mile Beach fire crew arrived, the Dodges Ferry Crew had already stopped at the bottom of Ms Barrett's steep driveway and spoken to her. I have no reason to doubt Mr Torenius' evidence that at the time he spoke to Ms Barrett, while there was still some burning there was no real fire activity around the residence of her property and that as the fire had already moved quickly and progressed south-easterly towards number 244 White Hill Road, his priority was to move on to that property. And I accept his evidence that Ms Barrett advised him that she had a fire burning "in the last few days, possibly within the last week", and that she pointed in the direction of the vicinity of that fire. That of course cannot constitute evidence of the origin of the fire, but the statements made as to that to Mr Torenius, and to, or heard by other members of his fire crew, infuse the reliability and credibility of her later more defensive evidence. (At trial Ms Barrett initially denied that she referred to a campfire in her exchange with the Dodges Ferry brigade. When pressed, she confirmed her evidence as a denial not an inability to remember. Later, however, she reverted to not being able to recall what was said.)

228 Although I have already recounted part of it, and despite its length, I now set out the transcript of Mr Butler's relevant evidence given on the trial. To my mind that evidence and Ms Barrett's observation of steam coming from the stump after the purported extinguishing of the campfire, are the most important pieces of evidence bearing on the answers to Key Issues 1(a) and (b). The extract from the transcript is as follows:

> "Right, okay. When you got to 242, firstly, did you see any other people at that property at the time?.....The lady I know as Mel was there. Her boyfriend was there. I can't recall. There's probably the child – a child there as well or a young adult, I'm not sure.
>
> What were those three people doing, to your observation, when you arrived?.....Probably interested in what we were doing really. Not – they weren't doing anything.
>
> Right. Were you watching what they were doing or – ?.....I saw the gentlemen put his surf board in the car, whatever, and he took off.
>
> Right. With the child?.....Can't remember.
>
> So what happened as you have then approached the property and I assume you've parked?.....Well, I guess we were tasked to – for asset protection. We parked the vehicle to fill up with water. *There was no active firefighting from us from that point*.
>
> Right. Now, could I – you'll see, Mr – in fact you've already seen, Mr Butler, the Court can bring documents up on the screen in front of you. Could I ask the operator please to bring up document 101 and could we go to photograph 58. Thank you. Now, what

you see there, Mr Butler, is the residence at 242 White Hills Road. His Honour has had a chance to visit the property. Now, by reference to what you see on the screen there could you tell his Honour where the Seven Mile Fire Brigade parked its truck when you first arrived at the premises?.....On the southern side towards the back corner of the house.

So that's the back corner as described – ?.....On the southern side of it, yeah.

So the far corner from where this photograph was taken?.....The far corner, yeah. Where it's – yeah, pretty much directly behind the house.

All right. Now, firstly, as you've parked in that area can you tell his Honour what, if anything, you saw in terms of burn marks in the area where you were parking?.....None. Not where we parked.

So you see that between the far corner of the house – sorry, just up from the far corner of the house there's a long, grey line which I can tell you is an old fallen down – ?.....Log.

– log. *So in that area on either side of that log what, if anything, did you observe in terms of signs of fire having passed over that area already?.....None*.

Thank you. *Now, while you were at 242 White Hills Road were you engaged in active firefighting activity?.....No*.

So why was your brigade there?.....Asset protection for the house.

Right. Was the house under threat at that time?.....I wouldn't have thought so but because the fire – as I look at this picture here, looked down at a fairly large blackened tree I would – the fire was down in that area and the helicopters were water bombing it.

Were the helicopters there by the time you arrived?.....We may have been there a bit earlier, yeah.

All right, thank you. Now, during the time that you were that there the house was not under immediate threat itself – ?.....No.

I'm sorry, Mr Butler?.....No, it wasn't, no.

Sorry – ?.....The house wasn't under threat.

Right, sorry. Thank you?.....Not while we were there anyway.

No, understood. So did you have any discussion with the lady, Mel?.....*Because there was a lack of firefighting being done* for some reason I just went for a bit of a walk and Mel followed me. She was having a yak. She was quite friendly and offered the boys some water and what not and I walked to a black spot and I saw what I thought was – what I consider a v-pattern. I said to Mel, 'Did this fire start here?' And –

Can I just pause you there, Mr Butler?.....Yep.

Can you point out on the photograph what area you are referring to as the start of what you call a 'V pattern'?.....The area that's burnt where you can actually see a tree stump, the blackened – what's left of the tree stump. So the V are the two roads east of – sorry, south of those.

Right. And so you can see there, Mr Butler, there's some pink lines in the photograph. Do you see that very faintly?.....I have seen it on other photos, so yep.

Okay. And so – ?.....Yeah, I do see it. Yep.

Yes, in fact, perhaps the operator could zoom in for us?.....Yep.

And scroll across so that we can see the – that's it. Lovely. Is that a bit clearer for you, Mr Butler?.....That's great. Yep.

Right. Now, you said that that was the start of the V pattern?.....Yeah, that's what I would've thought.

All right. And you said that Mel had followed you across to that area. Could you then tell his Honour, please, what then happened?.....*I asked Mel if the fire had started here and she said, 'I had a farrier up here today who's a cigarette smoker'. I said, 'No, no,*

no, have a look up under here', and that's when I showed her the tree root that was under – attached to the stump.

Okay. Now, again, just looking at this photograph, can you firstly describe which side of the blackened object that we see there as the tree stump, which side was the root that you just mentioned?.....I believe it was on the northern side.

Okay. So that is slightly – effectively on the side from which this photograph is taken, perhaps a bit to the left?.....Yeah. Yep.

All right. Thank you. And how close was that root to which you've referred to the stump itself?.....*Well, it looked to me that it was at the stump.*

Okay. Thank you. And how did you first notice the root?.....*Well, there was obviously smoke coming off it and there seemed to be a hole in the ground*.

HIS HONOUR: I'm sorry, I just missed that.

WITNESS: Sorry?

HIS HONOUR: Could you just repeat that for me, please. I just missed that.

WITNESS: I'll go back to what I was trying to think now. Sorry. *There was obviously smoke coming off the tree stump and/or the tree root, and there was a hole, and I – you could look up into the hole and there was a gap or an opening where a tree root was*.

MR ARMSTRONG QC: (Resuming) Okay?.....*Or still is – still was burning.*

Right. And can you describe for his Honour in as much detail as you can remember what that tree root looked like?.....*Well, it was – in it was white-ish and looked quite hot. Obviously, you're not going to touch it, and if it got – it was obviously blowing. At times, you'd see a little glow – you'd see a bit of a glow*.

Right?.....*And it was about 500 mil long –*

Thank you?..... *– and 50 – 70 mil in diameter roughly –*

All right. Thank you?..... – without measuring it.

Now, you said that Mel had said something about a farrier?.....Yep.

Could you explain to his Honour, again in as much detail as you can recall, the course of that conversation that you had with Mel?.....*Right. I asked Mel, 'Did this fire start here?', and she said, 'We had a farrier up here today and he was a smoker', and I said, 'No, no, have a look up under this tree root', and then she went on to say, 'My boyfriend had a fire in the stump a few days earlier with one of the children', and I – she said she was against him lighting it, but then went on to say that, 'Sometimes men don't listen to well', and then the conversation tapered off and I went back to our crew and told them what I – what had just happened*.

All right. Thank you. And about how long were you at the property at 242 White Hills Road?.....Look, I think it was about an hour and a-half."

229 Again, I have already set out Ms Barrett's account to police of that conversation with Mr Butler, but I repeat it here, namely:

> "Um, but other than that, no um, only when it rains, we always go over and check it, even on the day of the fires um when the seven, Seven Mile Beach firey guy was here, *the lovely man with the red beard and that, he even said there's no ember, like it wasn't even red, it wasn't glowing* and because of the fire had come back around here this was just smoking a little bit but yeah."

230 As has been seen, Mr Butler gave evidence that he did not say that. I accept that evidence. Why would a non-partisan, experienced fire fighter, not engaged in any firefighting activity, say something as odd, when looking at something of such interest, as "there's no ember". A red, glowing ember might be of interest, but not the absence of such a feature. That statement made to police by Ms Barrett was put to Mr Butler in cross-examination and he denied it, but beyond that he was not challenged as to his detailed description of his observations of the whitish, hot smoking and sometimes glowing tree root at

or under or near the old stump, prior to any fire coming near it from south of the big log. I accept the truth and accuracy of that description.

231 The first defendant deals with Mr Butler's evidence by submitting that there was nothing in it to support a finding that the stump itself ignited the fire. That may well be so, but this is a circumstantial case. The lighting of the campfire in the old stump on 28 December 2012, the perfunctory steps to extinguish it and to subsequently ensure that it was no longer burning under the surface, the appearance of steam from the site of the campfire on 1 January 2013, and the failure to properly investigate it, the occurrence of a bushfire first observed burning not far from the site of the campfire and the discovery of a glowing tree root near the old stump in an unburned area within hours of the first sighting of the bushfire, are all "strands in a cable" of evidence more than capable of supporting a conclusion that the more probable inference from all of the circumstances that appear by the evidence, left unexplained, should be that the bushfire was caused by the campfire.

232 In interrogating the question of what might be left unexplained in the concatenation just set out, the first port of call should be the evidence of Mr Robinson and the suggestion that the origin of the bushfire was between the big log and the septic tank. Mr Robinson can say nothing of the first manifestation of the bushfire because he was not present, and he told police on interview that he would be guessing if he tried to say where it started. It is clear that he first arrived after the Midway Point fire crew had reached the Barrett property. When he returned later in the day between 4.30pm and 6pm, there were two fire crews there to the best of his knowledge. The second he said was the Wattle Hill brigade.

233 On arrival on the first occasion Mr Robinson said that the fire had actually gone, part of it down the driveway and part of it off to the south east and that the fire crew had no equipment deployed. He did not stay long, somewhere between twenty and forty minutes.

234 As to the question of whether the bushfire might have started in the area of the septic tank, the following exchange in his police interview on 5 January 2013 is highly relevant:

> "Q I'm just going to really touch on something.
>
> A Yeah.
>
> Q Do you recognise this area, I'm just showing you a photograph?
>
> A Yeah that's um, on the left hand side of the house, yeah that's the log there and that's the septic tank, yep.
>
> Q Do you recall there being any (inaudible)
>
> A This, there was a fire across there.
>
> Q Yep.
>
> A And the septics sitting there and the kids and I and Mel were just trying to extinguish it so we wouldn't loose [sic] the plumbing.
>
> Q Okay, do you, do you-
>
> A So the fire had already gone down through that way.
>
> Q Okay.
>
> THOMPSON
>
> Q And you were just keeping it at bay?
>
> A Well it, yeah because it was creeping back. Yeah. Yeah, and dropping down so really the only, I was just, and it wasn't coming back onto the house.
>
> Q Hm, mm.
>
> A But I have two plastic pipes there-
>
> Q Hm, mm.

A - and I was basically just trying to stop it from coming back and also hitting that wall.

Q And had it gone any further than the pipes or had you-

A Ah, no it-

Q - managed to keep it at bay?

A - yeah no it, it, it's fine one, *towards the end it hit the, that, the, plastic pump.*

Q Right.

A But no, no, it just stopped." [Emphasis added.]

235 In his evidence on the trial as to this issue the transcript reveals the following:

"Right?.....So there's two parts to that. The fire – when I was talking in that interview, I'm talking about when I first turned up –

Yes?..... – *the fire had actually gone from the subject area, as the – where that stump area is all the way through the property.*

Yes?.....*And then it was actually stating to burn back –*

Yes?.....If we're looking here to the southern side of where the house is down near where that – I think they're referring to it as the 'big log'.

The big log, yes?.....Yeah. *So the fire was actually starting to head, well, yeah, back towards the house and then down towards that hill. So that septic area there –*

Yes?..... – *is where the fire was starting to burn back on to the property*.

Right, and that's the area that you say the kids and Mel and I were just trying to extinguish so we wouldn't lose the plumbing?……That's correct.

Right. Okay. Now can – is that that blackened area that we can see between – well -……Yeah, well where the cursor is at the moment –

Yes.……- perfect spot, don't move it please, and if we head in a straight direction down – the other way, sorry, I say – if I said north is that easier for you.

Probably left and right might be -……Oh, okay, so –

Left and right and up and down.……Up and down. So, if we go back to where that – that log is and just probably about – about five centimetres to the right, stop, yeah – oh just back a little bit more, yeah stop there, and then click there and if you go forward –

Up or down?……Up – sorry.

Up?……Up yeah, and then stop there and then to the right, stop there, and then back down, stop, and the back of the origin of where we started on the left.

Right, so through – through that area?……Yes.

Thank you. ……To the best of my memory at that time.

Right. Now you referred to the septic -……Yes.

- and that is the white area to the right of that square, is that right?……I think the septic pretty much sits in and around that squared area there, from memory.

Right. Okay. You said that you were trying to save – try this – *towards the end it hit the plastic pump, is how it's been transcribed, but I don't think the word you used was 'pump'?……That's correct, yes pipe.*

Pipe – thank you.……Yeah.

Now can you identify that plastic pipe that you were referring to?……Phew, gees, yeah – oh, it's very difficult in an aerial shot, this sort of like distance, yeah it's – I would say it's in – it's contained in the left hand corner of that square.

Right. Okay. Well now -……Yeah, no up near the top of the page, if we go a little bit – oh coming back a bit, just in that area there I believe.

Right.

HIS HONOUR: Mr Robinson, I think there are four plastic vent pipes on the septic, is that right?

WITNESS: There – yeah, so it was –

HIS HONOUR: Which one was it that burned or was it more than one?

WITNESS: No, well from memory, I think –

HIS HONOUR: Melted?

WITNESS: Yeah, well the first one that – yeah, the first one was the top left hand one towards, it would be 244, was the first one, and I even think the second – the second one down below that got melted as well.

HIS HONOUR: Yeah, thanks, I understand.

WITNESS: Yeah.

MR READ SC: (Resuming): Now you've said that the fire had already gone through that way, that's what you said in the interview.……Yes.

Right, and you were trying to – the question was, 'You were just trying to keep it at bay?' and your answer was, 'Well yeah, because it was creeping back'. So, when it was creeping back in which direction was it going?……From the picture on the screen here?

Yes.……It's – it was creeping back towards the house.

Right. Just a moment please?……Yes.

Mr Tempone, can you get a green marker out and we'll put it – if the witness is happy with using an arrow, we'll see if – are you able to – is it convenient to use an arrow to mark what you're describing?……Yeah, that's fine.

So -……Yeah, if I – if you took a direct thing and saying north front south the bottom, east being left and right, I'd say it was heading in a – like a – yeah, I will make it easier

You're going to have to your geography -……Yeah.

- because you haven't quite got your north, south, east, and west right.……No, I know, I'm under pressure.

Yeah.……Yeah, it's – it was heading in a – down towards the right bottom corner of this page.

Right, so if we go into – into that rectangle, do we?……Oh you can do that, yeah.

Yeah.……Click there and then head down towards the right bottom hand –

And that was when it was creeping back?……Yeah.

Not – don't – within the rectangle, are you saying, Mr Robinson, or -……Well it was just – yeah, in general, yeah.

Yeah, so if we just draw a – just draw an arrow from where you have that dot in the rectangle – in the square rather it looks like, down to the bottom of the corner of the square. No, just to the bottom of the corner of the square, Mr Tempone. Thank you. You content that that was the direction of travel of the fire *as it crept back*?.....Yes." [Emphasis added.]

236 In cross-examination Mr Robinson's evidence was as follows:

"All right. Thank you. Now, you also said in answer to some of Mr Read's questions that towards the end, the fire hit the plastic pipes, and you clarified for his Honour that the plastic pipes you're referring to, to the best of your recollection, were the – the one that was roughly in the area of the red box and then one, I take it, slightly to the right of the red box?.....Yeah. That's –

Right. And so we've identified the location of the plastic pipes that you're talking about, but could you please clarify what did you mean by 'towards the end'? Do you mean the mid-afternoon or towards the end of the day or the end of the whole fire or what?.....Could you repeat that end bit? I'm just – it – yeah.

> *Certainly. What did you mean by 'towards the end'?.....Yeah, it's got me too. It could be – yeah.*
>
> So you're – ?.....*I can't answer*.
>
> Right. Okay?.....*Yeah, I'm struggling with that*.
>
> *Do you recall about what time of the day on the 3rd of January the fire hit the plastic pipe?.....No, I can't help you there, Mr Armstrong. I'd just be guessing*.
>
> All right. Well, you've referred, for instance – I'm just trying to help you out here. *You've referred to the Wattle Hill brigade being there at about sunset*. Do you recall whether they were there when the fire was hitting the plastic pipe?.....*No, it was before that.*
>
> Right?.....Yeah.
>
> Okay?.....*So, yeah – yeah, it would've – it would've been just prior to a – yeah, a fire brigade unit turning up that the plastic pipe was starting to – the fire was heading towards the plastic pipe.*
>
> Yep. Okay?.....I believe in that police statement, I actually – I made that comment." [Emphasis added.]

237 The first defendant submits as to this issue that Mr Robinson's evidence in his police interview was that there was fire across the area from the big log to the septic tank and that he and the first defendant and the children were trying to extinguish the fire so that "we wouldn't lose the plumbing". He said that the fire had "already gone down through that way" and that they were trying to keep it at bay because it was "creeping back". She argues that the children were only present at a very early time as Mr Robinson arrived at about the same time as the Midway Point brigade. She argues that in examination-in-chief Mr Robinson confirmed that he made these observations when he "first turned up" at the property on the day, and that it was not put to him in cross-examination that what he said in his police interview was incorrect or untrue.

238 I am unable to accept that submission. Mr Robinson was, to my observation on watching the video recording, quite unsure as to what if anything he and the children did in the short period he was at the property on the first occasion, but even in that interview he was intimating that the fire had already gone through and that it was when it was creeping back that efforts were being made to avoid losing the plumbing. The telling comment by Mr Robinson in that interview was that it was "towards the end" that the fire "hit the plastic pump." When that comment was teased out in cross-examination it became clear that the events he was referring to must have occurred just before sunset and just before the Wattle Hill fire crew arrived. He could not have been referring to the Seven Mile Beach crew because they were already in attendance when he first arrived and there was no active firefighting at the property while that crew was in attendance.

239 Acknowledging that regard must be had to the whole of the evidence, Mr Robinson's account does nothing to detract from the calculus that the more probable inference from all of the circumstances that appear by the evidence, left unexplained, should be that the bushfire was caused by the campfire. His evidence offers no plausible explanation for a competing hypothesis offering a rational choice as to the answer to Key Issues 1(a) and (b). I also pause to observe that even if his evidence was capable of suggesting that the origin of the fire was somewhere in the vicinity of the septic tank and the big log, such a possibility, without more, might give rise to a fine pleading point arising from the plaintiff's amended statement of claim, but it would not undermine the calculus I have posited.

240 It must be borne in mind, as the plaintiffs submit, that the consideration that this is a circumstantial case does not mean that the first defendant can throw up any speculative theory as to possible alternative causes for the loss and damage that is the subject of the claim, and rely upon that speculation as a basis for contending that the plaintiffs have failed to establish their case.

241 The threshold that the plaintiffs are required to meet is, and remains simply the normal civil standard of the balance of probabilities. Speculation from the first defendant, especially where it is unsupported by cogent evidence, is barely even relevant to the question whether the evidence has been sufficient to establish to my mind an actual persuasion that upon the balance of probabilities the allegations made by the plaintiffs reflect the actuality of what occurred.

242 The next port of call on this voyage of exploration of the question of whether the facts proved form a reasonable basis for a definite conclusion, affirmatively drawn, of the truth of which I may reasonably be satisfied, is an examination of the evidence as to the post-fire investigations and analyses.

243 The first in time of such investigations is the work of Mr Bones, Mr Walkley and Mr Johnson, which was ultimately embodied in the TFS investigation report. Those investigations have already been set out above. The first defendant is highly critical of them.

244 Ms Barrett says that the TFS investigators had the opportunity to investigate the fire very shortly after its occurrence, that they had the best opportunity to investigate potential causes of the fire, but that they "squandered it". She says that the investigation was not thorough, and it was rushed. She says that the investigators formed a view and sought to prove it, and that they failed to test their hypothesis.

245 She says that the area between the septic tank and the big log was the predominant focus of photographs on 5 January 2013 and that Tasmania Police informed the first defendant, during her interview with them on that night, that this was where the investigators had told them they believed the fire had begun.

246 The first defendant says, in particular, that there was a failure to investigate that area as the area of origin any further on the following day. Ms Barrett argues that the area between the septic tank and the big log was identified by investigators from their observations of the fire scene when they "had an open mind" and before they had any knowledge that there had been a campfire in the stump. On 6 January she says that there was a "rushed" excavation involving a failure to excavate the root they were following back to the old stump, and a failure to excavate around the stump at all to see whether there was any evidence of burning from the stump into the root system. She says that when the TFS investigators left the property on 6 January because they had to catch a helicopter flight, their "minds were closed" to the possibility that the fire may have originated in a different area, or that there could be any other explanation for the fire.

247 Ms Barrett says that it was Mr Walkley who "shifted the focus of the investigation" on 6 January to the area in the vicinity of the stump. He discounted the area south of the big log as an area of origin and that as a result no detailed examination of that area was undertaken, and that any evidence which such an investigation may have uncovered is not available to the Court.

248 She argues that because of this lack of any adequate investigation there are significant gaps in the case brought by the plaintiffs which they attempt to overcome by arguing that the TFS hypothesis is the only plausible one. She submits, however, that the question is not how that hypothesis might "stack up" against any other suggestion, but whether it is more likely than not to be the true explanation for the fire.

249 I accept that latter proposition of course, but I do not accept the proposition that the TFS investigation or the excavation of the root was rushed, inadequate or carried out with a closed mind.

250 Mr Walkley explained how the investigators examined fire indicators as they walked around the Barrett property for about two hours in search of an area of confusion. He explained that an area of confusion is the area around a point of origin, where a very young, low intensity fire first starts to spread in different directions as it searches for fuel, runs with the wind but also backs into the wind and moves laterally across it. The low intensity means that relatively fine fuels often survive the scorching, and so

there are fire direction indicators pointing in different directions. The fire language, he said, pointed him and Mr Bones and Mr Johnson, with confidence, to an area of confusion around, but mostly immediately east, of the old stump. And his evidence explained how the fire language allowed them to exclude the area of the big log as a potential area of origin.

251 That conclusion, as I have already noted, is validated by the evidence of Mr Butler, Ms Barrett and Mr Robinson to the effect that the area of the big log and the septic pipe burned during the late afternoon or early evening of 3 January as a backing fire.

252 Importantly, it is to be noted, that at the time that Ms Barrett was interviewed by police and at the time Mr Walkley and the other investigators were examining the scene on 6 January, they had not obtained information from the TFS first responders, including Mr Butler. They independently identified an area of origin within that which Mr Butler had earlier identified, namely the point just north of the stump where he believed the fire started. Their ultimate conclusion in the light of all of that, understandably displaced the theory originally embraced by Mr Bones as an *alternate* possibility, namely that the area of origin may have been between the big log and the septic tank.

253 Mr Bones had formed the preliminary view that the fire had originated in one of two areas:

> "*Area 1* – the area referred to during the trial as the big log/septic tank area, located south-east of the residence; or
>
> *Area 2* – the area just to the east of the house, around the old stump."

254 But as already alluded to, Mr Bones explained that his preliminary determination on 5 January was made before the TFS investigators had an opportunity to speak to the first firefighters to arrive at the scene or make any other enquiries. It was, as Mr Bones described, an "unbiased determination" based on the initial examination of the fire indicators on 5 January 2013.

255 In any event, at the further site inspection the following day, having established the area of confusion, the TFS investigators then set about inspecting that area to identify a potential point of ignition. They examined anything that appeared unusual or of potential interest. The area was very rocky. Some of the short, very fine grass was burnt and some was unburnt. After some time examining the area, Mr Walkley identified a piece of charcoal on the ground surface. He drew the attention of Mr Bones and Mr Johnson to this and told them that he believed it may be part of a burnt root and that he thought it may have caused the fire.

256 As I have set out above when canvassing Mr Walkley's evidence, the investigators then undertook an excavation around that piece of charcoal using a small hand shovel and a garden trowel. They scraped the dirt from above the piece of charcoal until it was exposed. They then embarked on a process of exposing the charcoal and carbon remnants back towards the stump.

257 This was a delicate task which became progressively more difficult as they followed the line of charcoal and ash deeper into the ground. As they excavated, soil and rocks from above would collapse. In effect, the process of excavation to see the evidence was simultaneously destroying the evidence, save for the occasional piece of solid charcoal.

258 Having exposed a line of charcoal remnants and carbon dust for about 1.6 metres, to a depth of approximately 50 centimetres, and to a position about 2 to 3 metres from the stump, they stopped the excavation. The exposed root remnants followed a meandering line in the general direction of the stump. They were satisfied that the root was connected to the stump and they could not dig any deeper. The soil was too loose to let them continue to follow the line. Whether or not a helicopter was waiting for the investigators, the fact of the matter is that they could not usefully excavate any further.

259 As a result of what they had discovered and unearthed, the TFS investigators concluded that the campfire on the night of 28 December 2012 had caused a smouldering fire in the stump which burnt slowly underground along the root until it reached the surface and caused the fire to ignite on 3 January 2013.

260 They discounted the possibility that the root ignited at the ground surface as a result of the bushfire and then burnt back towards the stump, as opposed to it being the cause of the fire, as they concluded that the short, dry grass on the ground surface in that area made for very light fuel which would have produced minimal heat when burning. As Mr Walkley explained, when grass burns, at least 90% of the heat rises into the atmosphere. The heat is not referred down into the ground. Heat generated from the grass burning in that area would have been insufficient to cause the root to ignite

261 If the evidence ended at this point I would be firmly of the view that the conclusion reached by the TFS investigators is unimpeachable and I would have no doubt in concluding that the pleading in par [12] of the plaintiffs' amended statement of claim has been made good. That pleading being that "[a]t around 2:00pm on 3 January 2013, the smouldering burn in the tree stump and its root system ignited grass on the surface of the ground in the immediate area around the tree stump".

262 The evidence does not end at this point however, and a consideration of the first defendant's expert evidence is necessary, along with the additional expert evidence adduced by the plaintiffs. Before I proceed to do so however, I pause to deal with two issues affecting my approach to that evidence, and indeed, the evidence generally.

263 The first is a pleading point. The first defendant notes that the pleading in the plaintiffs' amended statement of claim, to which I have just alluded, refers to a smouldering burn in both the stump and its root system. She says that the case advanced by the plaintiffs throughout the hearing, however, was that the heat source which ignited grass was a smouldering root from the stump which emerged some distance from the stump. She argues that the evidence of Mr Bones and Mr Walkley was that, in their opinion, the smouldering root was the ignition source, and that Mr Walkley ruled out the stump as directly having caused the fire. She says that a fire in the stump and from the stump rather than its roots was not the case advanced by the plaintiffs at the hearing and it is not the case which the first defendant is required to meet.

264 I do not see that point as having any significance. Any finding that I might make in line with the TFS investigators' conclusion that the campfire which had been lit in the pit of the stump on the night of 28 December 2012 had caused a smouldering fire which burnt slowly underground along a root until it reached the surface and caused the fire to ignite on 3 January 2013, would be a finding generally in line with the pleaded case that "the smouldering burn in the tree stump *and* its root system ignited grass on the surface of the ground in *the immediate area around* the tree stump". [Emphasis added.] That must be so because the nexus required for such a finding as between the campfire and the smouldering burn in the tree root is at once a nexus between the stump itself and the tree's root system. There can be no sensible distinction drawn between the "pit" of the stump where the campfire was lit and the stump itself, much less the words "the stump and its root system" as a descriptive term.

265 The second point I wish to make before embarking on the remaining evidence as to Key Issues 1(a) and (b) is to acknowledge the correctness of the plaintiffs' submission as to the relevance of the observation of Lord Brandon of Oakbrook in *Rhesa Shipping Co v Edmunds The Popi M* [1985] 1 WLR 948 at 714f, namely:

> "*In approaching this question it is important that two matters should be borne constantly in mind. The first matter is that the burden of proving, on a balance of probabilities, that the ship was lost by perils of the sea, is and remains throughout on the shipowners. Although it is open to underwriters to suggest and seek to prove some other cause of loss, against which the ship was not insured, there is no obligation on*

> *them to do so. Moreover, if they chose to do so, there is no obligation on them to prove, even on a balance of probabilities, the truth of their alternative case.*"

266 I have set out earlier in these reasons the authorities relevant to a consideration of the evidence in a circumstantial case such as the present, and I instruct myself in accordance with the principles set out therein. In reviewing the evidence as to theories alternate to the TFS investigators conclusion, I am not to be taken as overlooking Lord Brandon's sagacity.

267 For the sake of completeness I summarise the relevant principles as follows:

- the standard of proof remains proof upon the balance of probabilities;
- that proof does not require the exclusion of any hypothesis consistent with the non-existence of a necessary fact, nor even the exclusion of all reasonable hypotheses consistent with the non-existence of such a fact;
- nevertheless the plaintiff must do more than prove sufficient circumstances as might give rise to alternative inferences of equal probability;
- rather, the plaintiff's proved circumstances must combine to induce in the Court an actual persuasion – that is rational, and more than a guess – that the fact sought to be inferred from the circumstances did more probably than not exist; and
- that actual persuasion might hold a narrow edge over the alternatives, but a narrow edge can be sufficient.

The first defendant's seven reasons as to origin

268 The first defendant advances seven reasons why I should not be satisfied to the requisite degree that the area of origin of the bushfire was that identified by the TFS investigators. They are as follow:

- the first defendant's evidence of where she first saw fire;
- the shape of the fire seen by the first defendant;
- the lack of any fire language to support the TFS area of origin as the area of origin;
- the fire language within the TFS area of origin that is inconsistent with it being an area of origin;
- the cursory nature of the TFS investigation;
- acceptance of the TFS area of origin would mandate a finding that the area within the TFS area of origin burnt twice; and
- the strong weight of the evidence that fire started first in the area south of the big log and north of the septic tank and then moved to the TFS area of origin.

269 I have already dealt with the evidence of Ms Barrett's as to where she first saw the fire, and I have dealt with the suggestion that the TFS investigation was cursory.

270 As to the shape of the fire, Mr Gilmore stated in his first report dated 24 August 2020:

> "78 Melissa Jane BARRETT first saw a fire from her deck. The fire she saw was burning on a wide front. Her estimate was that the fire was 5 metres across by 3 metres deep although it is noted she also estimated the 'Old Stump' to be 10 metres from her house when it is at least double that distance. She also drew the 5x3 area as more than 10 metres wide when given a spray paint can by Investigators to mark where she first saw the fire.
>
> 79 A grass fire should be long and thin on this day driven by the wind. The shape of the fire described and drawn by BARRETT is consistent with a fire moving from right to left (south to north) when she saw it.

> 80 The shape of the fire described by BARRETT is wrong for the conclusion drawn by TFS with respect to the point of origin. It is consistent however with fire emanating from an Area of Origin further south between the big log and the septic line. For this to be the case the fire would have to have been influenced by slope and running uphill or the wind would have to have been blowing south west at the time."

271 In his December 2020 report, Dr Marsden-Smedley commented on Mr Gilmore's interpretation of the fire's length and width when first observed by Ms Barrett. Dr Marsden-Smedley stated:

> "If the fire had started where the TFS fire ignition report proposes, then the fire would have been in its early phases at this time and location. When bushfires first start, it is normal for the fire to switch between head and flank fires resulting in a wider fire than may be the case once the fire is established. As such, in my opinion, if the fire had started where the TFS ignition report proposes, then the fire's shape and dimensions are as expected."

272 On the trial Dr Marsden-Smedley was cross-examined about that statement and was shown a document containing a schematic representation of stages of a fire. He was asked whether he agreed that the document depicted the typical spread of an initial grass fire. He agreed that it was an "average fire shape that you would expect in the very early phases, particularly for a grass fire", and he stated that in the very early phases of the fire that he had opined started at or near the stump, it was just that – a grass fire, or a mixed grass and litter fire.

273 To my mind it is very difficult to attribute any significant weight to the fact that the fire shape in the initial stages is more cigar shaped than long and thin. As Dr Marsden-Smedley said, it is an "average" shape, and he was not shaken in his view that if the fire had started where the TFS ignition report proposed, then the fire's shape and dimensions were "as expected".

274 Moreover, as noted earlier, Mr Butler said in his evidence when shown the same schematic document, "this one, I think it was a lot thinner than that because there wasn't much to burn for a start … and it was blowing … forty knots so it hasn't had … the time to spread that far first of all … that will burn back a little bit later, so if that started at that point there, it would go like that in a smaller v-pattern, and then it would probably come back, with a forty knot wind, and there wasn't much grass there to burn."

275 To a not dissimilar effect, Mr Bone's evidence was that in the area of confusion, a fire burning with low intensity "stooges around" opportunistically until it gains momentum and there is no real explanation for that.

276 I now turn to the next of the first defendant's seven reasons set out above, namely, the fire language.

277 Three experts, namely Dr Marsden-Smedley, Mr Thomas and Mr Gilmore, were asked to review all the available evidence and comment on the TFS conclusion as to the area of origin, and, as submitted by the plaintiffs in closing submissions, all in effect reached the same conclusion.

278 Dr Marsden-Smedley concurred with the TFS investigators' finding as to the area of origin. His opinion as to area of origin was not challenged under cross-examination.

279 Mr Thomas, who first inspected the scene some five months after the bushfire, felt that the burn indicators at the property were "inconclusive to the extent that it was not possible to determine an approximate area of fire origin let alone a point of fire origin or an ignition source". His evidence on the trial was that he did not disagree with the TFS area of *fire origin*, but that after inspecting the scene he "wasn't certain at that stage that the fire had extended from [the TFS *area of origin*]".

280 Mr Gilmore inspected the site on 19 November 2018, five years after the bushfire. However, unlike Mr Thomas, he felt able to interpret the remaining fire indicators. Following analysis of the evidence provided to him, Mr Gilmore concluded that the area of origin included, but was not confined to, the area of fire origin identified in the TFS investigation report. In other words, it could be said that Mr Gilmore adopted the TFS area of origin but proposed that it be expanded to include the big log/septic tank area and involved a different direction of fire travel.

281 Mr Gilmore's opinion concerning fire movement in the area south of the big log and north of the septic tank area, and his reasons for including this area in the area of origin, are set out in his first report. Relevantly he said:

> "Witness observations are consistent with burn and char patterns I observed when I examined the site in November 2018. At that time, I concluded that fire moved in a generally east to north easterly direction from a location between the Big Log and the Septic Line. I also concluded that when the fire reached the trees to the east of the Old Stump, a relatively narrow section of fire developed in intensity and ran in an easterly and north-easterly direction towards 244 White Hills Road. At this stage flames would have tripled in height and the smoke would have darkened and would be more visible at distance …
>
> When I piece the observations of TORENIUS, McMANUS and BUTLER 49 together with my observations and [Mr Robinson's son] where he refers to the black (burnt) area south of the Big Log, it is clear to me that the area and point of origin must include the area between the Big Log and the Sewer Line.
>
> This conclusion is also consistent with what is apparent in TFS photographs PBH0874 and PBH0890, which show burn and char patterns of fire movement towards the Old Stump from a location between the Big Log and the Septic Lines.
>
> I am mindful of the need to be particularly cautious when trying to interpret the contents of photographs because they are only two dimensional and as a result features and/or factors that might otherwise be apparent to the experienced eye are not always readily seen in a photograph. However, I took particular note of the following two photographs." [Figures 8 and 9 in his report.]

282 I observe at once that there was no evidence from Mr Robinson's son on the trial.

283 The basis of Mr Gilmore's conclusion that the area of origin included the area south of the big log and north of the septic line was illustrated by him by reference to the photographs he referred to in his report. By reference to Figure 8 he explained that the char height and scorch height on the shrubs that feature in the image increase from the west to the east, together with the prominent stain on the south-west surfaces of the rocks, and the protected fuel behind the rocks to the south east in the image, suggests that fire approached from a south-westerly direction. In cross-examination, Mr Bones agreed with Mr Gilmore that where there is intense burning to the extent shown by the ash at the base of the rocks on which the staining to which he was referring appeared, it can be the case that this rock staining will not be indicative of the direction of the fire run. Mr Bones also agreed that where there has been intense burning, rock staining has the potential to be a false indicator.

284 As to Figure 9 Mr Gilmore explained that items of vegetation including a partially burnt tussock appeared to have been impacted by running fire which approached from a south-westerly direction. From another photograph, Figure 11 in his report, he concluded that burn and char patterns show fire movement east towards the young trees and north east towards the old stump from a location between the big log and the septic tank area.

285 Mr Gilmore maintained his opinion regarding the direction of fire spread in the area south of the big log above the septic line during cross-examination and, in re-examination, again confirmed his evidence and illustrated the direction of fire spread on a screen shot tendered in evidence

286 In all, in relation to fire movement in the TFS area of origin, Mr Gilmore pointed to indicators which suggested that fire travelled towards rather than away from the TFS point of origin. For example, as already noted, he concluded that the burning to the tussock shown in one of the photographs indicated that the fire moved from left to right towards the point of origin identified by the TFS rather than away from it.

287 The first defendant acknowledges that Dr Marsden-Smedley gave evidence that the burning to that tussock indicated fire travelling in the opposite direction, but notes that Mr Gilmore disagreed with that, and both Mr Bones and Mr Walkley agreed with Mr Gilmore

288 Mr Gilmore also said that the burning to another tussock shown in a photograph in the TFS investigation report indicated that the fire had travelled in a general south to north direction to that tussock. Ms Barrett says that this was also consistent with fire travelling to this tussock from the area south of the big log above the septic lines, and inconsistent with the fire travelling from the TFS point of origin in an easterly direction to the tussock.

The plaintiffs' six points as to Mr Gilmore's evidence

289 The plaintiffs say that for six reasons I should have no hesitation in finding that the fire could not possibly have started in the big log/septic tank area.

290 First, they say that Mr Butler gave evidence that there were no signs of the big log area having been burnt when they were in attendance at the property from approximately 3pm. They say this was reliable, independent evidence from a very experienced firefighter and was not challenged under cross-examination.

291 I accept that proposition. In relation to that evidence I note that Mr Bones stressed to me:

> "I suppose a point here I'd like to raise, your Honour, is the fact that the fire was not burning in the area of the log and the septic line when firefighters first arrived from the Seven Mile Beach Brigade. That's probably the critical evidence here. The way the fire burned around would've varied from time to time depending on wind, and those are the factors that I talked about before, but there was definitely not burning when Seven Mile Beach Brigade arrived."

292 Second, they say that Ms Barrett was "emphatic" in her interview with Tasmania Police on 5 January 2013 that the big log area did not burn until the night of 3 January 2013.

293 I would not go as far as to say that Ms Barrett was emphatic about that, but I am satisfied that the area did not burn until at least the evening of 3 January 2013 only shortly before or around the time of the arrival of the Wattle Hill brigade around sunset.

294 Third, they say that Mr Robinson gave evidence that the big log area was unburnt until several hours after the bushfire ignited. I have already indicated that I am satisfied as to that.

295 Fourth, they say that although Mr Bones and Mr Johnson initially had the big log area as one of two potential areas of fire origin, further inspection of the scene excluded it, based on the extent of damage to the vegetation, the scorched tree canopy in that area and the evidence of witnesses. I accept that proposition.

296 I note in this regard that Mr Bones said in evidence:

> "… Also, I'd just like to reiterate the comments of the brigade that the fire was not burning in the area of the big log and the septic line.
>
> Now, Mr Bones, did you ever yourself examine the area between the septic – between the big log and the septic line to try and assess, firstly whether it had been burnt and,

> secondly, from which direction it had been burnt?……Yes, I did. I've – well like to speak to that later on in my notes.
>
> Certainly.……Actually I've got some comments here now. The amount of damage to the vegetation and scorched tree canopy, yeah, and the direction of fire travel confirms the fire burnt down to the gully away from the area of ignition – or origin, and back up the slope from the gully into the big log area."

297 Fifth, the plaintiffs say that Dr Marsden-Smedley opined that the fire was highly unlikely to have started in the vicinity of the big log area for a number of reasons, including that a fire starting in that area would have produced different fire spread patterns to those left by the fire.

298 Acceptance of that proposition depends on my assessment of Dr Marsden-Smedley's evidence on this very issue of fire spread patterns and my assessment of the quality of Mr Gilmore's evidence on that subject. I note that in his report Dr Marsden-Smedley stated:

> "In my opinion, the possibility of the fire starting in the vicinity of the log pile or septic line, as proposed by Mr Gilmore, is highly unlikely to be correct. If the fire had started in this vicinity I would have expected an easterly fire spread direction at my waypoints 0012 and 0013 and a northeasterly fire spread direction at my waypoints 0002 and 0003. This was not the situation, with the fire spread direction at my waypoints 0002 and 0003 being east southeast and the fire spread direction at my waypoints 0012 and 0013 being southeasterly."

299 The first defendant raised an issue about Dr Marsden Smedley's waypoint directions. She says that in relation to waypoint 0002 (which is the only waypoint in the immediate vicinity of the TFS area of origin), Dr Marsden-Smedley was taken in cross-examination to his field notes where he recorded his observations at that waypoint. She says that he conceded that the fire spread direction which he in fact recorded at that point was not east south east as stated in his report, but 75 degrees (close to north east). She says that this fire spread direction is consistent with Mr Gilmore's opinion and is in the general direction which Dr Marsden-Smedley said in his report he would have expected if Mr Gilmore's opinion that the area of origin was in the vicinity of the log pile and the septic tank area.

300 In oral closing submissions, senior counsel for Ms Barrett, Mr Armstrong QC, noted that Dr Marsden-Smedley identified one waypoint on his GPS system that suggested a direction of fire travel that was east, north-east, rather than east or south-east. He pointed out, however, that it was only one way point that was angled slightly differently to what might have been predicted, and that when one looks at the list of the full set of waypoints, if Mr Gilmore is correct, then on the other hand there would be six or seven way points that are not at all explained by his theory as to the area of fire ignition. Those waypoints would all be too far north for the fire if it had ignited at the area south of the big log.

301 I accept that submission and, in assessing Mr Gilmore's hypothesis, formulated five years after the bushfire, from the one dimensional medium of photographs, I place no significance on a single waypoint direction which might be inconsistent with Dr Marsden-Smedley's thesis.

302 Sixth, the plaintiffs submit that Mr Gilmore is not a credible expert witness. On the issue of the area of fire origin, they say that the following matters support a finding that he is not a credible, fair-minded expert witness:

> "(a) Mr Gilmore was taken to the evidence of Ms Barrett (including her statements to Tasmania Police), Mr Robinson and Mr Butler, which together are emphatic that the Big Log area remained unburnt until later in the afternoon of 3 January. But Mr Gilmore was not prepared to relinquish or even qualify his opinion that the fire likely started in that area. It reflects poorly on Mr Gilmore that he would reject this credible, unchallenged, eye-witness evidence simply because it runs counter to his area of origin theory.

(b) Mr Gilmore's response to Mr Butler's evidence is particularly telling. Mr Butler's evidence was unambiguously to the effect that the Big Log area was not burnt when he arrived at the property and still had not burnt when he left. Mr Butler was an impartial, truly independent, calm, practically-minded and impressive witness. His evidence is all the more credible given that there was no challenge to his related evidence that his crew did not need to do any firefighting in or near the Big Log area. If it was burning, they would have attended to it.

Bizarrely, Mr Gilmore claimed that Mr Butler's evidence supported his area of origin theory because fire scene photographs show that the area immediately *on either side* of big stump did not burn. In other words, he construed Mr Butler's evidence as meaning that the small patch of grass immediately adjacent to the big log was unburned, as if Mr Butler was drawing a distinction to be measured in centimetres. This absurd distortion of Mr Butler's evidence, to prop up Mr Gilmore's expanded area of origin theory, is not becoming of an expert witness.

(c) Mr Gilmore takes the same blinkered approach to Ms Barrett's statements to Tasmania Police and the TFS, as to where she first saw flames. This evidence is also dismissed by Mr Gilmore, without good reason, because it does not suit his area of origin theory.

(d) Mr Gilmore is inconsistent in his treatment of lay evidence. While he rejects credible lay evidence when it supports the plaintiffs' case theory, he embraces lay evidence of dubious credibility when it suits him.

For example, Mr Gilmore made the curious decision to rely on the evidence of David and Damien Berry as to the location of the fire in its early stages, notwithstanding that their observation was made from a house at 292 White Hill Road, approximately 650 metres away from the fire scene. He prefers their evidence – which is demonstrably wrong as to important matters such as the timing of the arrival of TFS units – over the evidence of Ms Barrett and Mr Butler, both of whom were at 242 White Hill Road for at least several hours at the relevant time and saw that the Big Log area was unburnt. Mr Gilmore goes so far as to state that the Berry's long distance observations 'strongly suggest that the origin is within that area between the big log and septic lines'. Mr Gilmore embraces Mr Robinson's evidence as to the time of fire activity in the Big Log area. This was based on a wrong understanding of Mr Robinson's police statement, yet when it was pointed out at trial that Mr Robinson's evidence was to the opposite effect, Mr Gilmore promptly dismissed it.

(e) Mr Gilmore shows a similarly inconsistent approach to his criticism of the TFS investigation methodology and reporting (most of which is completely unwarranted). Compare that to his unqualified adoption and approval of the highly dubious Colin Thomas investigation methodology and Mr Thomas's risibly thin reports.

(f) Mr Gilmore persisted in his disagreement with the TFS conclusions despite the circumstances that:

(i) he did not visit the scene for more than five years after the fire;

(ii) the scene had significantly altered over the intervening years; and

(iii) he acknowledged that the photographs on which he so heavily relied are a poor substitute for seeing the site in person and while it is fresh.

Mr Gilmore went some way towards acknowledging these limitations in his written reports. But by the time he gave evidence at trial Mr Gilmore had apparently forgotten these limitations. He was happy to give extensive evidence as to the micro indicators he perceived in photographs of the area of origin. He seemed to regard his analysis of those perceived micro indicators as infallible even in the face of overwhelming evidence to the contrary. Mr Gilmore failed to couch his evidence in the measured, careful language that was clearly called for. Rather, he regularly expressed his dubious opinions as if they were statements of fact.

(g) A stark example of Mr Gilmore's misplaced faith in his ability to read to fire indicators more than five years after the event is his ridiculous suggestion that the point of origin examined by Mr Walkley, and marked as Marker 20 in the police photographs, was not the location of the burning root that ignited the bushfire but rather the remains of an entirely separate tree stump that was itself ignited by a fire of unknown origin and

> then continued to burn throughout the duration of Mr Butler's attendance at the site. This was, as we explained above, a hypothesis that was incredible in the true sense of that word. In our respectful submission, it reflected Mr Gilmore's attempts to fix upon any fanciful notion as a basis for disputing the TFS conclusions. It was advocacy, not expert evidence.
>
> 11.36. In short, in our submission the Court ought not accept any of Mr Gilmore's conclusions to the extent that they cavil with or depart from those reached by the TFS investigators or Dr Marsden-Smedley. The latter, in particular, gave a much more credible explanation for the fire damage to the 'tussocks' or 'reeds' shown in the police photographs."

303 No reply at all to the plaintiffs' strident criticism of Mr Gilmore was made by senior counsel for Ms Barrett, Mr Read SC, in his oral closing submissions. With two qualifications, I accept the plaintiffs' submissions.

304 The qualifications to which I refer are first, that there was no evidence given or tendered on the trial relating to the observations of David and Damien Berry as to the location of the fire in its early stages, and second, that a consideration of the validity of Mr Thomas' investigation methodology and reports is yet to be canvassed in these reasons.

305 And, for the sake of completeness, I set out Mr Gilmore's and Dr Marsden Smedley's evidence as to the fire damage to the tussocks shown in the police photographs taken at the behest of the TFS investigators.

306 As to that issue, Mr Gilmore opined:

> "The tussock has been impacted by fire from the bottom left and that is shown by two things; the height of the relative burning of the stalks, so more heat has impacted from the bottom left, and a protection of fuel on the back of that clump. So if you look at the clump it contains some green material. It has some moisture which to burn we have to heat things up, dry them out, they give off gas and the gas burns. So if you look in the bottom left of that tussock, fire has come into there. It's affected all of the front of the tussock, if you like, where the fire has come to it. The back has actually been protected by the mass of materials, some dead, some green, as the fire has moved into it."

307 Mr Walkley agreed with Mr Gilmore on this point but only because he was of the opinion that it was because the fire which burnt the tussocks was a flanking fire, with the head fire having burnt past them.

308 On the other hand, Dr Marsden-Smedley's explanation appears from the following passage in the transcript:

> "Could photograph 6 please be shown in this set? Now you accept – do you accept that the burnt tussock shows fire moving from the bottom left of the photograph towards marker 20?……Again, not having seen it in detail on the ground, but on the balance of probability, it is more likely it's gone from the 20 towards – at a diagonal across towards the clump and then has ignited the clump and then burnt more intensely through the clump as it – as it consumed that clump. So in other words a very very low trickling fire has reached the clump and then as it burnt into the clump has picked up intensity in the clump so it's burnt more completely towards the bottom left hand side of that clump.
>
> It's equally consistent, is it not, Dr Marsden-Smedley, that the fire burnt from the bottom left of the photograph towards that tussock?……No – I have to be careful what I say on that because I didn't see it at the actual time, but if I was going to use that a likelihood, I would say it's more likely gone from the 20 across the tussock and kept going in that direction.
>
> Photograph 10 please can be shown? You see another tussock, if we can zoom in on that please. Do you accept that that shows fire moving from the right to the left of the

> photograph?……No, it shows – it's more likely to be showing fire coming from the bottom left towards the top right. Now I think I covered this – in my report that in the very very early phases of a fire though the fire tends to switch around a bit, so depending on how strong and consistent the wind is, you can get variation – that's why it's really important to be doing – when you're looking at things like tussocks to do it immediately after the fire occurred."

309 Even if I accepted Mr Gilmore as a credible witness whose evidence on this issue was to be preferred (which I do not), the plaintiffs, quite correctly in my view, point out that if all Mr Gilmore's evidence as to the direction of fire travel within the TFS area of origin is correct, it goes no higher than establishing that the area was indeed one of "confusion" as to fire movement. As I alluded to earlier in these reasons at [239], that is not necessarily inconsistent with the area south of the big log being within the area of origin and the point of ignition remaining a root attached to the old stump. It is, however, unnecessary for me to make a finding about that, given my view as to Mr Gilmore's credibility.

310 Nonetheless, in this regard, and again for completeness, I note the following passages from the transcript of the cross-examination of Mr Gilmore:

> "Now, within an area of origin there's two sub-areas. I'd ask you to tell me whether I'm correct about this. Firstly, within an area of origin there will be an area of confusion?.....The area of confusion is a term from the 90s which came from – the original word came here from America and hasn't been used, to my knowledge, for a good while in our training. Perhaps 20 years or something like that, Mr Armstrong.
>
> Then separately from the area of origin there's also the actual point of origin where the ignition in fact occurred?……Yeah.
>
> And sticking for the moment with the notion of an area of origin as opposed to an area of confusion. Firstly, are they the same thing?……Ah, no.
>
> No, what's the different between an area of origin, as you use that term -……Yes.
>
> - and an area of confusion, as you understand that term to be used?……So, an area of origin would be where there's signs that the fire has moved out of an area.
>
> Mhm. ……So in your survey of the area you are confident that it came from in there, and then you may – we talked about grass fall for instance, so if a fire starts here and moves out the grass will fall in towards that place that it come, so it's – the grass stem sticks like this, the fire hits it and falls as the grass shrinks.
>
> Okay.……And it falls on an unburnt ground, so it's still intact.
>
> Can I just – alright, so let's just work with that for the moment. The area of origin you've identified is the area from which you can be confident a fire has started, that area from which you can be confident a fire has started is, by definition, going to have involved a fire in its earliest stages, isn't it?……Yeah, it needs an ignition source.
>
> Yes, and absent situations of somebody using an accelerant, that fire in its early stages is going to be a very low intensity fire, isn't it?……Yes.
>
> In its very early stages and the kind of situation that we're discussing in this case, we're talking about some flames that might not be that much bigger than what you would get from a match?……Correct.
>
> Alright, and those flames in their early stages will be slowly finding fuel and moving in different directions, won't they?……Yes.
>
> And it's because of the likelihood of signs that the small flames will have been moving in different directions that the Americans, at least, use the phrase 'area of confusion' because there's no clear sign of direction for the fire overall?……Yes, just – just to qualify that though they've changed, they now say 'specific area of origin' so they have a general area of origin and specific area of origin and then a point, so yeah."

311 Bearing this in mind, even accepting Mr Gilmore's interpretation of the fire language, it is true, as submitted by the plaintiffs, that as Mr Bones explained, a fire in its very early stages can be expected to "stooge around" opportunistically before it becomes established and that is especially the case where,

as in the present case, there was only sparse, fine fuel available. Mr Walkley gave evidence in cross-examination to a similar effect. Whether or not the phrase "area of confusion" is still in common usage in the United States, the underlying science has not changed, and fire indicators in an area of origin are expected to be confused.

312 The next, and final specific reason of the seven reasons advanced by the first defendant as to why I should not be satisfied to the requisite degree that the area of origin of the bushfire was that identified by the TFS investigators, is that acceptance of that hypothesis would mandate a finding that the area to the east of the TFS point of origin burnt twice. She says that the burnt area to the east of the stump which Mr Butler described as having been burnt, included the area depicted in Mr Gilmore's Figure 9 and the tussock near the centre of that figure. She says that Mr Gilmore, Mr Bones and inferentially Mr Walkley, all agreed that this area was burnt by fire travelling into that area in a direction which is generally towards the TFS point of origin. She says that the only explanation proffered by the plaintiffs for this is that fire burnt into and across this area in this direction later in the day, but that acceptance of that explanation inexorably requires the implausible and unacceptable finding that this area burnt twice.

313 I do not accept this submission because I do not accept that it can in any way be inferred that Mr Butler's evidence established that the area depicted in Mr Gilmore's Figure 9 burnt either before or after the arrival of the Seven Mile Beach brigade. Moreover, it is clear that the bushfire did enter that area later in the day, around the time of the arrival of the Wattle Hill brigade.

314 The first defendant also argues, however, that the hypothesis relied upon by the plaintiffs that the fire started in the TFS area of origin should not be accepted, because to do so would necessitate a rejection of her evidence. She says that her contemporaneous evidence, to which she has consistently adhered, is that when she first saw fire it was creeping back towards the TFS area of origin, that there was a line of fire, and that the area between where she first saw fire and the stump was unburnt.

315 She says that acceptance of her evidence that the fire was creeping back also "inexorably requires a finding that the area between the pink lines burnt twice". She says that this is because the TFS point of origin was to the west of both pink lines and the fire would accordingly had to have travelled from there to where the first defendant first saw it. She says that "for the reasons already referred to … the combustible material in this area would have been consumed during the initial easterly run of fire and it is implausible that the area could burn twice."

316 I do not accept that submission. As I apprehend the argument, it is predicated on the proposition that the whole of the TFS area of origin marked out by pink tape and containing the pink lines painted on the ground by Ms Barrett, must have burned before the fire started to burn back as a low grass fire against the wind. That is not necessarily so and the evidence, to my mind, is sensibly and reasonably to the contrary.

317 I have already found that Ms Barrett's first observations were of an established grass fire east of the stump; that the fire spread not merely eastward but also burned back into the wind (hence the "creeping") and also laterally across the wind (as a flanking fire); that the point of origin was no further east than her first pink line, and in fact probably nearer the stump, and that the far (running or downwind) edge of the fire was already near or in the tree line and quickly spreading down the slope toward her neighbours' driveway at 244 White Hill Road. In my view the area closest to the old stump, to the extent that it is shown as burnt in many photographs, back burned into the wind and was the creeping fire to which Ms Barrett referred and which she fought with her bucket and watering can. It burnt only once.

Answer to Key Issue 1(a)

318 I find that a smouldering burn in the tree stump and its root system ignited grass on the surface of the ground in the immediate area around the tree stump as pleaded in par [12] of the plaintiffs'

(amended) statement of claim. For the reasons I have expressed, I am affirmatively satisfied, to the requisite degree, that the fire started in "the TFS area of origin". The answer to the first causation question posed, by Key Issue 1(a) is "yes".

Key Issue 1(b) – the second causation question

319 The second causation question is "[i]f 'yes' to 'a', was that smouldering burn the result of the campfire lit in the tree stump on 28 December 2012?" This question involves not only the evidence already canvassed in relation to Key Issue 1(a), but a consideration of the excavations in the area of the old stump, carried out respectively by Mr Thomas and Mr Gilmore. It also involves a consideration of a number of alternative possible causes of ignition.

320 The first defendant says that the answer to this question is "no" for the following reasons:

- there is insufficient evidence for the Court to be satisfied to the requisite degree that the campfire caused a root from the stump to burn;
- there is no evidence that the root at the TFS point of origin was connected to the stump where the campfire was lit;
- there is no evidence of any root emanating from the stump where the campfire was lit burning along its length into the TFS area of origin;
- the burnt root which the TFS investigators traced and excavated from their point of origin came from a different stump and there is no evidence of any connection between the two stumps;
- there is insufficient evidence to make a finding that the root which the TFS investigators say ignited the fire was burning on 3 January 2013;
- there is insufficient evidence to make a finding that the charcoal and burnt root identified by the TFS were the result of the root burning away from the stump to which the root was connected, rather than towards it;
- there is no evidence of any collapse of ground around the stump as is expected if roots have burned;
- the point of origin pleaded in par 12 of the statement of claim and identified by marker 20 is inconsistent with that point being the point of origin of fire for the reasons advanced by Mr Gilmore; and
- the root the TFS investigators saw could have been burnt at any time after the tree had grown and the root had formed.

The defendants' evidence

321 The first defendant says in her written closing submissions that;

> "The evidence of the defendants is that:
>
> "a It was a small campfire situated away from the wood comprising the back of the stump.
>
> b The campfire was comprised of 3 small logs and burnt for a few hours.
>
> c When the first and second defendants decided to retire the fire had 'burnt down', the second defendant placed soil on the fire, and then the first defendant poured approximately 15 litres of water on it.
>
> d The fire pit was examined on the day after the fire and no evidence was found consistent with the fire continuing to burn.
>
> e The first defendant saw a wisp of steam coming out of the stump when it was raining on the day after the campfire.

f There was quite heavy rain in the days after the first defendant saw the steam and at no time after she saw it, did she notice anything unusual or any sign to indicate that the small campfire had not been extinguished.

g The first defendant did not observe any further signs of smoke, steam or fire coming from the stump remains. She would pass the subject stump by foot and by car on numerous occasions each day."

322 Neither alone, nor in combination, do any of those items of evidence affect my view, to this point, that it is more probable than not that the bushfire emanated from the old stump and that the campfire was the only source of ignition. Keeping in mind that this is a circumstantial case, the evidence of the TFS investigators' identification of the area of origin, independently of Mr Butler's critical observations, and then Mr Walkley's excavation of the charred root, combine to my mind, to make an overwhelming case that the stump and its root system caused the ignition that started the bushfire.

Dr Marsden-Smedley's evidence

323 In addition, Dr Marsden-Smedley gave evidence that it was extremely likely that the campfire would have ignited the stump, and once it had been ignited it would have spread down into the root system. In his opinion once the stump had been ignited, it would have been very hard to extinguish it without excavating and exposing the stump and applying large amounts of water. In his view placing dirt on the stump would have only acted to insulate it, keeping the heat in and reducing the chance of it self-extinguishing. Mr Bones agreed with that proposition in the TFS investigation report. Dr Marsden-Smedley considered the observations by the first defendant of steam coming from the stump a few days after the campfire was lit to be of critical importance. That, in his opinion, clearly indicated that there was a heat source remaining in the stump and that, therefore, it was still burning.

324 From all that he has written on the subject of this bushfire, and from his evidence before me and the manner in which it was given, I regard Dr Marsden-Smedley as a highly qualified, wholly independent expert, whose objective was only to assist me and not to advocate for or against a party. I accept his evidence wherever it conflicts with that of Mr Gilmore.

Steam

325 The first defendant notes that Mr Thomas and Mr Gilmore both provided an opinion on the relevance of steam.

326 As to Mr Thomas, they say:

"Mr Thomas discounted the relevance of steam because:

a His excavation demonstrated that fire had not extended from the stump;

b Whilst steam may indicate there was heat in the stump, it does not substantiate a heat source was within the root structure;

c The ground around the roots would have absorbed any of that heat, had it existed; and

d There is a difference between heat and burning."

327 I will turn to Mr Thomas' excavation shortly. As to the balance of his evidence relied on by the first defendant, his theories, in my view, are suborned to the evidence of Dr Marsden-Smedley, taken together with the combination of observations and discoveries of Mr Butler and Mr Walkley. Moreover, Mr Thomas conceded under cross-examination that he ought to have started by assuming that Ms Barrett's report of seeing steam was accurate, and then enquired as to what might have explained it.

328 Mr Thomas also agreed that Ms Barrett's sighting of steam coming from the stump suggested that there was a smouldering burn within the stump at the time the rain was hitting it, and that it was not

at all improbable that the campfire in the stump might have resulted in an ongoing smouldering burn in the stump.

329 As to Mr Gilmore's evidence as to steam, the first defendant says:

> "Mr Gilmore considered it unlikely that the small amounts of 'see through' steam observed by the first defendant came from roots burning underground. The evidence of Mr Thomas' excavation supports this. Mr Gilmore noted that the sighting of steam could possibly have been caused by a variety of factors as follows:
>
> a Rain on the ash near the surface where the fire had been;
>
> b Rain on smouldering charcoal near the surface where the fire had been;
>
> c Puffs of airborne fine ash when disturbed by wind;
>
> d Airborne dust from the white soils in the area."

330 I observe that at least one and possibly two of those factors are consistent with the campfire continuing to smoulder, and the remaining two, like Mr Thomas' speculation, assumes that Ms Barrett was mistaken in her observation of steam. In any event under cross-examination Mr Gilmore agreed that an observation of steam rising from an area following rain after a campfire is, at least, an indication of continuing combustion occurring within a tree stump.

331 The first defendant submits that the observation of steam by her is not proof that a heat source was continuing to burn in the stump/root structure. She says the fact that she did not observe any further signs of smoke, steam or fire coming from the stump remains, which suggests that any heat coming from that area had disappeared.

332 I do not accept that submission. That fact is equally consistent with the smouldering burn in the tree root having gone further under the ground so that rain on the surface would not be falling on heated material.

Was the tree root connected to the stump?

333 Next, the first defendant submits that it is common ground that the TFS investigators did not excavate or trace the burnt root which they found, at what they assumed was the point of origin, all the way back to the stump, and that they did not excavate completely around the stump, as did Mr Thomas. She says that, because of these failures, there is no evidence that the root found at the TFS point of origin was connected to the stump, and that there is accordingly no basis on which I could be satisfied to the requisite degree that it was.

334 Ms Barrett submits that for the hypothesis advanced by the plaintiffs to be accepted, I must be affirmatively satisfied that a root emanating from the stump where the campfire was lit, burnt along its length and emerged alight to ground level. She says there are two aspects to this issue. They are whether the evidence is sufficient to satisfy me firstly, that the root at the TFS's identified point of origin burnt along its length from the stump to that point, and secondly if it is not, whether some other root had burnt along its length from the stump and ignited the fire.

The root at the TFS point of origin

335 Ms Barrett submits that the TFS excavation was clearly rushed, and the most likely explanation for that was that the investigators stopped where they did, not due to the claimed difficulties they were encountering in preserving what they were looking for, but because they were hurrying to catch a helicopter flight scheduled for 3pm.

336 I reject that submission. I have no hesitation in accepting Mr Walkley's evidence, set out earlier in these reasons, he could not usefully excavate any further because of the nature of the soil.

337 The first defendant also argues that there are differing opinions as to whether the TFS investigators would have found anything more had they continued excavating. She says that Mr Thomas disagreed that the root would have fully combusted, leaving no trace to find, and that he said in cross-examination that there would be some residue of the root remaining which he likened to the residue remaining in a wood heater after logs have burnt. She says that Mr Gilmore was also of the view that burnt roots or charcoal trails would have been evident to Mr Thomas had they existed when he excavated the stump and thus, inferentially, when the TFS investigators undertook their excavations. Ms Barrett argues that in those circumstances there is no basis for an inference favourable to the plaintiffs, to be drawn that the root had burnt along the remainder of its length from the point where the excavation ceased to the stump from which it emanated.

338 I reject that submission and I readily draw that inference. In doing so, I note that under cross-examination Mr Gilmore accepted that the difficulty with exposing the remnants of a subterranean, burnt root, is that in order to see the evidence you have to destroy it, and accepted that the remaining evidence of a burnt root might be nothing more than a thin line of ash buried in the earth. Mr Walkley's excavation was to within a few metres of the old stump and the remaining traces of the tree root he was following was meandering in the direction of that stump.

Some other root?

339 The first defendant next submits that while Mr Bones, Mr Walkley and Dr Marsden-Smedley gave evidence that it may have been another root from the stump which burnt along its length and ignited the fire, there is no evidence that any other root might possibly have been implicated in the fire She says that the only root which it might be argued burnt along its length from the stump in which the campfire was lit into the TFS area of origin and ignited the fire, was the root which Mr Butler in evidence-in-chief said he saw burning "at the stump" with smoke coming off it, in a hole in the ground.

340 I accept that submission.

341 However, Ms Barrett argues that Mr Butler should not be believed. She says that despite it being potentially crucial evidence in relation to fire cause, Mr Butler does not make any mention of the burning root in his statutory declaration dated 10 January 2013, which, she says, was a contemporaneous record of his observations concerning the fire. She says that the unexplained absence of any reference to a burning root in his statutory declaration warrants little, if any, weight being given to this evidence. She also argues that it is noteworthy that no other firefighter, or anyone else who was at the property on 3 January 2013, gave any evidence that they saw a burning root at the stump where the campfire was lit, and that, had a burning root been as apparent as Mr Butler's evidence suggests, the probability is that it would have been seen by others on that day, most probably having been shown it by Mr Butler.

342 I reject that submission. Mr Butler was an experienced TFS volunteer and a tradesman plumber, and he presented as a calm, practical individual. He was, to my mind, as submitted by the plaintiffs an independent and impartial witness. Moreover, Ms Barrett's evidence establishes that she and Mr Butler did have a conversation at the stump although her faintly ridiculous version of that conversation, which I reject, was that Mr Butler pointed to an *absence* of an "ember" that was "not even red" and "wasn't glowing".

343 Ms Barrett also submits on this issue that having regard to the excavations undertaken by Mr Thomas, I cannot be satisfied to the requisite degree that any root connected to the stump where the campfire was lit, including the root which Mr Butler says he saw, burnt along its length from the stump where the campfire was lit into the TFS area of origin and ignited the fire. As I have already mentioned, I will turn to the value of the evidence of Mr Thomas' excavation in due course.

A different stump

344 The next reason advanced by the first defendant as why she says that I should not accept the hypothesis advanced by the plaintiffs is that the burnt root which the TFS investigators traced and excavated from their point of origin came from a different stump, and there is no evidence of any connection between that stump and the stump where the campfire was lit.

345 She says that, given that the TFS investigators did not excavate back to the stump where the campfire was lit, Mr Walkley's evidence in examination-in-chief as to what caused him to think the root had come from that stump is of significance. His response was:

> "So the root was gradually increasing in diameter as we went back towards the stump, and it was going in the direction of that stump.
>
> There was no other stump in that nearby vicinity that we could identify that the root could have come from."

346 Ms Barret says, however, that there was another stump, and that when the TFS excavations ceased, the root which they were excavating was heading towards that other stump, which was what has been described in evidence on the trial as the "spikey" stump or the "rhinoceros horn" which was a short distance from the old stump.

347 The first defendant says that she referred to the spikey stump as a different stump and that Mr Gilmore gave evidence which was not challenged that there was more than one stump in the TFS area of origin. She says that Mr Walkley agreed that the TFS root was heading towards that piece of burnt wood and said that he thought that piece of wood was part of the stump where the campfire was lit. She says that Mr Jackson, the arborist's opinion concerning the source of the roots exposed by the excavation carried out by Mr Thomas confirms this.

348 The relevant evidence of Mr Jackson, set out in his report was as follows:

> "In addition, given the relatively open textured sandy clay loam of the subject site I consider that the large woody sinker roots close to the base of the tree would have extended vertically to at least 1.5-2.5 metres in some instances unless being impeded by bedrock, hardpan or other impervious elements. Figure 5 shows the vertical extent of some of these large woody sinker roots exposed by Colin S. Thomas during his investigations. However, it should be noted that the exposed roots are clearly emanating from more than a single source (ie the subject stump) with the roots highlighted in yellow in Figure 5 definitely belonging to at least one other individual tree. I make this assertion due to the apparent orientation of these roots being almost perpendicular to the subject stump, with their point of origin (ie the exposed burnt ends at the soil surface) being physically separated from the subject stump. In addition the wider diameter of the burnt root ends, tapering to a narrower diameter as they enter the soil is a clear indication that the roots were growing from a tree (or maybe more than one tree) located to the left (east) of the photograph.
>
> Similarly, I consider that the sections of roots highlighted in blue in Figure 5 may not be from the subject stump simply due to their apparent distance from it. It appears that the highlighted sections of roots are more than 1 metre away from the subject stump and if, as I have postulated above, the stump was a notional maximum of 1 metre in diameter it follows that the root sections are probably from another tree.
>
> However, I am aware that without accurate comparative distance/dimensions markers in the photographs, this is *no more than conjecture*." [Emphasis added.]

349 Ms Barrett says that on the basis of Mr Jackson's opinion, and the position and orientation of the perpendicular roots referred to him as circled in yellow, that it would be reasonable to infer that those roots were from the spikey stump. She points to her evidence that the spikey stump was unburnt when she purchased the property, and that although the evidence is equivocal as to when that stump was burnt, it is clear that it was long before the fire on 3 January 2013.

350 Ms Barrett says that, having regard to all of this evidence I can be satisfied to the requisite degree that the burnt root which the TFS investigators traced and excavated from their point of origin, emanated from the spikey stump, and that the root was not burning on 3 January 2013 prior to the ignition of the fire. She also says that there is no evidence, or insufficient evidence, of any connection between these two stumps, or the roots from these two stumps, and no sound basis for inferring that there was any connection between them.

351 Finally, Ms Barrett notes that Mr Gilmore and Mr Crowe excavated the same site as the TFS investigators and Mr Thomas, and that although the probity of this excavation was questioned during Mr Gilmore's cross-examination, because the condition of the site had changed as a result of remedial works, Mr Gilmore maintained his opinion that the line of coals and burnt roots referred to in the TFS report was not connected to the stump where the campfire was lit and were from another stump.

352 While I have no difficulty in accepting Mr Jackson's evidence as that of an impartial expert witness, his guarded evidence of roots excavated by Mr Thomas potentially coming from elsewhere than the old stump, does nothing, without more, to displace the very strong circumstantial case that the glowing root observed by Mr Butler and excavated as far as practicable by Mr Walkley was connected to the old stump. As will become apparent, much depends upon whether the evidence of Mr Thomas and Mr Gilmore as to their excavations casts any doubt on the apparent connection between the root identified by the TFS, and even if it does, whether it is a matter of consequence in the light of Mr Butler's evidence.

The Thomas excavation

353 It is convenient therefore to now turn to Mr Thomas' excavation. As already noted Mr Thomas attended the Barrett property on 20 August 2013, then again in March and April 2014, at which time he conducted an excavation around the stump. He describes his work as akin to an archaeological dig using a hand trowel and brush to excavate the area (although he conceded that he had, to some extent, used the long-handled shovel). He says that the excavation took approximately 2½ hours. The methodology he used was to excavate a narrow quadrant of soil near the old stump. He photographed the exposed site and those photographs were in evidence.

354 The plaintiffs submit that Mr Thomas' excavation was hopelessly unfit for the intended purpose and that his methodology was beset by the following deficiencies:

> "(a) it is by no means clear that he excavated the same area or to the same depth as the TFS. In terms of area, his excavation appears to skirt the eastern edge of the area dug by the TFS. In terms of depth, he appears to have dug to around 300mm, not the 500mm that the TFS investigators had reached;
>
> (b) Mr Thomas accepted that the parts of a burning root closest to the stump would have been burning longest and were most likely to have been completely incinerated (down to ash), that the resulting tunnel through the soil was liable to collapse, and that vehicle traffic and other sources of vibration or movement around the stump would have encouraged such tunnels to collapse. He insisted, nonetheless, that there was utility in looking for 'residues' like small coals and charcoal powder;
>
> (c) even the most skilled archaeologist, digging from the ground surface, would struggle to locate a subterranean line of small coals and carbon powder from an otherwise completely consumed root;
>
> (d) unsurprisingly, Mr Thomas was unable to identify the evidence the TFS had been able to unearth. He says he was looking for roots showing signs of burning, any charcoal and 'any holes that might be apparent', but the location, boundaries and depth of his excavation provide no basis for assurance that he was digging in the same area as the TFS or the area contiguous to where they stopped;
>
> (e) the rank inadequacy of Mr Thomas' excavation methodology is further exposed by the fact that, even in respect of the partially burnt root that he found (depicted in his

photographs 7, 8, 9 and 10), he was unable to find any remnants whatsoever of the section of that root which had burnt away. As Mr Thomas put it, 'there wasn't any'. In fact, he says he could not be certain of anything in that regard;

(f) *the Thomas excavation was in reality focussed on exposing intact, unburnt roots – that is, the very things that are not the source of the fire or relevant to the enquiry as to how the fire started*." [Emphasis added.]

355 I accept that submission. Mr Thomas' excavation, even coupled with Mr Jackson's evidence, tells me absolutely nothing as to the dynamics of any smouldering subterranean burning, and it does nothing to cast any doubt on the evidence of Mr Butler and Mr Walkley.

356 Further, I place no weight on any opinion proffered by Mr Thomas as to the provenance of the burned root observed by the TFS. His "notes" consisted of a one-page hand-drawn sketch-map of the area around Ms Barrett's residence and the preparation of his actual report was done more than 4 years after his attendance there, and solely by reference to his photographs and his memory. Moreover, his expert reports did not disclose his process of reasoning.

The Gilmore/Crowe excavation

357 Four separate excavations were made as follow:

- Mr Gilmore dug a hole immediately next to the new sapling, and located a stump beneath the surface that appeared to be one of the two small burned stumps appearing to the left of Mr Thomas' Figure 13 photograph. But Mr Gilmore was not sure which stump, and when he nominated one, its alignment with other roots around it bore no resemblance, to my mind, as to anything seen in Mr Thomas' photograph. This hole was around 250-300mm deep;
- Mr Gilmore dug another hole immediately east of the grave, again not more than 300mm deep;
- Mr Crowe scraped away the top-soil in the area of the old stump, to a depth of around 100mm, and found a "cone-shaped" lateral root suggesting it might have been attached to a mature tree like the old stump; and
- Mr Crowe dug another 100mm deep hole a couple of metres north of that last hole.

358 None of those excavations was in the actual area of the excavation made by the TFS in January 2013, none of them was to the depth of the TFS excavation and, as will be seen, the old stump no longer existed.

359 As set out in the plaintiffs' written closing submissions, the following may be discerned from the cross-examination of Mr Gilmore, who:

"(a) agreed that he and Mr Crowe (used a long handled shovel and a mattock to do the work;

(b) accepted that the difficulty with exposing the remnants of a subterranean, burnt root, is that 'in order to see the evidence you have to destroy the evidence' (which was precisely the difficulty encountered by the TFS investigators – so how this was to be achieved with a great big shovel and a mattock is rather a curious question);

(c) accepted that the remaining evidence of a burnt root might be nothing more than a thin line of ash buried in the earth;

(d) [recognised that Mr Thomas had excavated the] same area years prior to Mr Gilmore's visit, after he and Mr Crowe had already conducted their so called excavation, which he thought was 'strange';

(e) accepted that the scene had been substantially compromised by the previous excavations by the time he visited the scene - at the time of his reports, of course, he was only aware of the excavations by the TFS and Mr Thomas, but there was no clear

admission in his report as to the disruptive effects of that earlier work, in terms of the integrity of the site he was examining;

(f) informed the Court that his excavation was focused on tracing roots from another stump (referred to at trial as the 'rhinoceros horn' or 'spikey' stump), rather than roots from the subject stump;

(g) informed the Court that Mr Crowe undertook the digging in the approximate area where they believed the TFS ceased to excavate the burnt root remnants, but conceded that this exercise consisted of nothing more than scraping away some dirt from that area to a depth of about 100mm (Crowe hole);

(h) *accepted that the insufficient depth of the Crowe hole, meant that it revealed nothing about the root remnants excavated by the TFS*; and

(i) *accepted that he and Mr Crowe did not even attempt to follow or expose the TFS root remnants*." [Emphasis added.]

360 In those circumstances I garner no assistance from Mr Gilmore and Mr Crowe's excavations, and, in my view, they cast no doubt on the plaintiffs' circumstantial case.

361 As noted, Mr Gilmore did not know that at the time of his excavation the stump had been removed and the hole filled in as part of remedial works by Ms Barrett's insurer, the RACT. When he learned that fact, he accepted that it would have taken a significant mechanical force to remove the stump and that, given the problems the TFS investigators encountered with loose soil collapsing any tunnels left by incinerated roots, one can only imagine the underground damage wrought by the mechanical forces involved in ripping out the main stump structure.

362 I accept the plaintiffs' contention in their written closing that:

"In the teeth of this evidence, the following statements in Mr Gilmore's reports are certainly unwarranted:

[17] Our excavation included an excavation adjacent to the Old Stump and we determined that the charcoal found and referred to in the TFS Investigation Report was not part of the Old Stump which was said to be the site of the campfire used by BARRETT and others. The line of charcoal shown in the Police photos is in fact part of the root system of one of the other many stumps on the property.

[178] The line of coals (burnt root) to which TFS refer in their report is not connected to the Old Stump. Burn marks and char marks on roots do not extend down from either the Spikey Stump or the old Stump more than 300 millimetres."

363 The cross-examination of Mr Gilmore demonstrated that the underlying work was simply incapable of producing evidence that was actually probative of error in the TFS conclusions. Moreover, I have already commented on Mr Gilmore's lack of independence and credibility as an expert witness. As the plaintiffs submit, the lack of assistance that Mr Gilmore was willing or able to provide to me was demonstrated in the final exchange in cross-examination. There he opined that, in the binary choice between the fire starting as described by the TFS or by "some other mechanism", it was probably some other mechanism – but he had no idea what that might be.

When did the root burn?

364 The next reason advanced by the first defendant as to why I should not accept the hypothesis advanced by the plaintiffs is that she says that there is no evidence that the burnt root, which the TFS investigators say they traced and excavated from their point of origin, was burnt as a result of the campfire on 28 December 2012 and not some earlier burn.

365 She points to the evidence that she gave that, in September 2012, she had a large bonfire in the stump and that she believed that this was the second or third burn off that occurred in the stump.

366 She says that Mr Walkley, Mr Bones and Dr Marsden-Smedley consider it unlikely that the root identified by the TFS investigators was burnt as a result of an earlier fire in the stump, that their reasoning must be based only on the assumption that the root was still burning on 3 January, yet the only evidence is that Mr Walkley found a burnt root, not a burning one, and that there was nothing at all to indicate when the burning had occurred. Also, she says that there was no evidence of heat, or anything else to suggest recent combustion.

367 That submission of course, almost obtusely, ignores Mr Butler's evidence.

368 Ms Barrett says that Dr Marsden-Smedley opined in evidence on the trial that if the stump had continued burning, it almost certainly would have fully consumed the available fuel supply within about two to four weeks, and further stated that:

> "… if the stump had been burning for the past three to four months then when the campfire was lit in the stump on 28/12/2012, fresh ash would have been present within the stump's bowl and it would have been warm to hot. The stump would also have been releasing fumes which would have been easily smelt. In their statements, Melissa Barrett and Hamish Robinson do not make any such observation."

369 However, she says that the "potential existence of these observations was never put to the first or the second defendant" and that their observations during the campfire were not the focus, and the fact that they did not mention such observations does not mean that they did not exist. She says that "the relevance of these observations would not have been apparent."

370 I give that submission no weight at all. Ms Barrett and Mr Robinson were called after Dr Marsden-Smedley was and the relevant evidence was contained in Dr Marsden-Smedley's fourth report dated 25 April 2021, which was delivered to the first defendant long before the trial started.

371 Ms Barrett says that there is no evidence that the root identified by the TFS investigators did not burn prior to 28 December 2012. She says that the campfire on 28 December 2012 was a small fire, situated a significant distance from the wood remnants of the stump, and the possibility that the root identified by the TFS investigators could have burnt at any stage prior to 28 December 2012, as a result of a large burn off in the stump remains, cannot be positively ruled out.

372 I do not accept that submission. As the plaintiffs have submitted, that theory is not supported by any expert or lay evidence, and in any event, it is excluded comprehensively by Dr Marsden-Smedley who noted that the soil would have contained too much moisture in September 2012 to support a smouldering fire, and, in any event, it is extremely unlikely that any smouldering fire from September would have sustained burning for three to four months.

373 When the first defendant's proposition was put to Mr Walkley in examination-in-chief he said, in a passage from the trial transcript that I have earlier referred to:

> "I find that pretty unbelievable, to tell the truth. For three months burning – the only fires I know of that will burn for three months without being either – using up its own fuel and going out because there's no fuel left to burn or because unless the weather conditions put the fire out. The only types of fire I know – am aware of are really big windrows – do you know what a windrow is, your Honour?"

Cause or consequence

374 The first defendant next submits that Mr Thomas in his excavation identified roots with burnt ends near the surface and he opined in his first report that "any charring visible on the roots excavated occurred as the result of fire and was not the cause of the fire that was seen on the first defendant's property". She says that Mr Thomas found a root that had a burnt end with no evidence of burning extending from the stump and that Mr Gilmore found evidence of a root burned from its extremity.

375 I have already dealt with the gravamen of this submission. Mr Thomas resiled from his "consequence not cause" theory in cross-examination on the basis that there was only very light fuel in the area of origin which would have been almost immediately consumed by any flame that happened to hit it, and fuel of this kind burning in the conditions present on 3 January 2013 is very unlikely to have transferred sufficient heat to a root, even of 10-20mm, to cause it to develop a self-sustaining, smouldering burn.

Collapse of ground

376 Next, Ms Barrett submits that in cross-examination, Mr Bones said that he directed a number of photographs be taken of a burnt hole in the ground outside the TFS area of origin because it "showed that there was – it could sustain underburn – underground burning to roots and what generally happens, or can happen with larger root systems is you might get a collapse in soft ground, so I just wanted to ... depict that."

377 She says that Mr Gilmore also provided evidence on this phenomena as follows:

> "And had you had to excavate a root system before doing the kind of work that you've described for this excavation?……Not – not really to this extent. So normally the – it's fairly obvious so there's normally collapse associated with the things I'd seen in the past…
>
> Right, and so just to – can I just test that notion of collapse for a moment? What you're describing there is the phenomenon of a smouldering burn working its way through a root system, as the root burns it is effectively reduced to charcoal, ash, and because the structure of the root is no longer there in the soil the soil tends to collapse in over the top of it – collapse into the tunnel that the root previous – that's left behind by the incinerated root?……The – yeah, that's certainly a phenomenon that happens, yes."

378 Ms Barrett says that there was no evidence of this "collapse" identified in the TFS area of origin to demonstrate underground burning to roots in this area, making it improbable that any root burnt in that area was burnt as a result of the fire in the stump.

379 I do not find this submission compelling. That it may be a phenomenon does not mean that it is a necessary corollary of the burning of every subterranean root. Obviously much would depend upon its size, its proximity to the surface and the nature of the ground.

Gilmore's evidence about cone 20

380 The first defendant's final submission on this key issue is that in examination-in-chief Mr Walkley provided a detailed account of his excavation process and said that he believed that he had been the person who located the root that was ultimately excavated, but, that in cross-examination, he denied placing a marker cone numbered 20, and said that he could not identify the root he identified, nor its surrounds when shown photographs of the area taken on 6 January 2013. Ms Barrett says that Mr Walkley's evidence in relation to the area in the vicinity of cone 20 should therefore be given little weight, and that his evidence in general must be viewed in the light of the fact that "he knew the excavation took only 43 minutes before giving evidence yet persisted in his view that it took several hours."

381 Ms Barrett submits that Mr Gilmore in evidence-in-chief outlined in detail, why in his view the area in the vicinity of cone 20 was not the point of origin**.** That, in summary, he identified a number of indicators to suggest that fire approached this area from elsewhere. These indicators included rock staining, grass stem direction, and burning to grass clumps.

382 I am not assisted by this submission. I have already made my views as to Mr Gilmore's credibility and lack of impartiality quite clear. I much prefer the evidence of Mr Walkley and whether

he placed cone 20 or could, 8 years after the event, identify the area concerned or not, is of little consequence. The fact is that Mr Butler identified a burning root, that the TFS investigators, unaware of that at the time, independently identified the area of origin, and one of them located a piece of charcoal which one of them marked with a yellow cone and which Mr Walkley subsequently excavated.

Alternative ignition theories

383 As I apprehend it, the first defendant does not rely on any particular alternative ignition source, with the exception of the potential persistent burning of the September 2012 fire in the old stump. However, a number of speculative potential sources of ignition were raised in the documentary and oral evidence on the trial.

384 I heard evidence from Mr Bones and Mr Walkley that they considered and discounted all other potential sources of ignition, and that the only plausible explanation they found for the fire igniting in the area of origin was a smouldering fire in the stump and its root system.

385 In addition I had evidence from Dr Marsden-Smedley that, based on his site visit and the assessment of all the available information, "the only plausible ignition location for the Forcett-Dunalley fire … was at or very near the stump where the campfire had been lit on 28/12/2012".

386 The plaintiffs have exhaustively canvassed other possible ignition sources in their written closing submissions and I gratefully adopt the following analysis:

> "*Hot ember from another fire in the area*
>
> 11.86. The Court has heard evidence from Mr Torenius and Mr Lawrence to the effect that the 'October fire' that started at 244 White Hill Road had been contained and extinguished by the TFS in early October 2012. There had been no reported fire activity in the area after that time.
>
> 11.87. In any event, the October 2012 fire could not have caused the ignition of a fire at 242 White Hill Road on 3 January because the area burnt in that fire lies to the east south-east of 242 White Hill Road. An ember from that long extinguished fire could not have travelled back into the prevailing W-NW wind on 3 January 2013, so as to start a fire in the area of origin identified by the TFS (or the slightly larger area wrongly identified by Mr Gilmore).
>
> 11.88. Mr Bones also excluded the 'Arthur Highway fire' which occurred between mid-November 2012 and 8 December 2012 at Mt Elizabeth and Table Hill.
>
> 11.89. Mr Bones eliminated these previous fires based on witness statements that there was no fire activity at those locations on 3 January 2013 and because they were approximately three kilometres away from 242 White Hill Road.
>
> 11.90. Mr Thomas listed a number of possible alternative ignition sources in his report of 10 July 2020, including an ember from another fire. However, that report is of no assistance to the Court. Mr Thomas was instructed to respond to the following question:
>
> > 'Are you able to provide an opinion on a cause or possible causes of the fire and in relation to any such comment on the strength of the evidence to indicate that it might have been a possible cause'
>
> 11.91. Mr Thomas chose to ignore those instructions. He responded with a list of possible ignition sources without any reference to the evidence which might indicate such ignition sources could have caused the Forcett bushfire, let alone any analysis as to the strength of any such evidence.
>
> 11.92. In his evidence at trial it became apparent that Mr Thomas accepts that there is no evidence of any other potential source of ignition of the subject fire, save for the smouldering fire in the stump and its root system. The only slight caveat to that wholesale abandonment of the alternative ignition sources listed in his report is that Mr Thomas still finds it difficult to 'completely eliminate' a hot ember from another fire.

11.93. But in his reports and in his evidence at trial Mr Thomas failed to point to any factual basis for a finding that another fire could have caused the fire. He did not even identify the other fire(s) he had in mind (if any), let alone explain a path of reasoning which might support a finding that an ember blown from another fire could possibly have caused the fire.

11.94. Fortunately, Mr Bones did the work that Mr Thomas evidently failed to, as set out above, and confidently excluded this potential ignition source.

11.95. Mr Gilmore agrees with Mr Bones that this is not a plausible alternative ignition source.

11.96. This can be confidently excluded as a potential ignition source.

Lightning

11.97. Mr Bones obtained information from BoM which shows that there was no lightning near the area of White Hill Road at the time of the fire. It was a clear, sunny day. He concluded that lightning was not an ignition factor for this fire.

11.98. Mr Thomas and Mr Gilmore do not consider this is a plausible ignition source for the fire at Ms Barrett's property.

11.99. This can be confidently excluded as a potential ignition source.

Discarded cigarette

11.100. The only person at the property when the fire ignited was Ms Barrett. She told police that she did not even light a cigarette on her property while Mr Wrigley was there. The Court heard evidence from Mr Wrigley who attended the property earlier that day to work on 'Doug' the horse.

11.101. Mr Wrigley gave unchallenged evidence that he did not go anywhere near the area of origin while at the property and would never have discarded an unextinguished cigarette at the property. On the night of 3 January 2013 Mr Wrigley received a visit from a Tasmanian police officer to whom he showed the cigarette butts that he had accumulated in his jeans' pockets that day.

11.102. The Court should have no hesitation in accepting this unchallenged evidence.

11.103. In any event, Mr Bones was able to exclude Mr Wrigley from the investigation based on the timeline. He had left the property by approximately 12.30pm, which is too early for him to have caused ignition of the fire at approximately 2.00pm by way of a discarded cigarette.

11.104. Mr Walkley gave evidence that he did not find any cigarette butts in the area or origin. Mr Bones saw no smoking materials during the scene examination other than what he would call fairly fresh cigarette butts.

11.105. Mr Walkley explained to the Court that it is extremely rare for discarded cigarettes to start bushfires. Inter alia, he noted that:

(a) it is a legal requirement for cigarettes to be self-extinguishing such that a discarded cigarette will tend to do just that without starting a fire;

(b) while it is possible for a discarded cigarette to cause a grass fire, it requires an unlikely confluence of circumstances including direct contact between the burning end of the cigarette and a stem of grass for long enough for the grass to heat up to approximately 300°C. The chances of that happening are 'very rare, very slim'; and

(c) in this instance the grass at the property was very fine and very low and there wasn't much of it.

11.106. Mr Thomas does not consider there is any evidence that this was a potential ignition source for this fire.

11.107. Mr Gilmore does not rule out a discarded cigarette as an ignition source in his 24 August 2020 report, but conceded under cross-examination that he is not aware of any evidence to support a finding that this was a probable ignition source. Gilmore conceded that the cigarette butts captured in fire scene photographs to which he refers in his report, could not have started the fire.

11.108. Discarded cigarettes can be confidently excluded as a potential ignition source.

Electrical fault

11.109. Mr Bones excluded an electrical fault as a potential ignition source. He noted that the minimum distance to the point of origin from the nearest power lines is approximately 60 metres. He obtained a report from an Aurora Energy electrical inspector which confirmed that there was no record of a line fault that could have contributed to the ignition of the fire.

11.110. Electrical Compliance Inspector, Damian Grubb, also met Mr Bones at the property and inspected various items including the house switchboard, cords to the electrical fence line, the electric fence unit, power pole and pole stay wire. Mr Grubb informed Mr Bones that he found no evidence that electricity or an electrical fault ignited a fire at the property.

11.111. Mr Gilmore does not consider there is any evidence that an electrical fault was a potential ignition source for this fire.

11.112. An electrical fault can be confidently excluded as a potential ignition source.

Refracted sunlight through broken glass

11.113. Mr Bones excluded broken glass as a potential ignition source. Mr Bones and Mr Walkley found no glass fragments in the area of origin and nor did Mr Thomas.

11.114. Mr Thomas does not think this is any evidence to support glass fragments being a plausible ignition source. He found no evidence of glass in the immediate vicinity.

11.115. As explained in considerable detail by Mr Walkley, refraction of sunlight through fragments of glass rarely, if ever, causes a bushfire. The reasons are as follows:

(a) fires are very occasionally caused indoors by light refracting through crystal or highly polished ornamental glass where there is sufficient gap between the glass object and a combustible material (such as fabric). Mr Walkley has investigated two such incidents in his long career;

(b) fragments of glass sitting on the ground outside does not pose a risk of fire;

(c) coloured glass, such as the glass found in beer bottles, is designed to protect the contents of the bottle from sunlight. It is not capable of refracting or magnifying sunlight sufficiently to cause ignition of a fire;

(d) glass sitting outside on the ground is dirty, which impedes its ability to magnify or refract sunlight;

(e) glass fragments from smashed bottles are not the right shape to magnify sunlight (by contrast with a magnifying glass, which has convex surfaces on both sides);

(f) even if such glass fragments were capable of causing the ignition of a bushfire (which they are not) they would need to be perfectly positioned at a distance away from the dry grass sufficient to allow magnification of sunlight. Glass sitting on the surface of the earth is therefore not capable of causing such magnification; and

(g) a fire investigator suggesting the possibility of fragments of glass causing a bushfire 'is pretty much grasping at straws'.

11.116. Mr Gilmore was indeed grasping at straws in his report by suggesting that glass refraction of sunlight was a possible cause of the fire . He fails to acknowledge that glass fragments have been largely debunked as a plausible ignition source for bushfires. While Mr Gilmore notes that the glass must be positioned in such a way that the sun's rays are focused on fine fuel beneath, he does not explain how that could have occurred in the area of origin, where any glass fragments would have been lying on the surface.

11.117. Under cross-examination, Mr Gilmore conceded that there was no evidence of any glass within the area of origin which would pose a risk of starting a fire.

11.118. This can be confidently excluded as a potential ignition source.

11.119. The only other potential causes of ignition are those referred to in Mr Gilmore's report of 20 August 2020. We address below Mr Gilmore's remaining 'possible' ignition sources.

The 'bulldozed pile of timber and dirt'

11.120. There was no evidence whatsoever of a fire being lit in or near the pile of timber and dirt referred to by Gilmore. If a fire was burning in that area it would have been blindingly obvious to anyone at the property on the afternoon of 3 January 2013. There was no fire seen burning in that location by any witness. In any event, it is outside the area of origin and can therefore be confidently excluded as the ignition source.

11.121. Gilmore could not say how a fire might could possibly have ignited in that area.

Motor vehicles

11.122. The evidence establishes that no vehicle went anywhere near the area of origin in the relevant envelope of time. The plaintiffs rely on the unchallenged evidence of Mr Wrigley and Ms Barrett in this regard.

11.123. In any event, the TFS investigators were able to confidently exclude motor vehicles as a potential ignition source. As Mr Walkley explained to the Court:

(a) there were no motor vehicles near the area of origin at the relevant time;

(b) even if there had been, the grass was clearly too short to be touching the exhaust system or brake systems of a motor vehicle.

11.124. Mr Gilmore was not able to point to any evidence whatsoever which might support a finding that a motor vehicle is a plausible ignition source for this fire.

11.125. Motor vehicles can be confidently excluded as the ignition source.

Arson by persons unknown

11.126. In suggesting that arson by persons unknown is a possible cause of this fire Mr Gilmore relies only on the sighting of a Commodore on White Hill Road in the afternoon on 3 January 2013 (sometime after the fire ignited). Notably, the first TFS responders to arrive at 242 White Hill Road did not see that vehicle.

11.127. There is no probative value whatsoever in this evidence. The reason that the driver of the Commodore chose to stop in that location is a matter of pure conjecture. Perhaps he or she was investigating the source of the smoke plume. Perhaps he or she had pulled over to allow a TFS truck to pass. This evidence certainly does not support arson as a plausible (let alone probable) alternative ignition source.

11.128. In any event, Ms Barrett informed Tasmania Police that no-one else was on her property on the afternoon in question.

11.129. Mr Gilmore was not able to identify any evidence whatsoever pointing to arson being a plausible ignition source.

11.130. Arson can be confidently excluded as a plausible ignition source.

Machinery use

11.131. Gilmore provides no factual basis for his suggestion that machinery use is a possible cause of this fire.

11.132. The evidence is that there was no machinery use on the property on the day in question.

11.133. In suggesting this is a 'possible' ignition source, Mr Gilmore relies solely on the fact that the TFS investigation report includes a photo showing tyre tracks through an area burnt by the fire. It does not take an expert fire investigator to see that those tracks were made after the fire burnt through that area, as part of the fire-fighting response. It beggars belief that Mr Gilmore would rely on this evidence as supporting 'machinery use' as a potential ignition source.

11.134. Machinery use can be confidently excluded as the ignition source.

The solar light

11.135. The suggestion that the solar light depicted in Figure 23 of Mr Gilmore's report was a possible ignition source can be confidently rejected. Gilmore suggests in his report that the light was 'leaning over close to the grass in a direction that would allow the sun to shine sideways through its lens'. The 'lens' Mr Gilmore refers to here is frosted plastic.

> 11.136. Mr Walkley confidently excludes this as a possible ignition source for the following reasons:
>
> (a) the solar light is outside the area of origin;
>
> (b) there is no indication that the batteries in the solar light have overheated;
>
> (c) in the highly unlikely event of an electrical arc within the solar light, the resultant damage would have been confined to the interior;
>
> (d) the prospect of the frosted plastic cover over the light refracting and magnifying sunlight sufficiently to cause the ignition of fire is 'pretty much impossible'; and
>
> (e) the area where the solar light was located was mostly gravel.
>
> 11.137. Mr Gilmore was unable to assist the Court with any evidence that might suggest the solar light was a plausible alternative ignition source.
>
> *Unknown materials*
>
> 11.138. Mr Walkley was unable to comment on Mr Gilmore's suggestion that 'unknown materials' are a possible cause of this fire. The plaintiffs also feel unable to comment on that suggestion, given that Mr Gilmore does not explain his path of reasoning for suggesting how such materials might have caused the fire.
>
> 11.139. The so called 'unknown materials' can be confidently excluded as the ignition source."

387 I accept those submissions.

388 I also accept the plaintiffs' submission that, given that the pit of the stump was found by TFS investigators to be still warm to the touch on 5 January 2013, the only plausible explanation for that is that there was in fact a smouldering fire within the stump at that time. When this was brought to Mr Thomas' attention at trial he agreed that it is perfectly plausible that even on 6 January 2013 there was still a smouldering burn inside the stump as a result of the campfire on 28 December 2012. I note that Mr Gilmore acknowledged that the stump was found to be still warm by TFS investigators, as recorded by Mr Bones in his report, but made no effort to account for that evidence. To my mind, there is no accounting for it, for precisely the same reasons that caused Mr Thomas to resile from his "consequence not cause" theory.

389 Finally, I accept the plaintiffs' submission that it far more probable than not that there was a smouldering fire within the stump and its root system on 3 January 2013. The stump is within the relatively small area of barren earth that comprises the area of fire origin. The simple, logical and compelling explanation is that the smouldering burn caused a free burning fire to ignite. I agree that it would require an absurdly unlikely set of circumstances for the bushfire to have started within that area by some means unrelated to the smouldering stump fire, where there is not a single plausible alternative ignition source.

Answer to Key Issue 1(b)

390 I find that the smouldering burn in the tree stump and its root system which ignited grass on the surface of the ground in the immediate area around the tree stump, as pleaded in par 12 of the plaintiffs' amended statement of claim, was the result of the campfire lit in the tree stump on 28 December 2012. For the reasons I have expressed, I am affirmatively satisfied, to the requisite degree, that the fire started in "the TFS area of origin" as a result of an ignition source from the tree stump and its root system, which was a direct result of the campfire having been lit and not fully extinguished. The answer to the second causation question posed, by Key Issue 1(b) is "yes".

Key Issue 1(c) – a necessary element of the occurrence of the harm?

391 Key Issue 1(c) involves the question whether, if the answer to Key Issue 1(b) is "yes", the fire seen by Ms Barrett on her property on 3 January 2013 was a necessary element of the occurrence of the harm caused to the plaintiffs or, alternatively, to the test-case plaintiff.

392 In simple terms this issue involves the question of whether the fire which I have found started on the Barrett property on 3 January 2013, as a result of the defendants' failure to properly extinguish the campfire which was lit on 28 December 2013, was the same fire that caused harm to the plaintiffs, or at least the test case plaintiff, Ms Daly.

393 The first defendant accepts that the test case plaintiff's property was within the footprint of the bushfire as described and shown in the map in evidence prepared by Dr Marsden-Smedley. To the extent that there is any doubt about the location of the real and personal property of the remaining plaintiffs arising from the addresses given for them in the schedules to the writs in these proceedings, or otherwise, that will no doubt be a matter, should it arise, for discussion between the parties or for a further hearing or hearings.

394 On this key issue the first defendant submits that the test case plaintiff must satisfy the factual causation test prescribed under s 13(1)(a) of the CLA and that I ought not be affirmatively satisfied that the fire that escaped from the first defendant's property was the only fire that commenced in the area burned on 3 January as mapped.

395 Ms Barrett says that the case for the plaintiffs on the behaviour of the fire that escaped from the first defendant's property "rests on the fragile foundation of very limited observations of fire between 2pm and the end of day map at 5.35pm and on predictive work from Dr Marsden-Smedley." But, she says, Dr Marsden-Smedley did not have the benefit of a visit to the mapped area despite the very careful work he did outside the area of the first day of the fire where he looked at "in particular what was the fire behaviour, what were the fuels being burnt, what was the suppression that was done, but really concentrating on the fire behaviour so that that could be used to improve, specifically, further fire behaviour modelling."

396 The first defendant argues that early observations of smoke are not consistent with the plaintiffs' case that there was a single fire, and that the evidence, both of observation and prediction, puts the fire that escaped from the first defendant's property well to the west of Inala Rd at 3pm. She says that it was not observed to have passed Inala Rd until well after 3pm

397 In her written closing submissions Ms Barrett sets out in support of this argument, the following factors:

> "a Andrew Skelly arrived at 244 White Hill Road around 2.55pm. He gave evidence that the front of the fire was at the point marked on the exhibit AS1. That is well to the west of Inala Rd.
>
> b Fire crews are seen at Inala Rd at 2.42, they are not in active fire-fighting mode.
>
> c Adam Hall left Inala Rd after a short visit at about 2.50 to attend to fire to the east. He went to Gangells Rd.
>
> d Oliver Torenius left White Hill Road with Andrew Selly and travelled to Inala Road arriving at around 3.15pm. Andrew Skelly observed that the fire had already started going past Inala Road. Mr Torenius also stated that at this point, the fire had burnt past Darren Lawrence's property (112 Inala Road) and was heading south east towards Gangells Road.
>
> e Dr Marsden-Smedley says that according to his mapping by about 3.00pm the head of the fire at 242 White Hill Road would only have travelled about 230 metres and that the fire would have had a width of about 140 metres. This fire would not have

passed north of Gangells Road until between about 4.30pm and 5.00pm when it had an area of about 200ha and a width of about 1000 metres.

f Mr Gilmore broadly agreed with the opinion of Dr Marsden-Smedley as to the position of the fire front at 3.00pm."

398 Ms Barrett says that when the fire that escaped from her property reached the 244 White Hill Road "burn off scar" it could have been effectively stopped, and it would have been stopped by the open pasture in Inala Park. She says that Mr Gilmore was asked whether "[t]he October scar acted as a quite effective fire break to the travel of the Forcett fire?" and answered "[y]es, it would have pulled it up in those early stages of the head fire progression."

399 And, she says that there is evidence of three fires well to the east of the point reached by the fire that escaped from her property at 3pm and that the plaintiffs have been unable to provide evidence capable of proving that any or all of these fires is connected with the fire that escaped from her property. Ms Barrett advances these arguments under the following rubrics.

Observations of smoke

400 Ms Barrett argues that smoke was observed at a time before it is likely to have come from the fire that escaped from her property, and that the evidence of those observations tells in favour of another fire or other fires.

401 She says that sometime between 14.00 hours and 14.13 hours, Andrew Skelly was travelling on Richmond Road when he observed a column of smoke coming from the Forcett direction and that this caused him to make a call requiring additional TFS personnel to attend the fire. She says that at 14.13 hours, Adam Hall was working at Cambridge when he received a pager to attend a fire at Inala Road and, at this time, he observed smoke in the area of White Hill Road. She notes that the first report of fire on her property was at approximately 14.13 hours when Damien Berry rang 000, and that approximately 1½ minutes after Damien Berry's call to 000, at 14.14 hours, she herself rang 000 for the first time to report fire on her property.

402 I pause to interpolate that Mr Hall was actually originally dispatched to White Hill Road but responded to Inala Road.

403 Ms Barrett says that the fire on her property at this stage, was a low-level grass fire and that she did not see smoke on her property during the early stages of the fire.

404 I pause again to interpolate that such a description of her first sighting of the fire is not entirely accurate. From her verandah Ms Barrett said in evidence on the trial that the fire "wasn't on the top of the property it was coming up the hill but I can't see down my hill because of where I stand, that I just saw it reach where it starts to come up my hill" and she said "then I saw other flames or just this white flickering going on and that's when I ran for my life and knew that it was a – there was fire on my property".

405 To continue, Ms Barrett points out that Mrs Sutcliffe called 000 at 2.15pm and that Mr Sutcliffe had earlier seen some smoke from the Sorell causeway while driving home from work.

406 She says that Mr Torenius gave evidence that at about 2.20pm to 2.25pm the Dodges Ferry unit was travelling on Old Forcett Road when he observed a significant smoke column in an easterly direction indicating a significant incident, and that in his video interview of 6 January 2013 he stated that when he arrived at White Hill Road he observed the smoke as being behind a shipping container in a direction which is significantly to the east of the first defendant's property.

407 She argues therefore that it is probable that the smoke columns observed by Skelly, Hall and Torenius between 2pm and 2.25pm were observations of smoke from another fire to the east of White Hill Road, and that these observations are not consistent with her claimed initial observations of a lack of smoke and only a low-level grass fire on her property.

408 Ms Barrett says that by about 2.42pm, TFS personnel were in attendance at the fire at Inala Road and that Mr Lawrence gave evidence that the smoke he observed coming towards him was from the west of his property. She says that this is inconsistent with TFS observations. She instances that Mr Hall reported smoke coming from the north west of 112 Inala Road and he did not observe any fire while he was there.

409 Finally on this point she says that Mr Torenius gave evidence that fire had been crowning through the area west of Mr Lawrence's property but that he was not asked to identify the area of the crowning with any precision. She says that this area is most likely to be that identified by Mr Gilmore in the Wharmby's Creek area.

410 To my mind there is nothing in those features that casts doubt on the very obvious inference that the fire that reached Inala Road and later Gangells Road and Mother Brown's Bonnet was the same fire that started on and escaped from the Barrett property, or spot fires cast from it.

411 I defer making that finding for the moment, however, as I note that in his evidence in cross-examination, Mr Gilmore said that there were two anomalies which bore on this issue of separate fires. One was Mr Sutcliffe's evidence, which he had largely discounted in a report he wrote, as it did not "seem to align with other things". The other related to an area at the top of Wharmby's Creek where he said "there's a run of fire, which both seemed to be outside – laterally spread in the early stages – what I would've expected." This, he said, was because of the intense crown fire in that area and that the fire became wide very quickly in that area rather than being the shape that he "would have expected". In her written closing submissions the first defendant canvasses those anomalies under the rubrics that follow.

Fire at Inala Road

412 Ms Barrett notes that Mr Sutcliffe gave evidence that on 3 January 2013 he was coming home along the causeway leading to Sorell when he saw smoke and that when he got to Inala Road, he did not go home but rather drove to the top of Inala Road and parked his vehicle at the gate to Inala Park. She says that Mr Sutcliffe then walked to an area west of 112 Inala Road and from that position he observed a fire and a lot of smoke burning from the fence line of the property at 112 Inala Road, towards the bush. She notes that he estimated the fire front to be 150 to 200 metres, and monitored the fire for 20-30 minutes to establish where it was heading and whether it was heading towards his house, before calling his wife asking her to ring the fire brigade. Ms Barrett notes that at a later stage, Mr Sutcliffe said that he returned to the area where he observed the fire for the second time. That is, that he went up there twice, one time alone and one time when he spoke with Mr Daly.

413 Ms Barrett notes that when Mr Sutcliffe called his wife, she stated that she was on her way home from work, that during her drive home, Mrs Sutcliffe observed smoke, and that once home she observed this smoke to be coming from the end of Inala Road. Ms Barrett says that Mrs Sutcliffe was unshaken in cross-examination that her husband had called her advising her of the fire before she called 000 and that as she was just entering Inala Road at the time her husband rang, she called the fire brigade when she got in the house. Mrs Sutcliffe made this call to 000 at 14.15pm. The Fire Investigator Call Log records her as advising to the effect that "[p]ast 42 Inala Road Forcett owner of property is Chris Lawrence best access would be Inala Road."

414 Ms Barrett submits that the most probable scenario is as follows. Mr Sutcliffe saw smoke on his way home from work. When he drove into Inala Road, he drove straight up to the gate of 110-112 Inala Road and walked into an area west of 112 Inala Road. After 20 to 30 minutes of watching the fire

he rang his wife and then drove home and laid down on the couch knowing his wife was almost home and was going to ring the fire brigade. Ms Barrett says that Mrs Sutcliffe arrived home minutes after and did exactly that and that the information provided to 000 by Mrs Sutcliffe "is contemporaneous evidence of a fire in Inala Road on 3 January 2013 at the very latest by 2.15pm." Ms Barrett argues that if the fire and smoke observed by Mr and Mrs Sutcliffe had been coming from White Hill Road, then Inala Road would not provide the best access as advised by Mrs Sutcliffe.

415 Ms Barrett points out that Mr Lawrence gave evidence that he recalled seeing Mr Sutcliffe's vehicle near his property but that, as he could not recall the time at which he did so, his evidence is of no probative value as to Mr Sutcliffe's movements.

416 Thus, Ms Barrett says, the fire seen by Mr Sutcliffe must have been a separate fire to that which started on the first defendant's property, given the timing of the 000 reports.

417 I reject that submission altogether. As submitted by the plaintiffs, Mr Sutcliffe has given several different accounts of the events of the day, and none of them are reconcilable with the others, with the physical evidence or with the evidence of other witnesses, including his wife.

418 In their written closing submissions the plaintiffs contend as follows:

> "11.178 The account he gave at the trial was to this effect:
>
> (a) he saw smoke in the area of White Hill/Inala Road as he drove across the Causeway near Sorell some time before 2:15pm on 3 January;
>
> (b) when he got to his home at Inala Road he drove past his residence to the end of Inala Road, where it becomes the driveways to 110 and 112 Inala Road (for convenience, the gate);
>
> (c) he parked his car and hiked through rugged terrain to the northwest of the gate and then past the dam to a location between markers '11' and '6' on the map CB138;
>
> (d) at that location he observed fire running from the area of Mr Lawrence's shed, moving in a westerly direction back up the slope in the direction of White Hill Road;
>
> (e) he had his mobile phone with him and had phone reception;
>
> (f) he stood watching the fire for 20-30 minutes 'at least';
>
> (g) as he walked back to his vehicle he telephoned his wife and asked her to ring the fire brigade;
>
> (h) he then went home, but later came back and met Kevin Daly near the gate."

419 The plaintiffs' submission continues:

> "11.179 Now, the one thing that is clear about the Sutcliffes' activities on 3 January is that Mrs Sutcliffe placed a '000' call reporting the fire at 14:15:45. If we work backwards from the time of that call, then:
>
> (a) Mr Sutcliffe says it was made as he walked from the fire back to his car, so allow say 5 minutes for him to start that walk, call her, and then for her to place the call as recorded;
>
> (b) then add 20-30 minutes – take the midpoint of 25 minutes – for the time Mr Sutcliffe was watching the fire;
>
> (c) then allow another 10 minutes for him to have walked from the gate to his vantage point in the first place; and
>
> (d) allow say 10 minutes from the time he first saw the smoke while on the Causeway, until he reached the gate at the end of Inala Road.
>
> 11.180. That makes 5+25+10+10 = 50 minutes between the time Mr Sutcliffe claims first to have seen a column of smoke while driving over the Causeway, until the time his wife places the '000' call.

> 11.181. Maybe discount that by 25% in case he drove faster, or walked faster, than we have allowed. That is still roughly 40 minutes from sight of smoke to placement of call.
>
> 11.182. But now add some further time to the calculation, since the Sutcliffe fire must have been going for some time before 1:35pm (being 2:15pm less 50 minutes) because by 1:35pm it had already raised a column of smoke able to be seen from the Sorell causeway. Allow another 10 minutes of fire time before Mr Sutcliffe sees his smoke. That means the Sutcliffe fire started a full hour before the Stump fire.
>
> 11.183. And in that hour Mr Sutcliffe was the only person in Tasmania to see any sign of that fire."

420 The plaintiffs submit that all of that is curious indeed, when the early wisps of smoke began to rise from the area of the Barrett property at around 2:05pm or 2:10pm, when there had been three separate '000' callers other than Ms Barrett's by 2:19pm, and when Mr Skelly had seen "a very small wisp of smoke" indicating a new fire (near White Hill Road as he drove out of Cambridge intending to attend the Richmond fire).

421 The plaintiffs say that Mr Sutcliffe's "nonsensical account" is further contradicted by all of the fire crews who drove toward the White Hill Road and Inala Road areas. All of them reporting a single column of smoke consistent with the fire emanating from the Barrett property. The plaintiffs ask rhetorically, "[d]oes the defence seriously suggest that they were so distracted by that wisp that they failed to notice the billowing tower of dense smoke that would have been emanating from a fire that had been burning in the same area but for a further 45 minutes?"

422 Next, the plaintiffs say, as to Mr Sutcliffe's account of the direction of fire travel, that he is the only witness in the entire case to suggest that the fire was running, not backing, in a westerly direction away from the western boundary of the Lawrence property (and I add against the very strong prevailing wind at that time). I agree with the plaintiffs' submission that there is no evidence to suggest such a phenomenon is even possible.

423 Then, the plaintiffs submit, consider the "frankly ridiculous" suggestion that Mr Sutcliffe, armed with a mobile phone and adequate call-reception, and being sufficiently concerned by the appearance of smoke to have exerted himself, despite the "crook back" that had him working short days at the time, to traipse through the bushland west of the Lawrence property and then stand there for 20-30 minutes just watching the fire. They submit that when it was pointed out to him that it was implausible that he would have done that and not called 000, he offered the "risible explanation" that he had to call the Dodge's Ferry fire brigade directly, but did not know the number, and so he did not even try 000. I agree that this is simply not credible. As the plaintiffs argue, even kindergarten children know to call 000 in an emergency.

424 Next, they say, consider Mr Sutcliffe's statement that he telephoned his wife as he walked from the fire back to his car. His wife's testimony was that he telephoned her as she arrived home from work, and told her "ring 000 now", not "ring the Dodge's Ferry fire brigade". They note that she parked and walked inside to find him lying on the couch, half asleep, she commented to him on the smoke, there was another mention between them of 000, and then she placed the call to 000.

425 Thus, the plaintiffs say, even Mr Sutcliffe's wife contradicted his evidence in critical respects as to the circumstances of the discussion that led to her 000 call. Moreover, they add, the revelation that Mr Sutcliffe was home from work because he had a "crook back" sits uneasily with his evidence that he went hiking across the difficult terrain that I observed to the immediate north west of the Inala Park gate, through the bushland and up to his suggested vantage point.

426 For those reasons, in the plaintiffs' submission "it is obvious that Mr Sutcliffe's recollection was hopelessly flawed." Rather, they say, his original statutory declaration to the police is more accurate as to the sequence of events and the approximate timing and the true position is that:

> "(a) Ms Sutcliffe saw smoke from the Forcett fire as she was driving home from work and almost home;
>
> (b) Mr Sutcliffe was at or near home when he noticed smoke in the area. He preferred to call his wife rather than '000' and he did so – from resting on the couch – and within a couple of minutes she had placed the '000' call recorded at 14:15:45;
>
> (c) later in the afternoon he drove down to the gate, where he parked and probably walked across to the southern perimeter of the area that by that time had already been burned. He saw the TFS brigades already fighting the fire, as he originally told the police. While he was there he encountered Mr Daly, who was with one of the brigades he had already seen at the Lawrence property.
>
> 11.193. But the gravamen of all that is that the only smoke or flames Mr Sutcliffe observed were those resulting from the Stump fire, not some anterior and anomalous conflagration moving inexplicably westward from Mr Lawrence's fence line."

427 I accept the plaintiffs' submission as to this issue. Mr Sutcliffe's account as to the timing and nature of his observations is not reconcilable with the totality of the other relevant evidence in these proceedings, which is why, no doubt, Mr Gilmore discounted his account as not aligning with the other available evidence and agreed that there was nothing he had seen in the evidence that caused him to think that an account of a fire starting at 1.30pm on that day was credible.

Fire to the east of the 244 White Hill Road fire scar (Wharmby's Creek)

428 In this, the next of the first defendant's rubrics under this key issue, her submission is that "this fire is described as an anomaly by Mr Gilmore. He referred to the intense crown fire in the area and the width of the fire in this area. He expected by reason of the shape that the fire here burnt earlier than 17.35 [hours]". She says that the fact that Mr Gilmore may have considered it *possible* that a firebrand from the fire which escaped from the defendant's property might be carried by a generally westerly wind across the October scar and into the area of anomaly, does not permit elevation to *probability* due to wind direction and slope as explained by Mr Gilmore.

429 Mr Gilmore's evidence as recorded in the trial transcript was as follows:

> "And given that potential for the wind pattern to be disturbed by features like hills and saddles and gaps and gullies and ridges and what have you, it wouldn't be surprising at all, would it, that a fire brand emitted from, say, the area of your green triangle might be carried by a generally westerly wind across the October scar and into the area at the base of your green arrow, would it?.....It doesn't strike me as what I expected to be there. So I suppose the answer's no.
>
> Okay. You're not suggesting that it's implausible, though, are you?.....It's possible, yeah."

430 The possibility accepted by Mr Gilmore does not require "elevation to probability". Evidence of a possibility is capable of supporting a probative inference, and expert evidence of possibility may, as circumstantial evidence, alone or in combination with other evidence, establish causation: *Langmaid* (above) per Porter J at [124]. Mr Gilmore's "anomaly", in my view, is just that, an anomaly. It certainly does not raise the spectre of a separate fire which, without explicable cause, started independently of the fire emanating from the Barrett fire and caused bushfires to both the west and east of its location. This is particularly so given that I have entirely dismissed Mr Sutcliffe's account of an earlier fire at Inala Road which might have "spotted" to Wharmby's Creek.

The fire front seen by Constable Hall

431 The first defendant's next topic concerns the evidence of Constable Hall. She points out that according to the TFS call log Constable Hall advised at 2.58pm that he was "[o]n scene with Sorell

group one at track on Gangells Rd, Graham Wind [sic] Stanelys property. Fire front is currently at gr 567/602 winds blowing 50 kh in sw direction. Fire burning quite well in thick terrain".

432 Ms Barrett says that in his evidence Constable Hall agreed that the reason for communicating with the fire communications centre (Firecomm) was to attempt to ensure effective control of the fire, that a fire front is likely to require greater firefighting resources than a spot fire, that it is important to communicate accurately with Firecomm. She argues that there is a clear difference between the terms "fire front" and "spot fire". She says that in his communications with Firecomm, Constable Hall referred to what he observed at the time to be the fire front and not a spot fire, and that while he had advised an incorrect grid reference, the correct reference later provided by him shows that the fire front was approximately 2.4 kilometres from the first defendant's property and approximately 1.5 kilometres from the property at 112 Inala Road.

433 The argument runs that exhibit D50 comprising two audio recordings which detail conversations between Constable Hall and Mr Torenius shortly after 3pm on 3 January when Constable Hall was at Gangells Road record Constable Hall saying as follows:

> "Yeah g'day Ollie I don't know whether you caught my last to Firecom I'm with Gav we're off Gangells Road um at the fire front its moving pretty well units can come in off Gangells Road there's a really good formed road into a couple of houses in here the problems going to be um we are not going to be able to stop it its spotting well and its travelling fast and its just going to go straight over us.
>
> Yeah roger that what about properties under risk um further down over.
>
> Um well we came in around Grayham Winstanley's house he's got a big house in here that that's not under threat that's um (someone interjected 'it's up our arse') (light laughter) Yeah all right just hang on.
>
> Yeah sorry Grayham's house is in a cleared paddock so probably one unit if you put a bit of grass out here it would be right but we are going to go further down to the next houses over
>
> Yeah roger um I don't know whether you can pass on to East Coast 1 we are at the end of Gangells Road um fire is going well and spotting quite far and I would like another couple of units for asset protection please
>
> Yeah mate I know you're probably pretty pressed around your end and I know they're talking about turning out other crews but if we could get a unit at least one from your end round to where we are um the fire is moving pretty quick here and we are going to need some structural protection at a couple of houses in the very short future.
>
> Yeah roger look I know you've been talking to Firecom 2 about putting warnings out um the way this fires travelling down in here at moment it will be probably heading over the rear (indecipherable at 1:58) in about three quarters of an hour so we are not going to be able to stop it here I don't know whether you want to put the warning out for Copping and Kellevie"

434 Ms Barrett argues that this contemporaneous evidence of Constable Hall shows that the fire at Gangells Road was not a spot fire, but rather the fire front of a developed fire, and that upon seeing the fire his focus became property protection of the next houses to the southeast of Mr Winstanley's property and properties in the area of Copping and Kellevie. She argues that it is reasonable to infer that this would not have been his focus of concern had what he seen only been a spot fire.

435 She submits that, given that Constable Hall made his observations at or slightly before 3pm, he could not have been observing the front of the fire that escaped from the first defendant's property as that fire front was at least 2 kilometres away to the west.

436 Ms Barrett points out that Mr Skelly gave evidence that he was at Gangells Road at 3.30pm to 3.40pm and that he advised that the fire front did not stay there very long but moved fairly rapidly towards Mother Brown's Bonnet to the east, and that this accords with Constable Hall's evidence that

the fire he observed was moving quickly and they would not be able to stop it. She notes that Mr Sward gave evidence that when he arrived at Gangells Road at about 4pm "the fire had already gone through there to Mother Browns Bonnet".

437 Ms Barrett submits that there is no evidence to support a finding that the fire at 242 White Hill Road over ran the fire observed at Gangells Road, and that "contrasted with the evidence of Constable Hall and Mr Skelly is Dr Marsden-Smedley's prediction that the fire that escaped from the first defendant's property would not have passed north of Gangells Road until between about 4.30pm and 5.00pm."

438 I totally reject that submission. As was submitted on behalf of the plaintiffs by Mr Armstrong in his oral closing address, Constable Hall gave very considered evidence on several occasions on the trial when he referred to the fire at the end of Gangells Road as a "spot fire". Moreover, in the Firecomm audio recording, Constable Hall refers to the fire on at least five separate occasions, and on only one of them does he use the word "front." When he gave evidence on the trial, on two occasions he was consistent that his assessment made at the time had been that the fire that he found at the end of Gangells Road was a spot fire thrown by the fire near the Lawrence property at Inala Road.

439 I am more than satisfied by the combination of all relevant evidence that the fire that originally escaped the Barrett property had hit Mr Lawrence's western boundary at about 3.10pm and that subsequently there was fire to the east of his property, as observed by Constable Hall, which was as a result of spotting from the original fire.

Is spotting an answer?

440 Under this next heading the first defendant submits that there is an absence of evidence of observations of spotting relevant to any of the "three (extra) fires". She says that the only spotting seen was by Constable Hall who described it in quite a different way to his description of the fire front at Gangells Road when he said in evidence, "I could also see further east from the end of Inala Road smoke starting up in some of the hills there which appeared – or I identified as spot fires starting from the fire front west of Inala Road."

441 She says that Dr Marsden-Smedley said that under the conditions that were prevailing on the afternoon of 3 January 2013, he would anticipate a very large number of spot fires out to 100 or 200 metres distance from the fire front, and then a few out to the one or two kilometres, and that the absence of observation of any spotting 100 to 200 metres from the fire front makes it very unlikely that there was spotting at any time before 3pm. She says that as a result of the absence of relevant observations the evidence capable of use on this question from Dr Marsden-Smedley and Mr Gilmore is theoretical or predictive. Ms Barrett says that Dr Marsden-Smedley's evidence should be given little weight as it varied during his evidence, was based on incorrect input and, in the case of the fire at Gangells Road, "ignored Hall's evidence (Fire Comm) that the wind was south-westerly."

442 I pause to make it clear that I place no significance on the fact that Constable Hall is recorded as saying that the wind at that time was south-westerly. As was submitted on behalf of the plaintiffs in oral closing submissions, the Firecomm call log, the written record of the fire communications, is not the audio recording, it is what has been typed by a Firecomm operator. Constable Hall's oral evidence was consistently that the wind was westerly. The Bureau of Meteorology data is that the wind was westerly, and every other witness referred to the wind as westerly or north-westerly.

443 In any event the second defendant's argument about this continues that Dr Marsden-Smedley in his report to "the bush fire enquiry", advised that by 3pm there would be "spotting distance beyond the area mapped of about 1.5 to 2.5 km." Then, when he first gave evidence he said in chief that "by about quarter to 3 or 3 o'clock in the afternoon I would be anticipating that there would certainly have been one, one and a half kilometre spotting with these fires then taking their own period of time to build up.

So almost certainly being then overrun by the fire front as it expanded." And then, Ms Barrett notes that when he was recalled on the trial, Dr Marsden-Smedley had revised this opinion to spotting to 6.4 kilometres.

444 Ms Barrett says that Dr Marsden-Smedley assumed a flame height of five metres in his report to the bush fire enquiry and that flame height is critical to spotting. She points out that in cross-examination on his recall, Dr Marsden-Smedley agreed that flame height was a fraction of scorch height, and that given the tree height was around 20 metres, the flame height would be at most two metres. Therefore she says that his estimated five metre flame height might be an overestimate by a factor of five casting doubt on his opinion on spotting distance.

445 She argues that Dr Marsden-Smedley's opinion in his fifth report is of little probative value as he was asked to accept a number of assumptions, the important one of which was that what Mr Hall saw at Gangells Road was a spot fire, despite the content of Constable Hall's Firecomm call demonstrating that it was a well-developed fire front. I have already dealt with that issue.

446 Further, she says, the opinions expressed in that fifth report and in his evidence generally in relation to spot fires was admitted by him to be speculative to a certain extent. I pause to observe that I would be surprised if it were otherwise.

447 In addition, Ms Barrett says that Dr Marsden-Smedley did not attend White Hill Road during his post-assessment of the fires in April 2013, the first time he attended this property being in September 2020. She notes that he attended the vicinity of 112 Inala Road in April 2013 where he did a quick walk around but did not take any notes and did not take his GPS tracker or his camera with him. She points out that he did not take any GPS recordings, notes or photographs in April 2013 of any area within the fire spread map at 17.35pm on 3 January 2013, and that he assumed on the basis of Mr Torenius' evidence that there was crowning in the area of 242 and 244 White Hill Road at 2.30pm, when Mr Torenius gave no specificity as to when he made this observation.

448 By contrast she submits, Mr Gilmore was consistent in his evidence in relation to spotting distances. When taken to an area marked as being the area which he agreed had the best and early potential for long distance spotting, Mr Gilmore said in response to a question as to what he meant by the term long distance spotting, "normally I would log it out about 400m, that's quite common, further than that is uncommon in my experience"

449 She says that Mr Gilmore was also consistent in his description of the circumstances needed for longer distance spotting and that in his first report when dealing with the Delmore Road fire he said that "the fire would have to take a significant run, uphill with the wind in Gum Barked fuels". He repeated this when questioned about the potential for the fire which escaped from the first defendant's property to spot.

450 Finally, Ms Barrett submits that in order for a burning ember to start a new fire it has to land in fuel which is suitable for ignition, and there will be a lag time between when a spot fire lands and when it builds up into a fully developed fire which results in the original fire front overrunning the majority of spot fires prior to the spot fire having fully built-up and reaching its quasi-steady state.

Inala Rd

451 The first defendant next addresses the question of spotting at Inala Road, submitting that, given the timing of the 000 calls, spotting could not be the cause of the fire seen by Mr Sutcliffe. She says that it follows that this must have been a separate fire but that, despite that call, the TFS investigators did not go to Inala Road or Gangells Road at any time during their investigation.

452 She notes that Mr Torenius was asked about the probability of a separate fire at Inala Road and that he discounted this, saying "I can't see it feasible that there was any fire activity in that vicinity. I know the area reasonably well, living there my whole life. A fire in those conditions on that day, if it had started further on from the fire in White Hills Road, it would have been significantly visible from multiple areas and it would have moved in a very fast and rapid rate from its point of origin". But, Ms Barrett says, no weight should be given to Mr Torenius' opinion because he did not have a clear view of the fire path from 244 White Hill Road as the view was over a brow and it was only an assumption made by him and others, that the fire on the afternoon of 3 January 2013 was one fire.

453 I pause to observe that, as will be clear from these reasons, I am among those who make such an assumption. The separate fire at Inala Road theory is dependent on Mr Sutcliffe's evidence which I have wholly rejected as unreliable and incapable of reconciliation with other indisputable evidence. It follows that I do not accept the first defendant's submission that the "totality of the evidence supports that by 2.15pm there were at least two separate fires burning on the afternoon of 3 January 2013".

The fire observed at Gangells Road at 3pm on 3 January 2013

454 Ms Barrett next turns to the fire at Gangells Road in the context of her submissions as to spotting.

455 She says Mr Gilmore in his report of 9 May 2021 explained his reasoning for discounting the possibility of spotting as the cause of what was observed by Constable Hall. In particular she refers to his reasoning that the distance was over two kilometres, that the wind at the time was blowing in the wrong direction, and that later in the afternoon when fire conditions were more extreme due to the deteriorating "Haynes Index", and the fire was well established and had established a significant plume, the more intense fire caused spotting from the summit of Mother Brown's Bonnet which is a much drier and more exposed site, and that spotting only travelled 1.6 kilometres.

456 She argues that timing tells strongly against what Constable Hall saw being a spot fire from the fire on her property. She says that there was not sufficient time between the earliest time a firebrand could have landed and built up and the time Constable Hall saw what he saw at 2.58pm. She also says that "the landing area tells against spotting" as it comprised a gully and not a dry north or west facing slope.

457 Ms Barrett concludes that it follows that the "fire front" observed by Constable Hall at 2.58pm at Gangells Road, could not have been as a result of a spot fire from 242 White Hill Road, some 2.4 kilometres away. She says that the fire at 242 White Hill Road would not have reached its "quasi steady rate [sic]" until 2.30pm at the earliest, more likely 2.45pm to 3pm, and it is not until this point that there was any likelihood of a spot fire being able to travel a distance of 2.4 km. She says that if a spot fire had come from 242 White Hill Road, it would have needed to rely on wind direction and land in fuel suitable for ignition. It would also have required time to build up into the developed fire observed by Constable Hall at 2.58pm.

458 As will be seen I do not accept that submission. I take from Dr Marsden-Smedley's evidence on this subject that the distance from a bushfire to a spot fire must, to an extent, be speculative and variable, and I take from Mr Gilmore that he agrees that that in gusty wind conditions with stringy bark or gum bark or other types of fire brands flying around through hilly terrain one can expect "a fairly random scatter", dependent on the wind speed.

459 Given that the fire emanating from the Barrett property was in effect followed by TFS fire fighters from 244 White Hill Road to Inala Road and then on to Gangell's Road, and given the absence of any *reliable* sighting of any other fire that could have tracked that route in the weather conditions that existed, the irresistible inference is that there was only one bushfire and that any fire running ahead of the White Hill Road fire was either an extension of the fire front or a spot fire thrown ahead of it. I

include in that assessment the burned areas and scars north and east of Inala Road and west of Mother Brown's Bonnet, that Mr Gilmore considered anomalous, as well as the fire observed by Constable Hall in the vicinity of Gangells Road at 2.58pm.

Expert evidence – fire-fronts and spot fires

460 Under this heading the plaintiffs address the question of the first defendant's suggested "alternative fires" on 3 January 2013 and the distinction between fire fronts and spot fires.

461 First they deal with definitions. The *front* or head of a fire refers, they explain, to the leading edge of the main body of a running fire. For practical purposes it means the downwind edge of the fire. Essentially it travels across the ground. Its rate of progress will depend on fuel load, wind speed and terrain. It will move much more rapidly uphill, where the rising flames lick at the fuel ahead of them and cure it so that it ignites more rapidly once the flame truly hits, compared to downhill where the flames lean back into the area already burned or burning.

462 As to *spot* fires they explain that they are caused by embers cast out by the main fire (whether along its front, its flanks or perhaps even its backing edge) being picked up by the wind and thrown ahead of the front, and causing new fires where they land. Spotting, they submit, is a normal and notorious feature of bushfires. The conditions that lead to a bushfire always lead to spot fires – always within a few hundred metres ahead of the front, but often out to some kilometres ahead of the front, and sometimes out to tens of kilometres of the front (as on Black Saturday in Victoria in 2009).

463 Second, the plaintiffs point out that the uncontroverted evidence is that by the time the Dodges Ferry brigade were firefighting at 244 White Hill Road, at around 2.40pm, the front of the fire had already passed to the south-east, heading up the ridge or saddle that crests and then runs down toward Inala Park. The front was about 200 metres wide, that not being a reference to the distance from the stump to the front, which was probably around 400 to 600 metres by that stage, but a reference to the width of the running fire.

464 Third, the plaintiffs point out, the evidence shows that the fuel through which the fire was burning included relatively dense stringy-bark and gum-bark eucalypts and the high oil content of eucalypts is notorious in bushfires. The trees do not burn so much as explode, but in any event, they say, the elevated balls of flaming, oil-rich leaves, twigs and bracken are ripped and thrown by the wind to land "like a napalm bomb" ahead of the front. Even without entire tree-crowns exploding forward ahead of the main front, there will inevitably be smaller-scale clutches of burning, oily debris dropping ahead of the fire, and strips of burning bark and then, at the smallest scale, embers – all called, in this context, "firebrands". Together they make spot fires an inevitability and on the evidence the only question is how far ahead of the front the spot fires will start.

465 Fourth, they say that Mr Torenius observed the fire crowning even while he was at 244 White Hill Road which was around 2.45pm.

466 I accept that is so and that such was a correct characterisation of what he saw, notwithstanding the submission by the first defendant to the contrary which I do not accept in view of Mr Torenius' very considerable experience.

467 The plaintiffs say that given the wind conditions, the nature of the forest being burned, and the elevated position of the fire front nearing the crest of the ridge above Inala Park, spotting across to what was described in evidence as "the general marker 3" was entirely to be expected.

468 I accept that submission on the basis of Dr Marsden-Smedley's evidence, despite the first defendant's submission to the contrary, based on the estimated flame height of the fire and the potential

lack of a quasi-steady state of the fire at the relevant time. I do not accept that the distance spot fires will be thrown is susceptible of such universally precise estimation.

469 Fifth, the plaintiffs say Dr Marsden-Smedley explained, when recalled to clarify this issue of fire fronts and spot-fires, that the relevant fire-behaviour models all predict spot fires up to 6.9 km ahead of a well-established forest fire, if running in the area denoted by his fire-area estimate on maps in evidence, even as early as 2.45pm on 3 January 2013.

470 As I have already intimated, I accept the authority of Dr Marsden-Smedley's evidence. In particular I accept his modelling as sound and credible.

471 Sixth, the plaintiffs say the development of spotting means that a measure of the movement of the fire's front is not a prediction of the areas of fire activity, and that the evidence demonstrates that each spot fire is a new fire that, unchecked, will develop in intensity and speed as a new fire, but with its back edges eventually over-run by the continued progress of the parent fire.

472 I observe in this regard that Dr Marsden-Smedley's evidence was that there will be a lag time between when a spot-fire lands and when it builds up into a fully developed fire. This results in the original fire front overrunning the majority of spot-fires prior to the spot-fire having fully built-up and reached its quasi-steady state. Thus, the plaintiffs say, Constable Hall observed spot fires on the western edge of Mother Brown's Bonnet or Red Hill by about 3.30pm on 3 January 2013 and the main fire front did not reach that location until after 4pm.

473 Continuing with that sixth point, the plaintiffs say that the first defendant misconceived the problem when Mr Read tested Dr Marsden-Smedley with the scenario of two fires starting at the same location and in the same conditions, but with a half-hour difference between them. The proposition was that the front of the earlier fire would have been around 900 metres ahead by the time the second fire started, and the implication seemed to be that the fires reported on Mother Brown's Bonnet reached that area too early to be attributable to the fire emanating from the Barrett property. The plaintiffs say that even assuming there was plausible evidence of an earlier fire, which I agree there is not, it remains the case that the proposition was concerned with the fire *front*. It does not address the reality that it was always likely to be *spotting* that determined the time at which fire activity started on Mother Brown's Bonnet, so that that slope was already burning by the time the main front caught up.

474 Finally, the plaintiffs say Dr Marsden-Smedley explained that only the single fire narrative advanced by the plaintiffs is consistent with all the evidence, namely:

> "(a) the reported spot-fires at locations 3a and 3b (using Dr Marsden-Smedley's nomenclature for marker 3, and the location of the Gangells Road spot fire reported by Constable Hall, respectively) are entirely consistent with the modelling predictions for spotting associated with the Stump fire;
>
> (b) the spot fires at 3a and 3b are not consistent with the Sutcliffe fire theory, because in order for those spot fires to have occurred the Sutcliffe fire would have needed to have reached its quasi-steady state by 2:50pm. Mr Lawrence and Constable Hall both gave evidence that the fire front had not crested the ridge by 2:50pm and that they could not see any flames anywhere around Inala Park, but for the Sutcliffe fire to have explained the spot fires the trees right on Mr Lawrence's western boundary would have been alight even into their crowns;
>
> (c) the spot fire at 3b is not consistent with the 'No 3' fire starting (as suggested) at 3a, because the fire would not have had time to reach its quasi-steady state."

475 I accept those submissions. Mr Gilmore did not dispute Dr Marsden-Smedley's assessment as to the progression of the fire front. His only reservation in relation to that assessment as to spotting behaviour was to note that Dr Marsden-Smedley used the "Project Vesta" model as an input to the

McArthur Forest Fire Index (spot-fire behaviour) sub-model, whereas Mr Gilmore would have used the main McArthur fire behaviour model as the relevant input for the sub-model.

476 Once again I accept the modelling evidence of the highly academically and practically qualified Dr Marsden-Smedley who explained in detail:

- how the McArthur spot-fire model had been developed using a different process from the main McArthur fire behaviour model;
- why he considered the McArthur spot-fire sub-model to be suitable for the present task; and
- why he considered the main McArthur fire behaviour model to be unsatisfactory in Tasmanian conditions, compared to the Project Vesta model.

Conclusions as to "unrelated fire" theories

477 The plaintiffs submit on this issue that there is no plausible evidence in support of the Sutcliffe fire theory and that there is no evidence at all to support what they refer to as "the No 3 fire theory", once it is understood that Mr Gilmore's "musings" about the fire scar north-west of location "3" are perfectly consistent with spotting from the main front at around 2.45pm.

478 In short, they submit, that the only scenario consistent with all the plausible evidence is that all the fire activity around Inala Road on 3 January 2013 resulted from the fire they allege emanated from the Barrett property, together with the spotting behaviour typical of and to be expected from such a fire. It follows, they say, that there is no other legal cause of the bushfire and that the fire seen by Ms Barrett on her property was a necessary element of the occurrence of the harm caused to the plaintiffs or, alternatively the test-case plaintiff.

479 I accept those submissions

480 And I accept the plaintiffs' submissions for the reasons they argue, that the physical and eyewitness evidence, and the opinions of Dr Marsden-Smedley and also, relevantly, Mr Gilmore, support the conclusion that:

- the fire started at the old stump, then ran under the influence of the wind south-east toward Inala Road, and by about the time its front was due south of the Lowe residence at 244 White Hill Road, the fire was crowning through the tree canopies;
- the front ran beside, not into, the October scar and as it passed the scar it became exposed to more westerly winds. They drove the front more easterly onto the Lawrence property and ultimately along the unburned strip of woodland immediately north of his house;
- the crowning fire was increasingly throwing spot fires ahead of itself and by a few minutes before 3pm a gust of wind had thrown a spot fire from the front across to marker "3" where its first wisps of smoke were seen by Constable Hall;
- it may be that the same gust of wind carried other embers, as when Constable Hall got to Gangells Road at 3pm he found, at the location he marked with a black dot on the map being exhibit P40, a spot fire that he estimated as already covering around 200sqm in area (the Black Dot fire). Whether it was the same gust or not is irrelevant, since the fire-behaviour modelling shows that spotting from the area west of the Lawrence property all the way to Gangells Road was easily feasible in the wind, terrain, and vegetation conditions on the day;
- within a further 30-60 minutes Constable Hall, while at the Winstanley property at Gangells Road, observed further spot fires east of the Black Dot fire, as burning embers dropped progressively closer to Mother Brown's Bonnet. The fire front was still back at Inala Road – it only reached the Lawrence property at around 3.10pm.

481 I observe that Mr Gilmore, after being made aware of the various bases for the defence proposition that the bushfire was started by an incident other than the fire emanating from the Barrett property, nevertheless maintained his opinion, subject to his concerns as to the anomalies he noted, that the bushfire did in fact start in the expanded area of origin on the Barrett property that he identified. As should be clear, I dismiss Mr Gilmore's concerns as having no bearing on the continuity of a single fire from the campfire through the entire fire area footprint.

Answer to Key Issue 1(c)

482 It follows from all that I have said that the answer to Key Issue 1(c), namely, "was the fire seen by Barrett on her property on 3 January 2013 a necessary element of the occurrence of the harm caused to the plaintiffs, alternatively the test-case plaintiff?" is "yes".

Key Issue 2 - what was the fire area (footprint) of the Forcett Bushfire

483 In the first defendant's written closing submissions, the following was stated on this issue:

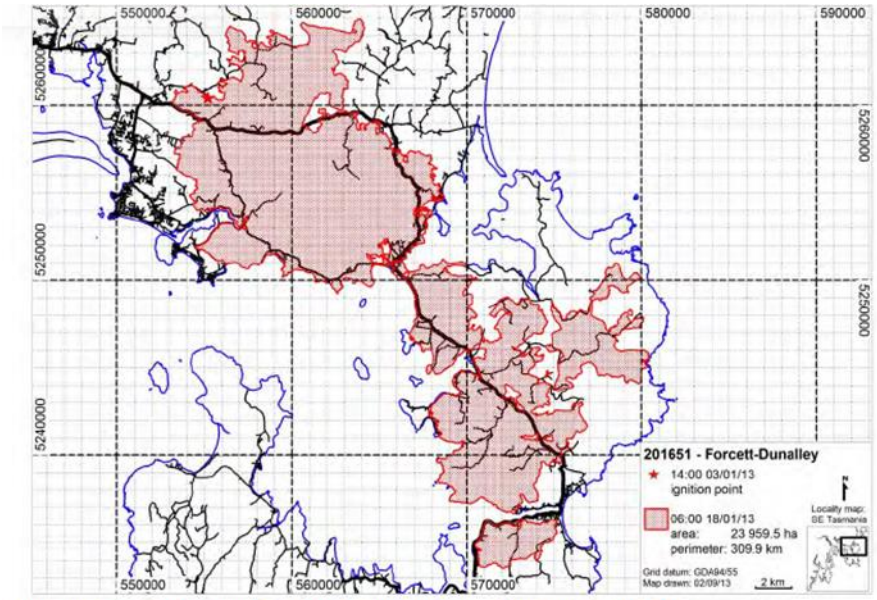
> "241 The court does not have before it any descriptive evidence of fire boundary such as TFS mapping, aerial videos and photographs, and the plaintiffs did not call anyone involved in the mapping of the fire to give evidence.
>
> 242 The only evidence before the court in relation to the fire spread to Dunalley is the evidence of Dr Marsden-Smedley. He says the Forcett-Dunalley fire reached Dunalley at about 15:25 on 4 January 2013. His first report at maps 10 and 11 show his predicted spread of fire. In predicting these boundaries Dr Marsden-Smedley used the Project Vesta's Equation 10 in association with information from ground crews and members of the public who were in the area of the fire when it was burning.
>
> 243 We say that the court is unable to make any finding in relation to the footprint of the fire to Dunalley, or at all, because Dr Marsden-Smedley has only provided predictions of the fire's likely path and final boundaries.
>
> 244 If the court were to find that a fire reached Dunalley on 4 January 2013, we say the court cannot be affirmatively satisfied to the requisite degree that the fire seen by the first defendant on her property on the afternoon of 3 January 2013 was the fire that reached Dunalley."

484 As to this issue, the transcript records the following exchange between Mr Read and myself in oral closing submissions:

> "Yes, alright. Well now, my question which arose when I was reading your closing submissions might have been answered by the document that's just been filed, and that is this; is there really a live issue as to whether the test plaintiff's property was within the footprint.
>
> MR READ SC: No, there's not. The issue is whether - what caused the fire footprint."

485 As to this key issue, the plaintiffs say:

> "We addressed in paragraphs 173 to [my paragraphs 174-177] above the method by which Dr Marsden-Smedley determined the fire footprint at various times during its spread, and the final reach of the fire. The final footprint is depicted in the map below, taken from Dr Marsden-Smedley's first report to the Court.



Map 30. Forcett-Dunalley fire final boundary at about 06:00 on 18/01/13. "

Answer to Key Issue 3

486 The fire area (footprint) of the Forcett Bushfire is as determined and described by Dr Marsden-Smedley and set out in his Map 30 above.

Key Issue 3 – breach of duty

487 Key issue 3 poses the question:

"If 1 a b and c. are all answered favourably to the plaintiffs, did the defendants breach a duty of care owed to persons including the plaintiffs, by:

a lighting the fire,

b failing to extinguish the fire on or after 28 December 2012, or

c in the case of the first defendant (**Barrett**) – failing adequately to respond to observations of steam alleged by the plaintiffs to be from the area of the tree stump and alleged to have been on or about 1 January 2013?"

488 This issue throws up consideration of s 69 of the FSA which provides as follows:

"**69 Camp fires, &c**

(1) This section applies to –

(a) any fire for cooking or warmth;

(b) any fire for the burning of carcasses; and

(c) any other fire of a prescribed class –

not being a fire within an enclosed building.

(2) A person shall not light a fire to which this section applies –

(a) in or on peat, humus, or marram grass; or

(b) within 3 metres of any stump, log, or standing tree.

Penalty: Fine not exceeding 50 penalty units.

(3) A person shall not leave unattended a fire to which this section applies unless it has been completely extinguished.

Penalty: Fine not exceeding 50 penalty units.

> (4) During a fire permit period a person shall not light a fire to which this section applies unless all flammable material has been moved to a place that is at least 3 metres from the site of the fire.
>
> Penalty: Fine not exceeding 50 penalty units."

Does the section apply?

489 The first defendant submits that the question is, what standard does this section set? She says that the provision does not contain a blanket prohibition on fires being lit in stumps and that if the intention of Parliament was to prohibit fires being lit in stumps, logs or trees, then it would have said so without any qualification. She says that the section only prohibits certain types of fires, so that other types of fires such as fires lit for ambience, or just for entertainment and socialising, are not caught by the section. She says that because of its confined terms the section cannot be seen to set the standard of care for all fires, and that the evidence is that this fire was set enhance the camping experience of a young boy, which s 69 does not prohibit.

490 To this, the plaintiffs say that the submission, is an "utterly spurious distinction" which I ought not countenance, but that more importantly, the proposition that the fire was not lit for warmth is wholly controverted by the evidence of Ms Barrett and Mr Robinson.

491 The first aspect of the plaintiffs' submission might have raised interesting questions turning on *Heydon's Case* (1584) 3 Co Rep 7a at 7b; 76 ER 637 at 638 and s 8A of the *Acts Interpretation Act* 1931 (Tas) and the tension with the literal approach to interpretation. It might be the case, for example, that had he or she thought of it, the drafter of s 69 might have proscribed fires lit for ambience without hesitation, but might not, for example, have included in the prohibition, a fire lit as a rescue beacon or a navigation hazard warning.

492 The mischief addressed by s 69 is clearly the lighting of, even quite essential, fires within the areas set out in the section, and therefore might readily be thought to prohibit fires lit for ambience. It must be borne in mind, however, as said of s 15AA of the *Acts interpretation Act* 1901 (Cth) and s 435(a) of the *Interpretation of Legislation Act* 1984 (Vic), by Dawson J in *Mills v Meeking* (1990) 169 CLR 214 at [19]:

> "19 However, the literal rule of construction, whatever the qualifications with which it is expressed, must give way to a statutory injunction to prefer a construction which would promote the purpose of an Act to one which would not, especially where that purpose is set out in the Act. Section 35 of the *Interpretation of Legislation Act* must, I think, mean that the purposes stated in Pt 5 of the Road Safety Act are to be taken into account in construing the provisions of that Part, not only where those provisions on their face offer more than one construction, but also in determining whether more than one construction is open. The requirement that a court look to the purpose or object of the Act is thus more than an instruction to adopt the traditional mischief or purpose rule in preference to the literal rule of construction. The mischief or purpose rule required an ambiguity or inconsistency before a court could have regard to purpose: *Miller v The Commonwealth* [1904] HCA 34; (1904) 1 CLR 668 at p 674; *Wacal Developments Pty Ltd v Realty Developments Pty Ltd* [1978] HCA 30; (1978) 140 CLR 503 at p 513. The approach required by s.35 needs no ambiguity or inconsistency; it allows a court to consider the purposes of an Act in determining whether there is more than one possible construction. Reference to the purposes may reveal that the draftsman has inadvertently overlooked something which he would have dealt with had his attention been drawn to it and if it is possible as a matter of construction to repair the defect, then this must be done. However, if the literal meaning of a provision is to be modified by reference to the purposes of the Act, the modification must be precisely identifiable as that which is necessary to effectuate those purposes *and it must be consistent with the wording otherwise adopted by the draftsman. Section 35 requires a court to construe an Act, not to rewrite it, in the light of its purposes*." [Emphasis added.]

493 I said the first aspect of the plaintiffs' submission *might* have raised some interesting questions because the issue does not arise for determination given that I agree with the plaintiffs' submission that the suggestion that the fire was not lit for warmth is indeed wholly controverted by the evidence of Ms Barrett and Mr Robinson.

494 In his interview with police Mr Robinson said:

> "What was the reason for lighting it?
>
> A Ah, it was, it was sixteen degrees um, my son being ten enjoyed those things, I think when we were just burning off around the property he was just enjoying it so, yeah um, it was, *the temperatures was extremely low for that time of the year, it was sixteen*."

495 On the trial his evidence was recorded in the transcript as follows:

> "Right. What was the weather like on the night of the 28th?.....*It was cold*. So we had beanies, jackets on. Yeah, once again, a horrible summer.
>
> And you decided to light a fire in the tree stump?.....Correct."

496 In her interview with police at the Sorell police station Ms Barrett is recorded as saying as follows:

> "When was the last fire of any kind at the residence?
>
> A Yep.
>
> The um so they were the big burn offs and I think it would have been two or three weeks ago um it was, it was two or three weeks away and it was, we'd had two weeks of freezing cold or something, and Lochie, little Lochie wanted you know he said, *'Oh can we just have um a little fire to keep warm'*. So we threw about, there was three weeks, two or three weeks ago." [Emphasis added.]

497 Ms Barrett in her evidence on the trial is recorded as follows:

> "Alright. So did you say anything to Mr Robinson to the effect that it wasn't a good – it was not a good idea to light a campfire on the property in -……No, I believe the only reason why I'd say it wasn't – it's not a good idea, the reason it being is that I just couldn't be bothered. *It was cold, there was no other reason that I would say that other than I just couldn't be bothered at that time of night having a campfire*.
>
> Alright, and did you say – do you recall telling the police that you warned Mr Robinson that it was not a good idea to light a campfire but males can be hard to tell?……I don't know what you're alluding to but in the end I agreed to because Lochie wanted it." [Emphasis added.]

498 Thus, even if Mr Robinson's son enjoyed a fire, it was clearly lit for warmth on a cold evening. Having made that finding it is plain that s 69 is engaged and the question next arising is as to the consequences of a breach of that section in the context of the issue of breach of duty and s 11 of the CLA.

499 In the plaintiffs' submission, the defendant's action in lighting a fire, prohibited as it was by the *FSA*, was a breach of the duty of care they owed to the persons who had property or economic interests in the unpredictable area across which a bushfire might burn. They say that the defendants ought reasonably to have taken the precaution of setting their campfire in one of the other sites they had previously used, or not having a fire at all on 28 December 2012. They say that the criteria for negligence under s11 are made out.

Sibley v Kais and Adeels Palace

500 In *Sibley v Kai*s (1967) 118 CLR 424, a full High Court, on an application for special leave in a motor accident case involving the question of whether traffic regulations were definitive of the respective duties of drivers approaching an intersection, said at 427:

> "These regulations in nominating the vehicle which has another vehicle on its right as the give way vehicle are undoubtedly salutary and their breach is deservedly marked with criminal penalties. *But they are not definitive of the respective duties of the drivers of such vehicles to each other or in respect of themselves: nor is the breach of such regulations conclusive as to the performance of the duty owed to one another or in respect of themselves.* The common-law duty to act reasonably in all the circumstances is paramount. The failure to take reasonable care in given circumstances is not necessarily answered by reliance upon the expected performance by the driver of the give way vehicle of his obligations under the regulations; for there is no general rule that in all circumstances a driver can rely upon the performance by others of their duties, whether derived from statutory sources or from the common law. *Whether or not in particular circumstances it is reasonable to act upon the assumption that another will act in some particular way, as for example by performing his duty under a regulation, must remain a question of fact to be judged in all the particular circumstances of the case*." [Emphasis added.]

501 That question of fact will be addressed shortly. However, a consideration of s 69 of the FSA is not unimportant. In *Adeels Palace Pty Ltd v Mourbarak* [2009] HCA 48, 239 CLR 420, the High Court considered whether a licensee of licensed premises owed a duty of care to two patrons who were shot by another patron.

502 Section 125 of the *Liquor Act* 1982 (NSW) regulated conduct on licensed premises. Section 125(1)(b) obliged a licensee not to permit on his or her licensed premises "any indecent, violent or quarrelsome conduct". Contravention of the provision was an offence. Section 103(1) of the Act permitted a licensee, or his or her employee, to "refuse to admit to the licensed premises" or to "turn out, or cause to be turned out, of the licensed premises any person ... who is then ... violent, quarrelsome or disorderly" or "whose presence on the licensed premises renders the licensee liable to a penalty" under the Act. Section 103(3A) permitted the use of "such reasonable degree of force as may be necessary ... to turn a person out" of the premises. Section 103(4) of the Act obliged a member of the police force, asked by the licensee or an employee to turn out or assist in turning out a person whom the licensee is entitled to turn out, to comply with the request, and, provided that the member of the police force may, for that purpose, use such reasonable degree of force as may be necessary.

503 In a joint judgment the Court said at [20]-[22]:

> "20 It is next important to recognise that the particular provisions made in the *Liquor Act* for controlling violent, quarrelsome or disorderly conduct on licensed premises take their place in a context set by two considerations. First, sale of liquor is controlled because it is well recognised that misuse and abuse of liquor causes harm, including what the *Liquor Act* refers to as 'violent, quarrelsome or disorderly' conduct. Section 2A of the *Liquor Act* provided:
>
> > 'Liquor harm minimisation is a primary object of this Act
> >
> > A primary object of this Act is liquor harm minimisation, that is, the minimisation of harm associated with misuse and abuse of liquor (such as harm arising from violence and other anti-social behaviour). The court, the Board, the Director, the Commissioner of Police and all other persons having functions under this Act are required to have due regard to the need for liquor harm minimisation when exercising functions under this Act. In particular, due regard is to be had to the need for liquor harm minimisation when considering for the purposes of this Act what is or is not in the public interest.'

> The second and related point to make is that the duties cast upon those responsible for the service of liquor on licensed premises can be understood *as a part of the price that is exacted for the statutory permission granted under the Liquor Act. The permission granted is to do what otherwise the Act forbids* – sell liquor – and to do that on premises to which members of the public may resort only in accordance with the conditions on which the licence is granted.
>
> 21 In considering whether a common law duty of care should be held to exist in these cases, it is important to recognise that the provisions of the *Liquor Act* that have been mentioned have close analogies in other States and Territories. Though variously expressed, all States and Territories make provision for a licensee of licensed premises to remove from, or prevent the entry to, licensed premises of violent or quarrelsome persons. All State and Territory liquor legislation forbids the sale of liquor without a licence. All State and Territory liquor legislation provides for the licensing of premises on which liquor may be sold and consumed, and not only regulates the sale and service of liquor in such places, but also (as already noted) directly or indirectly regulates the conduct of persons who are on the premises.
>
> 22 *It is against this statutory background that the question of duty of care must be considered, not for the purpose of developing the common law by analogy with statute law, but to ensure that the imposition of a common law duty of reasonable care of the kind now in question would not run counter to the statutory requirements* imposed on licensees in all Australian jurisdictions." [Footnotes omitted.] [Emphasis added.]

504 Earlier, at [11] the Court had said:

> "In considering each of the issues of duty, breach and causation, it is of the first importance to identify the proper starting point for the relevant inquiry. In this case there are two statutes which require particular consideration: the *Civil Liability Act* 2002 (NSW) and the *Liquor Act* (1982 (NSW)). *If attention is not directed first to the Civil Liability Act, and then to the Liquor Act*, there is serious risk that the inquiries about duty, breach and causation will miscarry." [Emphasis added.]

505 Ultimately the case turned on a lack of proof of causation. The Court said at [53]:

> "In the present case, in contrast, the 'but for' test of factual causation was not established. It was not shown to be more probable than not that, but for the absence of security personnel (whether at the door or even on the floor of the restaurant), the shootings would not have taken place. That is, the absence of security personnel at Adeels Palace on the night the plaintiffs were shot was not a necessary condition of their being shot."

506 However, as to breach of duty, I am of the view that it is important to note that the Court said at [30]:

> "Whether any, and how many, security personnel should have been provided to satisfy the duty of Adeels Palace to take reasonable care depended upon the considerations identified in s 5B(2) of the *Civil Liability Act*: the probability that the harm would occur, the likely seriousness of the harm, the burden of taking precautions to avoid the risk, and the social utility of the activity that created the risk. No doubt the chief focus of those inquiries in these cases would fall upon the first three of those considerations."

507 The plaintiffs submit that, while the High Court in *Adeels* was mainly focused on the question of whether a duty was owed, "it seems that these matters of principle ought to apply equally to the content of the duty and the question of breach (and so much is clear from the passage from the judgment set out above [11])".

508 They submit that a clear analogy can be drawn with the circumstances of the present case, as Part V of the FSA imposes restrictions on lighting fires during the fire permit period (see for example ss 63, 64 and 66), and it can safely be inferred that the lighting of fires during the fire permit period is

controlled, because it is well-recognised that lighting fires in Tasmania in the open air or on any land during the fire permit period risks the fire spreading and causing catastrophic bushfires.

509 The second and related point, they say, is that the duties cast on those responsible for campfires by the FSA should be understood as *part of the price* that is exacted for the statutory permission granted under the Act to light campfires. It is against this statutory background, they say, that the question of the content of the duty of care must be considered. Fires lit within 3 metres of any stump, log or standing tree are expressly prohibited because of the well-recognised risk of such fires being difficult to control or extinguish, and a reasonable person in the position of Ms Barrett, in a fire prone area in the middle of summer, who was aware of fire escaping from her neighbour's property only one month earlier, would not have lit an illegal fire in a tree stump.

510 To put it another way, the plaintiffs say, a reasonable person in the position of Ms Barrett undertaking an activity that poses a potential hazard to the public safety, namely, lighting a fire on land in the open air, would comply with the law in doing so.

511 Next, that plaintiffs argue that in *CAL (No 14) Pty Ltd t/as Tandara Motor Inn v Scott* [2009] HCA 47, 239 CLR 390, the High Court quashed a finding of negligence against a licensee of a hotel who had returned keys to a motorcycle and the motorcycle itself to a patron who had been drinking in his establishment. The patron was killed during the short ride back to his home.

512 They note that the High Court overturned the findings of a Full Court of this Court against the licensee on duty, breach and causation. At [39] to [41], Gummow, Heydon and Crennan JJ pointed out that the imposition of a duty of the type pleaded against the licensee would result in legal incoherence in a sense that it lacks coherence with other torts, the law of bailment and the legislative regime in relation to alcohol. The plaintiffs accept that this analysis goes to the question of duty, rather than breach. However, they say, analogous reasoning is that a finding that Ms Barrett did *not* breach her duty of care to the plaintiffs by lighting an illegal fire in a tree stump would lack coherence with the legislative regime in relation to the lighting of fires in Tasmania.

513 These arguments are attractive and not without merit, to the extent at least that it seems to me that s 69 of the FSA, cannot be ignored on the question of what a reasonable person might do, and as noted in *Sibley v Kais* (above), on the question of fact as to whether or not in particular circumstances it is reasonable to act upon the assumption that another will act in some particular way, as for example by performing a duty under a statute. Moreover s 69 is "salutary" and must be seen as addressing an understood risk of such fires being difficult to control or extinguish. However, in my view, the passages set out above from *Adeels Palace* at [11] and [30], enjoin me to first view the question of breach through the prism of s 11(2) of the CLA. While that section does not exclude "other relevant things", if the probability that the harm would occur if care were not taken, and the likely seriousness of the harm were low, and the burden of taking precautions to avoid the risk of harm and the potential net benefit of the activity that exposes others to the risk of harm were high, there might be limited scope for the question of breach to turn on the statutory duty, as *Sibley v Kais* itself demonstrates. The question remains one of fact and the finding is not foreclosed by the mere existence of s 69.

Breach of duty and s 11 of the CLA

514 The first defendant submits that there was no breach of duty in the circumstances of this case.

515 Ms Barrett says that the case argued by the plaintiffs is that it was negligent to light a fire in a tree stump and then inadequately extinguish it by use of dirt and water only. But she says, the question is, were the actions taken unreasonable? She says that the law of negligence will ordinarily reflect the foresight, reactions and conduct of ordinary members of the community.

516 She notes that in *Derrick v Cheung* [2001] HCA 48, 181 ALR 301 at [13], the High Court said:

> "Few occurrences in human affairs, in retrospect, can be said to have been, in absolute terms, inevitable. Different conduct on the part of those involved in them almost always would have produced a different result. But the possibility of a different result is not the issue and does not represent the proper test for negligence. That test remains whether the plaintiff has proved that the defendant, who owed a duty of care, has not acted in accordance with reasonable care."

517 The risk of harm, she says, for the purposes of s 11(2) of the CLA is the risk of the campfire igniting surrounding combustible material and escaping, and that the circumstances relevant to the s11(1)(c) judgment are those surrounding *this* fire on *this* property on the days of the alleged breaches. The following matters are submitted as important.

- Ms Barrett and Mr Robinson had spent much time clearing around the first defendant's home to minimise the risk of fire damage to the residence, including around the old stump.
- They had lit prior campfires and much larger bonfires in the same location on a number of occasions, and there had been no issue.
- There had never been any suggestion that one or more of these fires continued to burn underground.
- There had never been any suggestion that one or more of these fires escaped or burnt surrounding vegetation.
- The property was described by Mr Robinson as "extremely arid, dry. I think someone referred to it as a goat would find it hard to find a feed. So it's just very dry, arid, hard land".
- It was a small campfire situated away from the back of the stump.
- The stump was situated in a bare area of ground with little, if any combustible material near it.
- It was lit by Mr Robinson "to enhance the camping experience of a young boy" who slept with his father in a tent once it had been extinguished.
- There is no suggestion that sparks or embers from the fire escaped or caused damage on the night of the campfire.
- When the defendants decided to retire, the fire had "burnt down", soil was placed on the fire, and then approximately 1.5 litres of water poured on it.
- The fire pit was examined on the day after the fire and no evidence was found consistent with the fire continuing to burn.
- The first defendant saw a wisp of steam coming out of the stump when it was raining "on the day after" the campfire.
- There was quite heavy rain in the days after the first defendant saw the steam and, at no time after she saw it, did she notice anything unusual or any sign to indicate that the small campfire had not been extinguished.
- She did not observe any further signs of smoke, steam or fire coming from the stump remains. She would pass the subject stump by foot and by car on numerous occasions each day.
- Steam from the stump is not evidence that the roots were combusting.
- There was a gap of 6 days from the campfire to the time the plaintiffs say the fire ignited.

518 The first defendant asks, in these circumstances, would a reasonable person in the first defendant's position have taken precautions to avoid the risk?

519 I pause before proceeding to observe that I have found against the first defendant on the issue of when it first rained after 28 December 2012 and also on the argument that the fire was not one proscribed by s 69 of the FSA. And I do not accept that steam emanating from the stump was not evidence of combustion.

520 The first defendant says that the precautions pleaded in the amended statement of claim, and why it is submitted that they are not precautions which a reasonable person in the first defendant's position would be expected to take, can be summarised under the rubrics that follow.

The fire should not have been lit at all

521 Ms Barrett says that the fire was lit at night outside any period of fire warning or ban, there was effectively no wind, and the ground surrounding the stump was clear of vegetation.

522 She notes that the s 61 fire permit period advertised in the Mercury newspaper on 28 November 2012 stated that:

> "While the fire permit period is in place the following will apply: People intending to light a fire for cooking, warmth or disposal of garden waste do not require a permit provided that:-
>
> The fire is not lit in peat, humus or marram grass.
>
> The fire is attended by a responsible adult at all times until it is extinguished.
>
> All flammable material is removed for at least 3 metres radius from the fire.
>
> It is less than 1 cubic metre in size."

523 Ms Barrett says that there is no evidence that the fire lit by her and Mr Robinson was outside these provisos, but that cannot be correct. The old stump itself comprised flammable material and it is clear that the campfire was lit within its pit and certainly closer than three metres away. If it cannot be removed from the site of a proposed fire then the fire must be removed from it. And I have already found against Ms Barrett on the argument that the fire was not lit in breach of s 69 of the FSA.

All combustible vegetation should have been removed from the area around the stump prior to lighting a campfire

524 The first defendant says that this suggestion by the plaintiffs puts the duty at too high a level. It in effect alleges a strict duty, not one to take reasonable care. The first defendant had taken reasonable and significant steps to keep her land well cleared from the risk of bush fire.

525 She says that Mr Robinson described the area around the stump as mainly just dirt with hardly any vegetation at all, so he considered that was "a low risk place".

526 Save, to the extent that the old stump might implausibly be described as vegetation, this particular does not speak to breach of duty. There was nothing else of concern in the "area around the stump".

It ought to have been extinguished on the night by thoroughly dousing the fire pit within the tree stump with water, soil or other extinguishing agents and turning over the coals in the tree stump

527 Ms Barrett says that both soil and water were used by her and Mr Robinson to extinguish the fire. She points to what Mr Bones wrote in the TFS investigation report:

> "Information received from Melissa and Hamish indicates that the campfire 'glowing' coals were first smothered with dirt. This action in itself would have insulated the coals, as a result kept the latent heat in the surrounding area, at this point there may have already been ignition of roots. If this was the case then this action would have starved the fire of oxygen promoting slow smouldering burning. Even though an amount of approximately 15 litres of water has been placed on the dirt this is not going to *guarantee* extinguishment as the soil on top of the coals would have prevented the water cooling them and the surrounding area …".

And she submits that a reasonable person in her position is not required to "guarantee" anything. She says she was only required to take reasonable steps to avoid a foreseeable risk of harm. She says that she and Mr Robinson were confident the fire had been extinguished. That of course is not the test either. The question is begged as to whether what they did amounted to reasonable steps.

528 Ms Barrett says that *Burnie Port Authority v General Jones Pty Ltd* (above) is sometimes relied on to argue that a "practical guarantee of safety" might be required if something had an "inherently dangerous nature". But, she says, I did not take that approach in *Brocklands Pty Ltd v Tasmanian Networks Pty Ltd* (above) at [263] where I declined to impose such a guarantee of safety where defective electrical infrastructure caused significant property damage to the plaintiff's property, notwithstanding the inherently dangerous nature of electricity.

529 That is correct. However, what I did say was that "[g]iven the inherently dangerous nature of electricity, the standard of that duty of care was high". So too is it in the present case. The plaintiffs do not argue that the first defendant is to be held to anything other than the variable civil standard of care, or even that the imposition of a non-delegable duty results in any kind of guarantee arising.

530 What was said on this subject by the High Court in *Burnie Port Authority* (above) at 554 needs to be read in its full context. It is as follows:

> "Where a duty of care arises under the ordinary law of negligence, the standard of care exacted is that which is reasonable in the circumstances. It has been emphasized in many cases that the degree of care under that standard necessarily *varies with the risk involved and that the risk involved includes both the magnitude of the risk of an accident happening and the seriousness of the potential damage if an accident should occur*. Even where a dangerous substance or a dangerous activity of a kind which might attract the rule in *Rylands v Fletcher* is involved, the standard of care remains 'that which is reasonable in the circumstances, that which a reasonably prudent man would exercise in the circumstances'. *In the case of such substances or activities, however, a reasonably prudent person would exercise a higher degree of care*. Indeed, depending upon the magnitude of the danger, the standard of 'reasonable care' may involve 'a degree of diligence so stringent as to amount practically to a guarantee of safety'." [Footnotes omitted.] [Emphasis added.]

531 The first defendant's submissions under this heading continue by pointing out that the TFS guidelines state that:

> "A cooking fire can also be built in a shallow hole dug in the ground. At the completion of cooking it can be covered with soil and safely left."

532 This, she says, suggests that the use of soil is an appropriate measure to take to extinguish a small fire, particularly for ordinary members of the community who arguably would not be aware of the potential for roots to burn underground. The TFS Guidelines make no reference to this phenomena.

533 I do not regard that submission as helpful. The comparison between a shallow hole dug in the ground and the bole of an old stump is odious.

There ought to have been inspection in the days following the fire to verify that there was no continuing heat, steam or other indicia of continued burning in the tree stump or its root system, and in particular, following observations of steam, there ought to have been rigorous inspection with continued dousing and turning of coals, and report what she had seen to the local fire authority.

534 Ms Barrett says that this suggestion by the plaintiffs puts the standard too high and that what she and Mr Robinson did was reasonable in that it reflected the foresight, reactions and conduct of ordinary members of the community. As will be seen, I disagree

535 She asks rhetorically, ought a wisp of something that might have been steam or smoke or perhaps even ash at a time when it was raining alerted her to the need to take action? Again, she says that question is to be answered by reference to all the circumstances. The fact that it rained during the days that followed and neither she nor Mr Robinson observed any other steam tells against a finding that anything more was needed.

536 Ms Barret points out that in the recent New South Wales Court of Appeal decision of *Woodhouse v Fitzgerald* [2021] NSWCA 54 "there are useful examples of the sort of facts that ought be taken into account". She says that the discussion culminates in the judgment of Basten JA (with whom Meagher and Payne JJA agreed at [72]:

> "In my view, on the evidence available to the trial judge, a finding of lack of reasonable care was not available. While it may be accepted that the standard of care is high when dealing with fire, and it may also be accepted that there was in fact a precaution which probably would have succeeded in avoiding the subsequent outbreak had it been taken, it does not follow that the failure to take the precaution of itself demonstrated that the precaution was necessary to fulfil a duty of care."

537 That observation of Basten JA needs to be regarded in the factual context of the case. That can be gleaned from the preceding passages from his Honour's reasons at [68]-[70] where he said:

> "68 With hindsight, the cause of the fire which occurred on 5 September has been established on the balance of probabilities. Whether dousing the tree with water would have had any effect was unclear. One witness gave evidence that water would have no effect without fire retardant. No one asked Mr Knowles if it was general practice at the time to use fire retardant in such exercises. Certainly there had been rain (and even some snow) between the time of the controlled burn and the wildfire on 5 September. In the end, the question was whether it was unreasonable, and a breach of duty, for those in control of 'Doran' not to have used a bulldozer to knock over the tree and expose the roots. While bulldozing a control line around the tree would have been difficult, if not impossible, because of the large rocky outcrop, Mr Suthern agreed that it would have been possible to knock the tree over. (That only required one access route for the bulldozer.)
>
> 69 The judge relied upon the fact that that step had been taken with respect to another tree as support for the conclusion that it could have been taken with respect to the hollow snow gum. However, capability was not the test. The reason why the other tree had been bulldozed was, according to Mr Knowles, because there was fire both in the tree and nearby logs, as a result of which a control line had been created with the bulldozer and at least one tanker had been called out to douse the fire. The timber had then been buried.
>
> 70 The mere fact that a particular precaution might have been taken, in the knowledge that the situation contained a contingent risk, namely an undetected fire, but without any basis for thinking that the risk in fact existed, did not entail the conclusion that the only reasonably open course was to bulldoze the tree. There was in fact no evidence to suggest that the course was the only reasonably available course. Professor Adams agreed it was a matter of judgment to be exercised, in this case, by Mr Knowles. Further, the finding of negligence assumed that Mr Knowles' focus should properly have been on this tree to the exclusion of other parts of the property. Since the tree was surrounded by burnt grass, it was clearly thought by Mr Knowles to constitute less of a risk than Wolfram Hill, which had not been burnt, although fire had apparently impacted the Hill in parts and there was fallen timber which might have posed a risk."

538 Again the comparison between the facts of that case and the present is unhelpful.

539 The first defendant next says that the plaintiffs rely on rainfall measures provided by BOM, but that the first defendant gave evidence that it was not uncommon for it to rain at her property while not raining elsewhere. Her evidence, and that of Mr Robinson, she says show the BOM records to be inaccurate for the area in which she lived.

540 As will have already been noted, I do not accept that submission.

541 The first defendant was adamant that she saw the steam on 29 December 2012 when it rained. The presence of rain on 29 December was corroborated by the second defendant. The existence of rain on 29 December 2012 was further substantiated by the fact the tent which was used by the second defendant and his son the night prior on 28 December 2012, needed to be taken down due to rain. I have already found against the first defendant on these issues. As has been seen, I do not accept that it rained prior to 1 January 2013 and I do not accept that Mr Robinson's tent needed to be taken down because of rain on 29 December 2012.

542 In conclusion, on the issue of breach of duty the first defendant submits that the evidence establishes that Ms Barrett and Mr Robinson acted in a manner that would ordinarily reflect "the foresight, reactions and conduct of ordinary members of the community and as such did not breach any duty of care owed to the test plaintiff."

543 I turn then to the plaintiffs' answer to that submission of the first defendant on key issue 3.

544 The plaintiffs commence on this issue with an analysis under the CLA, addressing:

"(a) the common law principles concerning the duty of care owed by Ms Barrett;

(b) the provisions of the CLA as they inform:

(i) the nature of the risk of harm that presented;

(ii) its foreseeability, and

(iii) the appropriate precautions to avoid the risk of harm

(c) an analysis of the alleged breaches of duty by Ms Barrett; and

(d) the common law principles concerning whether Ms Barrett's duty was non-delegable and, if so, whether she is liable for any breach of duty by Mr Robinson;

(e) how and why liability should be apportioned between Ms Barrett and Mr Robinson."

Duty of care

545 The plaintiffs say that Ms Barrett admits by her amended defence to the plaintiffs' further amended statement of claim she owed a duty of care to persons in the district who had a proprietary interest in property.

546 More specifically, she admits that:

"(a) on 3 January 2012:

(i) the weather conditions in the District were hot, dry and windy;

(ii) a total fire ban had been declared;

(iii) a warning had issued by the Bureau of Meteorology (**BoM**) that any bushfires, if they were to break out, would spread rapidly and be difficult to control; and

(iv) the fire danger rating was 'very high to severe';

(b) at all material times, being on 28 December 2012 and in the days following, she had practical control over the property, campfire and tree stump; and

(c) on and from 28 December 2012 she knew or ought to have known:

(i) the Forcett area (being the District as pleaded) was an area of high bushfire risk when conditions were hot, dry and windy; and

(ii) a fire which ignited in those conditions could spread over a wide area and cause damage to property."

547 The plaintiffs say that those admissions, along with the fact she was the owner of the land from which fire escaped, give rise to a well-known category of duty. They rely on *Burnie Port Authority* (above). They say that the existence of a duty of care is to be determined as a matter of common law. The question whether the duty was breached in a manner amounting to negligence is to be determined according to the analysis required by Part 6 of the CLA. They rely on *Benic v State of New South Wales* [2010] NSWSC 1039; *PWJ-1 v The State of New South Wales* [2020] NSWSC 1235 at [67] ff; *Gunnersen v Henwood* [2011] VSC 440 at [360] ff and *Erickson v Bagley* [2015] VSCA 220 at [32]ff.

548 I accept those propositions as correctly stating the law

549 So, the plaintiffs say, for the moment, it may be said that Ms Barrett owed a duty to take reasonable care to avoid risk of harm and that it was not a duty to ensure that no harm befell the plaintiffs but rather it was a duty to take *reasonable* care, (*Vairy v Wyong Shire Council* [2005] HCA 62, 223 CLR 422, per Hayne J at [118] in the context of statutory authorities owing a duty of care).

550 They say that it may also be said that the standard of care required of a landowner with respect to the escape of fire is particularly stringent, and that even before *Burnie Port Authority*, the law of negligence recognised "the grave and widespread consequences of a bush fire may make the liability of a careless individual ruinous for him; but this only emphasizes the seriousness of the duty of care *Hargraves v Goldman* (1963) 110 CLR 40 per Windeyer J at p 73)."

551 The plaintiffs also rely generally on *Burnie Port Authority* and *AD & SM McLean Pty Ltd v Meech* [2005] VSCA 305, 13 VR 241, for the proposition that it is appropriate to describe the duty as "stringent" or of a "special kind", such that it required the landowner to exercise "special care" or take "special precautions" and to "ensure that reasonable care was taken".

552 In the plaintiffs' submission a similar approach ought to be taken toward Ms Barrett's obligations of care in the present case. This, is not, they say, to elevate her exposure to anything like a strict liability but simply to emphasise that community standards, reflected in the legal standard, would expect her genuinely "to exert herself – to make a real effort – to be careful as to the circumstances and location in which she lit or permitted a fire to be lit, and as to the steps taken to be absolutely sure that the fire was completely extinguished." They say that the evidence has shown that her efforts were perfunctory at best. As will be seen, I accept that submission.

Breach of duty – "risk of harm"

553 Next the plaintiffs say, again correctly, that the question whether Ms Barrett breached her duty of care to the plaintiffs commences with a consideration of the provisions of the CLA, and that the first step is that the plaintiffs must identify the "risk of harm" against which they allege a defendant would be negligent if reasonable precautions were not taken.

554 It is essential I agree, in considering the first step to identify the particular risk of harm to which the later steps will be applied. It is only through the correct identification of the risk that an assessment of the reasonable response can be made. See *RTA v Dederer* [2007] HCA 42, 234 CLR 330 at [59]-[61] and *Hunt & Hunt v Mitchell Morgan* [2013] HCA 10, 247 CLR 613 per French CJ, Hayne and Kiefel JJ at [43].

555 I also accept that at this stage of the inquiry it is sufficient if the risk of harm is described as a class of injury, as distinct from the particular injury actually suffered by the plaintiffs. This approach accords with the traditional common law approach (*Chapman v Hearse* (1961) 106 CLR 112 at 115; *Mount Isa Mines Limited v Pusey* (1970) 125 CLR 383 at 390 per Barwick CJ, at 403 per Windeyer J, at 414 per Walsh J) and more recent authority in this jurisdiction in *Langmaid* (above) at [140] where Porter J said:

> "Lack of evidence about the precise mechanism of how injury or damage came to be suffered does not necessarily prevent the inference being drawn about the causal link. To begin with, a plaintiff does not have to establish that the precise sequence of events leading to the particular damage was foreseeable. It is sufficient if the general kind or type of injury is reasonably foreseeable: *Chapman v Hearse* [1961] HCA 46; (1961) 106 CLR 112 at 121; *Rosenberg v Percival* [2001] HCA 18; (2001) 205 CLR 434, per Gummow J at [64]; *Metrolink Victoria Pty Ltd v Inglis* (2008) 25 VR 633 per Neave JA at 636 [12]"

556 The plaintiffs note that s 9 of the CLA defines harm to include damage to property and that the test plaintiff's claim for damages, as agreed between the parties, is for damages of that kind.

The risk of harm in this case

557 Next the plaintiffs accept that the notion of "risk of harm" is not a straightforward one and that "harm" directs attention to the potential consequence, but "risk" implies something about the mechanism by which the consequence might be brought about.

558 The plaintiffs pleaded the relevant "harm" as death or injury to persons, loss of or damage to property, and consequential losses including economic losses, resulting from a bushfire (or more precisely, a bushfire spreading across a wide geographic area determined by wind and fuel conditions), and, that the "risk" giving rise to that harm was "lighting, permitting or failing to extinguish" a fire on the property (or a fire in a wooden receptacle like a dead tree stump) in hot, dry and windy conditions, or in anticipation of such conditions.

559 The plaintiffs accept, for present purposes, that the enquiry as to "risk of harm" requires that attention be given both to mechanism and consequence. Accordingly, the pleaded risk of harm is, in synthesis they say:

> "The risk that lighting, permitting or failing to extinguish a fire on the Barrett property (or a fire in a wooden receptacle like a dead tree stump) in hot, dry and windy conditions, or in anticipation of such conditions, could lead to a bushfire spreading across a wide geographic area and causing death or injury to persons, loss of or damage to property and consequential losses including economic losses."

560 Then, the plaintiffs say, having identified the risk of harm, the next step is to address the three elements in s 11, namely:

(d) foreseeability,

(e) probability; and

(f) reasonable precautions.

Foreseeability

561 The plaintiffs accept that they must establish that the risk of harm was foreseeable to Ms Barrett. Under s 11(1)(a) of the CLA, a risk is foreseeable if it is one about which Ms Barrett knew or ought to have known.

562 In their submission, the question of foreseeability is foreclosed and determined by the circumstance that the Tasmanian Parliament has legislated a prohibition on the lighting of fires for warmth within 3 metres of tree stumps or logs. In their submission, s 69(a) of the FSA is a legislative expression of foreseeability.

563 I have already dealt with the question of s 69(a). As I said, the plaintiffs' arguments are not without merit. I also recognise that it could lead to legal incoherence in the sense that it would lead to inconsistency between the law of negligence and the the legislative regime in relation to lighting fires

in the open, if it were to be held that s 69(a) was not a legislative expression of foreseeability. It is the recognition of that foreseeability that is inherent in the relevant prohibition, and the mischief to which the section is directed is obvious.

564 In the final analysis, it is not necessary for me to make the question of the effect of s 69 a dispositive consideration as I accept the plaintiffs' submission that, in any event, the evidence shows that Ms Barrett had an acute, actual awareness, both of the general risks associated with the lighting or management of fires on her property, and of the specific risks associated with fires in tree stumps.

565 In their written closing submissions the plaintiffs say:

> "Ms Barrett had long experience of bush blocks. Her sister had a block at Kingston, and Ms Barrett was well familiar with the recommended precautions for managing bushfire risks on such properties. Ms Barrett fully recognised fire risk in the Forcett area. From the time she acquired 242 White Hill Road she was meticulous in clearing the defendable zone immediately around the residence, and in reducing the vegetation fuel-load elsewhere on the block. She had seen the TFS booklets on managing bushfire risks, but in any event she regarded their recommendations as 'common sense'."

566 As to the general risks they say:

- she had cleared her property during the winter months to manage the trees and foliage;
- she conducted burn offs in winter to mitigate the risk of fire in summer;
- she knew not to have fires on a day of total fire ban, and by inference she knew there was a risk of harm in lighting the fire on 28 December 2012;
- she said that she was allowed to light fires "before a restriction". And that she was always aware when fire restrictions were out and when she needed a permit for things. She said that she follows "all the regulations and rules" and that it was "just common sense;
- she observed Mr Robinson kick soil over the fire (although his evidence was that this was to prevent the coals been blown away if the wind "got up" again overnight, not to extinguish the fire);
- she made attempts to extinguish the fire herself, pouring two half buckets of water (an estimated total of only 15 litres), onto the soil already kicked into the pit by Mr Robinson, before she went to bed.

567 As to the specific risks associated with fires lit in tree stumps, they say:

- she emphasised (as was clear from her management of her own property) that she had long experience in bush settings, and specifically in relation to campfires and burning off in bush settings;
- when taken to the TFS brochure entitled '*Guidelines for Vegetation Burns*', and the specific dot-points prohibiting the lighting of fires in tree stumps, Ms Barrett specifically admitted that it "all makes common sense";
- although she said her resistance to the campfire on 28 December had been occasioned by a lack of enthusiasm not a concern about risks, and although Mr Robinson did not remember her raising an objection at all, when Mr Butler on 3 January 2013 asked her about the campfire her immediate response was to refer to having been "against" it but that "sometimes men don't listen too well". (The inference drawn from this and generally from Ms Barrett's guarded and defensive statements and evidence about the fire and when it was lit, is that she had known it was unsafe to light fires in tree stumps during summer);
- indeed when the bushfire started, her intuition was that it had something to do with the campfire in the stump. That intuition explains her exchange with the Dodges Ferry fire brigade, all three

members of which remembered her referring to a campfire and her demeanour during the early part of the police interview at the Sorell police station.

568 In all of the circumstance, I accept the plaintiffs' submission that Ms Barrett had actual awareness not merely of the general risks associated with fire on her property, but also of the specific risk that a campfire lit in the old stump could result in "a hard-to-detect continuing burn somewhere within the structure, that could re-emerge to create the risk of a wildfire." To the plaintiffs' list of considerations relevant to this issue, I add that Ms Barrett told the police on interview that sometimes, in the days after the larger bonfires she had lit in the old stump when clearing, she would notice the area within the rim of the old stump still smoking or steaming. She said that she would pour more water into the pit and saw it "bubbling and sizzling".

569 Moreover, given s 69 of the FSA and the TFS booklet(s) that Ms Barrett had had "for a couple of years" and which specifically warned against campfires in tree stumps, I agree that it is quite clear that Ms Barrett *ought reasonably* to have known of the risk that a campfire set in the stump could lead to a wildfire and the range of harms pleaded in the further amended statement of claim.

Risk of harm "not insignificant"

570 The second element in s 11 of the CLA enquires whether the alleged risk of harm was "not insignificant".

571 In *Benic* (above), Garling J at [101] set out a number of principles concerning the meaning of "not insignificant", namely:

- the assessment of the risk of harm is one made in prospect and not retrospect – hindsight has no part to play;
- the test sets a higher threshold than the common law test, and this was intended to limit liability being imposed too easily;
- "not insignificant" is intended to refer to the probability of the occurrence of the risk;
- the probability of an occurrence is both a quantitative measurement, which may but does not necessarily reflect a statistical and numerical assessment, and also an evaluative measurement which depends upon the context of facts, matters and circumstances for its meaning;
- whether a risk is "not insignificant" must be judged from the defendant's perspective, and must be assessed more broadly than by reference to a mere reductionist mathematical formula.

572 Turning to the present case, and looking prospectively from Ms Barrett's position on the night of 28 December 2012 and then over the days up to 3 January 2013, the plaintiffs say that the probability of the occurrence of a bushfire associated with the campfire and the stump was clearly "not insignificant" They say that the evidence supports the following propositions:

- the risk of smouldering underground burns in root systems, making it inadvisable to light campfires in tree stumps, was and was to her "common sense";
- weather conditions in the district could change rapidly in late December and early January, from cool, wet days to hot, dry and windy days;
- the local district was a high bushfire risk area in summer time;
- an undetected smouldering burn in a tree stump could, if it re-emerged on a hot, dry and windy day, easily ignite a wildfire that was unlikely to be easily contained;
- a campfire set in the stump in the late evening was likely to be left to burn (and was left to burn) overnight, giving ample time for heat transfer into the root system;

- Ms Barrett's neighbours at 244 White Hill Road had a fire escape from their property only two months prior (before the Fire Permit Period commenced on 28 November 2012).

573 The plaintiffs make a further observation on this question of "not insignificant". That is, that s 69 of the FSA is again relevant to my assessment. In their submission, the consideration that the legislature has seen fit to prohibit campfires in tree stumps of the kind involved in the present case is a powerful indication that the risk of continuing smouldering burns in tree stumps was indeed a significant one.

574 I think that is right. Notwithstanding my cautious approach to the reach of s 69, it cannot be otherwise than that legislature, in enacting that prohibition, must have regarded the probability of hard to detect and hard to extinguish fires escaping from such a campfire and causing harm, as a significant one

575 In all of those circumstances, the plaintiffs submit that "the probability-focused enquiry" required by the "not insignificant" element of s 11 of the CLA compels a conclusion that the probability that a campfire lit in the tree stump could lead to an undetected smouldering burn, and in turn re-emerge to ignite a wildfire, was sufficiently high that the risk was not insignificant.

576 I accept that submission.

Reasonable precautions

577 The third element of s 11(1) of the CLA directs attention to the conduct of a "reasonable person". This element is, as the plaintiffs say, perhaps the one which most closely reflects the common law. As said by Campbell JA (with whom McColl JA and Sackville AJA agreed) said of the New South Wales equivalent of s 11(1) in *Roads and Traffic Authority of NSW v Refrigerated Roadways Pty Limited* [2009] NSWCA 263, 77 NSWLR 360 at [177]:

> "177 While section 5B(2) articulates clearly the process of reasoning that would have been involved under the common law in application of the test in Shirt for identifying what steps the taking of reasonable care requires, it does not show any intention to alter the common law on that topic. That view of section 5B(2) has been applied previously in this Court: *Council of the City of Liverpool v Turano* [2008] NSWCA 270; (2008) 164 LGERA 16; 51 MVR 262 at [171] per Beazley JA (with whom Hodgson JA substantially agreed), [362] per McColl JA."

578 As identified by the plaintiffs, there are two major elements to be noted in respect of the third element of s 11(1). First, the enquiry is directed at the overall reasonableness of taking particular precautions. It follows that the precautions which are alleged to have been necessary must be articulated. Second, the enquiry in relation to each such precaution is required to address the considerations mandated by ss 11(2) and (3). Those factors are non-exhaustive, but so far as the statute does speak, it identifies them as:

> "(a) the probability that harm would occur if care is not taken;
>
> (b) the likely seriousness of that harm;
>
> (c) the burden of taking precaution to avoid the risk of harm [under s 11(3), this consideration extends to the burden of taking precautions to avoid other, similar risks of harm]; and
>
> (d) the potential net benefit of the activity that created the risk of harm."

579 On this third key issue as to breach of duty the plaintiffs say that because the enquiry mandated by s 11(1)(c) of the CLA depends upon the particular precaution in issue, their submissions as to negligence address each of the breaches of duty pleaded in the amended statement of claim, as each of them turn upon the failure to take particular precautions. They do so under the following rubrics,

considering as they proceed, the s 11(2) issues of probability, seriousness, burden and benefit, respectively.

Breach – lighting the campfire

580 The plaintiffs note that the first pleaded breach concerned Ms Barrett's (and Mr Robinson's) actions in lighting the campfire in the tree stump in the first place. The precaution that they say should have been taken in that regard was not to light the campfire in the stump.

581 They say that s 69 of the FSA reflects a legislative assessment that the probability of dangerous smouldering burns is too high to be tolerated, and too serious to be suffered without punishment, hence the provision creates an offence punishable by a fine not exceeding 50 penalty units.

582 In the plaintiffs' submission, considerations of "coherence" between the common law and applicable statutes compels a conclusion that Ms Barrett's and Mr Robinson's action of lighting a fire prohibited by the FSA was, per se, an unreasonable action. I have already said that I accept that submission in that context.

583 In any event, the plaintiffs say that even without regard to s 69, Ms Barrett regarded it as "common sense" not to light fires in or near stumps or logs. They say that she knew or ought reasonably to have known that the combination of lighting such a fire, and the changeable weather conditions in the high-bushfire risk area in which she lived, "created a real and not fanciful risk of a smouldering burn and a later wildfire." They also note that she was expressly informed, in the safety booklet she received from the TFS, that such a fire was not to be lit.

584 They submit that there was no meaningful "burden" on Ms Barrett (or Mr Robinson) in taking the precaution of not lighting their campfire in the old stump. They had lit campfires on the property before, at various locations across the cleared area north and north east of the house, well away from other vegetation and certainly away from the old stump. They could have used one of those former campfire sites instead of the old stump.

585 They submit that there was no "net benefit" or social utility in lighting the campfire in the old stump, as opposed to lighting it on one of the other sites they had used in the past or, indeed, going without a campfire at all.

586 In the plaintiffs' submission, the action of the first defendant and Mr Robinson in lighting a fire prohibited by the FSA was a breach of the duty of care they owed to the persons who had property or economic interests in the unpredictable area across which a bushfire might burn. They ought, the plaintiffs say, reasonably to have taken the precaution of setting their campfire in one of the other sites they had previously used, or not having a fire at all. They say that criteria for negligence under s 11 are made out.

587 I accept that submission. In doing so however, I am not to be taken as so concluding solely on the basis of the illegality of the campfire. As will be seen, ultimately I am of the view that in the particular circumstances of this case it is reasonable for the plaintiffs to have assumed that Ms Barrett, at least, would perform her duty under s 69(2) of the FSA, but I judge that question of fact in *all* of the particular circumstances of this case. The breach of s 69(2) is a fact among many others which have been canvassed, which combine to answer the question of this alleged breach of duty in favour of the plaintiffs.

Breach – failure to extinguish

588 The second pleaded breach was the defendants' failure to take adequate steps to extinguish the fire, first at bedtime on 28 December 2012 and then on the following morning. More particularly, the plaintiffs say that the required precautions were:

- on 28 December – to thoroughly douse the pit with water, soil or other extinguishing agents, whilst turning over the coals to ensure they were all extinguished; and
- on 29 December – to inspect the stump and verify that there was no indicia of continued burning.

589 The evidence is that, at bedtime on 28 December, Mr Robinson kicked soil over the coals, not to smother them but simply to stop them blowing away if the wind picked up overnight. Ms Barrett poured two half-buckets of water, estimated by Mr Bones to be around 15 litres, over the soil-covered coals.

590 The plaintiffs say that it is clear from that evidence that Mr Robinson did not expect the soil to smother the coals. He expected they would continue burning. He hoped they would self-extinguish. But the problem, identified by the TFS, was that the soil in fact acted as a buffer between the coals and the water that Ms Barrett later poured over. The soil prevented the water from contacting all the burning surfaces of all the coals, in sufficient volumes to extinguish combustion in all the coals.

591 I accept that what Mr Robinson did was either alone or in combination with the steps taken by Ms Barrett, insufficient to wholly extinguish a fire of the nature and duration he described, in particular for the reasons identified by the TFS. However I can find nothing in the evidence to support the plaintiffs' submission that Mr Robinson expected that the coals would continue burning and only hoped they would self-extinguish. I acknowledge that Mr Robinson kicked soil over the coals to stop them blowing around if the wind got up, but he was subsequently aware of Ms Robinson pouring water on the soil-covered coals.

592 I accept the plaintiffs' submission that the coals did not self-extinguish and that the reason they did not is well understood. The TFS pamphlets on campfire safety exhort the public to "soak it, stir it, soak it again". Ms Barrett's own expert witness, Mr Thomas, gave evidence that a considerable amount of water would need to be applied to the hot coals of a campfire in order to extinguish them.

593 Turning to the morning of 29 December 2012, the plaintiffs say that, putting to one side the question whether that was the morning when Ms Barrett noticed steam rising from the stump is that, Ms Barrett did nothing to check the status of the campfire and Mr Robinson held his hand over the pit, felt no heat and therefore assumed the fire was completely extinguished. However, they point out, he did not disturb the soil and ashes at the base of the pit.

594 They say that Ms Barrett clearly did not do anything that might be regarded as discharging her personal duty of care to ensure the fire was out, and that Mr Robinson's "perfunctory check" was not adequate. And they submit that Dr Marsden-Smedley's unchallenged evidence was that the appropriate way to check that the ashes were cold were first to hold the back of one's hand over the ashes and then, if that step suggested the ashes were cold, to turn over the ashes to see whether smoke or steam or heat were released.

595 The plaintiffs say that precautions pleaded by the defendant and validated by Dr Marsden-Smedley were not taken, and that the probability of the risk of harm, and the seriousness of the risk of harm, that were associated with inadequate steps to extinguish the fire were the same as those associated with the lighting of the campfire in the stump in the first place. They say that "the defendants were literally playing with fire, in summertime conditions in a high bushfire risk area. They needed to exert themselves to ensure the fire was out. They did nothing of the sort. Their efforts were perfunctory."

596 They then submit that there was no appreciable burden on the defendants in taking more care to extinguish the fire. All it would have required was using a stick or shovel or other implement to turn over the ashes in the pit, and a re-check to discover, as must have been the case, that there was continuing heat under the surface. And then proper precautions would have required more digging to expose all the coals and the base of the bole of the stump, and then to fill the pit with water.

597 They say that there are no considerations relating to "net benefit" or social utility that militate against a conclusion that the defendants' duty of care required them to take the precautions outlined above. On the contrary, it is submitted that s 69 of the FSA has further work to do within this alleged breach of duty in that s 69(3) required Ms Barrett not to leave the campfire unattended unless it was "completely extinguished". They say that this was the price she had to pay for the permission to light any campfire on her property and that again, therefore, she and Mr Robinson were negligent in respect of the second aspect of "breach" pleaded against them.

598 It will be recalled that I have not wholly embraced the plaintiffs' *Adeels Palace* "price to be paid for permission" submission. However, again ultimately I am of the view that in the particular circumstances of this case it is reasonable for the plaintiffs to have assumed that Ms Barrett, at least, would perform her duty under s 69(3) of the FSA, judging that question of fact in *all* of the particular circumstances of this case. That breach of s 69(3) is a fact among others which have been canvassed, which combine to answer the question of this alleged breach of duty in favour of the plaintiffs.

599 If this seems harsh, the fact remains that whatever Ms Barrett believed when she poured a relatively small quantity of water on the soil-covered coals, the fire was not completely extinguished. Something that I find could have been discovered and remedied if the coals had been turned over and inspected in accordance with the TFS slogan, "soak it, stir it, soak it again".

Breach – inadequate response to steam

600 The plaintiffs submit that the objective evidence provided by the BOM data strongly suggests that Ms Barrett observed the steam rising from the stump not on 29 December 2012, but rather on 1 or perhaps 2 January 2013. I have already found to that effect.

601 The plaintiffs say that it is unnecessary here to recapitulate her observations, as what matters is that she was not concerned, and did nothing meaningful in response. She said she walked over to the stump and looked at it, and observed it was damp (unsurprising, given the rain), but saw no more steam and took no other action.

602 I do not accept that she was not concerned. It is accepted that she went over to the old stump when she saw the steam, but her inspection and lack of follow-up was wholly inadequate.

603 As to the issues of probability and seriousness, the plaintiffs say that the position must be regarded as even more pronounced in relation to observations of steam on 1 or 2 January 2013 than they were in relation to the lighting of the fire, and the failure to extinguish it on 28 and 29 December 2012.

604 That is, they say, in circumstances where the fire had been smouldering underground for several days, but was still able to turn rain to steam, the risk that combustion in the stump would continue into the then forecast hot and windy days of 3 and 4 January was very considerably more pronounced than it had been on those earlier days. They submit that, given the imminent presence of very high bushfire-risk conditions, real exertion was required of a landowner in the position of Ms Barrett.

605 The plaintiffs say that the increased probability of very serious harm obviously affects the balancing exercise involved in considering the burden of the precautions that the plaintiffs say were required and pleaded in detail at [24(f)] of the further amended statement of claim. They say that none

of those precautions involves a burden for Ms Barrett that involved actual financial outlay or anything more than time and effort.

606 They note that all of the pleaded precautions align quite exactly with Mr Robinson's evidence as to the proper response to observations of steam. He gave evidence to the effect that Ms Barrett's response to her observations of steam was not adequate. He considered that a proper response would have been to dig the area up to find where the heat source lay, then applying water and even calling the fire brigade if he could not manage it.

607 And, they say, lastly, that none of the considerations involved in the "net benefit" element of s 11(2) of the CLA weigh against a conclusion that Ms Barret's failure to exert herself, and to take the steps pleaded as necessary precautions, was actionable negligence within the meaning of the CLA. That is, that there was nothing in her response to the observations of steam that involved any relevant benefit either to her or to her community, so as to justify her perfunctory visual check of the stump.

608 I accept each of the plaintiffs' submissions on the s 11(2) of the CLA considerations.

609 In particular I agree with the plaintiffs' submission that what Ms Barrett did was "a hopelessly inadequate response to an observation of something that she had interpreted as steam." I agree that "steam screams heat" and that a mere visual inspection of the stump was no adequate check to ascertain whether there was still heat somewhere in the pit or the observable wood around the pit.

610 I find that reasonable precautions required that Ms Barrett, not just look, but to hold her hand to the wood to feel for heat, and disturb the ash at the bottom of the pit, and the soil around the base of the visible wood, to make sure that there was no continued burning in the areas below the surface which would at a certain depth have been protected from the rain or the moisture it produced on falling.

Conclusions as to negligence

611 Finally, the plaintiffs submit that the statutory framework for the assessment of negligence weighs overwhelmingly in favour of a conclusion that:

- Ms Barrett and Mr Robinson were negligent in lighting the fire in the old stump on 28 December 2012;
- both of them were negligent in their paltry efforts to extinguish the fire, on 28 December (when both of them at least did something) and 29 December (when only Mr Robinson did anything at all); and
- Ms Barrett was negligent in her response to her observation of steam rising from the stump after a light rainfall on 1 (or perhaps 2) January 2013.

612 I accept those submissions

Answer to Key Issue 3

613 Key issues 1 a b and c are all answered favourably to the plaintiffs. As to this key issue, the answers are "yes" the defendants did breach a duty of care owed to persons including the plaintiffs, by:

(a) lighting the fire

(b) failing to extinguish the fire on or after 28 December 2012, and

(c) in the case of the first defendant (Ms Barrett) – by failing adequately to respond to observations of steam alleged by the plaintiffs to be from the area of the tree stump and alleged to have been on or about 1 January 2013.

Key Issue 4 – non-delegable duty

614 It will be recalled that key issue 4 raises the question as to whether, if Ms Barrett owed a duty of care as alleged, that duty was non-delegable; and if so, whether Ms Barrett is liable for any conduct of Mr Robinson in lighting the fire or failing to extinguish the fire on or after 28 December 2012.

615 In *Leichhardt Municipal Council v Montgomery* [2007] HCA 6, 230 CLR 22 at [22] Gleeson CJ, with whom Crennan J concurred, identified two kinds of non-delegable duty. The first arises where a statute or other law imposes a duty to act personally, and the second arises where the engagement of a third party to perform a certain function is consistent with the exercise of reasonable care by a defendant, but the defendant's legal duty is not merely to exercise reasonable care but also "to ensure that reasonable care is taken."

616 In that second class of case which embraces the present case, the plaintiffs submit the special duty arises where "the person on whom it is imposed … is so placed in relation to [another] person or his property as to assume a particular responsibility for his or its safety, in circumstances where the person affected might reasonably expect that due care will be exercised" (*Leichhardt* at [13] per Gleeson CJ citing *Kondis v State Transport Authority of New South Wales* (1984) 154 CLR 672 at 687). They say that the the typical circumstances that will attract that second kind of non-delegable duty are "the conduct of extra-hazardous activities" (*Leichhardt* at [18]).

617 The plaintiffs submit that *Leichhardt* was not concerned with the conduct of extra-hazardous activities but that situation was authoritatively addressed by the Victorian Court of Appeal in *AD & SM McLean Pty Ltd v Meech* [2005] VSCA 305, 13 VR 241.

618 From the reasons of Nettle JA (as he then was), in *McLean*, the following principles appear:

> "(a) under the principles of ordinary negligence, a person who takes advantage of his or her control of premises to carry on a 'dangerous activity', or to allow another to do so, owes a non-delegable duty of reasonable care to avoid a reasonably foreseeable risk of injury or damage to the person or property of another; and
>
> (b) an activity is to be regarded as a 'dangerous activity', even though it is not 'inherently dangerous' or dangerous in itself, if:
>
> (i) the combined effect of the magnitude of the foreseeable risk of an accident happening, and
>
> (ii) the magnitude of the foreseeable potential injury or damage if an accident does occur,
>
> is such that an ordinary person acting reasonably would consider it necessary to exercise 'special care' or to take 'special precautions' in relation to it."

619 In *McLean* , the appellant was the lessee and occupier of a property known as St Anne's Winery which abuts the Western Highway at Myrniong, Victoria. From time to time the second respondent agisted her horse "Bob" on St Anne's Winery in an area of the property known as "the bull paddocks". On 15 February 1999 the first respondent suffered injuries when Bob escaped from the property onto the Western Highway near to the northern boundary of the property. Bob there collided with a car being driven along the highway causing him in turn to collide with another car being driven by the first respondent. The jury found that the accident was due to negligence on the part of the appellant and the second respondent in allowing Bob to escape from the property.

620 The trial judge had instructed the jury that the appellant's duty was non-delegable, but his decision to do so was reached on an incorrect legal basis.

621 The following passages from the judgment of Nettle JA, with whom, Chernov JA and Hollingworth AJA agreed are instructive. His Honour said at [8] to [12]:

"8 It seems that the explanation for the trial judge's reference to *Gregory's Properties* is that his Honour had in mind the judgment of the New South Wales Court of Appeal in *Simpson v Blanch*, in which *Gregory's Properties* was considered and in which Beazley, JA, with whom Mason, P and Handley, JA agreed, held that an occupier's duty is non-delegable.

9 Beazley, J.A. reasoned by reference to the observations of Mason, J. in *Kondis v State Transport Authority*, and the joint judgment of Mason, Deane and Dawson, JJ in *Burnie Port Authority v General Jones Pty Ltd*, that the criteria of a non-delegable duty of care (in relation to activities carried out on land) are that the party by whom the duty is owed have control over the land, and in that sense the activities, and that the party to whom the duty is owed have no control over the land, so that that party is in a vulnerable position vis-à-vis the party by whom the duty is owed in relation to those activities. Her Honour also considered that users of a highway adjacent to the land in question were in such a vulnerable position vis-à-vis the occupier of the land in relation to the keeping of horses on the land (inasmuch as they had no control over nor any knowledge of the condition of the fences). It followed, as her Honour held, that the occupier of land owed a non-delegable duty to highway users to take care to prevent the escape of the horses onto the highway. As her Honour put it:

> 'Examining the matter from the perspective of Blanch/Anderson, as users of the highway, they were in a vulnerable position vis-a-vis Simpson. They had no control over nor any knowledge of the conditions of the fences. On the other hand, Simpson [the occupier] was responsible for his own property. He had control over it. In my opinion, he had, therefore, a non-delegable duty of care to the users of the highway. That required him to ensure that the fences were in a condition adequate to contain the horses on the property.
>
> The existence of a non-delegable duty of care answers the second basis upon which Simpson challenged the finding of liability. The duty being non-delegable, it would not have been sufficient for him to have made an inquiry of Carroll [the second respondent].'

10 Counsel who now appears for the appellant contends that Simpson v Blanch was wrongly decided. He submits that Beazley, J.A. misunderstood *Burnie Port Authority v Jones*, and *Kondis v State Rail Authority*, and so erred in treating vulnerability and control as the criteria of non-delegable duty. He says it is apparent from Burnie Port Authority v Jones that the principal consideration is the relationship between plaintiff and defendant. He also emphasises the observations of Gummow and Hayne, JJ in *Lepore* that the categories of cases in which a non-delegable duty has been recognised involve:

> '… a relationship in which the person owing the duty either has the care, supervision or control of the other person or has assumed a particular responsibility for the safety of that person or that person's property. It is not suggested, however, that all relationships which display these characteristics necessarily import a non-delegable duty.'
>
> As the appellant would have it, there is no relationship between the occupier of land and passing motorists, or at least none which involves the occupier in the care, supervision or control of passing motorists, and in counsel's submission it is plain that the occupier of land abutting a highway does not assume a particular responsibility for the safety of the motorists passing along the highway.'

11 Counsel for the appellant further relies on *Crimmins v Stevedoring Industry Finance Committee* as establishing that the identification of a duty in a novel case is to be conducted principally on the basis of whether the case fits within an established category of case, and he relies upon *Lepore* and the later decision in *Jones v Bartlett* as indications that the categories of non-delegable duty cases are not lightly to be extended. In his submission the analyses of non-delegable duty undertaken in *Lepore* and in *Jones v Bartlett* show that the facts of this case are well outside the established categories of non-delegable duty and well outside the range of any acceptable extension of the established categories.

12 I do not find those submissions persuasive. With respect, it appears to me that Beazley, JA well understood the effect of the High Court's reasoning in *Kondis v State Rail Authority* and *Burnie Port Authority v Jones* and that her Honour correctly applied

> the principles in those cases to the facts of the case before her. I also do not accept that a case such as this is much if at all outside the established categories of cases of non-delegable duty. To the contrary, it seems to me that there is nothing particularly new in the idea that the occupier of real property may be held to owe a non-delegable duty to persons beyond the boundaries of the property to guard against damage being caused by activities carried on within the property. In principle and as a matter of authority it has long been the case."

622 The plaintiffs say that it is important to note that *McLean* also made clear that the duty imposed on the defendant, in respect of his or her delegate, is not an absolute one of ensuring that the delegate takes reasonable care, such that if the delegate fails to take reasonable care then the "principal" (for want of a better descriptor) is automatically liable. The non-delegable duty is not "strict" in that sense, but rather, *McLean* at [21] makes it clear that the non-delegable duty amounts to a continuing duty upon the principal to take reasonable care to ensure that the delegate takes reasonable care.

623 The plaintiffs say that the duty regarding the risks of harm associated with the escape of fire from land is specifically recognised as a non-delegable duty and that *Burnie Port Authority* (above) is the exemplar in that regard.

624 The first defendant says, citing *Leichhardt*, without specific reference, that the categories of relationships which give rise to non-delegable duties of care are not closed, but that the courts are slow to expand them. She says that the relationship between her and Mr Robinson was one of friendship, with an element of a relationship as a couple as at the time the campfire was lit, and that such a relationship is not one which has ever been held in Australia to be one where a non-delegable duty of care arises.

625 Ms Barrett says *Burnie Port Authority* held that the property occupier had a non-delegable duty of care for the actions of an independent contractor who was undertaking dangerous activities on that land. However she says that Mr Robinson was not an independent contractor, nor undertaking dangerous activities when either the campfire was lit, or when it was extinguished.

626 She says that it follows that she did not have a non-delegable duty of care with respect to the acts or omissions of the second defendant and that consequently, any liability of the defendants must be assessed by reference to Part 9A of the CLA, and, in particular s 43B, and that any damages awarded to the plaintiffs must be awarded in accordance with Part 9A of the CLA and, in particular, s 43B.

627 To these submissions, the plaintiffs respond that the law does not look to emotional connection but that, rather, it looks at the legal status of the parties to the relationship, and the relevant status here, the relevant relationship, is simply that of an occupier on the one hand, and an invitee or perhaps a licensee on the other hand.

628 They say that *McLean* (above) makes it clear that the question of non-delegable duty depends on circumstances and that in the present case the relevant circumstance is that Ms Barrett, as the occupier and as the host of Mr Robinson and his son, was in a position to tell them not to do things on her property.

629 They say that in circumstances where she allowed them to light a fire, she remained under a continuing personal duty not simply to take care as to her own conduct, but also to exercise herself to take reasonable care to bring about Mr Robinson being careful as to how he dealt with the fire that had been lit.

630 I accept the plaintiffs' submission. There is nothing in the authorities, and indeed, much to the contrary, to suggest that an owner or occupier of land is not responsible for the negligent acts of his or her invitee or licensee in the circumstances adumbrated by Nettle JA in *McLean*.

631 And the plaintiffs say that the indicia of a non-delegable duty identified in *McLean* are obviously present in the instant case, namely:

- fire is a notoriously dangerous substance;
- the lighting of fires in heavily forested areas in south-eastern Tasmania in summer time is an especially dangerous activity; and
- the lighting of fires in those conditions, when the activity is itself proscribed by statute, is at the very high end of the scale in terms of the obligation thereby imposed on the landowner who permits the activity.

632 The plaintiffs say that Ms Barrett was the landowner at 242 White Hill Road; that Mr Robinson was on the property as her invitee and at her pleasure; that she had the right, as landowner, to direct Mr Robinson as to his conduct while on the property, and the right to revoke his invitation and eject him as a trespasser if he failed to follow her lawful directions. Moreover, they say, Ms Barrett in fact acquiesced in the lighting of the fire and in fact facilitated it, by handing Mr Robinson the lighter that he used to strike the flame.

633 It follows, the plaintiffs say, that the lighting of the fire was an act undertaken on Ms Barrett's property and with her authority. To the extent that Mr Robinson's own conduct was a cause of the campfire or the eventual bushfire, it was conduct that only occurred because Ms Barrett permitted it. In these circumstances, they say all the indicia point to Ms Barrett's duty of care to her neighbours, in respect of the lighting and management of the fire, being a non-delegable one. And that, so far as the campfire or the bushfire resulted from acts or omissions of Mr Robinson, Ms Barrett was at all times under a personal duty to take reasonable care to ensure that he took reasonable care.

634 I accept that submission and to that extent hold Ms Barrett's duty to the plaintiffs to have been a non-delegable duty. I do not accept the first defendant's submission that it follows that if she, as an occupier of the property, owed a non-delegable duty of care in relation to the campfire, then so too did Mr Robinson as an occupier of the property. I do not accept that Mr Robinson acquitted the status of an occupier of Ms Barret's land by virtue of his relationship with Ms Barrett. He remained an invitee and I accept the plaintiffs' submission that a "dual" non-delegable duty, in the present sense of an equal and co-existent non-delegable duty, can only arise as a joint duty owed either by joint occupiers, or by joint licensees or invitees. That is to say, that it does not, and logically cannot, arise "between tiers", that is, between the occupier and his or her invitee jointly.

635 As to breach of that duty the plaintiffs say that for the reasons I have set out earlier, Mr Robinson breached the duty of care he owed to the plaintiffs:

- when he lit the fire on 28 December;
- when he failed to take adequate steps to extinguish it on 28 December;
- when he failed to take adequate steps to ensure it was fully extinguished (and if not, extinguish it) on 29 December;
- Ms Barrett failed to take reasonable care to avoid those failures on his part; and
- permitted him (and assisted him) to light an illegal, and in any event a "foolish", fire in a tree stump in summer time;
- failed to require him to turn over the coals and ensure they were all dead on 28 December – for instance by requiring him to "soak it, stir it, soak it again" in a considerably more thorough way than her own perfunctory efforts; and

- failed to do anything at all to check that he had taken any, or any reasonable, steps to test the subsurface condition of the soil and ash mix in the fire pit on the morning of 29 December or subsequently.

636 For those reasons, in my view, it follows that Ms Barrett failed to discharge her non-delegable duty to supervise and direct Mr Robinson.

Answer to Key Issue 4

637 Having found for the foregoing reasons that Ms Barrett owed a duty of care as alleged by the plaintiffs, the answer to the question as to whether the duty was non-delegable is "yes", and the answer to the question as to whether Ms Barrett is liable for the conduct of the second defendant lighting the fire and failing to extinguish the fire on or after 28 December 2012 is also "yes".

Key issue 5 – apportionment

638 Key issue 5 is as follows:

> "5 If the defendants are, or either of them is, liable to the plaintiffs in negligence, what apportionment should be applied under the *Civil Liability Act* (**CLA**) and the Wrongs Act 1954:
>
> a if Barrett's duty was not a non-delegable duty; alternatively
>
> b if Barrett's duty was a delegable duty."

Apportionment if non-delegable duty

639 The plaintiffs submit that if Ms Barrett's duty was non-delegable then, *to the extent* that the fire resulted from Mr Robinson's negligence, and that negligence would have been prevented if Ms Barrett had exercised reasonable care in her supervision of Mr Robinson, it follows that the fire was in a legal sense the result of Ms Barrett's failure to discharge her ongoing personal duty to ensure Mr Robinson took reasonable care.

640 They say that it follows, in turn, that Ms Barrett remains "responsible", within the meaning of s 43B of the CLA, for the conduct of Mr Robinson that in a factual sense caused the bushfire. That is, the share of liability that might have been apportioned to Mr Robinson *absent* the non-delegable duty, which is in fact a share that still traces back to Ms Barrett. They say that the practical consequence is that the finding of a non-delegable duty means, in the circumstances of the present case, that the apportionment process is unnecessary as everything comes back to Ms Barrett. They submit that nothing in that conclusion is inconsistent with s 3C of the CLA.

641 Ms Barrett, on the other hand, submits that as she did not have a non-delegable duty of care with respect to the acts or omissions of Mr Robinson, any liability of either of them must be assessed by reference to Part 9A of the CLA, and in particular s 43B, because the claim is an apportionable claim within the meaning of s 43A(1)(a) of the CLA. And, she says, any damages awarded to the plaintiffs must be awarded in accordance with Part 9A of the CLA and in particular s 43B.

642 She submits that were I to hold that she had a non-delegable duty of care which was breached by Mr Robinson, and that she was liable for that breach as a consequence, then I would still needs to assess her proportionate liability and that of Mr Robinson in accordance with Part 9A of the CLA.

643 She says that if the amount assessed to be payable by Mr Robinson, by virtue of his proportionate liability is to be paid by her because of her non-delegable duty, then she can seek an

indemnity or contribution with respect to that amount from Mr Robinson pursuant to s 3(1) of the *Wrongs Act*.

644 And she says, that if the amount for which Mr Robinson is proportionately liable is greater than the damages paid by him in settlement of the plaintiffs' claim against him, then the difference between those amounts cannot be recovered by the plaintiffs in view of s 3(3) of the *Wrongs Act*.

645 I will turn to the apportionment and contribution provisions of the CLA and the *Wrongs Act* shortly. For the present however, given that the plaintiffs' submission is that the practical consequence of a finding of a non-delegable duty means that the apportionment process is unnecessary, it is sufficient to set out the provisions of s 3C, and s 43B of the CLA. They provide, relevantly, as follows:

> "**C Application of Act to non-delegable duty**
>
> This Act applies to a claim for damages for breach of a non-delegable duty …
>
> **43B Proportionate liability for apportionable claims**
>
> (1) In any proceedings involving an apportionable claim –
>
> (a) the liability of a defendant who is a concurrent wrongdoer in relation to that claim is limited to an amount reflecting that proportion of the damage or loss claimed that the court considers just, having regard to the extent of the defendant's responsibility for the damage or loss; and
>
> (b) the court is not to give judgment against the defendant for more than that amount.
>
> (5) A reference in this Part to a defendant in proceedings includes any person joined as a defendant or other party in the proceedings (except as a plaintiff) whether joined under this Part, under rules of court or otherwise."

646 The plaintiffs say that their submitted conclusion that the CLA applies to a non-delegable duty, but in a way that results in the delegate's portion of liability in fact remaining the responsibility of the defendant fixed with a non-delegable duty, is far more consistent with the ordinary principles of statutory construction than the alternative conclusion that the regime was intended to obviate the traditional rules of non-delegable duty altogether.

647 They say that their conclusion is also consistent with the approach reflected in *Woodhouse v Fitzgerald* (above). As already noted, in that case the landowner had engaged the NSW Rural Fire Service to undertake a fuel-reduction burn and although the burn was undertaken without negligence, nonetheless it led to a bushfire that damaged a neighbour's property. The plaintiffs say that Basten JA with whom the other members of the Court of Appeal agreed, "described the liability of a defendant pursuant to a non-delegable duty as a 'vicarious' liability", and noted that s 39 of the NSW Act (identical to s 43G of the CLA) "expressly carved out vicarious liability from the apportionment regime", and held that accordingly a defendant who breaches a non-delegable duty remains liable for the portion(s) of liability that, absent the non-delegable duty, would otherwise have rested with the delegate.

648 The plaintiffs note that the NSW Act did not contain an equivalent of s 3C of the CLA, but they say that "the effect of the Court of Appeal's decision was not that the apportionment regime did not apply to liability arising from breach of a non-delegable duty." On the contrary they say, consistent with their submissions, the Court held that "the apportionment regime did apply, but because the delegate's portion of liability was still one for which the principal was responsible, the *practical effect* of apportionment was negated."

649 I pause to say that I do not accept that characterisation of Basten JA's approach as wholly accurate or, in any event, as translatable to Tasmania. I will set out the relevant passages from his judgment shortly.

650 Finally, the plaintiffs say that while they will address the issue of "contribution", as opposed to "apportionment", in respect of the private nuisance claim, contribution needs to be mentioned in the present context as well because in their submission, "the effect of s 3C is that liability pursuant to a non-delegable duty does remain subject to the apportionment regime, but in a practical sense obviates any actual apportionment in that the 'principal' remains liable to the extent of the delegate's culpability."

651 The consequence of the apportionment regime applying to the non-delegable duty means, the plaintiffs say, that the contribution regime under the *Wrongs Act* does not apply because of the operation of s 43C of the CLA. They say that if they are correct about Ms Barrett's non-delegable duty, then she is financially liable for Mr Robinson's conduct, and that liability is not to be offset or diluted via a contribution claim. They say that her liability under the non-delegable duty is, to that extent, different from her liability in private nuisance since for the latter the *Wrongs Act* contribution regime would apply.

652 Section 43C of the CLA provides:

"**43C Contribution not recoverable from defendant**

(1) A defendant against whom judgment is given under this Part as a concurrent wrongdoer in relation to an apportionable claim –

(a) cannot be required to contribute to any damages or contribution recovered from another concurrent wrongdoer in respect of the apportionable claim (whether or not the damages or contribution are recovered in the same proceedings in which judgment is given against the defendant); and

(b) cannot be required to indemnify any such wrongdoer.

(2) Subsection (1) does not affect an agreement by a defendant to contribute to the damages recoverable from, or to indemnify, another concurrent wrongdoer in relation to an apportionable claim."

653 Section 3 of the *Wrongs Act* relevantly provides:

"**3 Proceedings against, and contribution between, wrongdoers**

(1) Where damage is suffered by a person as the result of a wrongful act –

(a) judgment recovered against a person who is liable in respect of that damage is not a bar to an action against any other person who would, if sued by the person by whom the damage was suffered at the time when the cause of action arose, have been liable in respect of the same damage;

(b) if more actions than one are brought in respect of that damage by or on behalf of the person by whom it was suffered, or for the benefit of the estate, or of a dependant, of that person, against persons who are liable in respect of the damage the sums recoverable under the judgments given in those actions by way of damages shall not, in the aggregate, exceed the amount of the damages awarded by the judgment first given; and in any of those actions, other than that in which judgment is first given, the plaintiff is not entitled to costs unless the court is of the opinion that there was reasonable ground for bringing the action;

(c) a person who is liable in respect of that damage may recover contribution from any other person who is, or would, if sued by the person by whom the damage was suffered at the time when the cause of action arose, have been, liable in respect of the same damage but so that no person is entitled to recover contribution under this section from a person who is entitled to be indemnified by him in respect of the liability in respect of which the contribution is payable;

(d) a person may recover contribution or indemnity from another person who is, or would, if sued by the person by whom the damage was suffered at the time when the cause of action arose, have been, liable in respect of the same damage by settling with the person by whom the damage was

suffered and thereafter commencing or continuing an action against the other person, in which case the first-mentioned person shall satisfy the court that the amount of the settlement was reasonable, and if the court finds that the amount of the settlement was excessive it may fix the amount at which the claim should have been settled.

(e) …

(2) In proceedings for contribution under this section, the amount of the contribution that is recoverable from a person shall be such amount as may be found by the court to be just and equitable, having regard to the extent of that person's responsibility for the damage, and, for the purposes of this section, the court has power to exempt a person from liability to make contribution, or to direct that the contribution to be recovered from a person shall amount to a complete indemnity.

(3) A release of, or accord with, one person granted or made by a person by whom damage is suffered–

(a) does not discharge another person unless the release so provides; and

(b) relieves the person to whom it is granted or with whom it is made from liability to make contribution to another person–

and has effect to reduce the claim of the person by whom damage is suffered–

(c) in the amount of the consideration paid for the release or accord;

(d) in any amount or proportion by which the release or accord provides that the total claim of that person shall be reduced; or

(e) to the extent that the person to or with whom the release or accord is granted or made would have been liable to make contribution to another person if the total claim of the person by whom damage is suffered had been paid by the other person–

whichever is the greatest."

654 Section 43G of the CLA provides as follows:

"**43G This Part does not prevent certain liability, &c**

(1) Nothing in this Part –

(a) prevents a person from being held vicariously liable for a proportion of any apportionable claim for which another person is liable; or

(b) prevents a partner from being held severally liable with another partner for that proportion of an apportionable claim for which the other partner is liable; or

(c) affects the operation of any other Act to the extent that it imposes several liability on any person in respect of what would otherwise be an apportionable claim."

655 Now, the first defendant's position is that the argument advanced by the plaintiffs is misconceived, as Part 9A of the CLA "depends on cause, not on duty", which is made clear, she says, by looking at ss 43A and 43B, and the plaintiffs' argument depends upon duty. And, the other issue, she says, is that the plaintiffs' argument ignores the absence in the CLA of an equivalent to s 5Q of the NSW Act. While I am conscious that s 43A(1)(a) applies Part 9A to a claim for economic loss or damage to property in an action for damages (whether in contract, tort or otherwise) arising from *a failure to take reasonable care*, I am not sure that I fully apprehend the first defendant's argument as to the effect of the distinction between care and duty. In the result however, it does not matter.

656 Section 5Q of the *Civil Liability Act* 2002 (NSW) provides as follows:

"**5Q Liability based on non-delegable duty**

(1) The extent of liability in tort of a person ('the defendant') for breach of a non-delegable duty to ensure that reasonable care is taken by a person in the carrying out of any work or task delegated or otherwise entrusted to the person by the defendant is to be determined as if the liability were the vicarious liability of the defendant for the negligence of the person in connection with the performance of the work or task.

(2) This section applies to an action in tort whether or not it is an action in negligence, despite anything to the contrary in section 5A."

657 In *Woodhouse v Fitzgerald* (above) Basten JA said on this subject, in the circumstances of that case:

"**Vicarious liability**

98 The owners' duty being non-delegable, Mr Woodhouse challenged the apportionment by the trial judge on the basis that the owners were responsible for any breach by independent contractors such as members of the RFS. As Gleeson CJ noted in *Leichhardt Municipal Council v Montgomery* a non-delegable duty 'enables a plaintiff to outflank the general principle that a defendant is not vicariously responsible for the negligence of an independent contractor.' *Section 5Q of the Civil Liability Act provides that the extent of liability in tort for breach of a non-delegable duty 'is to be determined as if the liability were the vicarious liability of the defendant for the negligence of the person in connection with the performance of the work or task*.'

99 It is not necessary for present purposes to determine whether s 5Q varies the effect of the general law with respect to duties described as 'non-delegable'. The answer to the question may depend in some circumstances on the proper construction of a statutory scheme which gives rise to such a duty.

100 The question sought to be raised by Mr Woodhouse was whether Pt 4 of the Civil Liability Act applied so as to apportion liability in circumstances where the owners were vicariously liable for the acts of members of the RFS. The answer to that question is to be found in Pt 4, which relevantly provides:

'**39 Application of Part**

Nothing in this Part:

(a) prevents a person from being held vicariously liable for a proportion of any apportionable claim for which another person is liable ...

Because members of the RFS were not concurrent wrongdoers, the question need not be answered in the present case. *However, the intention of s 39(a) is to render the person owing the non-delegable duty liable for the proportion attributed to the independent contractor.*

101 The issue was dealt with by Professor Davis in his report of January 1995 in the following terms:

'It was pointed out by the New South Wales Law Reform Commission that to apply proportionate liability in a case where one defendant's liability arose simply from its vicarious liability for another defendant would completely undermine the principles of vicarious liability and the policy behind them. This proposition is unarguably correct. … It is therefore recommended that any change to the present rules on joint and several liability should be expressed not to apply to instances of vicarious liability.'

While the language of s 39(a) suggests that Pt 4 does apply with respect to vicarious liability, its effect appears to be to avoid the difficulty identified both by the NSW Law Reform Commission and Professor Davis and to preserve the effect of vicarious liability.

102 *Accordingly, had there been negligence, and on the basis that the owners owed a non-delegable duty of care to Mr Woodhouse which was breached by the conduct of*

> *members of the RFS, the owners would remain liable for the full amount of the damages assessed.*" [Emphasis added.]

658 Contrary to the submissions of the first defendant, as I apprehend the reasoning in *Woodhouse*, even absent a provision equivalent to s 5Q of the NSW Act, s 43G(1)(a) of the CLA *might*, in providing that nothing in the CLA prevented a person from being held vicariously liable for a proportion of any apportionable claim for which another person is liable, be taken as including a non-delegable duty within its ambit as a "species" of vicarious liability.

659 For example, in *Leichhardt Municipal Council v Montgomery* (above) at [6] Gleeson CJ said:

> "A conclusion that, in given circumstances, a defendant who is sued in negligence owed a duty going beyond a duty to exercise reasonable care to avoid injury (or injury of a certain kind) to a plaintiff, and extending to a duty to ensure that reasonable care to avoid injury to the plaintiff was exercised, is commonly described as a conclusion that a defendant was under a non-delegable duty of care to a plaintiff. It is a proposition of law concerning the nature or content of the duty of care. A duty of this nature involves what Mason J described in *Kondis v State Transport Authority* as 'a special responsibility or duty to see that care is taken'. *Such a duty enables a plaintiff to outflank the general principle that a defendant is not vicariously responsible for the negligence of an independent contractor.* The present case provides an example. No one doubted that, if causative negligence on the part of Council employees had been established, the Council would have been liable. No one doubted that the finding of causative negligence on the part of Roan Constructions' employees meant that Roan Constructions was liable. However, there being no suggestion of any fault in the choice of Roan Constructions as a contractor, if it had not been for the special duty held (as a matter of law) to exist, the appellant would not have been liable for an injury caused only by the negligence of Roan Constructions' employees." [Emphasis added.]

660 I said the proposition that a non-delegable duty was embraced by s 43G(1)(a) as a "species" of vicarious liability *might* be argued, but, as can be seen, the passage set out above, which was cited by Basten JA in *Woodhouse*, says as much about the difference between the concept of the two propositions of law as it does about their similarity. One proposition concerns the nature or content of the duty of care, and the other concerns liability simpliciter.

661 Even if the proposition were arguable absent an equivalent to s 5Q of the NSW Act, that absence, taken together with the presence of ss 3C and 43G(1)(a) of the Act, to my mind shows a clear intention on the part of the legislature to distinguish between the concepts of non-delegable duty and vicarious liability. The Act applies to the former, but Part 9A does not apply to the latter to the extent specified.

662 Nor am I attracted to the plaintiffs' submission that the CLA does actually apply to a non-delegable duty but in a way that results in the delegate's portion of liability in fact remaining the responsibility of the defendant fixed with a non-delegable duty. I do not accept that *Woodhouse* is authority for that proposition in the context of the Tasmanian legislation.

663 Nor do I accept the plaintiffs' rather sophisticated argument that "the share of liability that might have been apportioned to Mr Robinson *absent* the non-delegable duty is in fact a share that still traces back to Ms Barrett" because "the practical consequence is that the finding of a non-delegable duty means, in the circumstances of the present case, that the apportionment process is unnecessary as everything comes back to Ms Barrett." No authority is offered in support of that proposition and I have been unable to find any.

664 I note that even in the case of vicarious liability, which is carved out of the reach of Part 9, s 43G(1)(a) nonetheless envisages that the apportionment process will be carried out but the "practical consequence" is that nothing prevents a person from being held vicariously liable for that assessed

proportion, that is to say, in the language of the section, the "*proportion* of any *apportionable claim* for which another person *is liable*."

665 It follows from all that I have said therefore, that I need to now assess, under s 43B of the CLA, the proportion of the damage or loss claimed by the plaintiffs that I consider "just", having regard to the extent of Ms Barrett's and Mr Robinson's responsibility for that damage or loss, and to do so on the basis that Ms Barrett's duty to the plaintiffs was a non-delegable duty.

Assessment of apportionment

666 The first defendant submits that if the only breach found is in lighting the fire then "the overwhelming responsibility" for that breach rests with Mr Robinson. Ms Barrett says that it was Mr Robinson who made the decision to have the fire in the tree stump; he thought it was a good place to have a fire; he set the fire; he decided on the type of fuel for the fire and collected it and he lit the fire and he put the logs on it.

667 By way of contrast, Ms Barrett says that she "seems" to have been inside while all these decisions were made and actions were taken. And she says that Mr Robinson got a lighter or matches from inside the house although she handed him a lighter.

668 She says that her reason for making the comment that "males can be hard to tell" she really could not be bothered with lighting a fire because it was getting later on that night, and they had not had tea. To the extent that it is not already clear from these reasons, I do not accept that explanation.

669 Ms Barrett says that if breach is found for inadequately extinguishing the fire, then Mr Robinson should carry "the greater share" of responsibility. She says that on the night of 28 December 2012 he was concerned only to ensure that problems would not occur during the night if the wind got up, and for that reason covered the area where the fire had been. On the other hand she says that, as Mr Robinson said, after he had gone to bed she was "frantically putting buckets of water on top of what was the fire basically which was now just dirt". And Ms Barrett says that in the days following, she "was diligent in checking that the fire was extinguished including after her observation of steam."

670 Ms Barrett says that if breach is found by reason of what occurred or did not occur in the days following the fire, responsibility ought to be "equally shared" for that aspect of the breach. Mr Robinson's evidence that had he known of the first defendant's observations of a wisp of steam in the stump, he would have taken action, ought to be given no weight because of the recognised dangers of "hindsight bias".

671 Finally, Ms Barrett says that in the event that all allegations of negligence are made out "a greater share of responsibility" rests with Mr Robinson for his actions in deciding to have the fire, deciding where the fire would be, setting and lighting the fire himself and taking minimal steps to extinguish it. Thereafter, she says, he was as well placed as she was to take action by way of checking to ensure the fire was fully extinguished.

672 The plaintiffs submit that the language of s 43B of the CLA "is akin" to the language employed in legislation governing contribution between concurrent tortfeasors, and that the considerations involved in making an apportionment under that legislation are well settled. Citing the well-known case of *Podrebersek v Australian Iron and Steel Ltd* (1985) 59 ALJR 492, they submit that the considerations involve:

- a comparison of the culpability of the parties, that is, the degree to which each party has departed from the standard of what is reasonable;
- a consideration of the relevant importance of the parties' acts in causing the damage (the causal potency consideration);

- a comparative analysis of the whole conduct of each negligent party in relation to the circumstances;
- a finding upon a question, not of principle or of a positive finding of fact or law, but of proportion, of balance and relative emphasis, and of weighing different considerations;
- an individual choice or discretion, as to which there may well be differences of opinion by different minds.

673 In this case, the plaintiffs submit that Ms Barrett's conduct warrants a greater share of the responsibility for the harm because:

- both she and Mr Robinson participated in the lighting of the fire, but to that element of responsibility must be added the consideration that Ms Barrett was the landowner and Mr Robinson was the invitee;
- Ms Barrett had actual knowledge of the TFS booklets and that it was "common sense" not to light a fire in a tree stump;
- Mr Robinson at least undertook some attempt to check that the fire was out, on 29 December by holding his hand over the stump to check for heat. His efforts were inadequate, but by comparison Ms Barrett did nothing except glance at the stump;
- Ms Barrett was aware of having seen what she took to be steam rising from the stump, I have found on 1 (or possibly 2) January 2013. She did nothing in response beyond looking at the stump. She did not tell Mr Robinson. (I place little weight on the evidence he gave, in retrospect, of the extensive steps he said would have taken in response.)

674 The plaintiffs say that Ms Barrett's departure from the standard of care required of her significantly outweighed Mr Robinson's contribution. Her conduct, viewed as a whole, compared to Mr Robinson's conduct, warrants a significantly greater share of the responsibility for the damage caused. They submit that the apportionment should be 80% to Ms Barrett and 20% to Mr Robinson.

675 In my view, the considerations going to apportionment advanced by the first defendant focus too closely on one only of the relevant indicia, namely, the degree to which, as a matter of fact, each party departed, by their acts or omissions, from the standard of what is reasonable. To my mind the causal potency consideration is of importance in this case, as but for Ms Barrett's failure to do anything but look at the stump when she observed steam rise from it, the Forcett bushfire may never have occurred. It is true that in that sense, the same can be said for each of the other breaches on her part and on the part of Mr Robinson, but Ms Barrett's failure was, in reality, the last in time and her failure to properly investigate why steam had appeared, or even to tell Mr Robinson so that another mind might have been brought to bear on the mystery, were opportunities lost to prevent the fire even after it had been lit and had not been properly extinguished.

676 Moreover, Ms Barrett's breach of duty with regard to the failure to properly investigate the steam she observed, was exclusively her breach of duty. Mr Robinson did not observe the steam and Ms Barrett did not tell him of her observation. Rather he learnt of it only well after the bushfire, when Ms Barrett was being interviewed by Mr Bones.

677 Her breach in that regard is also very relevant to a comparative analysis of the whole conduct of each of her and Mr Robinson as negligent parties on the considerations of proportion, balance and relative emphasis, and of weighing different factual considerations enumerated by her in her written closing submissions, as set out above.

678 Another matter of significance on those last mentioned considerations is Ms Barrett's superior understanding of the risks of bushfire occurring by lighting fires generally and in tree stumps specifically.

679 As has already been noted Ms Barrett had long experience of bush blocks. Her sister had a block at Kingston, and Ms Barrett was well familiar with the recommended precautions for managing bushfire risks on such properties. From the time she acquired 242 White Hill Road she was meticulous in clearing the defendable zone immediately around the residence, and in reducing the vegetation fuel-load elsewhere on the block, and she had seen the TFS booklets on managing bushfire risks, but in any event she regarded their recommendations as "common sense".

680 It is true that Mr Robinson participated in some of the clearing work but the evidence makes it plain that Ms Barrett had a better understanding of the relevant risks. They had several larger bonfires over that stump. Indeed, Ms Barrett told the police in January 2013 that sometimes, in the days after larger bonfires, the last of which was lit in about September 2012, she would notice the area within the rim of the old stump still smoking or steaming. She said that she would pour more water into the pit and saw it "bubbling and sizzling".

681 Mr Robinson on the other hand had no such experience. He said in his evidence-in-chief that he did not have "any difficulty" at all from any of those fires with them continuing to burn and "no difficulty" with roots from those fires smouldering, or steam or smoke coming off them in the days following the fires.

682 In cross-examination he said that apart from those larger bonfires, of the smaller bonfires or campfires that were lit (none of which were lit in the old stump), none were built over the top of other tree stumps. He said that he had no recollection of having ever lit a campfire over an old tree stump.

683 Moreover, unlike Ms Barrett, there was no suggestion in the evidence that Mr Robinson was familiar with the TFS booklets or regulations, or regarded all of them, and the relevant part of s 69 of the FSA, as "common sense".

Answer to Key Issue 5

684 I accept the submission, made by the plaintiffs in their written closing submissions, namely that Ms Barrett's departure from the standard of care required of her significantly outweighed Mr Robinson's contribution, and her conduct, viewed as a whole, compared to Mr Robinson's conduct, warrants a significantly greater share of the responsibility for the damage caused.

685 The liability of Ms Barrett and Mr Robinson, reflecting that proportion of the damage or loss claimed by the plaintiffs that I consider just, having regard to the extent of their respective responsibility for that damage or loss, is apportioned, as to 80%, to Ms Barrett and as to 20%, to Mr Robinson.

Matters not addressed in the Key Issues statement

686 Section 13 of the CLA includes prerequisites for a decision that a breach of duty caused particular harm. They include:

- the breach of duty was a necessary element of the occurrence of the harm ("factual causation"); and
- it is appropriate for the scope of the liability of the person in breach to extend to the harm so caused ("scope of liability").

687 I have already found in answer to key issue 1(c) that the fire seen by Ms Barrett on her property on 3 January 2013 was a necessary element of the occurrence of the harm caused to the plaintiffs.

688 Factual causation is to be determined according to the "but for" test (*Adeels Palace Pty Ltd v Mourbarak* (above) at [42]- [45]; *Strong v Woolworths* [2012] HCA 5, 246 CLR 182 at [18]).

689 That is, but for Ms Barrett lighting the fire or subsequently failing to extinguish it, would the bushfire have occurred? As the plaintiffs point out, the question might more accurately be expressed as an enquiry whether the test case plaintiff would have suffered her losses, but given the "grouped" nature of these proceedings it is convenient and more helpful to frame the question by reference to the bushfire rather than a particular plaintiff.

690 Lest there is any doubt as to my finding on this question I now state, that as submitted by the plaintiffs, the answer to the enquiry as to factual causation is that but for the pleaded negligence, the bushfire would not have occurred and none of the plaintiffs would have suffered a loss from the bushfire.

691 With factual causation established, s 13(1)(b) of the CLA focusses on that question as to whether it is appropriate as a matter of legal policy that the scope of the first defendant's liability should extend to the harm caused.

692 For the purpose of deciding the scope of liability, s 13(4) of the CLA provides that a court is to consider (among other relevant things) whether or not and why responsibility for the harm should be imposed on the party who was in breach of the duty.

693 As the plaintiffs submit, the distinction between factual causation and scope of liability is that the former is concerned solely with a factual enquiry, while the latter involves a more normative enquiry. In *Wallace v Kam* [2013] HCA 19, 250 CLR 375, French CJ and Crennan, Kiefel, Gageler and Keane JJ said at [14] in respect of the New South Wales equivalent to s 13(1) of the CLA:

> "The distinction now drawn by s 5D(1) between factual causation and scope of liability should not be obscured by judicial glosses. A determination in accordance with s 5D(1)(a) that negligence was a necessary condition of the occurrence of harm is entirely factual, turning on proof by the plaintiff of relevant facts on the balance of probabilities in accordance with s 5E. A determination in accordance with s 5D(1)(b) that it is appropriate for the scope of the negligent person's liability to extend to the harm so caused is entirely normative, turning in accordance with s 5D(4) on consideration by a court of (amongst other relevant things) whether or not, and if so why, responsibility for the harm should be imposed on the negligent party."

694 In a case falling within an established class, the normative question posed by s 13(1)(b) is properly answered by a court through the application of precedent. Section 13(4) guides but does not displace common law methodology. The common law method is that a policy choice once made is maintained unless confronted and overruled. So much is clear from *Wallace v Kam* at [22]-[23], namely:

> "22 In a case falling within an established class, the normative question posed by s 5D(1)(b) is properly answered by a court through the application of precedent. Section 5D guides but does not displace common law methodology. The common law method is that a policy choice once made is maintained unless confronted and overruled.
>
> 23 In a novel case, however, s 5D(4) makes it incumbent on a court answering the normative question posed by s 5D(1)(b) explicitly to consider and to explain in terms of legal policy whether or not, and if so why, responsibility for the harm should be imposed on the negligent party. What is required in such a case is the identification and articulation of an evaluative judgment by reference to 'the purposes and policy of the relevant part of the law'. Language of 'directness', 'reality', 'effectiveness' or 'proximity' will rarely be adequate to that task. Resort to 'common sense' will ordinarily be of limited utility unless the perceptions or experience informing the sense that is common can be unpacked and explained." [Footnotes omitted.]

695 So, the plaintiffs say, to the present case, what is involved is a well-known and established category, namely the category of cases involving the escape of fire from property. They say that *Burnie Port Authority* (above) remains a classic example of this category of case and establishes not merely that the category is well recognised, but also that it attracts, if anything, an elevated duty of care, and an expanded exposure to liability, than many other categories.

696 I accept that submission. There is nothing novel about the present case that warrants a more restrictive view of Ms Barrett's liability. As the plaintiffs submit, "the element of underground smouldering burns in tree root systems is a colourful feature of this case but it is not at all an unusual phenomenon." And again, as they submit, Ms Barrett herself regarded it as "common sense" that fires should not be lit in tree stumps.

697 In my view there is no reason why liability for the first defendant's negligence (or Mr Robinson's for that matter), should not extend to the harm caused.

Key Issue 6 – nuisance and contribution

698 It will be recalled that key issue 6 is:

> "6 If the campfire was the (or a) cause of the Forcett Bushfire:
>
> a what is the role of reasonable foreseeability in a claim for private nuisance?
>
> b what is the role of reasonable use of Barrett's land, in a claim for private nuisance?
>
> c what is the role of reasonable care, in a claim for private nuisance?
>
> d did the fire cause unreasonable interference with the plaintiffs', alternatively the test-case plaintiff's land?
>
> e is an action in nuisance an apportionable claim under the claim?
>
> f do the provisions of the *Wrongs Act* apply to this claim?"

699 The claim in private nuisance is of importance to the plaintiffs notwithstanding my findings and conclusions in their cause of action in nuisance. First, it is a potential second basis of liability for Ms Barrett, but second, and more importantly because the plaintiffs contend that the claim in nuisance is not subject to the apportionment regime in Part 9A of the CLA.

Key Issues 6(a) and (c) - reasonable foreseeability and reasonable care

700 The plaintiffs say that it is important to be clear as to the place of nuisance in the Australian common law, and as to the species of nuisance with which the present proceedings are concerned.

701 First, they note that there is public nuisance which is not relevant in this case and private nuisance, which is. Within private nuisance are cases involving the creation of the nuisance, cases involving a failure to abate it, and a further subset of cases where the nuisance was the "inevitable consequence" of an exercise of statutory authority. In that last subcategory, issues of "negligence in a special sense" arise as explained by McLure P, with whom Buss JA agreed, in *Southern Properties (WA) Pty Ltd v Executive Director of the Department of Conservation and Land Management* [2012] WASCA 79, 42 WAR 287 at [121]-[123] as follows:

> "121 The defence of statutory authority requires that the nuisance be an 'inevitable consequence of the authorised undertaking'. If the nuisance was an inevitable consequence of the authorised undertaking, the defendant will only be liable if, in the exercise of its statutory powers, it acted negligently: *Bankstown City Council v Alamdo Holdings Pty Ltd* [2005] HCA 46; (2005) 223 CLR 660 [16]; *Benning v Wong* [1969] HCA 58; (1969) 122 CLR 249, 324 - 337 (Owen J). The reference to negligence is not to the tort. It is clear there is no requirement to prove that the defendant owed the plaintiff a duty of care.
>
> 122 In considering whether a nuisance is inevitable it is necessary to distinguish between statutory provisions that require a specified activity to be carried out and provisions that permit, but do not require, a specified activity to be carried out. In the former case there is no separate requirement of inevitability; *any nuisance resulting from the activity will be authorised unless it is caused by negligence on the part of the person conducting the activity*. All that is required is that the specified activity be

executed (performed) with reasonable care. See Trindade, Cane and Lunney, *The Law of Torts in Australia* (4th ed) [4.1.6.3].

123 Where the statute permits the specified activity to be carried on, it must be shown that what the legislation authorised could not be done without creating a nuisance and that the nuisance was not caused by negligence. The inevitability limb focuses attention, not on the execution of the specified activity, but on the decisions relating to whether, when or how to undertake the authorised activity. Thus, if the creation of a nuisance could have been avoided by the proper exercise of the statutory power (ie one that was consistent with its scope and purpose(s)), the defence will fail even in the absence of negligence: *Melaleuca Estate Pty Ltd v Port Stephens Council* [2006] NSWCA 31 [48] - [57]." [Emphasis added.]

702 In the present proceedings I am concerned with private nuisance and with its creation, not its abatement, and without any complications regarding the exercise of a statutory authority.

703 Second, the plaintiffs say that unlike public nuisance, which at least in "highway cases" has been absorbed into the general law of negligence, *Brodie v Singleton Shire Council* [2001] HCA 29, 206 CLR 512 at [55] per Gaudron, McHugh and Gummow JJ; Kirby J agreeing at [226], private nuisance remains as a separate tort to that of negligence, as was observed by McLure P in *Southern Properties* (above) at [117]-[119]:

"117 Unless and until the High Court determines that the tort of nuisance, like the principle in *Ryland v Fletcher*, is subsumed in the tort of negligence, this court must proceed on the basis that nuisance is a separate cause of action.

118 Nuisance protects a claimant's interest in the beneficial use of land. It is not confined to the actual use of the soil but extends to the pleasure, comfort and enjoyment which a person normally derives from occupancy of land. Thus, nuisance covers physical damage to property and non-physical damage. To constitute a nuisance, the interference must be unreasonable. *In making that judgment, regard is had to a variety of factors including: the nature and extent of the harm or interference; the social or public interest value in the defendant's activity; the hypersensitivity (if any) of the user or use of the claimant's land; the nature of established uses in the locality (eg residential, industrial, rural); whether all reasonable precautions were taken to minimise any interference; and the type of damage suffered*.

119 This exercise involves weighing the respective rights of the parties in the use of their land to make a value judgment as to whether the interference is unreasonable. *Although the 'fault' of the defendant may be a relevant consideration in an assessment of whether the interference with the claimant's enjoyment of land is unreasonable, the duty not to expose one's neighbours to nuisance is not necessarily discharged by the exercise of reasonable care*. Liability in nuisance is strict. Once a prima facie case has been established, it is for the defendant to prove its defence." [Emphasis added]

704 In *Butler Market Gardens Pty Ltd v GG & PM Burrell Pty Ltd* [2018] VSC 768 Richards J expressed the principle this way at [96]-[98]:

"96 There is a relationship between the foreseeability of a risk of harm and a defendant's obligation to act to prevent the harm eventuating. In the case of the risk of ignition of oil discharged into the waters of Sydney Harbour:

> The most that can be said to justify inaction is that he would have known that this could only happen in very exceptional circumstances. But that does not mean that a reasonable man would dismiss such a risk from his mind and do nothing when it was so easy to prevent it. If it is clear that the reasonable man would have realised or foreseen and prevented the risk, then it must follow that the appellant is liable in damages. ...

97 The relationship between 'fault' and nuisance was explained in a different way by McClure P in *Southern Properties*:

> Although the 'fault' of the defendant may be a relevant consideration in an assessment of whether the interference with the claimant's enjoyment of land is

> unreasonable, the duty not to expose one's neighbours to nuisance is not necessarily discharged by the exercise of reasonable care. Liability in nuisance is strict. Once a prima facie case has been established, it is for the defendant to prove its defence.
>
> 98 In my view it is more useful to focus on foreseeability rather than 'fault'. It is foreseeability that is an essential element of the tort of nuisance. A defendant is not liable for harm that was not foreseeable. Whether a risk of harm was known, or could be foreseen, also bears on what measures might have been taken to avoid the harm eventuating, and in turn whether the interference was unreasonable. *However, whether an interference was unreasonable is to be determined having regard to a range of considerations that is broader than whether reasonable precautions were taken to mitigate a foreseeable risk of harm*." [Emphasis added.] [Footnotes omitted.]

705 It should be noted that a subsequent appeal against the decision of Richards J was confined to issues regarding the assessment of damages: *GG & PM Burrell Pty Lt v Butler Market Gardens Pty Ltd* [2020] VSCA 31.

706 The plaintiffs submit that suggestions in two recent New South Wales cases, namely *Weber v Greater Hume Shire Council* [2019] NSWCA 74, 100 NSWR 1; and *Woodhouse v Fitzgerald* (above), that nuisance, at least insofar as it might apply to cases of escape of fire from premises, was absorbed into the general law of negligence following the decision in *Burnie Ports*, are plainly wrong.

707 In *Weber* Basten JA, with whom Gleeson JA agreed, said at [27]:

> "27 In *Burnie Port Authority v General Jones Pty Ltd* the High Court identified two propositions of law which are significant in the present context. The first was that 'any special rule relating to the liability of an occupier for fire escaping from his premises has been absorbed into, and qualified by, more general rules or principles.' Secondly, the principle commonly sourced to the English decision of *Rylands v Fletcher*, as with special rules relating to fire, 'should now been seen, for the purposes of the common law of this country, as absorbed by the principles of ordinary negligence.' It follows that there is no separate principle depending on a finding that a dangerous substance has escaped from premises, or a dangerous activity has been carried on on premises, which has caused harm to the plaintiff. The nature of the substance or the activity may well affect the standard of care required of the occupier, and may give rise to a non-delegable duty of care. That analysis, nevertheless, takes place within the confines of the law of negligence. It therefore follows that, so far as presently relevant, it will be governed by the *Civil Liability Act*."

708 In *Woodhouse* Basten JA said at [43]-[45]:

> "43 Accordingly, it appears implausible that the unparticularised qualification that 'there may remain cases in which it is preferable to see a defendant's liability in a *Rylands v Fletcher* situation as lying in nuisance (or even trespass) and not in negligence' was intended to qualify the general proposition that the defendant's fault lay in the unreasonableness of his or her conduct. The unresolved possible difference may lie in the party who bears the onus of proving that reasonable care was (or was not) taken. At least that is so with respect to the escape of fire from one property to another. The joint reasons in *Burnie Port Authority* commenced:
>
> > 'The cases in this Court establish that, under the common law of this country, any special rule relating to the liability of an occupier for fire escaping from his premises has been absorbed into, and qualified by, more general rules or principles.'
>
> 44 The joint reasons concluded that the common law rules with respect to the escape of fire had been 'absorbed into the principle of Rylands v Fletcher', as stated by Windeyer J in *Hargrave*. The next stage, already noted, was the adoption of that of a failure to exercise reasonable care as the standard of fault in Rylands v Fletcher, albeit that the duty to exercise such care was non-delegable. This understanding of Burnie Port Authority was adopted in *Weber v Greater Hume Shire Council*.

> 45 As noted above, *even if there were some stricter form of liability available in nuisance, the issue did not strictly arise at trial, the claim in nuisance having been pleaded in the following terms*:
>
> > '23 The spread of fire from Doran to Myack constituted an act of nuisance which could have been avoided *by the taking of reasonable care* by the plaintiffs.
> >
> > Particulars
> >
> > The plaintiff repeats paragraph 14.'
>
> The particulars referred to in par 14 of the claim were particulars of negligence and breach of duty." [Emphasis added.]

709 What the High Court said in *Burnie Port Authority* at 555-556 concerning what Basten JA referred to in his obiter dictum set out above as "the unparticularised qualification" was as follows:

> "Once it is appreciated that the special relationship of proximity which exists in circumstances which would attract the rule in *Rylands v. Fletcher* gives rise to a non-delegable duty of care and that the dangerousness of the substance or activity involved in such circumstances will heighten the degree of care which is reasonable, it becomes apparent, *subject to one qualification*, that the stage has been reached where it is highly unlikely that liability will not exist under the principles of ordinary negligence in any case where liability would exist under the rule in *Rylands v Fletcher…*
>
> The *qualification mentioned in the preceding paragraph is that there may remain cases in which it is preferable to see a defendant's liability in a Rylands v Fletcher situation as lying in nuisance* (or even trespass) and not in negligence. It follows that the main consideration favouring preservation of the rule in *Rylands v Fletcher*, namely, that the rule imposes liability in cases where it would not otherwise exist, lacks practical substance. In these circumstances, *and subject only to the above-mentioned possible qualification in relation to liability in nuisance*, the rule in *Rylands v Fletcher*, with all its difficulties, uncertainties, qualifications and exceptions, should now be seen, for the purposes of the common law of this country, as absorbed by the principles of ordinary negligence." [Emphasis added.] [Footnotes omitted.]

710 The plaintiffs point out that nuisance was not in issue in *Burnie Port Authority* in the High Court, see at 528 (the plurality), 581.5 (McHugh J). They submit that the judgments of the plurality, Brennan J and McHugh J each differentiated between four discrete bases for liability, namely nuisance, *ignis suus*, the "Rule in *Rylands v Fletcher*" and negligence. The result of *Burnie Ports* was that *ignis suus* and *Rylands v Fletcher* were absorbed into the general law of negligence, but the Court specifically excluded nuisance from that amalgamation. They point out that nuisance was repeatedly identified as a continuing alternative to negligence, see at 556 (the plurality); 570.8-571.2, 572.5, 576.7-577.3, 578.1, 578.6 (Brennan J) and 592.2 (McHugh J).

711 They submit that given that no other intermediate courts of appeal, or superior courts at first instance, (*Southern Properties* (above), *Butler Market Gardens* (above) and *Herridge v Electricity Networks Corporation (No 4)* [2019] WASC 94), have construed *Burnie Port Authority* in the manner suggested by Basten JA in the two decisions assailed, and given the High Court's "qualification" as to nuisance in *Burnie Port Authority* and the recognition of that preserving effect in subsequent decisions in other superior courts, the two New South Wales decisions ought not be followed by this Court.

712 Such a course is open to me: see *Farah Constructions v Say-Dee Pty Ltd* [2007] HCA 22, 230 CLR 89 at [151] per Gleeson CJ, Gummow, Callinan, Heydon and Crennan JJ; *Obeid v Lockley* [2018] NSWCA 71, 335 ALR 615 at [224] (Leeming JA, Beazley P concurring). However, as Porter AJ said in *Rae & Partners Pty v Shaw* [2020] TASFC 14 at [81] (Blow CJ concurring):

> "In *Farah Constructions Pty Ltd v Say-Dee Pty Ltd* [2007] HCA 22, 81 ALJR 1107 at [134], the Court warned about intermediate courts of appeal too readily departing from its pronouncements. It went on to say though, that intermediate appellate courts and trial judges in Australia should not depart from decisions of intermediate appellate

courts in other jurisdictions on the interpretation of non-statutory law, as there was 'a common law of Australia rather than of each Australian jurisdiction'."

713 In the present case I am faced with conflicting decisions of two intermediate appellate courts in other jurisdictions on "the interpretation of non-statutory law". Obviously I cannot follow both and, as I prefer the approach to the role of nuisance after *Burnie Port Authority* taken by McLure P in *Southern Properties*, to that of Basten JA in *Weber* and *Woodhouse*, I will follow her Honour. In my view the law of nuisance in cases of escape of fire, as opposed to the so called rule in *Rylands v Fletcher* itself, has not been absorbed into the general law of negligence in this country. The contrary is not submitted by the first defendant.

714 Third, the plaintiffs say, private nuisance concerns unreasonable interference in a plaintiff's enjoyment of interests in land. Its focus is the quality of the impact suffered by the plaintiff. The focus of negligence is the quality of the conduct of the defendant. So the two torts are qualitatively different.

715 Fourth, as to the issue raised by key issues 6(a) and (c), the plaintiffs observe that it makes no logical sense for negligence, a distinct and self-contained cause of action, to be an element in private nuisance. To hold otherwise would be immediately to render private nuisance otiose, at least in its "accidental cause" or "failure to abate" subcategories. That outcome, they say, is directly contradicted by *Burnie Port Authority*.

716 Fifth, they say, that although negligence is not a necessary element in private nuisance, the authorities do establish that private nuisance does require an element of "fault" (*Overseas Tankship (UK) Ltd v Miller Steamship Co Pty Ltd (The Wagon Mound No 2)* [1966] 3 WLR 498 at 508 (Lord Reid delivering the judgment of the Board); *Gales Holdings Pty Ltd v Tweed Shire Council* [2013] NSWCA 382, 85 NSWLR 514 at [132], [139]; [280]).

717 Sixth, the plaintiffs say that "fault" for that purpose is not to be equated to a failure to take reasonable care.

The requisite element of "fault" in private nuisance

718 The plaintiffs say that the relevant authorities on this issue can be taken as starting with *Hargrave v Goldman* (1963) 110 CLR 40; *Goldman v Hargrave* [1967] 1 AC 645. That was a "failure to abate" case, as the landowner had neither created nor "adopted" the nuisance, but rather had acted negligently in his attempts to abate it. Negligence was the more apt tort, and was wholly adequate to dispose of the matter because the landowner was indeed liable in negligence.

719 In that case in the High Court, only Windeyer J addressed the distinction between negligence and nuisance, using the heading "(iii)" for nuisance and "(iv)" for negligence (and separately under "(v)", disposing of an arcane contention about a non-negligence, stand-alone "duty of care"). Most relevantly for present purposes, the plaintiffs say that Windeyer J at 62 made clear that "negligence is not a necessary element in nuisance". His Honour added that negligence "may be an ancillary element in some forms of nuisance" and cited *Jacobs v London County Council* [1950] AC 361, being a case of public nuisance (a "highway case"). In that case Lord Simonds at 374, also observed that "negligence is not necessarily an element in nuisance." On the appeal in *Goldman v Hargrave* the Privy Council held the landowner liable in negligence, and again put to one side the questions of nuisance as unnecessary to consider.

720 But, the plaintiffs say, what is especially telling, for the present discussion, is that in the interval between the High Court decision in *Hargrave v Goldman*, and the Privy Council decision in *Goldman v Hargrave*, the Privy Council also decided *The Wagon Mound (No 2)* which case held that negligence is not an essential element in nuisance, but that nonetheless at 656G, "fault of some kind is almost always necessary and fault generally involves foreseeability" (*Overseas Tankship (UK) Ltd v Miller*

Steamship Co Pty Ltd (The Wagon Mound No 2) (above) at 508 (Lord Reid delivering the judgment of the Board), see also *Gales Holdings Pty Ltd v Tweed Shire Council* (above) at [132], [139]; [280].

721 In the plaintiffs' submission, that aspect of *The Wagon Mound (No 2)* is "the key". That the touchstone for liability in nuisance is foreseeability of harm (*Burnie Port Authority* at 537.5; *Riverman Orchards Pty Ltd v Hayden* [2017] VSC 379 at [180]ff (John Dixon J); *Butler Market Gardens Pty Ltd v GG & PM Burrell Pty Ltd* (above) (Richards J) at [98]).

722 Foreseeability is not to be equated with negligence. It is not even synonymous with the "duty of care" element of negligence they say, since foreseeability is only one consideration going to the existence of a duty. Moreover, they add, that the other indicia of duty in negligence such as control, availability and burden of precautions and so on almost all focus on the defendant rather than on the plaintiff and that the difference is to be expected, given the different emphases of the two torts. (The modern statement of the non-exhaustive list of indicia of a duty of care in negligence is found in *Caltex Refineries (Qld) Pty Limited v Stavar* [2009] NSWCA 258, 75 NSWLR 649 at [103] per Allsop P.

723 The plaintiffs say that once it is appreciated that the touchstone for liability in nuisance is simple foreseeability then the special place of that tort, within the Australian common law, is easily discerned. In short, they say:

- the element of "fault" required for private nuisance translates to the creation of, or failure to abate, or cause of unreasonable interference in others' interests in private land, in circumstances where the unreasonable interference is foreseeable; and
- since foreseeability is a step short of negligence, negligence is not a prerequisite to liability in private nuisance.

724 Thus they say, the two torts remain distinct, and liability in private nuisance can appear as something stricter than liability in negligence. That is not to say, and the plaintiffs say that they do not say, that private nuisance is a tort of actual strict liability. They accept that concepts of unreasonableness do apply but say that they relate to the unreasonableness of the impact on the plaintiff rather than unreasonableness in the conduct of the defendant.

725 On that last mentioned issue the plaintiffs submit that their analysis as to the elements of private nuisance as I have set it out above, reflects the decisions of the High Court in *Hargrave*, the Privy Council in *Wagon Mound (No 2)*, the High Court in *Burnie Port Authority*, the Western Australian Court of Appeal in *Southern Properties* (WASCA), and most recently the Victorian Supreme Court in *Riverman Orchards* and *Butler Market Gardens*. However, they say, three other decisions, that also consider the question of whether negligence is an element of private nuisance, require mention.

726 The first, is *Herridge v Electricity Networks Corporation (No 4)* (above) at [542], the "Parkerville Bushfire" litigation. In that case Le Miere J accepted the continuing status of private nuisance as a tort discrete from negligence but held that, at least in cases of accidental escape of fire, the requisite element of "fault" in private nuisance did require proof of negligence. However. *Parkerville* was per incuriam of *Riverman Orchards* and *Butler Market Gardens*. The plaintiffs note that this aspect of *Parkerville* is currently awaiting judgment on appeal and submit that it ought not to be followed in preference to the other authorities listed above. I agree and propose to follow what I regard as the other stronger and more jurisprudentially rational line of authority as analysed by the plaintiffs as set out above.

727 The second and third decisions are the two NSW Court of Appeal decisions in *Weber v Greater Hume Shire Council* (above) and *Woodhouse v Fitzgerald* (above), I have dealt with these cases earlier in these reasons on the question of whether nuisance had been absorbed into the general law of negligence.

728 The plaintiffs say that *Weber* is not directly relevant on the present issue as it did not concern a claim in nuisance. They mention it only because its analysis of the duties of landowners in negligence in respect of fire was then cited in *Woodhouse*.

729 *Woodhouse* did concern claims both in negligence and in nuisance. But very importantly, the plaintiffs point out, and as will have been observed from what I have earlier written, the nuisance claim was expressly pleaded as based upon the negligent acts of the defendant (see at [45]-[47]). That is to say, the pleading effectively incorporated negligence into the plaintiffs' nuisance case, with the result that the nuisance claim there was framed as being based upon a failure to take reasonable care. This they say, and as I have already observed, means that the observations of Basten JA on the question of whether nuisance *ordinarily* depends upon a failure to take reasonable care were obiter dicta.

730 Nevertheless, the plaintiffs say, the Court in *Woodhouse* did consider the present question. It noted at [37] that the plurality in *Burnie Port Authority* had reserved some continuing role for nuisance separately from negligence, but the analysis they then undertook as to the scope of that "unparticularised qualification" did not address in any considered way the plaintiffs' analysis on the present question as set out above. The critical distinction between reasonable foreseeability (the fault element that the plaintiffs have identified) and reasonable care is touched upon only with reference at [40] to *Cambridge Water Co v Eastern Counties Leather Plc. Wagon Mound (No 2)* was cited only in a footnote acknowledging that it was cited in *Cambridge* ([40] fn25) and *Goldman v Hargrave* (above), was not addressed at all in the present context. The Victorian first instance decisions in *Riverman Orchards* (above) and *Butler Market Gardens* (above) were likewise not mentioned.

731 The plaintiffs say that it may be accepted that *Woodhouse*, albeit *obiter*, does appear to hold that nuisance requires, as an element, a lack of reasonable care by the defendant, but in their submission it is not binding on me, for the reason that *Woodhouse* on this issue is squarely at odds with "the anterior, superior and binding authorities in *Goldman v Hargrave*, *The Wagon Mound (No 2)* and *Burnie Ports*."

732 To the extent it is not already clear from what I have written, I accept the plaintiffs' submission.

733 Thus, I accept that the principle established by the first two of those last mentioned cases, and "preserved" in the third, is that the "fault" required for nuisance is the doing of the act of commission or omission in circumstances where it was reasonably foreseeable that it might result in unreasonable interference in the enjoyment, by persons in the class including the plaintiffs, of interests in land. There is no further requirement that the act or omission also involve a failure to take reasonable care.

734 It follows that I do not accept the submissions of the first defendant on this issue, to which I will now turn.

735 As to the role of reasonable foreseeability and reasonable care in a claim for private nuisance, Ms Barrett says, citing, Bryson JA in *Sutherland Shire Council v Becker* [2006] NSWCA 344, 150 LGERA 184 at [119] citing *Burnie Port Authority v General Jones Pty Ltd* (1994) 179 CLR 520; see also *Sedleigh-Denfield v O'Callaghan* [1940] AC 880, at 904-905, as cited by Preston CJ in *Robson v Leischke* [2008] NSWLEC 152, 72 NSWLR 98 at [44]-[46] and Bryson JA in *Sutherland Shire Council v Becker* at [118], says that strict liability for nuisance is no longer good law. The plaintiffs do not submit to the contrary.

736 She submits that it is well established, as noted by Bryson JA in *Sutherland Shire Council v Becker* (above) at 119 citing *Overseas Tankship (UK) Ltd v Miller Steamship Co Pty (The Wagon Mound (No 2)*) [1967] 1 AC 617, at 639 and *Montana Hotels Pty Ltd v Fasson Pty Ltd* (1986) 61 ALJR 282, at 284 that nuisance necessarily involves fault of some kind. And she says, citing Preston CJ in *Robson v Leischke* (above) citing *The Wagon Mound (No 2)*, at 639-640; *Leakey v National Trust for Places of Historic Interest or Natural Beauty* [1980] QB 485, at 522, 524; *Solloway v Hampshire County Council* (1981) 79 LGR 449, at 452, 457-458, 460 and 461; *City of Richmond v Scantelbury* [1991] 2

VR 38, at 45; *Cambridge Water*, at 300*; Delaware Mansions Ltd v Westminster City Council* [2002] 1 AC 321, at 332 [29], that such fault generally involves foreseeability. This analysis does not to this point appear to differ from the gravamen of the plaintiffs' submission.

737 I set out in full the following section of the first defendant's written closing submissions as they are not readily capable of a succinct narration:

> "In *Robson v Leischke*[1], Preston CJ held that when a defendant creates the nuisance, the fault element is dependent on the nature of the defendant's conduct and his or her state of knowledge.[2] Citing the English text of *Clerk & Lindsell on Torts*, Preston CJ noted several possible states of knowledge and conduct of the defendant in a nuisance claim:
>
> > *'if the defendant deliberately or recklessly uses his land in a way which he knows will cause harm to his neighbour, and that harm is considered by a judge to be an unreasonable infringement of his neighbour's interest in his property…the defendant is liable for the foreseeable consequences.*[3]
> >
> > *'if the defendant knew or ought to have known that in consequence of his conduct, harm to his neighbour was reasonably foreseeable, he is under a duty of care to prevent such consequences as are reasonably foreseeable … here nuisance and negligence coincide'.*[4]
> >
> > *'If the defendant neither knows and intends harm nor is negligent with regard to the consequences of his conduct…Strict liability within the rule in Rylands v Fletcher has been subsumed within the law of negligence by the High Court decision in Burnie Port Authority.*[5]
>
> In *Butler Market Gardens Pty Ltd v GG and PM Burrell PTY LRD*, '*Butler*',[6] Richards J noted that factual causation is a central question of whether there was substantial and unreasonable interference with the use and enjoyment of land.[7] Foreseeability is therefore an essential element of nuisance.[8] While this case went on appeal, the grounds of appeal were confined to issues pertaining to damages.
>
> Her Honour referred to the NSW Supreme Court cases of *Quick v Alpine Nurseries Sales Pty Ltd* and *NM Rural Enterprises Pty Ltd v Rimanui Farms Ltd.*[9] These authorities traced back to a passage in the Privy Counsel's advice in *Wagon Mound (No. 2):*
>
> > *'It is true that negligence is not an essential element in nuisance…although negligence may not be necessary, fault of some kind is almost always necessary and fault generally involves foreseeability…'.*[10]
>
> Richards J further stated:
>
> > *'Their Lordships went on to hold that foreseeability is a necessary element in all classes of nuisance, in that a defendant is not liable for harm that is the direct result of a nuisance if the harm was 'in the relevant sense unforeseeable.*[11]*There is a relationship between the foreseeability of a risk of harm and a defendant's obligation to act to prevent harm eventuating.'*[12]

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1 [2008] NSWLEC 152, 72 NSWLR 98.
2 *Robson v Leischke* [2008] NSWLEC 152 at 142.
3 *Clerk & Lindsell on Torts, 19th ed, Sweet & Maxwell, London,* 2006, [20-39], p 1184; see the application of this reasoning in the judgment of Ward J in *Quick v Alpine Nurseries Sales Pty Ltd* [2010] NSWSC 1248.
4 Ibid, 20-40, p 1185.
5 Ibid, 20-41, p 1185.
6 [2018] VSC 768.
7 At 55.
8 *Butler Market Gardens Pty Ltd v GG and PM Burrell PTY LRD* per Richards J at 98.
9 [2013] NSWSC 309 .
10 At 94 citing *Wagon Mound (No 2)* at 640.
11 At 95.
12 At 96.

This line of reasoning accords with the judgement of Hoeben J in *Rickard & Ors v Allianz Australia Insurance Ltd & Ors.*[13] Citing Lord Wright in *Sedleigh-Denfield,* Hoeben J made the following observation:

> *'constructive knowledge for the purposes of nuisance does not equate with foreseeability in negligence. The test is not whether a risk is farfetched or fanciful, but whether there is evidence of facts, matters or circumstances from which the defendant ought to have known of the nuisance*'.[14] "

738 From these cited passages the first defendant draws the following proposition;

> "Applying that line of reasoning to this case, the relevant question then becomes whether the first defendant maintained actual or constructive knowledge at the time of lighting the campfire, or at the time of observing steam in the area around the campfire, that such action, or inaction, would likely cause fire to escape her property and cause an unreasonable interference to her neighbours land.[15] The plaintiff's claim in nuisance is dependent on pleading and establishing such knowledge. No such constructive or actual knowledge is available on the evidence. The claim in nuisance must fail for that reason alone.[16]"

739 I do not accept the first defendant's submission that it is necessary to plead the actual or constructive knowledge suggested by the first defendant. The pleaded claim is in private nuisance and, to the extent that there is any real difference in the parties' positions on the fault element in nuisance, I prefer the plaintiffs' analysis of the relevant authorities as leading to the conclusion the fault required to be proved for nuisance is the doing of the act or the making of the omission in circumstances where it was reasonably foreseeable that it might result in unreasonable interference in the enjoyment, by persons in the class including the plaintiffs, of interests in land.

740 And, as will be seen, I am of the view that the relevant fault element is made out in the present case and that *at the very least* the first defendant and Mr Robinson ought to have foreseen that the campfire lit in an old stump in almost midsummer could escape Ms Barrett's property and cause an unreasonable interference to her neighbours' land. Indeed the facts show that this was actually foreseen by Ms Barrett. There is no dispute in this case that harm to persons who held interests in land across the wide and unpredictable area across which a bushfire might spread, if a fire on Ms Barrett's property happened to escape, was plainly foreseeable to a reasonable person.

741 I set out, again in full, as they are not readily susceptible to narration, the balance of the first defendant's written closing submissions on the present issue:

> "Davies A-J gave consideration to when an action should be pursued in nuisance or in negligence in *Bonic v Fieldair (Deniliquin) Pty Ltd.*[17] His Honour referred to the reasoning in *Burnie Port* and noted the following:
>
> > *'The principles of negligence are entirely apposite to the situation, there having been an unintended harm to the Bonics' property arising from a one-off circumstance ... The principles of nuisance, insofar as they are different from those of negligence, are more appropriate to cases of intentional harm and to cases where damages or an injunction are sought in relation to an ongoing situation where issues of an environmental nature have to be considered*'.[18]

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13 [2009] NSWSC 1115.
14 At 188.
15 Per Ward J in *Quick v Alpine Nurseries Sales Pty Ltd* at 144.
16 *NM Rural Enterprises Pty Ltd v Rimanui Farms Ltd* [2013] NSWSC 309, at 947.
17 [1999] NSWSC 636
18 At 12. This line of reasoning was cited with approval in *NM Rural Enterprises Pty Ltd v Rimanui Farms* Ltd [2013] NSWSC 309.

The acts creating the alleged nuisance were neither deliberate nor reckless in a way which the first defendant knew or could reasonably foresee would cause harm to the plaintiffs. The requisite element of fault cannot be established and the claim must fail.

We refer to *Goldman v Hargrave* where Lord Wilberforce stated that the tort of nuisance may comprise a wide variety of situations in some of which negligence plays no part, in others of which it is decisive.[19] The plaintiff's case, as in *Daniel Herridge & Ors v Electricity Networks Corporation t/as Western Power*, '*Herridge*', rests upon the defendant's failure to take reasonable care.[20]

The High Court case of *Hargrave v Goldman* established that a nuisance claim following an accidental fire requires a breach of reasonable care by the defendant.[21] The plurality rejected notions of strict liability to find that where the landowner does not cause the nuisance but allows it to arise, liability is dependent on breach of duty.

In the pivotal High Court case of *Burnie Port Authority v General Jones Pty Ltd*, *'Burnie Port'*, the majority held that the rule in *Rylands v Fletcher* had been absorbed by the principles of negligence, under which a person who takes advantage of the control of premises to introduce a dangerous substance, to carry on a dangerous activity or to allow another to do one of those things, owes a duty of reasonable care to avoid a reasonably foreseeable risk of injury or damage to the person or property of another.[22]

Burnie Port cemented the role of reasonable care and reasonable foreseeability within nuisance claims concerning the introduction of a dangerous substance such as fire on one's own property. Their Honours Mason CJ, Deane, Dawson, Toohey and Gaudron JJ held that:

> '*Although the standard of care is that which is reasonable in the circumstances, in the case of such substances or activities a reasonably prudent person would exercise a higher degree of care and, depending upon the magnitude of the danger, the standard of 'reasonable care' may involve 'a degree of diligence so stringent as to amount practically to a guarantee of safety'*.[23]

In *Southern Properties (WA) Pty Ltd v Executive Director, Department of Conservation and Land Management, 'Southern Properties'*, McLure P found that the plaintiff's claim in nuisance must fail as the trial judge in that case had found that the defendant had not acted negligently.[24] McLure P went on to find that fault of the defendant may be a relevant consideration in a nuisance claim, however, a defendant's duty may not necessarily be discharged by the exercise of reasonable care.[25]

Southern Properties is distinguishable as that case was concerned with damage resulting from smoke, not from fire.[26] Smoke is not an inherently dangerous substance. *Southern Properties* was not a case where the existence or scope of a duty was well-established or well understood except at a high level of generality.[27] Consequently, *Burnie Port* was only considered in a limited sense.[28]

The case of *Herridge* concerned the Parkerville fires of January 2014.[29] The fires were ignited when a dilapidated jarrah pole supporting electrical cables, embedded in land owned by the third defendant, ignited surrounding vegetation. Both negligence and nuisance were pleaded.

Le Miere J held that the focus of nuisance is on the interference the plaintiff has suffered, however, the quality of the defendant's conduct is not to be discounted.[30] Le Miere J found that claims in nuisance may not involve fault, but the claims against the

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19 [1967] 1 AC 645, at 461.
20 Per Le Miere J at 544
21 [1963] 1 AC 645, 110 CLR 40 , per Taylor and Owen JJ at 51-52.
22 [1994] HCA 13; (1994) 179 CLR 520 per X at 556-557.
23 Ibid at 554.
24 Le Miere J in *Herridge* at 539, citing McLure P in *Southern Properties* [2012] WASCA 79.
25 At 119.
26 McLure P at 85.
27 McLure P at 88.
28 McLure P at 84-88.
29 [No 4] [2019] WASC 94.
30 *Herridge* per Le Miere J at 544.

second and third defendant in this case did.[31] This was so because the plaintiff's case against the second and third defendants rested upon their respective failure to take reasonable care. As a corollary, it was held that reasonable foreseeability remains a factor to be considered in a claim of nuisance. This case is currently on appeal.

The plaintiffs claim in nuisance mirrors that of *Herridge* in that it relies on a failure to take reasonable care.

In *Warragamba Winery Pty Ltd v State of NSW*, '*Warragamba*', Walmsley AJ held that a claim in nuisance must fail where the plaintiff cannot establish negligence. Counsel for the plaintiff conceded this point.[32] Relying on a passage from *Fleming's Law of Torts*, Walmsley AJ made the following observation:

> *'I have noted that the plaintiffs have sued in nuisance in the alternative to their other counts. In Fleming at 403 the authors note that many cases concerning fire damage have included claims for nuisance but that the common response of courts in such cases has been that such a claim cannot succeed without proof of negligence, the underlying logic appearing to be that proof of negligence is an essential precondition in circumstances in which physical damage to property is at issue.'*[33]

Fleming cites the High Court cases of *Wagon Mound No 2* and *Goldman v Hargrave*.[34] Le Miere J also cited the above passage from *Fleming* with approval in *Herridge*.[35]

It necessarily follows that if the plaintiff's claim in negligence fails, so too must their claim in negligence."

742 I do not accept these submissions of the first defendant. They rely overly much on "cherry picked" judicial observations and unrealistic attempts to distinguish cases that are clearly against her. Moreover, in attempting to "shoehorn" the requirements of the tort of negligence into that of nuisance, they fly in the face of High Court and intermediate appeal court and first instance decisions in this country which, with the exception of *Herridge* (above), (which at the time of handing down these reasons, remains reserved on appeal on the point in question), are quite clearly to the contrary. I much prefer the more rigorous and principled analysis of the plaintiffs, as I have already indicated. In particular, I am, with respect, wholly in agreement with McLure P in *Southern Properties* (above), as to the state of the relevant law.

Answer to Key Issues 6(a) and (c)

743 It follows that I accept the answer to key issues (6)(a) and (c) posited by the plaintiffs, namely, that only reasonable foreseeability of harm is an element of private nuisance. That is, it is the creation of a nuisance, or a failure to abate it, in circumstances where harm of the general kind suffered by the plaintiff ought reasonably to have been foreseen by the defendant as a potential consequence of his or her acts or omissions, that constitutes the requisite "fault" element for liability in private nuisance. A failure to take reasonable care is not an element of the action in private nuisance.

Relevance of reasonable use of land

744 On this issue, the first defendant submits that Basten JA made the following observation in *Woodhouse* (above) at [47] while addressing whether the escape of fire from a controlled burn constitutes a nuisance:

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31 At 544.
32 [2012] NSWSC at 673-674.
33 At 673.
34 *Overseas Tankship (UK) Ltd v Miller Steamship Co Pty (The Wagon Mound (No 2*)) [1967] 1 AC 617 and [1963] 1 AC 645.
35 At 531, citing Sappideen C, Vines P, *Fleming's The Law of Torts* (10th ed, 2011) [16.30] at 403.

> "… it is not the case that private nuisance is established as a result of any harm resulting from an emanation from a person's land. The use of the land must be out of the ordinary, unreasonable or otherwise inappropriate".

745 Ms Barrett says that that having a small campfire on a cold night during a period which was not subject to any fire bans to enhance the camping experience of the second defendant's young son was not an unreasonable use of her land.

746 On that point the plaintiffs say, and I accept, that lighting a fire in open air, in a high-bushfire risk area, in the changeable weather conditions of south-east Tasmania in late December is an inherently dangerous activity. So much is reflected in the extensive regulations around such activities, including the declarations of "fire permit" periods pursuant to the FSA. Moreover, they say, the inherent danger of lighting a fire within 3m of a tree, stump, log or peat is stipulated by the legislature, in s 69 of that Act.

747 As to this issue generally, the plaintiffs submit, as noted above, private nuisance is not a tort of strict liability. This is so for two reasons that first, because an element of fault is required, in the way described above, and second, considerations of reasonableness, in a "physical sense", as opposed to reasonable foreseeability does come into play. The plaintiffs say that while elements of "physical reasonableness" are sometimes referred to as "reasonable user" or "reasonable use" of the defendant's interests in land, that shorthand might be convenient to describe a relevant consideration but the title is apt to mislead. They say that a proper consideration of the logic of the tort of nuisance shows that the notion of "reasonableness" is not one that looks at whether the defendant's acts or omissions on her land were reasonable from the perspective of a landowner considered within its own private sphere. Rather it is one that looks at whether the interference as experienced by the plaintiffs was reasonable having regard to the history, customs or characteristics of the local area.

748 In other words, the plaintiffs say that the question is not whether it was reasonable for the defendant to light or permit a small campfire. It is whether the plaintiff group is expected by the law to suffer without redress the consequences of a bushfire ignited by the campfire and spreading onto their own lands. They say that two cases exemplify that proposition:

- in *Marsh v Baxter* [2012] WASCA 79, 42 WAR 387 at [119], [247] interference from "spray-drift" (of crop chemicals) was not unreasonable because it resulted from normal and longstanding local farming practices; and
- in *Woodhouse* (above) interference by fire was not unreasonable, not merely because there was no negligence in the fuel-reduction work that had been undertaken but also because non-negligent fuel-reduction burn-offs *were* normal practice and responsible land management in the local area.

749 The plaintiffs say that it would make little sense for the enquiry as to "reasonable use" to focus on the defendant's conduct within the private space of her own property, in a vacuum. A person can do what they like in their own home. They submit that the only reason for the enquiry in a nuisance context, is the nexus between "the on-property act or omission and the off-property effect." That is, the question must be whether it is "reasonable use" of a given property to so use it as to have an impact on the other properties.

750 Thus the plaintiffs say in conclusion, the answer to key issue 6(b), is that it is not an answer to a claim in private nuisance that the defendant's acts or omissions might appear to have been a reasonable exercise of the defendant's prerogatives on her own land, as if the impacts were confined to the defendant's own land. They say that the inaptness of an enquiry as to whether the nuisance resulted from a "reasonable use" of the first defendant's interests in her land is demonstrated by the additional consideration that a private nuisance does not depend on the defendant even having an interest in land. A licensee upon one parcel of land can be liable in nuisance for the effects suffered on other parcels of land (*Fennell v Robson Excavations* [1977] NSWLR 486 at 491B-492A, 496A, 498E-499G).

751 Finally the plaintiffs submit in conclusion on this key issue that applying their conclusion to the present case, there is no warrant for concluding that they should here should be required to tolerate the consequences of a bushfire resulting from a campfire set for private recreational purposes. The campfire is not a "reasonable use" in that sense.

Answer to Question 6(b)

752 I accept the plaintiffs' submissions on this key issue and the answer to the question posed by it that, for the reasons articulated above the campfire lit in an old tree stump in the circumstances of this case was, for the purposes of the law of private nuisance, an unreasonable use by the first defendant of her land.

Key Issue 6(d) – did the fire cause unreasonable interference to the property?

753 The plaintiffs submit that the interference suffered by them, namely interference by bushfire – is of a type which the law has historically been most concerned to sanction, rather than to excuse. The traditional rules of *ignis suus* and perhaps *Rylands v Fletcher,* albeit both now absorbed into the general law of negligence, "were the classic manifestation of that concern". They say that there is absolutely nothing in the circumstances of the present case to support a conclusion that the plaintiffs are to be expected to tolerate the "interference" they suffered as a result of the defendant's campfire. Quite apart from the role of s 69 of the FSA in demonstrating, for the purposes of negligence, the lack of reasonableness in the defendant's conduct in setting the fire in the stump, the statute likewise demonstrates for the purposes of the nuisance analysis that campfires in tree stumps and their potential consequences for the wider public, are not something that the wider public should be presumed to accept.

754 The first defendant's only submission as to this key issue is that it is "largely non-controversial".

Answer to Key Issue 6(d)

755 It follows that the answer to the question posed by this key issue is "yes" on all counts.

Key Issue 6(e) – whether private nuisance is apportionable under the CLA

756 On this key issue the first defendant notes that McLure P noted in *Southern Properties* (above) at [115] that the court must proceed on the basis that nuisance is a separate cause of action, and that s 5AI of the Western Australian equivalent of s 43A of the CLA would only apply if the appellants had to prove negligence. She noted at [126] that:

> "Parts 1A and 1C of the CLA only apply where there is a claim for damages for harm caused by the fault of a person. The causal link between damage and fault suggests fault must be an element of the cause of action. If so, it is not sufficient that fault may (not must) be relevant in the assessment of whether interference is unreasonable, or that proven absence of fault is a material element of a defence to the nuisance claim."

757 Ms Barrett submits that her Honour's observation suggests that fault is not an element of nuisance and the CLA is therefore not applicable. However, Ms Barrett submits that *Southern Properties* is distinguishable on the facts and that proportionate liability was not directly raised in the case. She says that discussion was based on Part 1A of the Western Australian legislation which I observe is the equivalent of Part 9A of the Tasmanian CLA, but employs the word "fault" in s 5A in applying the Part, as opposed to s 43A(1)(a) of the CLA which applies Part 9A to claims for economic loss or damage to property in an action for damages arising from a failure to take "reasonable care".

758 Ms Barrett notes that Le Miere J in *Herridge* made the following observation in relation to *Southern Properties* and the analysis of the CLA in regard to apportionment in nuisance at [538]:

> "… counsel have not disclosed any case which has decided whether or not claims in nuisance are or may be apportionable. The plaintiffs referred to *Southern Properties*. The issue of whether claims in negligence are or may be apportionable claims for the purposes of s 5AI of the *Civil Liability Act* did not arise in *Southern Properties*. The issue which was referred to in the judgments was whether s 5B, s 5V and s 5W applied to claims in nuisance."

759 Ms Barrett says that Le Miere J reasoned at [544] that the claim in nuisance in *Herridge* involved fault as the plaintiff's case rested upon the defendant's failure to take reasonable care. On that basis, the claims in nuisance were apportionable and were determined on the same basis as the apportionment of damages in the negligence claim. She says that that the pleadings of the plaintiffs are analogous to *Herridge* in that regard and that therefore, s 43A of the CLA is applicable. It would be illogical for the proportionate provisions of the CLA to apply for one tort that contemplates reasonable care and not another which also contemplates reasonable care.

760 As I have already held, in my view the tort of private nuisance does not involve an element of failure to take reasonable care. It follows that I do not accept the first defendant's analysis on this issue. I am conscious that the Western Australian Court of Appeal is due to hand down its decision in *Herridge* later this day, however, given the difference between the language of s 5A of the Western Australian Act and s 43A(1)(a) of the CLA, and the potential for appeal in that case and in this, I have not postponed the date for publishing these reasons.

761 On this key issue, the plaintiffs note that the term "apportionable claim" is defined in s 43A of the CLA, relevantly, as "a claim for economic loss or damage to property in an action for damages (whether in contract, tort or otherwise) arising from a failure to take reasonable care" and that it is clear that the word "claim" in the body of that definition "equates to the inclusion of the relevant head of loss in the particulars of damage, while 'action' is used in the present sense of 'cause of action'." They say that the qualifying phrase "arising … care" conditions or qualifies the cause of action, not the particular claimed loss. That is, they say, it is the cause of action that must arise from the failure to take reasonable care, not the particular loss.

762 I agree that construction is to be preferred, particularly given the words in parentheses after the words "in and action for damages", namely, "(whether in contract, tort or otherwise)".

763 The plaintiffs submit that the requirement that a failure to take reasonable care be a technical element of the cause of action, and not merely a finding that might be made as an incidental matter or in respect of other pleaded causes of action, was recently "determinatively resolved" by the Victorian Court of Appeal in the *Lacrosse Building Fire* litigation *Tanah Merah Vic Pty Ltd v Owners' Corporation No 1 of PS631436T* [2021] VSCA 72. They observe that in a very detailed consideration of the controversy appearing from prior cases, the Court of Appeal at [116], endorsed the conclusion of MacFarlane JA in an earlier NSW Court of Appeal decision *Perpetual Trustee Company Ltd v CTC Group Pty Ltd (No 2)* [2013] NSWCA 58 at [23] that:

> "… the application of [*the apportionment regime*] turns not on the facts that happen to be found but on the essential character of the plaintiff's successful cause of action. Subject to cases that are conducted without regard to the pleadings, if negligence is an essential element of that cause of action, it will have been pleaded in the Statement of Claim. If it is not, it will not have been pleaded. It would be curious indeed if, to attract [*the apportionment regime*], the defendant pleaded and proved his or her own negligence when that was not alleged by the plaintiff. The text of [*the NSW equivalent of s 43(1)*] does not, in my view, contemplate that occurring. *The natural meaning of the words used indicates that a failure to take reasonable care must be part of, and therefore an element of, the plaintiff's successful cause of action*." [Footnotes omitted.] [Emphasis added.]

764 I note that Richard Douglas QC observed in an article entitled *Please Apportion Me!- the VSCA clarifies candidature for an apportionable claim* published in the journal *Australian Civil Liability*, June 2021, that Macfarlan JA had repeated his dictum in *Perpetual Trustee Company*, with the approval of two other members of the NSW Court of Appeal, in *Rahme v Benjamin & Khoury Pty Ltd* [2019] NSWCA 211, 100 NSWLR 550 at [132]–[137].

765 The plaintiffs submit that intermediate appellate courts should not depart from an interpretation placed on national legislation, in this case the apportionment regime, by other intermediate appellate courts unless convinced the interpretation is plainly wrong (*Allianz Australia Insurance Ltd v Mercer* [2014] TASFC 3, 309 ALR 154, per Porter J at [155].) They say that *Tanah Merah* is plainly correct, and that for the reasons given in that case at [118], "the view that the nature of the claim itself is irrelevant to the question whether the claim is one 'arising from a failure to take reasonable care' has a series of anomalous consequences."

766 Further, the plaintiffs submit, the result in *Tanah Merah* was also suggested by and is consistent with analogous High Court authority. The position concerning the candidate circumstance of a claim under federal (or, by parity of reasoning, State or Territory Fair Trading) legislation for contravention of s 18 of the *Australian Consumer Law* was resolved by the High Court in *Selig v Wealthsure Pty Ltd* [2015] HCA 18, 255 CLR 661 at [37]. That case held that a claim under one statutory provision having as one element a requirement of misleading conduct (*Corporations Act* s 1041H) was apportionable, but claims under other provisions were not, even though the causes of action under the other provisions also required an element of misleading conduct.

767 I accept the plaintiffs' submissions on this issue, in particular because, as *Tanah Merah* noted, the result ensures consistency with other provisions in the apportionment regime, and in particular (in Tasmanian terms) s 43B. That is, if a given head of loss (claim) is recoverable both upon a cause of action that arises from a failure to take reasonable care, and upon another cause of action that does not require such a failure, then the defendant remains liable under the second cause of action for the whole of the loss on the traditional solidary basis. The practical consequence is that the liability is not apportionable.

768 I agree, with respect, that their Honours' reasoning in *Tanah Merah* is compelling and I would not presume to depart from it.

769 And I agree with the plaintiffs' submission that as the fault element in private nuisance is only foreseeability and not a failure to take reasonable care, it follows that the cause of action in private nuisance does not "arise from" a failure to take reasonable care. There might in fact have been a failure to take reasonable care, but since the cause of action does not require it, the s 43A definition is not satisfied.

770 This result is not inconsistent with *Woodhouse* (above) where the plaintiff actually pleaded his nuisance claim as arising from the negligence of the defendant. Given that pleading, it understandably followed that the particular nuisance claim in that case by definition "arose" from the defendant's failure to take reasonable care. At the very least I agree with the plaintiffs' submission that such anomalous pleading in *Woodhouse* means that the case is distinguishable from the present case, on this issue of apportionability of liability in private nuisance. In the present case, because the nuisance is pleaded without incorporating any element of a want of reasonable care, and because nuisance does not otherwise depend on a want of reasonable care, it does not meet the definition of an "apportionable claim" and it is not apportionable.

Answer to Key Issue 6(e)

771 Accordingly, liability in private nuisance in the present case is not apportionable under the CLA.

Key Issue 6(f) – do the provisions of the Wrongs Act apply?

772 The first defendant submits that if the plaintiff succeeds in nuisance and it is found that a claim in nuisance is not an apportionable claim under the CLA, then the first defendant's notice of contribution brings the *Wrongs Act* into play. And she says there is no difference in principle between apportionment under the CLA and contribution under the *Wrongs Act*.

773 The plaintiffs submit that since the apportionment regime does not operate in respect of their cause of action in private nuisance, they are prima facie entitled to recover the totality of their losses from Ms Barrett. However, they acknowledge that the non-application of the "apportionment" regime in the CLA also means that the "contribution" provisions in the *Wrongs Act* are available to Ms Barrett in respect of the nuisance claims.

774 I am therefore required to determine whether and to what extent it is "just and equitable" that Mr Robinson be held liable for the plaintiffs' losses, in order to determine the proportion to which he is required to contribute toward Ms Barrett's liability.

775 As to the question of the actual proportion, the plaintiffs agree with the first defendant's submission that any allocation of liability by way of contribution should be in the same percentages as would apply if the claims were apportionable.

776 I too agree and would allocate liability as to 20% to Mr Robinson for the reasons I have earlier given with respect to the application of the CLA to the plaintiffs' claim in negligence.

Answer to Key Issue 6(f)

777 The provisions of the *Wrongs Act* apply to the contribution proceedings in the plaintiffs' claim in these proceedings for damages for private nuisance.

Key Issue 7 – quantum

778 The question posed by this key issue is "what is the quantum of loss suffered by the test-case plaintiff (Sonia Daly) and how is the figure derived?"

779 The plaintiffs and Ms Barrett have agreed the quantum of Ms Daly's losses as follows. It is agreed that on 4 January 2013, Sonia Daly, plaintiff number 19 in proceeding 3393 of 2018, suffered loss and damage when a property owned by her at 12 Fulham Road, Dunalley was impacted by a bushfire.

Answer to Key Issue 7

780 The loss and damage is particularised as follows:

Item	***Head of loss***	***Agreed loss***
1	*Contents*	*$63,532.22*
2	*Damage or loss of infrastructure*	*$219,721.03*
3	*Cost of cleaning property*	*$1,025.75*
4	*Loss of building materials*	*$10,778.00*
5	*Alternative accommodation*	*$1,200.00*
6	*Cost of clean drinking water*	*$360*
7	*Loss adjusting fees*	*$253*
8	*Loss of garden equipment and trees*	*$430*
9	*Loss of boat, trailer and pumps*	*$2,700*
	TOTAL	***$300,000***

Disposition

781 For the reasons I have given, and from the answers I have provided to each of the questions posed by the seven key issues set out in the parties' Key Issues Statement, it follows that the first defendant is liable to the test case plaintiff for damages for negligence and for private nuisance. It also follows in principle that she should be liable to each of the other plaintiffs in negligence and in private nuisance, subject to proof of damage.

782 It will also be seen that I have found that the plaintiffs' claims in negligence are apportionable claims for the purposes of the CLA, notwithstanding the existence of a non-delegable duty on the part of the first defendant. I have limited the liability for the loss and damage claimed by the plaintiffs as to 80% in the case of Ms Barrett and as to 20% in the case of Mr Robinson.

783 Finally, I have found that the CLA does not apply to a claim in private nuisance, as the only relevant fault feature in private nuisance is reasonable foreseeability, and failure to take reasonable care is not an element in the tort. The *Wrongs Act* however applies to the contribution proceedings between the first defendant and Mr Robinson, and I have found contribution between them in the same proportions as the apportionment I have made under the CLA.

784 I will hear counsel whenever convenient as to the terms of the orders to be made in the case of the test case plaintiff. However, as requested of me, my findings and conclusions have been expressed so as to produce a binding ruling that can then be applied arithmetically to the assessed losses of the remaining plaintiffs, when their individual claims arise for assessment, either in the course of post-trial settlement discussions, or in subsequent hearings as to their individual claims, should that become necessary.