

Harrietville Fire 2013

Report to the Minister for Police and Emergency Services

Office of the Emergency Services Commissioner



1 Foreword

This report acknowledges the strength and resilience of the Alpine Shire community in and around Harrietville, and the indomitable spirit of the firefighters who serve them.

It is, therefore, with much sadness that this report recognises the tragic loss to Victoria of two of its firefighters, Katie Peters and Steven Kadar. Their deaths on 13 February 2013 occurred during the 55 days when the fire spread from Harrietville to Mount Hotham, and on to Dinner Plain.

The Control Agency for the Harrietville fire was the Department of Sustainability and Environment (DSE)¹, which is responsible for leading the attack on fires on public land. The initial stages of the Harrietville fire were fought entirely on public land.

During the 2012-13 fire season, DSE firefighters attended 789 fires that burned across 200,943 hectares of public land. Of these, 74.5% were contained at the first attack. The 25.5% where they were not so successful demonstrate the challenges of tackling fires in our national and state parks. According to the Fire Services Commissioner, Harrietville was one of 24 significant fires out of almost 4,400 bush and grass fires across Victoria this season.

Much has been said and written about how the initial response to the Harrietville fire was managed. It has generated intense community debate, extensive media coverage, and the attention of both the State and Federal Parliaments.

A consistent message from many in the Harrietville community was that lessons needed to be learned from this and similar fires in the area over the past ten years. In particular, developing the capabilities to respond quickly and decisively to control fires so that they do not develop into another one that has major consequences for the community.

It was evident that for many in the affected community, perceptions about how the initial stages of the fire had been managed had become reality, and quickly accepted as facts. However, for those who actually fought the fire, the truth about how they managed its initial stages had become distorted.

There was an urgent need for an objective examination of the facts.

Accordingly, on 27 February 2013, the Deputy Premier and (then) Minister for Police and Emergency Services, Peter Ryan, MLA, requested that I provide him with a “Report of the Facts” on how the initial response to the fire was managed by DSE and the Country Fire Authority (CFA).

This report is the result of painstaking research and widespread consultation. I want to take this opportunity to thank the people of Harrietville and the Alpine Shire, along with CFA and DEPI for their goodwill and valuable contributions to the report.

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Emergency Services Commissioner, Victoria

¹ DSE is now the Department of Environment and Primary Industries (DEPI).

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2 Executive Summary

2.1 The Event

1. On Monday 21 January 2013 at approximately 2.25pm, a lightning strike at Smoko on the Northwest Spur in the Alpine National Park ignited what has now come to be known as the “Harrietville fire”. It was about four kilometres north-east of the Alpine Shire town of Harrietville.
2. There was a significant fire still burning at Aberfeldy. This was threatening human life. Thus, many of Victoria’s fire fighting resources were already committed to that fire and also to protect the Thomson and Yarra Water Catchments.

2.2 The Response

1. The first firefighters to arrive at 3.05pm were from CFA and were joined on the fireline by their DSE counterparts a few minutes later.
2. The terrain was treacherous and difficult to access. Water tankers and slip-on² fire trucks could not make it on to the fireline. Firefighters had to walk and scramble up the slopes to reach the point of ignition³. Consequently, rakehoes⁴ and chainsaws were used to construct the majority of the containment line as a narrow hand-trail⁵. A bulldozer opened up a broader containment line where it was safe to do so, and aircraft undertook water-bombing⁶.
3. By the end of the first day, the fire was declared “Under Control – 1”⁷ and contained⁸ to an area of between two and five hectares. By around 11am the following day, and as the morning temperatures rose, the wind changed to up-slope and increased in speed from 0-9 to 10-19 kilometres per hour. This accelerated what had been comparatively quiet fire behaviour⁹ to a point where the fire began to escape the original containment lines. Repeated attempts to establish new ones failed.
4. At 2.40pm the fire had spotted¹⁰ several hundred metres ahead of the containment lines, grown in size and was beyond the control of the fire fighting efforts. All firefighters were withdrawn from the fireline for their safety.

² A tank, a live hose reel or tray, a small capacity pump, and an engine combined into a single one-piece assembly that can be slipped onto a truck bed or trailer and used for spraying water and/or foam.

³ The beginning of flame production or smouldering combustion; the starting of a fire.

⁴ A hand tool used for bushfire fighting, consisting of a combination of a heavy rake and hoe.

⁵ A fireline constructed with hand tools.

⁶ A technique of suppressing a bushfire by dropping water, foam or retardants on it from an aircraft.

⁷ The complete perimeter of the fire is secured. No breakaways are expected and continuous patrol or blacking out is still required.

⁸ The status of a fire suppression action signifying that a control line has been completed around the fire, and any associated spot fires, which can reasonably be expected to stop the fire’s spread.

⁹ The manner in which a fire reacts to the variables of fuel, weather and topography.

¹⁰ Behaviour of a fire producing sparks or embers that are carried by the wind and start new fires beyond the zone of direct ignition by the main fire.

2.3 A legacy of disagreement

1. It was said by some members of the community that, historically, the relationship between DSE and the Alpine Shire community in and around Harrietteville has been strained. This they attributed to long-term disagreements by some members of the Harrietteville community about the rules applied by the agency to its management of public land. This sense of resentment was exacerbated in the aftermath of the Harrietteville fire by a community perception that insufficient firefighting resources were brought to bear during the initial stages of the fire. It also influenced a widespread belief that the fire should have been extinguished within its first 24 hours.
2. These perceptions began to take hold within the community before all the facts relating to the fire and the initial response were fully understood.

2.4 The Report

1. It was in this context that a Report of the Facts about how the initial response to the fire was managed by DSE and CFA was requested by the Minister for Police and Emergency Services on 27 February 2013. The Report:
 - establishes the facts about the decisions and rationale of the Fire Services Agencies in relation to their initial response to the Harrietteville fire
 - sets out and understand community reaction and public concerns
 - provides an informed, balanced and factual analysis of how the fire was managed during the initial response.
2. Despite the report having the scope to examine the first 72 hours, the primary focus is the first 24 hours. This is when the most critical decisions about the initial response were made and actioned. Events thereafter reflect the fact that by 2.40pm on 22 January the fire was beyond the control of the initial fire fighting effort.

2.5 Information and Data Collection

1. The Chief Fire Officers of DSE and CFA were asked to provide the Office of the Emergency Services Commissioner (OESC) with all relevant information.
2. In addition, OESC undertook an extensive public listening and information gathering process. This included written submissions, meetings with the Alpine Shire Council, Alpine Valley Vignerons, the Harrietteville Community Building Initiative, and the local Member of Parliament, Dr Bill Sykes, MP. Analysis of all relevant media coverage was also undertaken.
3. OESC also experienced first-hand the hazardous nature of the terrain during a walk around the entire perimeter of the fireground of 21 and 22 January 2013. This was conducted on 19 March with the assistance of DSE.

2.6 Major Themes

1. Through analysing the information from the public listening and information gathering process, OESC identified two key themes arising in the concerns expressed by the community:
 - **the sufficiency and adequacy of the first and extended attacks**
 - **the relationships between local CFA, DSE and the community.**

2. In respect of the first, the fire escaped on 22 January 2013 because it spotted several hundred metres over the containment lines into a remote, steep and densely vegetated, inaccessible area. There is no information to support a view that any additional weight of attack would have prevented the fire from escaping. Extra resources were only called for when the fire did flare up and escape the initial containment.
3. With regard to relationships, these had no bearing on how the fire was managed. However, they contributed to an environment at the local level that allowed facts about the effectiveness of the initial response to become distorted. Had these relationships been better, the community may well have been more prepared to understand the challenges presented by fighting this fire on difficult terrain. Similarly, individuals would not have seen fit to allow one of the community's earliest concerns that "DSE stood down CFA" to have escalated when there was no substance to this proposition.

2.7 Continuous Improvement – a shared responsibility

1. As this is a "Report of the Facts", it is not appropriate for it to make recommendations.
2. However the report identifies lessons from the Harrietteville fire about the management of the initial response that will assist in the continuous improvement of Victoria's emergency management arrangements. These focus on:
 - more rigorous record-keeping of decisions and their rationale by the fire services agencies
 - improving the relationship between DSE and CFA at the local level
 - closer engagement between DSE and the local community.
3. With regard to the latter, DSE, CFA and the community need to work together to improve their relationships. This will enable a more community-led planning process for fire management¹¹. Closer cooperation between DSE and CFA at the local level will help build that partnership. The objective is to plan together to prevent or minimise the consequences of fires on public land around Harrietteville in the future. This is a shared responsibility.

3 Introduction

3.1 Background

1. On 27 February 2013, the Deputy Premier and (then) Minister for Police and Emergency Services, Peter Ryan, MLA, asked the Emergency Services Commissioner (ESC), Michael Hallows, to provide him with a report on how the initial response to the Harrietteville fire was managed by DSE and CFA.
2. This request followed escalating concerns within the local community; in particular, people in Harrietteville, extensive media coverage, and statements made in the Federal Parliament about the initial response to the fire.

¹¹ All activities associated with the management of fire prone land, including the use of fire to meet land management goals and objectives.

3.2 Purpose

The purpose of the report is to:

- establish the facts of how the response to the Harrietville fire was organised and managed by DSE and CFA in the first 72 hours
- use the analysis of that information to assist in the continuous improvement of the state's emergency management arrangements.

3.3 Terms of Reference

The Terms of Reference for the report are:

To assist in the continuous improvement of the state's emergency management arrangements, the Minister has instructed me to report under the provisions of the Emergency Management Act 1986¹² on the organisation and management of resources for dealing with the first 72 hours of the response to the January 2013 Harrietville fire.

In particular, to report on the facts and establish how the initial stages of the fire were managed.

3.4 Scope

1. The scope of this report is the facts that specifically relate to the organisation and management of resources employed during the initial stages of the response to the fire.
2. The Terms of Reference limit this examination to the first 72 hours of the response (from 2.25pm on Monday 21 January 2013 through to 2.25pm on Thursday 24 January 2013).
3. However, the decisions and actions taken in the first 24 hours by DSE and CFA are the most pivotal. Events within the scope of this report that occurred after the fire escaped at around 2.40pm on Tuesday 22 January 2013 is a consequence of the fire becoming uncontrollable.
4. Therefore, the primary focus of this report is the first 24 hours.

3.5 Methodology

3.5.1 The Aim of the Report

1. This report aims to:
 - establish the facts about the decisions and rationale for those decisions, of the Fire Services Agencies
 - set out and understand community reaction and public concerns about the initial response of the fire services to the Harrietville fire

¹² Section 21C 1(b), to advise, make recommendations and report to the Minister on any issue in relation to emergency management.

- provide an informed, balanced and factual analysis of how the fire was managed during the first 24 hours.
2. The Report is, therefore, based on extensive research and wide-ranging consultation with the Alpine Shire community in and around Harrietville, and Victoria's fire services agencies.

3.5.2 Information and data collection

Fire Services Agencies

1. To ensure that a factual report could be prepared, the ESC asked the Chief Fire Officers of DSE and CFA:
 - to provide all relevant information to clarify what happened on 21 January 2013 and the 72 hours that followed
 - and, as far as possible, follow the same arrangements employed by the agencies for their standard post-incident debriefing¹³ process.
2. The information sought included:
 - narrative accounts from key people in leadership roles
 - a joint DSE and CFA chronology of events for the first 72 hours (with relevant decisions and rationale mapped against the timeline)
 - extracts from relevant source documents such as log books, situation reports and procedural manuals
 - a contextual narrative account of other fires that were being managed concurrently in Victoria.

The community

3. To ensure that the full range of community issues and concerns were understood by OESC:
 - Formal written submissions were invited and received from community members with relevant, factual, first-hand knowledge of the initial fire response.
 - A facilitated community meeting was held on 19 March 2013 at the Harrietville Community Hall. The meeting was attended by 68 people and feedback was structured around three key questions:
 - What worked well?
 - What didn't work well?
 - What could have been done differently?
 - Further meetings were held in Harrietville and Bright with a number of community interest groups, as well as with individual residents from the local community. These meetings included:
 - Alpine Shire Council

¹³ To gather information from the participants in an action so as to gauge the success or otherwise of the action at the end of the task, shift, tour or incident.

- Alpine Valleys Vignerons
- Harrietville Community Building Initiative.
- A meeting also took place with the local Member of Parliament, Dr Bill Sykes, MP.

The media

To help inform OESC’s examination of the facts, an analysis was undertaken of all relevant media coverage in relation to the fire.

On the ground

To ensure that the ESC and his report team had a clear understanding of the difficult terrain, on March 19 they walked through the fireground (of 21 and 22 January 2013) with the assistance of DSE.

3.6 Considerations

1. There is no intention to apportion blame in this report. It is a report of ‘the facts’ about what happened based on all the information available to OESC.
2. There should be no expectation that the information provided or reported has been tested as it would be in or for the purposes of legal proceedings.
3. The report should not be seen as a pre-run of either the Coronial Investigation into the tragic deaths of the two DSE firefighters, Katie Peters and Steven Kadar, during the Harrietville fire on 13 February 2013 or of any other civil or administrative action. The ESC is aware that various proceedings may occur or be contemplated, and has been careful not to suggest through findings, observations or recommendations what such proceedings should consider or might conclude.

4 Context

1. On 21 January, there were a number of ongoing fires in Victoria. The most significant was the fire at Aberfeldy - Donnelly in Gippsland. This started on 17 January.
2. In addition:
 - The Creswick fire started at 3pm on 21 January and was still burning on 22 January
 - The Wallan fire started on 9 January and re-ignited on 21 January
3. On the morning of 22 January, the State Control Centre also noted “11 lightning strike fires in far east – 9 still going¹⁴”.
4. The forecast weather conditions for 21 and 22 January were for thunderstorms with lightning, creating high fire risk¹⁵ across the state.
5. The demand for resources was high. For example, 468 personnel (253 from DSE), 81 slip-on units (71 from DSE), 27 tankers (one from DSE) and 13 aircraft were working

¹⁴ Any bushfire which is expanding and suppression actions have not yet contained the fire.

¹⁵ Processes, occurrences or actions that increase the likelihood of fires occurring.

on the Aberfeldy fire on 21 January. A crew from the Ovens District was scheduled for deployment to Aberfeldy on 22 January to support this effort.

6. Significant Victorian resources had also been deployed to Tasmania and New South Wales over multiple rotations since 9 January to assist in fire fighting efforts in those states. On 21 January 2013, these included 22 Incident Management Team¹⁶ and Remote Area Team personnel in Tasmania, and 3 Incident Management Team personnel in New South Wales.
7. The State Control Centre was responsible for developing the State Strategic Resource Plan and the Aircraft Plan. These prioritised and allocated resources across the state in response to current fire fighting activities and to manage the high fire risk.
8. The allocation of resources was aligned with the State Controller's strategic control priorities. These are summarised as:
 - Protection and preservation of life is paramount
 - Issuing of community warnings and community advice
 - Protection of critical infrastructure and community assets
 - Protection of residential property
 - Protection of assets supporting individual livelihoods and economic production
 - Protection of environmental and conservation assets
9. Until the Harrietville fire escaped the containment lines at around 2.40pm on 22 January, it had not been classified as a significant risk.
10. By contrast, the major ongoing fires across Victoria had far greater potential for significant impact on life, critical infrastructure, and assets. One of the most significant state level risks at that time was the potential damage to Victoria's primary water supplies, the Thomson and Yarra Water Catchments, due to the fire at Aberfeldy.
11. The response arrangements during the initial stages of the Harrietville fire have to be considered within this broader context.

5 Overview of the Harrietville Fire

1. The Harrietville fire was sparked by a lightning strike at Smoko on the Northwest Spur in the Alpine National Park about four kilometres north-east of Harrietville. This was observed at around 2.25pm on Monday 21 January 2013.
2. The State Control Centre noted that this was one of eleven such fires sparked by lightning in this region of Victoria. Nine of those fires continued to burn into 22 January.
3. The terrain where the Harrietville fire started is difficult to access by vehicle and on foot. The slopes are steep with a thick under storey of vegetation that has regrown

¹⁶ The group of incident management personnel comprised of the Incident Controller and the personnel responsible for the functions of Planning, Public Information, Operations and Logistics.

since the fires of 2002-03 and 2006-07. There are added risks from falling trees, broken tree limbs, and rocks. Some areas also have uncharted mine shafts.



Figures 1 and 2 (above and below): Nature of the fireground terrain



4. The first firefighters to arrive were from CFA. They walked up a steep slope to the fireline¹⁷, which was 200 metres from the nearest vehicle track.

¹⁷ A natural or constructed barrier, or treated fire edge, used in fire suppression and prescribed burning to limit the spread of fire.

5. The first DSE firefighters arrived just minutes later and followed their CFA counterparts on foot up to the fireline. Additional DSE firefighters were rappelled in by helicopter. The temperature was 37°C.
6. The nature of the terrain meant that fire fighting tactics involved:
 - the use of rakehoes and chainsaws to cut by hand a narrow containment line
 - a bulldozer, where access permitted, to open up a broader containment line
 - water-bombing by aircraft
7. In addition, the terrain prevented access for water tankers or slip-on fire trucks.
8. By last light on the first day, the fire was thought to be “benign” and declared “Under Control – 1”. It was contained to an area of between two and five hectares. No firefighters remained overnight.
9. On Tuesday 22 January 2013, DSE firefighters began arriving back at the fireground from 7.30am. They were met by a local resident who had just walked around half of the fireground on the western side and reported that the fire appeared “out”.
10. The fire was still going along the more challenging and steeper terrain of the eastern flank of the Northwest Spur.
11. Around 11am, the wind changed direction from down-slope to up-slope and strengthened moderately. This accelerated the fire behaviour that previously had been comparatively quiet. The fire then began to escape the original containment lines. Repeated attempts to establish new ones, supported by aerial water-bombing, were unsuccessful in holding the fire.
12. At 2.40pm on Tuesday 22 January 2013, firefighters and aerial water-bombing were no longer able to control the fire, and all firefighters were withdrawn for their safety.
13. Events within the scope of this report that occurred after this necessary withdrawal were a consequence of the fire escaping. No further fire fighting action could have been taken by DSE to control that fire on Tuesday 22 January 2013.
14. By around 7.45pm on that second day the fire had grown to approximately 700 hectares.
15. At 9am on Wednesday 23 January 2013 the fire had expanded to 850 hectares. Over the next 55 days until it was declared “under control”, the fire burned approximately 37,000 hectares of state forest, the Alpine National Park and Mount Hotham Alpine Resort.

6 Consequences

1. The consequences of the Harrietville fire are outside the scope of this report. Nevertheless, the following environmental, community and economic impacts are provided both for context and to acknowledge the claims from some community members about its consequences for them.
2. It should be noted that the following information is based largely on community observations and claims. OESC has not sought to verify the details. They are included to reflect the concerns expressed by the community.

6.1 Environmental Impact

1. The Harrietville fire burned approximately 37,000 hectares of the Alpine National Park including a broad range of native plants and trees.
2. There was smoke on the landscape for extended periods.
3. Subsequent rains washed ash and debris from the slopes causing the Ovens River to be 'silted up' in places and some fish died.
4. The supply of drinking water to the community was temporarily contaminated, which the community believed to be due to the "sludge" that ran off the slopes during subsequent heavy rainfall.

6.2 Community Impact

1. The Harrietville fire has exacerbated a longstanding disagreement between DSE and some in the community about how the agency manages public land. This in turn creates a negative perception of how DSE also manage fires in the Alpine National Park.
2. There is a belief that DSE had not done enough to extinguish this fire within the first 24 hours.
3. This negative perception has had a cumulative effect in the community. It has caused raised anxiety and feelings of powerlessness in terms of the community being able to influence positive change through a more community-led approach to how fire is managed on public land.
4. Some in the community also feel that this fire demonstrated that Victoria's fire services agencies had not learned lessons from similar fires in the area over the past 10 years (2002-03 and 2006-07). This is founded on a community expectation (whether achievable realistically or not) that any forest fire must be brought under control and extinguished quickly.

6.3 Economic Impact

1. Alpine Shire Council estimated that local businesses have suffered a collective total loss of \$40 million.
2. This includes \$500,000 in damages estimated by the owner of the Sambas gold mine (\$200,000 due to the fire, and \$300,000 due to a subsequent rock fall). The mine will be closed until 2014.
3. The repeated temporary closures of 10 kilometres of the Great Alpine Road due to dangerous trees and a subsequent rock slide has affected local business due to a decrease in the number of visitors to the area.
4. The reduction of visitors to the area has affected the local tourism industry, and the area's accommodation sector, in particular.
5. The Alpine Valleys Vignerons expressed significant concern about potential damage from smoke-taint to the quality and value of their grapes. They said that this would have an adverse impact on the reputation of the local grape growing and wine making industry in the area.

7 Response

1. This section details the chronology of events as well as the strategy and tactics employed by DSE and CFA during the first 24 hours of the Harrietville fire.
2. Reference is made throughout to aircraft by their call signs. These are explained below:
 - “Firebird 303” (based at Ovens), is a Type 3 (light) helicopter provided aerial observations and the Air Attack Supervisor¹⁸ platform for the tactical water-bombing helicopters
 - “Helitack 332” (based at Ovens), is a Type 2 (medium) helicopter with 1400 litre bellytank used for water-bombing operations and to carry DSE rappel crews.
 - “Helitack 348” (based at Mansfield), is a Type 1 (heavy) helicopter with a 3500 litre underslung bucket used for water-bombing operations.

7.1 Day 1 – Monday 21 January 2013

Time	Activity
2.37pm	Fire first reported to CFA via a Triple Zero call.
2.40pm	Pager message to CFA Brigades: “Grass and Scrub fire – Code 1, Grass fire ¹⁹ west of trout farm, Great Alpine Road, Harrietville. CFA Bright and Harrietville respond”.
2.46pm	CFA Bright slip-on unit on route to fire (two personnel).
2.47pm	Smoke sighted from Mount Porepunkah Fire Tower ²⁰ and reported to DSE.
2.48pm	CFA Bright tanker on route to fire (four personnel).
2.50pm (approx.)	DSE dispatches three firefighters and a slip-on unit.
2.53pm	DSE requests air support and a helicopter rappel crew.
2.55pm	CFA Harrietville tanker en route to fire. DSE Incident Controller ²¹ requests an Air Attack Supervisor, Helitack water bomber and rappel crew.

¹⁸ Primarily responsible for the safety and efficient tactical coordination of aircraft operations when fixed and/or rotary firebombing aircraft are operating at a fire.

¹⁹ Any fire in which the predominant fuel is grass or grass like.

²⁰ Tower strategically located and manned to detect and report the occurrence and location of fires.

²¹ Responsible for the management of all incident control activities across a whole incident.

Time	Activity
3.04pm	Two helicopters dispatched: one to supervise the aerial attack, and the second for water-bombing and to deliver the rappel crew.
3.05pm	CFA Harrietville slip-on unit en route to fire. Harrietville tanker arrives at fire with four personnel (at a private property approximately 200 metres from the point of ignition). Harrietville CFA sets up the Control Point and the most senior CFA officer present assumes the role of Incident Controller.
3.06pm	Bright CFA slip-on unit and tanker arrive on scene.
3.07pm	Six CFA firefighters go up to the fireline and commence work Two CFA firefighters remain at the control point.
3.18pm	Instruction from CFA Ovens Group for all trucks to change to channel 103.
3.20pm (approx.)	Bright CFA begins constructing a mineral earth break ²² using rakehoes and chainsaws on the eastern flank of the fireground.
3.25pm	CFA Harrietville slip-on unit arrives at the fire with the Harrietville CFA Captain. DSE Operations Officer ²³ arrives.
3.30pm	A water bomber helicopter arrives at the fire and drops the DSE rappel crew. CFA firefighters had by this time raked over the old ridge track and 15m over the north-eastern edge of the fire. CFA firefighters starts raking the western flank (estimated about 1ha at the time, flame height 1-2m, 100% running edge). The western flank is thick dogwood and hop scrub (1.8 – 2.4m in height and regenerated since the 2003 fire). CFA are already at the northern edge of fire. It is agreed that CFA will work on eastern side and DSE on western side At the time no direct attack ²⁴ could take place due to the fire behaviour.
3.40pm	Water-bombing commences. Additional 2 DSE firefighters from Bright arrive and walk up to the fireline.
3.43pm	Message from Bright DSE work centre response officer to Ovens Group: “Got

²² When used in the context of fire control refers to a non-flammable surface (either natural or prepared) which provides a break in understorey, litter and humus fuels and hence a barrier (of varied effectiveness depending, amongst other things, on its width and the intensity of the approaching fire) to fire travelling on or near the ground surface.

²³ Responsible for managing all activities to resolve the incident and resources allocated to the Operations Section.

²⁴ A method of fire attack where wet or dry firefighting techniques are used. It involves suppression action right on the fire edge which then becomes the fireline.

Time	Activity
	potential. Not crowning ²⁵ . Need to hit hard. Helitack on channel 120”.
3.49pm	DSE rappel crew dropped onto the fireline.
3.51pm	CFA Harrietville log: heard radio traffic from Bright Captain stating that “terrain very steep and rocky and fire behaviour very benign, backing fire ²⁶ . Vegetation, regrowth from 2003 fires, had to chainsaw way through first before raking”.
4.04pm	Advice message issued to towns of Freeburgh, Harrietville and Smoko, stated that the bushfire was being controlled.
4.12pm	Air Attack Supervisor in Firebird 303 sends a message to DSE Bright: “Western side 350 metre rakehoe line needed. Eastern side very steep. Water-bombing southern side. Western side not dozer ²⁷ friendly. Use dozer on top of fire. Rakehoe line on eastern side now. Wind- light, calm, good. Smoke column low/flat. Should contain by 2000hrs”.
4.14pm	Second water bomber requested.
4.15pm	Ovens bulldozer arrives.
4.22pm	Incident name changed from “Smoko” to “Harrietville” by CFA District 24.
4.25pm	Ovens bulldozer moves up overgrown known fuel break ²⁸ track to the west of the fire.
4.30pm	Bright bulldozer arrives but found immediately to be mechanically defective.
4.42pm	Fire update to Ovens Group from Harrietville Captain: “.. fire still going, being bombed”.
4.46pm	DSE Operations Officer to DSE Bright office (message): “Ovens D4 dozer working up North West track. Rakehoe line going up. 6 CFA firefighters on job. Ovens crew not yet arrived.”
5.00pm	Six DSE Ovens firefighters arrive and walk in along the bottom of North West track to meet up with CFA firefighters.

²⁵ A fire ascending into the crowns of trees and spreading from crown to crown.

²⁶ The part of a fire which is burning back against the wind or down slope, where the flame height and rate of spread are reduced.

²⁷ Shortened form of bulldozer.

²⁸ A natural or manmade change in fuel characteristics which affects fire behaviour so that fires burning into them can be more readily controlled.

Time	Activity
5.15pm	DSE Ovens firefighters commence walk to the fireline.
5.16pm	Second water bomber drops water on fire.
5.29pm	DSE Operations Officer message to DSE Bright office: "Weather light winds. Still requesting drops [water], still rakehoeing. Rappel crew working down side. A maintenance contractor is on the way to fix Bright D4 dozer. D4 access limited due to slope".
5.34pm	DSE Operations Officer message to DSE Bright office: "Very calm fireground weather. Not expected to require night crew".
5.45pm	DSE Ovens firefighters relieve CFA firefighters.
5.50pm	CFA hand over control of fire to DSE. Update from Harrietville Captain to CFA Ovens Group: "... second DSE crew on scene. CFA will then come out. Bombers still there. 1 dozer on scene".
5.58pm	Update from Harrietville Captain to CFA Ovens Group: "Handover to DSE. Walking out. Request VicFire to put stop status on fire".
6.03pm	CFA advise ESTA that their involvement is complete and they are available for other Triple Zero calls.
6.10pm	CFA firefighters coming off the fireline reach the Operations Point ²⁹ .
6.18pm	DSE Operations Officer reports to DSE Work Centre: "Situation Report -Temp 32, Relative Humidity 35, wind nil in gully. D4 dozer in centre of fire working on access. CFA just walking out. DSE early crews are out as on tomorrow's [Aberfeldy] taskforce. D4 dozer operator working on access. Rain nil. Water & maps arrived on ground. Bright D4 dozer repairs still on way".
6.40pm	Bright and Harrietville CFA units arrive back at their stations.
7.30pm	Situation Report from Air Attack Supervisor in Firebird 303: "3 aircraft resumed bombing. West side closed considerably. More needed east side. Rate of spread upwards on hill and being knocked down. Happy with plan for 2000hrs close down".
7.36pm	Message from DSE Incident Controller to DSE Regional Agency Commander: "Fire update - likely to be contained by 2000hrs. Discussed advice message – not a lot of smoke now. About 2ha. In heavy fuels. Can't track all with dozer. 300 metres west

²⁹ The location from which the overall field operations are commanded by the Operations Officer.

³⁰ Any part of the boundary of a fire that has been heavily bombed with water to create a control line.

Time	Activity
	flank completed (rappel crew). 400 metres wet edge ³⁰ , with east flank done. Approx. 200 metres on eastern flank not done yet. Will be Under Control -1 tonight. Too dangerous for crews overnight”.
7.47pm	Advice message is issued to towns of Freeburgh, Harrierville and Smoko, stating that the bushfire was being controlled.
8.00pm (approx.)	Control lines (bulldozer and rakehoe) fully constructed around the western side of the fire. The eastern side still needs 200-400 metres of hand trail to be constructed. DSE reports the fire as benign, with only a few active areas in the centre and along the eastern side. Estimated to be two hectares in size. Maintenance contractor arrives to fix the Bright bulldozer.
8.44pm	All aircraft are back at Ovens.
8.49pm	Advice message is issued to towns of Freeburgh, Harrierville and Smoko that states that the bushfire is contained.
9.19pm	DSE declares that the fire is ‘Under Control - 1’. DSE leaves the fireground.

7.2 Day 1 – Strategy and tactics

- The Incident Controller sets the Control Strategy. This establishes the intent and thus objectives for how the fire is to be managed. From that strategy, the tactics for managing the fire are then developed and implemented. The strategy should align with the State Controller’s strategic control priorities. These are referred to in section 4.
- CFA and DSE have concurrent approaches to Incident Control.
 - For the initial stages of the Harrierville fire (from 3.05pm to 5.50pm), the Incident Controller (the most senior CFA Officer at the time) on the fireground and established a Control Point. Subsequently, CFA set up communications via the CFA radio channel and by telephone with the CFA Bright fire station and the CFA Oven's Group headquarters.
 - Once control was handed over from CFA to DSE at 5.50pm, the DSE Operations Officer continued to manage the response on the fireground from their Operations Point. They reported to the DSE Incident Controller, who was based at the DSE Bright work centre. Communications were maintained via telephone and the DSE radio channel.
- The CFA Incident Controller classified the Harrierville fire on 21 January as a Level 1 bushfire. This was recorded in the DSE Situation Report timed at 3.10pm. The definition of Level 1 is provided on page 35 of the Victoria Fire Agency Bushfire Handbook 2012-13 - Edition 2 - September 2012:

“A small, simple fire (or group of fires) which is controlled with local resources (may include other agencies) with the Incident Controller probably undertaking more than one function. For example, second shift unlikely to be required. Approximately 0-5 hectares with no complex problems.”

4. The DSE Incident Controller subsequently reassessed the classification as Level 2, and this was recorded in the DSE Situation Report timed at 7.10pm on 21 January. The definition of a Level 2 bushfire is provided on page 36 of the Victoria Fire Agency Bushfire Handbook 2012-13 - Edition 2 - September 2012:

“When an incident cannot be contained by the first attack³¹ of local resources and becomes more complex. A level 2 is characterised by the need for:

 - The deployment of resources beyond initial response
 - Sectorisation of the incident
 - The establishment of functional sections due to the levels of complexity; or
 - A combination of the above; e.g. expected that incident will be controlled within twenty-four hours. Approximately 5-20 hectares (or much larger if there is little complexity or problem), or with some complexity and control problems.”
5. The protocols for recording the strategy are provided on page 30 of the Victoria Fire Agency Bushfire Handbook 2012-13 - Edition 2 - September 2012:
 - For Level 1 incidents, “an appropriate Incident Action Plan³² may be developed as a mental appreciation (of the situation) and then communicated verbally. It should be recorded as a situation report/wordback (by radio) with comment on control strategy; or a log book entry”.
 - “For all other Level 1, 2, or 3 incidents that are not expected to be contained within the first four hours, an Incident Action Plan Summary should be completed within four hours of the incident being reported.”
6. Instructions for recording decisions are provided on page 11 of the State Command and Control Arrangements for Bushfire in Victoria 2012 - Version 2 - September 2012. These state that:
 - “Controllers at each tier of control must have a process for recording their decisions and those made within Control Teams and Emergency Management Teams, and a process for maintaining and storing these records.”
7. During the initial hours of the Harrietville fire, the DSE Fire Situation Report provided the record of the Control Strategy.
8. The entries under Control Strategy in the first two Situation Reports, at 3.10pm and 7.10pm, do not establish the strategic objectives. Instead, they document the tactics employed.

³¹ The first suppression work of a fire.

³² Plan used to describe the incident objectives, strategies, resources and other information relevant to the control of an incident.

9. No information has been provided by CFA that records their strategy for the period before CFA transferred control to DSE at 5.50pm.
10. Consequently, there is no information recorded by either the CFA or DSE Incident Controllers on the actual strategy they set for the management of the initial stages of the fire and how their strategy aligned with the State Controller's strategic control priorities.
11. The DSE Fire Situation Report at 9.19pm does outline a strategy, but this is for the management of the fire on 22 January and, again, this is primarily about the tactics.
12. Whilst there is no information recorded that sets out the strategic objectives for how the fire was managed, there is a wealth of information documented by CFA and DSE about the tactics used to try to bring it under control.
13. The following information, set out in 7.2.1 to 7.2.3, is taken from the DSE Fire Situation Reports at 3.30pm and 7.10pm on 21 January 2013 as examples of the initial tactics employed to fight the fire.
14. Figure 3 below shows the location of the initial fireground in relation to Harrietville at the end of 21 January and the morning of 22 January.

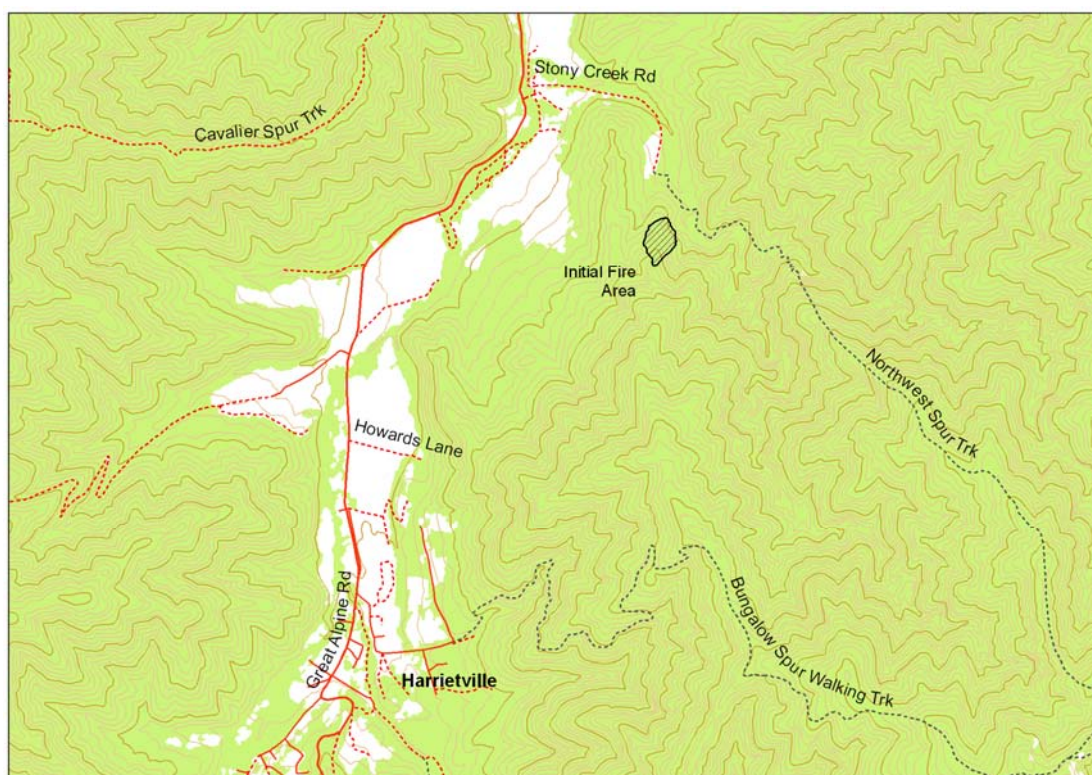


Figure 3: Location of the initial fireground on 21 and 22 January in relation to Harrietville

7.2.1 Fire Attack and Fireline Construction

1. "Rappel crew working eastern flank. Worked to construct a 300 metre control line along the western flank to meet up with the D4 dozer to link the control line."
2. "DSE and CFA ground crews with the D4 dozer working to construct remaining control line on the southern edge and eastern flank."

3. “CFA are assisting with access through private property and providing local knowledge.”

7.2.2 Aircraft

1. “Helitack water-bombing of the southern and western flank. Two helitacks used to suppress up-hill runs and flare ups³³.”

7.2.3 Bulldozers

1. “Bulldozer used to open up old fuel reduction burn vehicle access track³⁴ through burnt ground to the top of fire area. Used to construct line from the top of the ridge down both east and west flanks³⁵ until too steep.”

Figure 4 overleaf shows the control lines established by the end of 21 January 2013.

³³ Any sudden acceleration of fire spread, or intensification of fire, or a part of the fire. A flare up is of relatively short duration and does not radically change existing control plans.

³⁴ A track constructed and/or maintained expressly for fire management purposes.

³⁵ Those parts of a fire’s perimeter that are roughly parallel to the main direction of spread.

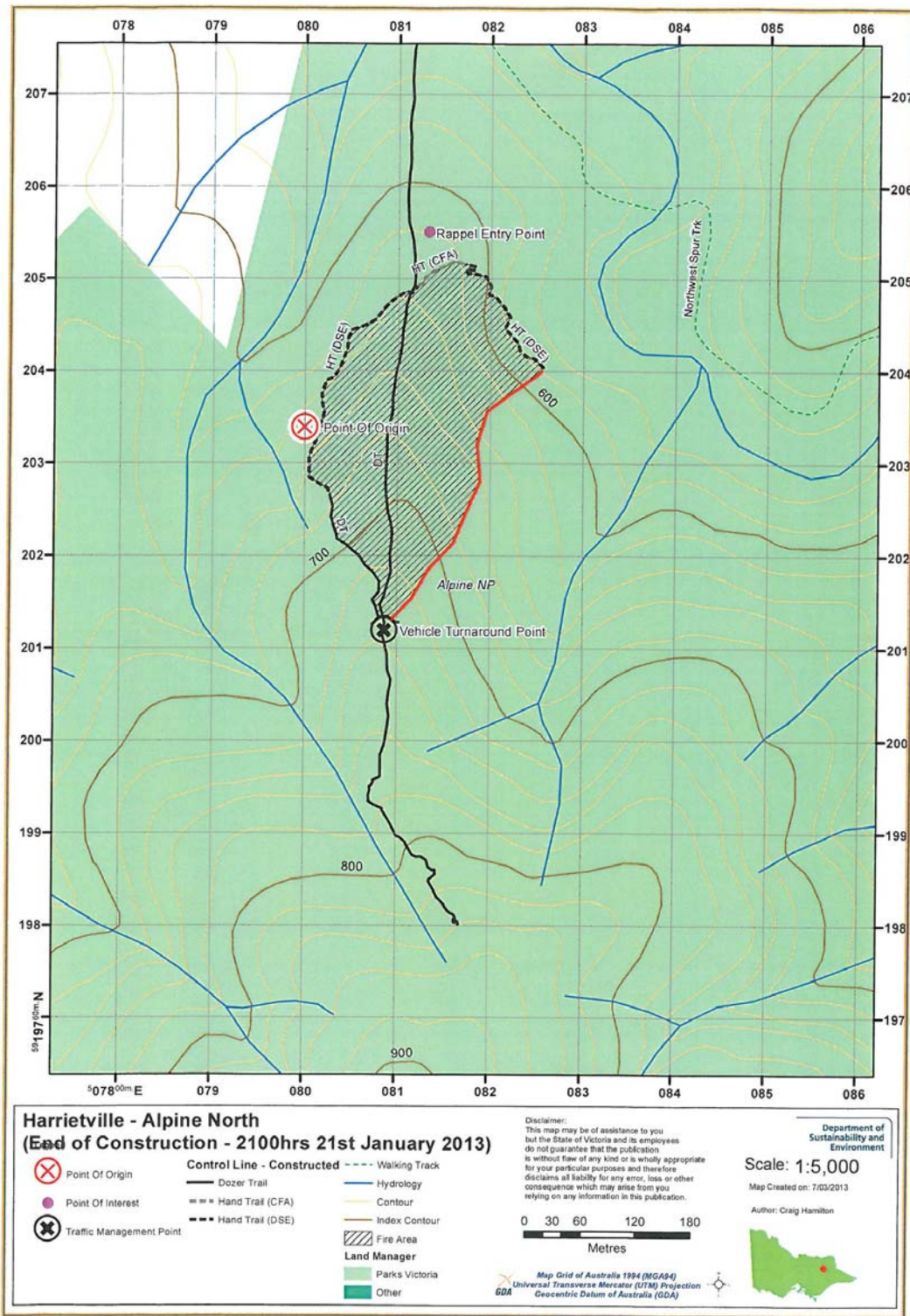


Figure 4: Control lines at the end of 21 January 2013³⁶

³⁶ The red line scribed on the map represents the active fireline.

7.3 Day 2 – Tuesday 22 January 2013

Time	Activity
7.30am	The DSE Operations Officer arrives on site with three others. Local landowner who had walked half (the western side) of the fire perimeter reports to them that there is no fire activity outside the containment line. The DSE Operations Officer walks the eastern edge of the fire and notes that about 400 metres of control line was still required. Two are deployed to patrol and black-out ³⁷ the western side of the fire.
9.00am	The Air Attack Supervisor undertakes the first reconnaissance flight and reported that fire activity appears quiet.
9.30am (approx.)	DSE firefighters from Ovens and Bright start to arrive at the fireground and commenced working on the eastern side.
9.55am	Additional five DSE firefighters arrive and join those already on the eastern edge.
10.45am	The rappel crew of six return to the fire, along with firefighters from Ovens. The majority of DSE firefighters work to secure the eastern edge. DSE report there are 20 firefighters working on the fireground.
11.00am	Flare-up approximately 50 metres from the top of the South East edge (wet line) and at about the same time a further column of smoke appears from further over the edge (possibly 100 metres further down). It builds quickly to an approximately 3 metre flame height. As a result, firefighters withdraw from this edge and water-bombing is requested through from DSE Incident Controller.
11.20am	Small breakout of the fire occurs on the south-eastern flank. Fire status is updated to “Going”.
11.25am	Firebird 303 and Helitack 348 tasked back to Harrietville.
11.27am	Advice message issued to towns of Freeburgh, Harrietville and Smoko, that states that the bushfire was being controlled.
11.40am	The Firebird 303 arrives back at the fire.
11.47am	Firebird 303 requests Helitack 332.
11.48am	Harrietville fire status: ‘Going’.

³⁷ The process of extinguishing or removing burning material along or near the fire control line, felling stags, trenching logs to prevent rolling and the like, in order to make the fire safe.

Time	Activity
12.00pm	Helitack 332 is dispatched to Harrierville.
12.45pm	Helitack 332 returns to Ovens [as part of the aircraft strategy to stagger refuelling].
12.56pm	Message from Firebird 303: “.. require more rakehoe people on Smoko fire”.
1.25pm	Firebird 303 and Helitack 348 return to Ovens for refuelling. “Helitack 332” remains working on fire.
2.10pm	<p>Helitack 332 reports to DSE Operations Officer that the highest priority was on the top of the fire and that he should keep working there until the other helicopters return.</p> <p>Pilot of Helitack 332 reports he is water-bombing on the top South East corner but isn't getting on top of flames.</p> <p>When Helitack 332 returns from water re-filling the pilot observes a 150 to 200 metre fire front³⁸ coming up from close to the lowest point on the eastern edge of the fire.</p> <p>Helitack 332 pilot reports the fire front has commenced spotting 200 to 300 metre in front of itself and started to create its own fire front.</p> <p>Helitack 332 descends to bottom eastern edge of fire to ensure firefighters were safe before returning to Ovens helibase³⁹.</p>
2.25pm	<p>“Helitack 348” returns to Harrierville.</p> <p>The Air Attack Supervisor requests two single-engine air tankers (“Bomber 354” and “359”).</p>
2.30pm	DSE Operations Officer reports to Bright Office: “Fire has gone up gully/drainage line to the south east, smoke plume, going up other side "like a bomb", aircraft left. Ovens, huge intensity in fire behaviour”.
2.36pm	Air Attack Supervisor to Bright office: “...more aircraft needed, fire blown out”.
2.40pm	Helitack 332 reports a major spot fire about 500 metres from the main fireline on the eastern side. Fire activity intensifies and is described as “Gone”. Firefighters begin to withdraw from the fireline for their safety.
2.42pm	Air Attack Supervisor to DSE Operations Officer: “.. totally lost, crew safe, even more aircraft won't help”.
2.45pm	<p>Incident Controller requested: “Requiring additional rotary aircraft, heavy preferred or medium. Two bombers retardant base at Mt Beauty. Blow out. Transfer to Ovens IMT”.</p> <p>DSE Ovens district duty officer to DSE Regional Agency Commander: “Update on current fire situation at Smoko. Require Two bombers and Aircraft Officer, Planning and Logistics, IMT at Ovens.</p>

³⁸ The part of a fire within which continuous flaming combustion is taking place. Unless otherwise specified, the fire front is assumed to be the leading edge of the fire perimeter. In ground fires, the fire front may be mainly smouldering combustion.

³⁹ A location for parking, refuelling and maintenance of helicopters operating in support of an incident.

Time	Activity
2.46pm	Air Attack Supervisor is advised that there are 39 people at Mt. Feathertop.
2.52pm	Air Attack Supervisor to Incident Controller: "Helitack 348 up to evacuate walkers. Air Attack Supervisor to handle".
2.58pm	DSE Ovens district duty officer to DSE Regional Agency Commander: "Confirmed fire has got away. IMT to be set up at Ovens. Passed on message regarding the people on Feathertop-urgent priority. Discussed option of using helicopters to assist response".
3.00pm	Helitack 348 returned to Ovens. Removes water bucket and leaves to pick up hikers in high country at 3:09pm.
3.20pm	Helitack 332 dispatched to Feathertop for water-bombing support.
3.28pm	Advice message issued to towns of Freeburgh, Harrierville and Smoko that states that the bushfire was out of control.
4.01pm	DSE Aircraft evacuates 37 people from Mount Feathertop.
4.50pm	Fire crosses Mount Feathertop.
4.51pm	Advice message issued to towns of Davenport Village, Falls Creek, Germantown, Hotham Heights, Freeburgh, Harrierville, Mount Beauty, Smoko, Tawonga, Tawonga South, Wandiligong, Bogong, Bright, Dinner Plain: states that the bushfire is out of control.
5.13pm	Emergency Alert SMS is issued to people around Mount Feathertop.
6.00pm	Helitack 332 and 348 return to the fire and water bomb the western side of the fire
6.04pm	Firebird 303 returns to Ovens.
6.10pm	"Watch and Act" message is issued to towns of Davenport Village, Falls Creek, Hotham Heights, Harrierville and Smoko. Residents are advised to implement Bushfire Survival Plans.
7.13pm	Emergency Alert SMS issued to people around Mount Feathertop and Mount Hotham.
7.45pm	Asset protection works commence in and around Harrierville.
8.26pm	Ovens DSE crews stand down. The Bright D4 dozer is now fixed and will work on protecting a private house before the end of the day.

Time	Activity
8.52pm	“Watch and Act” message is issued to towns of Davenport Village, Falls Creek, Hotham Heights, Harrietville and Smoko. Residents advised to implement Bushfire Survival Plans.
Between 9.00pm and 9.30pm	Harrietville Captain arrives back at the CFA Control Point/DSE Operations Point.
9.25pm	All DSE firefighters had left the fireground for the night. Fire is estimated to be 700 hectares in size.

7.4 Day 2 – Strategy and tactics

1. The same issues about documenting the strategy and tactics from Day 1 continued into Day 2.
2. The DSE Fire Situation Report, created at 9.19pm on 21 January 2013, provided the Fire Control Strategy for Day 2. This stated:
 - “Tomorrow – patrol and blackout and strengthen containment lines.
 - Skeleton crew ex Bright on fire early am followed by other ground crews from Ovens Fire District.
 - Liaise with local PP⁴⁰ owners and CFA to ensure rehab of PP boundaries and access tracks when no longer required.”
3. The first Fire Situation Report documented by DSE on 22 January was timed at 11.20am. The field for entering the “Control Strategy” is blank. Similarly the next field titled, “Critical Control Factors” is also blank. The field titled, “Current Fire Situation” states:
 - “Small breakout (100m) in hand trail section on south eastern flank – Hand trail crew of 17 have retreated to the black awaiting air support ex Ovens Firebird 303 and Helitack 348. This is the only active section on fire.”
4. The next Fire Situation Report was timed at 11.48 on 22 January. The fields for the “Current Fire Situation” and “Control Strategy” have been merged. The single entry states:
 - “Small breakout on south eastern edge hand-trail crew of 17 assisted by air support 2 x helitack (348 and 332) AAS⁴¹ Firebird 303.”
5. The corresponding “Critical Control Factors” records:
 - “Wind is stronger today and direct attack with handtools without air support would be difficult. Too steep for D4 FAD⁴².”
6. The next Fire Situation Report at 3.21pm records the “Current Fire Situation” but the field to record the “Control Strategy” has been deleted.

⁴⁰ Private Property.

⁴¹ Air Attack Supervisor.

⁴² First Attack Dozer.

7. The Fire Situation Report at 4.15pm is an exact copy of the previous report at 3.21pm.
8. The final Fire Situation Report for 22 January is timed at 7.44pm. The Control Strategy has been recorded and states:
 - “No active fire control is to be being [sic] undertaken overnight due to the inaccessibility of the fire.
 - Asset protection works are being undertaken in and around Harrierville.
 - There will be a local CFA presence at Hotham and Falls Creek tonight.
 - Old control lines from the 2003 and 2007 fires are being identified and evaluated as potential control lines for work to commence on the ground tomorrow.”
9. The absence of good document control and record keeping has made it difficult for OESC to establish from the records the strategy employed by the Incident Controller for fighting the fire as events developed on 22 January.
10. Members of the community asserted that a feature of the local landscape is that as the temperature warms during the morning, the wind can increase. The DSE Fire Situation Reports all record the wind speed.
 - At 9.19pm on 21 January and again at 11.20am on 22 January the wind speed was recorded as between “0-9 km/hr”.
 - At 11.48pm it is recorded at “10-19 km/hr”. The same speed is also recorded in each of the following reports for that day.
11. None of the DSE documents provided raised a concern in advance of 11am about an increase in wind speed on 22 January and its impact on fire behaviour.
12. There is no information that consideration was given to requesting additional resources on 22 January prior to the fire flaring up at 11am.
13. Figure 4 overleaf shows the control lines established as at 2.20pm on 22 January 2013.

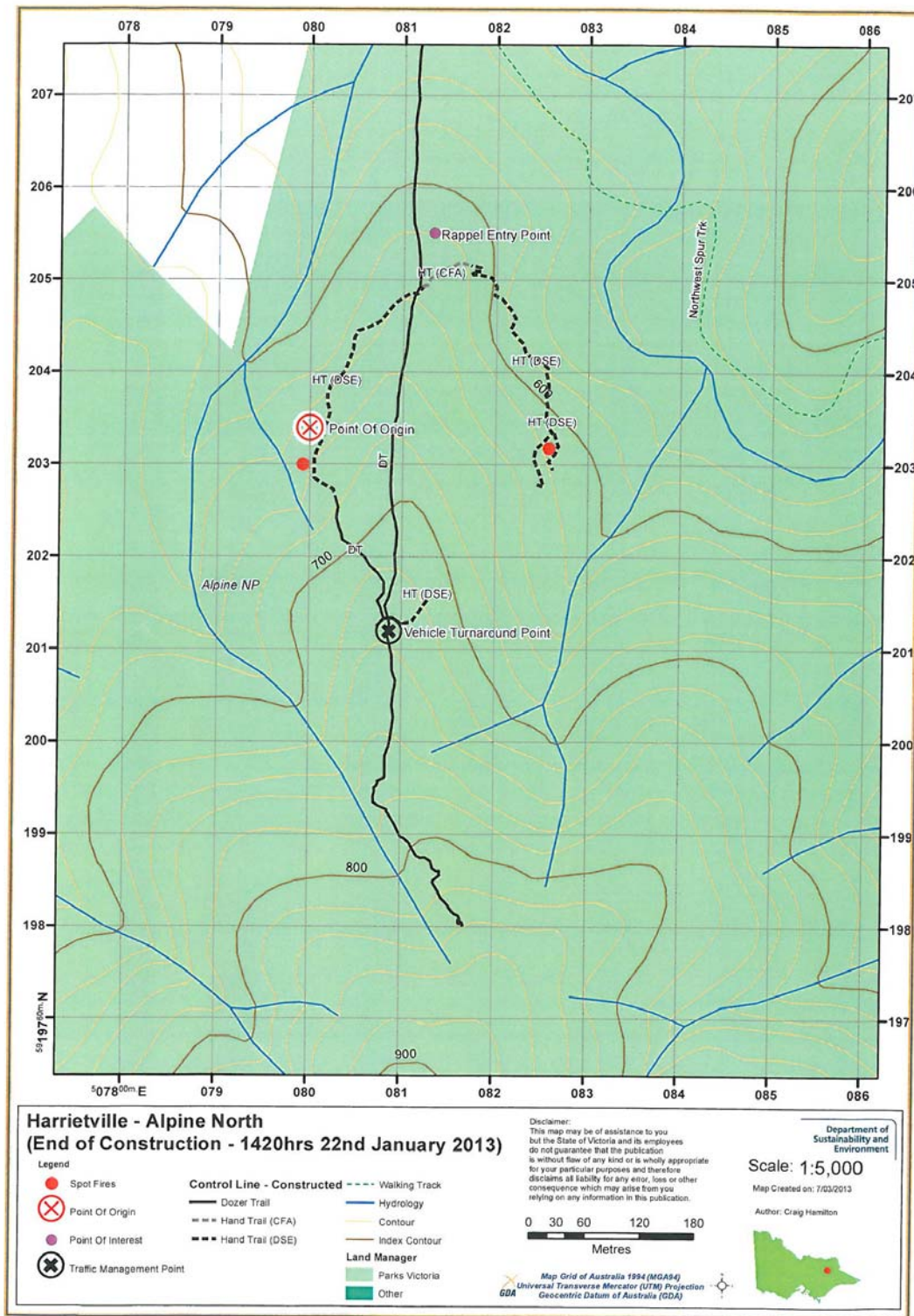


Figure 5: Control lines as at 2.20pm on 22 January 2013

7.5 How the Fire “Escaped”

1. On Tuesday 22 January, as conditions became hotter and drier later in the morning, smouldering logs and trees reignited the surrounding vegetation. The fire had been relatively quiet until around 11am when the wind began to increase slightly from 0-9 km/hr to 10-19km/hr.
2. At the same time, there was a flare up about 50 metres from the top of the fire on the eastern edge where a “wet line” had been laid the day before by the water-bombing helicopters. A smoke column was also noticed further down, approximately 100 metres over the control line.
3. It was at this time that the water-bombing aircraft were first requested. Helitack 348 was water-bombing this area by 11.40am and continued working on the eastern area of the fire.
4. At around 2.10pm, firefighters noticed the fire behaviour increasing on the south-eastern flank of the fire. The Helitack 332 pilot was water-bombing this area and observed it was more difficult to suppress the flames. He observed the head of the fire was about 20 metres wide burning along the ridge track. At that stage, the track was preventing the fire from going over to the western side of the ridge.



Figure 6: 22 January 2013 at 2.16pm (source: Jenny Whittaker, Harrietteville)



Figure 7: 22 January 2013 at 2.29pm (source: Jenny Whittaker, Harrietville)

5. At around 2.30pm, the Operations Officer reported to the Incident Controller that the fire was travelling up a gully to the south-east and developing a smoke plume. He commented that the fire was going up with significant intensity in fire behaviour. Six minutes later the Air Attack Supervisor advised the Incident Controller that the fire had “blown out” and more aircraft were required.



Figure 8: 22 January 2013 at 2.33pm (source: Jenny Whittaker, Harrietville)



Figure 9: 22 January 2013 at 2.37pm (source: Jenny Whittaker, Harrietville)

6. The pilot observed the rapid change in fire behaviour and a 150 to 200 metre fire front coming up from close to the lowest and most inaccessible point on the eastern edge of the fire.
7. At around 2.40pm, he reported that the fire front was spotting 200 to 300 metres in a south-easterly direction outside the control lines and it had started to create its own fire front.
8. He also reported that he would "not be able to do anything to stop it". Helitack 332 then went down to the eastern edge of the fire to check the firefighters there were safe.
9. At this time, the fire was no longer controllable. All firefighters were withdrawn for their safety.

8 Community concerns

1. In the aftermath of the Harrietville fire, there was much speculation amongst the community about how a fire that they understood from DSE and CFA to have been "under control" had escaped. Consequently, they raised a broad range of issues about how the initial stages of the response were managed. These have been distilled into two key themes:
 - **Sufficiency and adequacy of the first and extended attacks**
 - **Relationships between the local CFA, DSE and the community.**

8.1 Sufficiency and adequacy of the first and extended attacks

1. The underlying issues raised by the community were:
 - “More resources should have been used to fight the fire in the context of learning from previous fires.”
 - “Firefighters should have patrolled the fire on the first night.”
 - “Firefighters missed the opportunity to return at first light on Tuesday 22 January 2013.”
 - “Inflexible adherence to Occupational Health and Safety reduced the fire services’ ability to extinguish the fire quickly.”
 - “DSE stood down the CFA firefighters on 21 January when they should have been used to fight the fire.”

8.2 Relationships between local CFA, DSE and the community

1. The underlying issues raised by the community were:
 - cooperation between the local CFA and DSE
 - communication between local CFA and DSE
 - a legacy of disagreements between DSE and some in the community about how the agency manages public land.

9 Analysis

This section addresses each of the propositions raised under the two key themes.

9.1 Sufficiency and adequacy of the first and extended attack

9.1.1 Proposition: “More resources should have been used to fight the fire in the context of learning from previous fires.”

1. Community experience from the fires in 2002-03 and 2006-07 reinforced the importance of extinguishing the Harrierville fire within the first 24 hours. It was not sufficient for the community that the fire had been “contained” and was “under control”. For them, the expectation is that the fire must be “out”. This is because previous history has demonstrated the importance of extinguishing any fire quickly in order to prevent a repeat of the past, which has had major impacts and consequences for the community. Many members of the community believed the DSE and CFA response failed to recognise this requirement.
2. Our analysis in response to this has been divided into its two salient issues:
 - resources
 - adequacy of attack.

Firefighter resources

1. There is no single formula or protocol that mandates the type and quantity of resources allocated to a fire. Decisions on resources were made by the Incident Controllers for both DSE and CFA, in close consultation with their personnel on the

ground. They were in the best position to determine the right mix of resources required to fight the fire.

2. Our analysis focused on the availability and deployment of firefighters, aircraft and bulldozers.
3. With regard to CFA and DSE vehicles, in view of the terrain, the tankers and slip-on units could only be used on both 21 and 22 January 2013 as the means of conveying firefighters to the fireground. The actual number of fire trucks deployed has no relevance.

CFA Firefighters

1. The Harrietville and Bright CFA Brigades are comprised of volunteers from the local communities. Records are not definitive in terms of how many firefighters actually attended this fire. Also, others responded but remained at their CFA fire stations.
2. In January 2013, Harrietville's Brigade membership was 71, and Bright's was 44.
3. Together, the Harrietville and Bright Brigades provided at least 12 firefighters. Of these, around ten walked up on to the fireline. Their ages ranged from mid-20s to one in his 70s.
4. The Harrietville CFA Captain and the designated CFA Incident Controller remained at the Control Point about 200 metres from the fireline.
5. The CFA Incident Controller did not request additional resources from CFA.
6. CFA were not tasked to respond to the fire on 22 January 2013. CFA had transferred control to DSE the previous day.

DSE Firefighters

1. In January 2013, DSE (including Parks Victoria) employed 61 firefighters in the Ovens District comprising both seasonal Project Firefighters (PFFs)⁴³ and full-time Field Service Officers (FSOs)⁴⁴.
2. The following information is based on DSE tasking and allocation records for the Ovens District.
3. On 21 January 2013, 20 of the 61 PFFs and FSOs were deployed to the Harrietville fire. Of the remainder:
 - 6 were on approved leave
 - 8 were deployed at another fire
 - 27 were on normal duties (including on standby for first attack).
4. On 22 January 2013, 23 of the 61 PFFs and FSOs were deployed to the Harrietville fire. Of the remainder:
 - 11 were on mandatory leave break and approved leave
 - 19 were been deployed to the Aberfeldy fire

⁴³ Contract staff employed seasonally to undertake fire roles.

⁴⁴ Permanently employed staff with both a fire and logistic support roles.

- 8 were on normal duties (including on standby for first attack).

Policy on numbers of firefighters

1. Guidance on the indicative numbers of firefighters required for each level of fire is provided by DSE's 2003 'Park and Forest Firefighting Resources Guide' (the Guide).
2. Based upon the conditions presented by the fire on 21 January 2013, the Guide recommends 27 firefighters.
3. Similarly, based on the DSE Fire Situation Report from 21 January that set the Control Strategy for 22 January 2013, the Guide recommends 17 firefighters.

Commentary from the narrative accounts of the DSE and CFA firefighters

1. The following extracts from the CFA narrative accounts reinforced the views of the firefighters involved:
 - "The number of CFA and their skill deployed on the first day were consistent with our normal procedures of two brigades being responded to an emergency call. If I had thought that more resources were needed I would have called for them."
 - "On the first day it was a fire call and whoever turned up went. I didn't think it necessary to call any additional resources when I found out about DSE resources...I was comfortable [with] what was coming."
 - "DSE crews working there on the first day could not have achieved much more, even with twice as many crew."

Assessment

1. The combined number of DSE and CFA firefighters exceeded the recommended numbers on 21 January 2013. DSE exceeded the recommended number of firefighters on 22 January 2013.
2. Based on their understanding of the situation presented at the time, DSE and CFA decided that additional resources were not required on 21 January 2013.
3. Similarly, based on their understanding of the situation from 21 January 2013, DSE incrementally brought their resources back to the fireground from 7.30am on 22 January 2013. This was also influenced by mandatory rest periods of 10 hours between shifts.
4. Whilst water-bombing aircraft were requested to return to the fire on 22 January at 11am, a request for extra ground crews was not made at that time.
5. There is one record, timed at 12.56pm on 22 January, requesting additional "rakehoe people" from the "Bright Parks Victoria office". However, there is no further record of whether these resources were either dispatched or arrived on the fireground.
6. CFA was not tasked to send resources to the fire on 22 January 2013.

Aircraft

1. On 21 January 2013, the Fire Services Commissioner's State Fleet Aircraft Readiness Arrangements recorded that Victoria had 40 serviceable aircraft. These were positioned strategically around the state.

2. On 21 January 2013, DSE first requested air support at 2.53pm while on route to the fire.
3. DSE dispatched two helicopters immediately from Ovens:
 - “Firebird 303” (Ovens) and
 - “Helitack 332” (Ovens).
4. “Helitack 348” was subsequently dispatched at 4.14pm.
5. The decision to begin water-bombing was made by the Operations Officer on the fireground and guided by firefighters on the fireline.
6. Water-bombing was carefully coordinated between the pilot and firefighters on the ground. These firefighters had to withdraw at least 30 metres each time to make sure they were safely away from the drop area. Water-bombing can fell trees and bring down branches, as well as displace rocks.
7. It took between four to eight minutes for each helicopter to collect water from a nearby dredge pond and return to the fireground.
8. It was tiring and time-consuming for the firefighters working on the steep terrain in thick vegetation (as illustrated below), as they continuously withdrew and then returned to the fireline.



Figure 10: Steep terrain and thick vegetation of the fireground

9. On 21 January 2013, “Helitack 332” was used to drop the DSE rappel crew close to the fireline. Together with “Helitack 348”, it went on to water-bomb the fire edge⁴⁵ until all aircraft were withdrawn at 8.44pm.

⁴⁵ Any part of the boundary of a going fire at a given time.

10. On 22 January 2013, “Firebird 303” made its first survey of the fireground at 9am. It reported that the fire activity appeared “quiet”. The DSE Operations Officer did not request water-bombing at that time.
11. At 11.25am, the Operations Officer requested air support in response to a flare up along the eastern edge caused by an increase in wind speed.
12. “Firebird 303” returned to Harrierville for further reconnaissance at 11.40am. At 12pm “Helitack 332” was dispatched to Harrierville.
13. At 1.30pm, the Operations Officer asked about the availability of additional fixed-wing water-bombers. Documents show that at around 2.46pm, “Firebird 303” requested “Bomber 354” and “Bomber 359”. However, it is not clear from the records whether these aircraft made drops on the fireground.
14. At 2.40pm, “Helitack 332” reported the fire had “Gone” and nothing more could be achieved by the aircraft. All aircraft were re-deployed to evacuate a group of 37 hikers from Mount Feathertop.
15. In total, on 21 and 22 January 2013, the two water-bombing aircraft made 115 water drops: 47 from “Helitack 332”, and 68 from “Helitack 348”. This equates to an approximate total of 303,800 litres of water.

Policy on the use of aircraft

1. The Fire Services Commissioner Guidance Note 03/2012 provides the policy on the use of aircraft. The overriding principles to consider when allocating aircraft to bushfires are:
 - protection of life
 - safety of ground crews
 - achieving maximum benefit.
2. The effectiveness of water-bombing operations depends on:
 - fire size
 - fire behaviour
 - fuel type
 - terrain
 - smoke density
 - weather conditions.
3. Water-bombing alone rarely extinguishes forest fire, especially where there are burning trees and logs. Burning trees need to be hand-felled or pushed over by a bulldozer, broken open and the fire extinguished.
4. Water-bombing can only reduce fire speed and intensity for a relatively short period.
5. All water-bombing must have a specified objective and be considered necessary by the Operations Officer.
6. The use of aircraft for fighting fires is not permitted after dark.

Assessment

1. It was evident that as aerial fire fighting capabilities have improved, public perceptions have increased beyond what they can actually achieve.
2. Efforts were made on 21 and 22 January 2013 to use aircraft to contain the fire and bring it under control.
3. Additional aircraft were not requested on 21 January 2013.
4. No aircraft were deployed before 11am on 22 January 2013 for the purpose of water bombing. They remained on standby for any fire in the North East that required their intervention.
5. No information is available to help determine whether an earlier deployment of aircraft to the fireground on 22 January 2013 would have prevented the breakaway⁴⁶ of the fire.
6. Prior to 11am on 22 January 2013, observations of the DSE firefighters on the fireground indicate that circumstances did not require aerial support. This is supported by the observation of the Air Attack Supervisor at 9am.

Bulldozers

1. Two bulldozers were deployed to the fire; one from Ovens, and the other from Bright.
2. The Bright bulldozer was found to be mechanically defective and a maintenance person was requested. That person arrived later in the evening and made a repair.
3. It was decided that a replacement bulldozer was not needed. One of the reasons given was that a second bulldozer would be of limited use due to the steep and rocky terrain.
4. The Ovens bulldozer followed an existing control line that had been opened up some years before, but had since become overgrown.
5. Records show that the driver of the Ovens bulldozer was highly experienced. This was evident from the visit to the fireground made by OESC who saw how skilfully the driver had cut the containment lines despite the steep terrain.
6. It had been said by a CFA member that the Ovens bulldozer “went the wrong way” and “got lost”. It is clear from the on-site visit and the GPS tracking system fitted to the Ovens bulldozer that this was not the case.

Assessment

1. Given the terrain, the Ovens bulldozer completed everything that could have been achieved from using this type of equipment on 21 January 2013.

Overall Assessment

1. Ultimately, it is a matter for the Chief Fire Officers of DSE and CFA to determine the adequacy of the first and extended attacks.

⁴⁶ The points at which a fire, after it has been contained, escapes into unburnt areas across a fireline or fire edge.

2. Nevertheless, it is essential to understand the many factors that impacted on the ability of firefighters to attack this fire. These were recorded as:
 - the hazardous and steep terrain that rapidly brought on fatigue
 - the absence of vehicle access to bring water to the fireline
 - ever present safety considerations
 - the sequencing of removing the under storey vegetation with chainsaws prior to the construction of hand-trails using rakehoes
 - the need to construct viable escape routes⁴⁷
 - regular withdrawal from the drop zone⁴⁸ during water-bombing
 - dense vegetation that obscured visibility of the fire
 - the narrowness of the hand-trail and the need to maintain safe distances from the fire limited the number of firefighters in an area
 - progress in building the hand trail each hour was limited to a matter of metres per firefighter.
3. An important point is that the fire escaped on 22 January 2013 because it spotted over the containment lines into a remote, steep and densely vegetated, inaccessible area.
4. There is no information available to support a finding that an increased weight of attack or a change of strategy and tactics on 21 and 22 January, within the range of what could have been sought or provided having regard to the assessment of the fire up to that point and DSE's operating rules, would have altered the outcome of the fire on 22 January 2013 .
5. Similarly, extra resources were not called for until the fire did flare up and escape the initial containment.

9.1.2 Proposition: “Firefighters should have patrolled the fire on the first night.”

1. Members of the community expressed concern about why the fire was neither fought nor patrolled on the night of 21 January 2013. They acknowledged that the terrain was hazardous and some areas were inaccessible. Nevertheless, many from the community believed DSE should have continued to fight the fire overnight despite the risks to safety. This view was expressed with the benefit of hindsight when they compared the risks to safety with the significant consequences that came in the aftermath of the fire escaping. However, it ignored the overriding principle that the primacy of human life is paramount.
2. From the evidence provided, it is implied but not explicit that the following factors when brought together informed the decision to withdraw overnight:
 - “The safety issues were that the crews had no torches, fatigue (working greater than 16 hours), steep slopes and potential for falling trees.”

⁴⁷ A planned route away from danger areas at a fire.

⁴⁸ Target area for firefighting aircraft or cargo dropping.

- “The Red Crew witnessed a large number of big timber [trees and branches] falling down the western side of the fire while working on the rakehoe trail.”
- “Terrain too steep for ground crews to work in during night.”
- “Fire behaviour slowed down.”
- “Air Attack Supervisor provided information that the fire should be contained by 20.00.”
- “Based on containment lines in place and no possibility of the fire spreading overnight, the fire status was revised from GOING to UC-1.”

Assessment

Overriding considerations about safety prohibited the deployment of firefighters overnight. In addition, the nature of the terrain and fire behaviour are also relevant factors to consider.

9.1.3 Proposition: “Firefighters missed the opportunity to return at first light on Tuesday 22 January 2013.”

The decision to begin the return to the fireground from 7.30am was based on two factors:

- the Fire Control Strategy developed the night before that was informed by the behaviour of the fire at the end of 21 January, and
- the mandatory requirement to provide a minimum of ten hours rest for DSE firefighters from the night before.

Assessment

The records show that all available DSE firefighters in the Ovens District had been deployed in the previous 24 hours. The minimum rest periods are mandatory. In addition, the situation presented did not merit the need to redeploy instead, at first light, firefighters from elsewhere in Victoria.

9.1.4 Proposition: “Inflexible adherence to Occupational Health and Safety reduced the fire services’ ability to extinguish the fire quickly.”

1. All employers and employees must meet their statutory obligations under the *Occupational Health and Safety Act 2004*. They do not have discretion to change or make exceptions.
2. Within DSE, the legislation is reinforced by a range of practice and policy documents. These inform the principles for safe firefighting.
3. The first principle of the DSE Code of Practice for Fire Management on Public Land is the protection of human life: “The protection of human life (emergency services personnel and the community) will be given priority over all other obligations in bushfire management”.

4. The Fire Services Commissioner's Strategic Control Priorities place the protection and preservation of life as paramount⁴⁹.
5. OH&S standards are embedded in the General Firefighter accreditation and all DSE fire training⁵⁰.
6. Instances were documented during the initial response to the Harrietville fire where firefighters had to take immediate action to avoid risks to their safety.
7. Forest firefighting is a strenuous job that entails working for long periods with short rest periods in hot, dry and stressful conditions. Firefighters who attended the Harrietville fire were required to walk long distances on foot over difficult terrain and through dense vegetation carrying equipment and supplies.
8. CFA and DSE task personnel with fireline duties according to their health and fitness standards.
9. The DSE 'Fit for Fire' program includes a medical assessment and a fitness (task based) assessment for all personnel undertaking a firefighting role. The program is ongoing and personnel must meet benchmarked standards, specific to their role, on an annual basis, with a medical assessment every two years.
10. Standards of health and fitness ensure personnel can meet the demands of forest firefighting. They ensure the safety and welfare of all personnel undertaking firefighting activities.
11. CFA does not have a formal ongoing program to assess the health and fitness of its volunteers. However, the CFA Incident Controller will task personnel based on their assessment of each individual's health and fitness level on the day.

Assessment

Firefighters are entitled to expect that their leaders will make decisions that keep them from harm. Occupational Health and Safety (OH&S) standards reinforce these expectations. They are based on lessons from past events. They are mandatory and breaches may result in criminal prosecution with significant penalties. The OH&S standards were used correctly by DSE and CFA during the initial stages of the Harrietville fire. The OH&S requirements and compliance with them is not, therefore, an unreasonable adherence to rules.

9.1.5 Proposition: "DSE stood down the CFA firefighters on 21 January when they should have been used to fight the fire."

1. Either on, or shortly after 22 January 2013, blame was apportioned to DSE for the consequences of a perceived failure to extinguish the Harrietville fire within the first 24 hours.
2. Amongst the statements presented as fact was that "DSE stood the CFA down". This was repeated in the media and in the Federal Parliament on 12 February 2013.

⁴⁹ Fire Services Commissioner Policy 001/2011 Strategic Control Priorities - State Controller's Intent

⁵⁰ DSE Fire Suppression Manual (revised in 2011)

3. Subsequently, CFA provided statements that the decision to stand down was theirs and taken in consultation with DSE.
4. Records provided by CFA now show that the decision was theirs and based on two primary factors:
 - the CFA firefighters were exhausted and needed to be relieved by DSE, and
 - they believed DSE had sufficient resources as the Control Agency to continue without their support.

Assessment

CFA firefighters were released from the fire by agreement between the DSE Operations Officer and the CFA Incident Controller. Whilst the reason for the decision is not recorded explicitly, log books and the retrospective narrative accounts show that the CFA firefighters were “spent” and needed to be relieved. Furthermore, the logs record that both CFA and DSE believed that the DSE resources alone were sufficient to bring the fire under control on 21 January.

9.2 Relationships between local CFA, DSE and the community

1. A proposition was made by members of CFA, DSE and the community that, over many years, relationships between CFA and DSE in the Ovens Valley have been poor and this adversely affects the way they work together during fires. In addition, it was evident from members of the community in and around Harrietville that the history of disagreements with DSE about the agency’s management of public land extended to a negative perception about DSE’s approach to managing fires too.
2. In terms of the Harrietville fire, the relationships were characterised by three key propositions:
 - “Cooperation between local CFA and DSE is poor.”
 - “Communication between local CFA and DSE is poor.”
 - “There is a legacy of disagreements between DSE and the local community.”

9.2.1 Proposition: “Cooperation between local CFA and DSE is poor.”

1. “Sibling rivalry” was a description given to the relationship between the local CFA and DSE. During our consultations with the community and members of the two fire services, the following comments were also made to further describe this relationship:
 - “dysfunctional”
 - “don’t communicate that well”
 - “need to work better together”.

Assessment

1. On 21 January 2013, CFA set up their “Control Point” first and positioned it close to the nearest residence. Minutes later, DSE set up their “Operations Point”, 30 metres away from CFA.
2. CFA and DSE firefighters deployed separately, with CFA on the western flank and DSE on the eastern flank.

3. Firefighters described these arrangements as “working in parallel”, and “we understood what each other was doing via radio contact, directly and indirectly”.
4. Information provided by CFA and DSE indicates that the firefighters actually worked well together on the fireground. Analysis of the information provided by DSE and CFA shows that the apparent separation of their firefighters was due to the appropriate sectorisation of the fireground and not because of an unwillingness to work side-by-side.
5. This is reinforced by notes made in log books by both CFA and DSE firefighters that comment on the good work done together on 21 January 2013.
6. In addition, CFA and DSE firefighters spoke of their perception that the people on the ground do work together well.
7. The Harrietville fire was initially classed as a Level 1 bushfire. It had the added complexities of concurrent Operations and Control Points for DSE and CFA on the same fireground. In addition, DSE and CFA had concurrent reporting lines and communication channels between DSE Bright office and CFA Ovens Group.
8. In any multi-agency incident, a level of confusion is to be expected during the early stages of the response, particularly in the first hour. However, it is evident from the documents provided by DSE and CFA that this confusion extended until at least 6pm on 21 January. This was in relation to Incident Control, the Transfer of Control, and when the CFA crew departed the fireline and the Operations Point at the end of that first day. Tables 1 and 2 below illustrate this:

Table 1 Incident Control

Time	Source	Comment
Unspecified	CFA Narrative	“I set up the control point, and wore the incident controller’s tabard, and generally worked in parallel with DSE. DSE member [DSE representative] ⁵¹ set himself up in a nearby location and we were aware of each other’s radio traffic, we understood what each other was doing via radio contact, directly and indirectly. This parallel arrangement continued until 1750 hrs when I handed control to him.”
3.06pm	CFA Narrative	A CFA representative stated - “When I arrived at the scene I met [CFA representative] who I understood was the incident controller.”
3.09pm	CFA Log	“[DSE representative] is Controller.” “[CFA representative] on scene as Incident Controller.”
3.11pm	Parks Victoria log	“[CFA representative] Incident Controller North West Spur.”
3.15pm	CFA Log	“[CFA representative] North West Controller.”
3.25pm	CFA Narrative	A CFA representative stated - “When I arrived, a CFA member had been there from the start. I thought it beneficial for him to continue in that role as Incident Controller.”
3.30pm – 9.19pm	Situation Reports	Identify [DSE representative] as DSE Incident Controller.

⁵¹ Used to protect person’s anonymity.

Time	Source	Comment
	(DSE)	
3.50pm	DSE log (RAC ⁵²)	"[DSE representative] working at Bright as Incident Controller."
4.37pm	Deputy State Controller log	"Hume Regional Controller (CFA) advises that [DSE representative] is Incident Controller."

Table 2 Transfer of Control

Time	Source	Comment
5.15pm	CFA Narrative	"DSE Crews arrive on the fireline to relieve CFA crew."
5.45pm	DSE Narrative	"[DSE representative] and [CFA representative] have a conversation about DSE relieving CFA to the operations point."
5.50pm	CFA Narrative	"[CFA representative] handed over their side of control to DSE on the fireline."
5.50pm	CFA narrative	"This parallel arrangement continued until 17:50hrs when I handed control to him."
5.58pm	CFA Narrative	"CFA crews walk out to the control point."
6.10pm	DSE Narrative	"CFA walk out to ops points and decline offer to stay and eat."
6.10pm	DSE Narrative	CFA representative stated - "No thanks we're going home."
6.30pm	DSE Log	"CFA leave the ops point."

9. The various narratives and log books provided indicate that each of the personnel identified as the Incident Controller was undertaking the range of activities expected, which tends to indicate a level of parallel working. For example:

- requesting resources
- sourcing additional equipment
- preparing Situation Reports.

Table 3 demonstrates a range of activities that indicates a level of parallel working on 21 January.

Table 3 Parallel Arrangements 21 January 2013

DSE Source	Time	Evidence	CFA Source	Time	Evidence
DSE Log	2.53pm	DSE request Helitack and rappel crew with 303	CFA Narrative	2.58pm	CFA representative requested Helitack support.
				3.25pm	"On my [CFA representative] arrival I asked [CFA representative] if he had called for air support and he said yes"

⁵² Regional Agency Commander.

DSE Source	Time	Evidence	CFA Source	Time	Evidence
DSE Log	3.11pm	“[CFA representative] Incident Controller North West Spur”	CFA Log	3.09pm	“[DSE representative] is Controller. [Parks Victoria representative] advising chopper heading out. [CFA representative] on scene as Incident Controller.”
DSE Log	3.50pm	“[DSE representative] working at Bright as Incident Controller”	CFA Log	3.15pm	“[CFA representative] is North West Controller”
State Deputy Controller Log	4.37pm	CFA Regional Controller advises that a DSE representative is Incident Controller	CFA Narrative	3.25pm	“On arrival on the fire ground I met [CFA representative] ...I thought it beneficial for him to continue in the role as Incident Controller...I set up comms.”

10. It is not clear from these documents whether there was a formal Transfer of Control from CFA to DSE between their Incident Controllers. DSE does not have a record of this occurring. From log books and narrative accounts, the only documented handover that occurred was at 5.50pm. This was when CFA handed over the eastern (sector) flank of the fireline to DSE.
11. OESC has been unable to confirm whether the handover documented in the Harrietville CFA narrative at 5.50pm was the formal Transfer of Control. Thus, from all the documents it is not clear how and when a Transfer of Control occurred. Nevertheless, it is accepted that CFA did transfer control of the Harrietville fire to DSE and that DSE was the Control Agency at the close of 21 January.
12. Whilst the documentation may be ambiguous, OESC did observe a very professional and respectful relationship between the majority of DSE and CFA members. However, it was also clear that there was a tension between a few individuals, but this was neither systemic nor agency-wide. We have not observed anything that would show that it had a bearing on how the fire was managed.

9.2.2 Proposition: “Communication between local CFA and DSE is poor.”

1. Communication is at the heart of the proposition that there is a relationship issue between CFA and DSE. In particular, the messages some community members have interpreted to be a “philosophical difference between the two organisations in their approach to managing fire”. Some community members commented frequently about their perception that “CFA responds to fires with the intention of putting them out, while DSE only contains and brings fires under control”.
2. This perceived difference in approach can also affect DSE’s relationship with the community.
3. At the public meeting hosted by DSE on 16 February 2013 to answer questions from the community about the initial response to the Harrietville fire, a CFA member was asked for their opinion on the DSE resource levels. The CFA member replied, “You [DSE] were under resourced”.

4. At the public meeting hosted by OESC on 19 March 2013, CFA members were also present. However, they chose to remain silent rather than counter the extreme anti-DSE views expressed by individuals about the values and behaviours of their DSE firefighter colleagues.

Assessment

1. It was evident from conversations and observations during OESC's research on the ground in Harrietville that there are isolated relationship issues between individual members of DSE and CFA. This is neither systemic nor agency-wide.
2. All the relevant documents provided by CFA and DSE about how their firefighters managed the initial stages of the Harrietville fire on 21 January show that the firefighters worked well together in physically demanding conditions.

9.2.3 Proposition: "There is a legacy of disagreements between DSE and the local community."

1. The information gathered from interviews and meetings with members of the community highlighted their perception of a long-standing disagreement between the community and DSE about how the agency manages public land. This also adversely affected the community's perception of DSE as a fire service too.
2. It is evident that this legacy means some members of the community are less willing to listen to and accept the challenges for DSE of extinguishing fire in the Alpine National Park. For instance, DSE officers, including the North-East Regional Director, attended public meetings on 23 January, 16 February and 13 March 2013, to explain how they managed the Harrietville fire. However, this appears to have done little to allay community concerns.
3. Information provided to OESC by DSE and CFA goes into significant detail about their activities in managing the incident. However, the absence of a well-documented Control Strategy aligned with the Strategic Control Priorities means there is no record that can be presented to the community that explicitly considers the consequences for the community in both the setting of objectives and the rationale for decisions.

Assessment

1. It is evident that there is a long history of disagreements between DSE and some members of the local community in the Ovens Valley. This has adversely affected the latter's perception of how DSE operates as a fire service. The consequences for the community from the Harrietville fire have exacerbated the already difficult relationship.
2. Whilst it is implicit from the decisions made and actions taken by DSE and CFA that the primary focus was on beating the fire and protecting the Harrietville community, the documentation to support this is not there. The format of the Fire Situation Report also reflects a system that has focused more on recording how the fire is managed than documenting the consideration given to its consequences for the community.
3. The absence of any record documenting these considerations has made it difficult in writing this report to address the perception amongst members of the community that greater priority is given by DSE to fire management than managing risk and consequence for the community.

4. It is important to state that the information provided by DSE and CFA shows that whatever the relationship difficulties may be between the two fire services and the community at the local level, it had no bearing on how the agencies managed the initial stages of the Harrietville fire.
5. However, had the relationship been better, it would have prevented the distortion of certain facts about how the initial stages of the response were managed.
6. Similarly, had the relationship been better between DSE and the local community, there would have been greater acceptance by the community of the explanations provided by the agency about how they used their very best endeavours to fight the Harrietville fire.

10 Conclusion

1. On Monday 21 January 2013 at approximately 2.25pm, a lightning strike at Smoko on the Northwest Spur, about four kilometres north-east of Harrietville, ignited what has now come to be known as the “Harrietville fire”.
2. The first firefighters to arrive at 3.05pm were from CFA. They were joined on the fireline by their DSE counterparts a few minutes later.
3. The terrain is steep and difficult to access. Water tankers and slip-on fire trucks could not make it on to the fireline. Consequently, rakehoes and chainsaws were used to construct a narrow hand-trail; a bulldozer opened up a broader containment line, and aircraft undertook water-bombing.
4. By the end of the first day, the fire was declared “Under Control - 1” and, according to DSE, contained to an area between two and five hectares.
5. On Tuesday 22 January 2013, DSE firefighters began arriving back at the fireground from 7.30am. At approximately 11am, the wind picked up and the fire began to escape the containment lines.
6. Attempts to establish new containment lines and repeated water-bombing failed to control the fire. At 2.40pm, the fire had become uncontrollable. When the fire had run its course 55 days later, it had burned 37,000 hectares.
7. The Harrietville community has experienced significant impacts from three fires in the past 10 years. It is understandable, therefore, that they should expect the fire services to do all they can to extinguish fires quickly. It is not sufficient for the community that a fire is “under control”. For them, the expectation (whether achievable realistically every time) is that it must be “out”.
8. Expectations were created when the community were advised by DSE and CFA at the end of 21 January that the fire was “under control” and limited to an area of approximately 5 hectares. It is understandable, therefore, that they asked questions when the following day they saw that fire escape and continue to burn for 55 days.
9. Consequently, in the aftermath of the Harrietville fire, members of the community raised a broad range of issues about how the initial stages of the response were managed. These fall under two key themes:
 - **Sufficiency and adequacy of the first and extended attacks**
 - **Relationships between the local CFA, DSE and the community.**

Sufficiency and adequacy of first and extended attacks

- Ultimately, it is a matter for the Chief Fire Officers of DSE and CFA to determine the adequacy of the first and extended attacks.
- However, as outlined in this report, it is essential to understand the many factors that constrained the ability of firefighters to attack this fire. In particular, the fire eventually escaped on 22 January 2013 because it spotted over the containment lines from one remote, steep and densely vegetated inaccessible area to another.
- Therefore, in my opinion, there is no information to support the view that an increased ‘weight of attack’ or a change of strategy and tactics on 21 and 22 January would have altered the outcome of the fire on 22 January 2013.

Relationships between the local CFA, DSE and the community

- Members of CFA, DSE and the community expressed their concerns that, over many years, relationships between CFA and DSE in the Ovens Valley have been poor and this adversely affects the way they work together during fires.
- In addition, it was evident from members of the community in and around Harrietville that there is a long history of disagreements with DSE over how the agency manages the public land around them. This has adversely affected some perceptions of how DSE also operates as a fire service. The consequences of the Harrietville fire for the community have exacerbated these perceptions.
- It is clear that DSE and CFA worked well together in fighting the initial stages of the Harrietville fire.
- In my opinion, the effectiveness of the relationships between local CFA, DSE and the community had no bearing on how the Harrietville fire was fought, but that it did contribute to a subsequent distortion of certain important facts about how the initial stages of the response were managed.

10. Improvements need to be made in respect of adherence by DEPI and CFA to the established standards of record keeping. These will ensure that in future the strategy, tactics and all relevant considerations about key decisions and the facts presented at the time of the event are available to those who subsequently and quite understandably ask questions with the full benefit of hindsight.
11. It is clear that the priority is for a more positive and constructive relationship to be established between DEPI and the Ovens Valley community. This will be pivotal to improving understanding and managing future expectations in relation to preventing fire and minimising its consequences for the community.
12. I want to conclude by taking this opportunity, again, to thank the community of Harrietville and the Alpine Shire, along with CFA and DEPI, for their goodwill and valuable contributions in preparing this report.