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FORESTS, FIRE AND THE TIMBER INDUSTRY

A report prepared by
the Victorian Association of Forest Industries
in February 1993

SUMMARY

The Victorian Timber Industry harvests and regenerates about 15,000 hectares of the State's 4,700,000 hectares of public native forests each year under close government supervision. Some of the resulting regrowth forests -- every area of harvested forest is regenerated -- can be found in national estate areas, in national parks and even in areas proposed for world heritage listing.

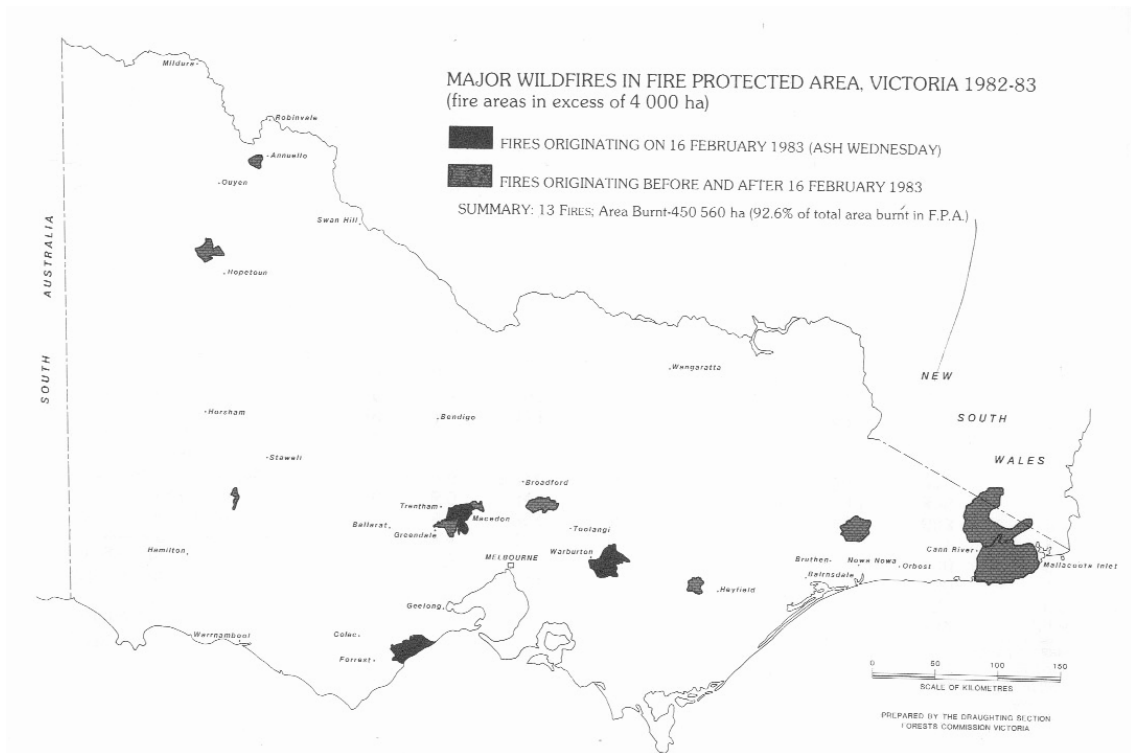
Ten years ago during the long hot summer of 1983, fires raged through 450,000 hectares of forests, the worst occurring on Ash Wednesday, February 16. In 1985 150,000 hectares of forests were burnt. In 1939, bushfires burnt about 1.2 million hectares of forests, killing a large portion of the Ash forests of the Central Highlands. Other extensive fires which have occurred since European settlement include 1851, 1898, 1906, 1914, 1926, 1952, 1960 and 1965. Bad fire seasons appear to occur about every decade.

Today, fires that cause most damage in forested areas are caused by lightning strikes. The secret to fire control is to take adequate precautionary measures and to move quickly to suppress fires once they occur. Not surprisingly fires occurring in remote areas are sometimes difficult to access and can therefore cause extensive damage.

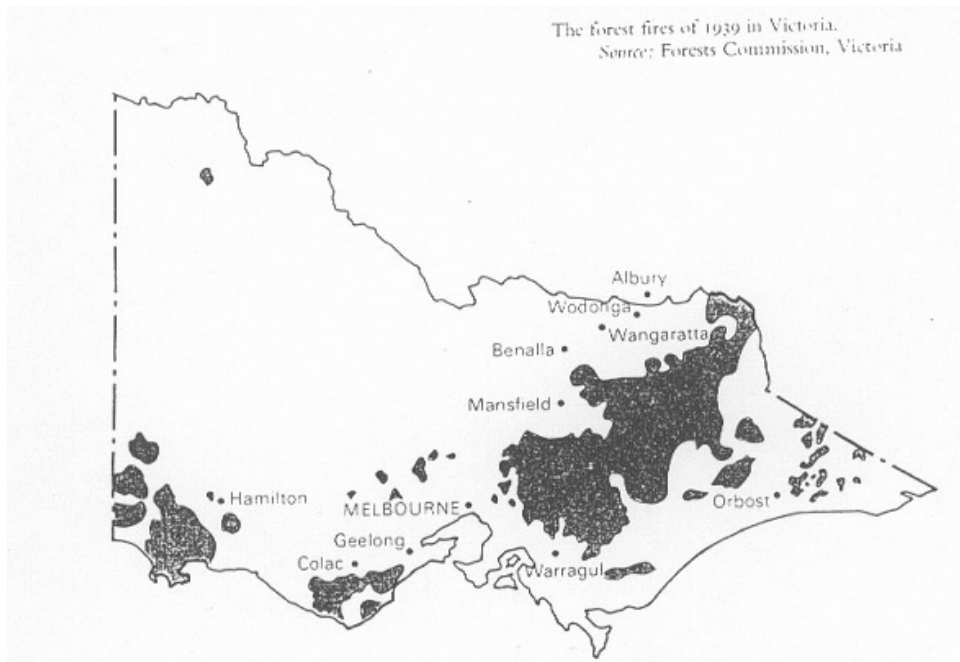
The critical role of Government forestry services (now the Department of Conservation and Natural Resources) and the Country Fire Authority is well known to most Victorians. However it is not commonly known that the Timber Industry also plays an integral role in forest fire suppression activities in Victoria. Firstly, it provides a "critical mass" to support the Government forestry/conservation service presence in many regions. Secondly, access roads maintained for log extraction form an important part of the fire fighting infrastructure. Finally, industry logging equipment and trained, experienced personnel are an important part of the nucleus of the critical "first strike" team to fight forest fires. The important contribution of industry machines and operators is graphically illustrated in the documented recollections of individuals involved in the "long hot summer" of 1983 fires which is included in this report.

The purpose of this note is to explain the role of fire in shaping the Australian landscape; to note the causes of fire and to examine the role of the timber industry in fire control activities.

Fires in 1982/83



Fires in 1939



SECTION 1

RECOLLECTIONS OF THE 1983 ASH WEDNESDAY FIRES AND THE "LONG HOT SUMMER"

In 1982/83, 49 people died, over 2,000 homes were destroyed and over 450,000 hectares of forest were burnt by bushfires. There were many organisations and individuals involved in fighting the fires in that tragic "long hot summer". At the peak of those fires, around 4200 fire fighters, 460 tanker units, 111 bulldozers (of which 70 were from the timber industry), 11 helicopters and 13 other aircraft were engaged in fire suppression activities. The following notes of conversations with industry and forestry people focus largely on the forest industry role in fighting the 1983 fires that occurred in the heavily forested areas.

"Of the many problems which have to be dealt with by the forester, there is none which is so constantly with him as that of fire. Its shadow is always over him: the dread possibilities are ever present in his mind"

C.E. Lane-Poole (1920)

THE WARBURTON-POWELLTOWN FIRE:

Victoria had been subject to a prolonged period of drought. The severity of that drought had been very visible to Melbournians when, in the week before Ash Wednesday, dust storms had enveloped the city. The storms had lifted tens of thousands of tonnes of unprotected topsoil from farmlands in western Victoria.

On Ash Wednesday, a severe fire risk had developed. The 1983 Forests Commission Annual Report noted the conditions: 43 degrees in Melbourne, a relative humidity of 5% with maximum wind gusts up to 70 km/hr rising to 100 km/hr that evening when the wind shifted. Sixteen fires had started progressively during the afternoon. Ten of these developed into major fires including the Warburton fire which burnt 44,500 ha and 23 homes; 11,765 ha of Mountain Ash were destroyed.

Jim Micah (Erica sawmiller, then Chairman VAFI Erica Section now Deputy Chairman Central Gippsland Section):

On 16 January, Ash Wednesday, I was on one of about 20 'dozers (mostly local logging contractors) which quickly "rounded up" (put a 'dozed line around) a fire under the chairlifts on Mt Baw Baw. The Forests Commission were really quick to jump on that one and it only burnt 60 hectare. Given the weather, if we hadn't stopped it while it was small it would have caused an enormous amount of damage. This demonstrated the importance of quick access and having readily available machines from nearby harvesting operations.

No sooner had we finished that, when we were asked to join the crews fighting the Warburton - Powelltown fire. There were a large number of 'dozer operators there from the Timber Industry, Commission, SEC and contractors from the building of the Thomson dam. There were the Forestry crews and CFA operators who followed the 'dozers mopping up and catching break-outs or backburning from the 'dozed line. APM Forests had sent four tankers with their crews from their Latrobe Valley operations. They were there for five days.

We (Micah's) had our two D6's (bulldozers) operating for three days, 24 hours a day. Ronnie Siddle and I ran alternate 12 hour shifts on one 'dozer. (Remember Ronnie; He was written up in the Sun during the 1990 Parliament house timber truck protest rally -- he hadn't been to Melbourne since National Service!).

We drove home to Erica -- a four hour round trip -- after each shift which didn't give you much time for eating and sleeping. I tried to sleep one night at the fire camp but you couldn't get any rest because people and vehicles were coming and going all the time.

Many of the tracks were overgrown with no sign posts. Cuthbertson and Richards' (Powelltown sawmillers) 'dozers and other local logging contractors were there of course and the local knowledge of these people was invaluable. The forestry fire line bosses could tell them "we want a 'dozed fire line down such-and-such track" and away they would go without any further directions.

I remember being sent up this overgrown track on the 'dozer to clean it up. The sky was black, no one around could tell me where the fire was, whether it was coming or going. You just had to trust that you weren't being led up the garden path. I didn't know whether I was heading into heaven or hell. I drove the 'dozer for six miles making the track driveable for the fire crews to defend against the fire before someone could tell me how far away the fire was.

When we were running a track around the fire, the old dead "stags" left over from the 1939 fires (or possum trees as they're now called) would be alight and every now and then they would come crashing down. One tree fell right across the cabin of Dave Westcombe's 'dozer (another logging contractor) and smashed it in. Luckily the driver was OK. It was all pretty scary.

Dan Darcy from the Forests Commission at Noojee was the boss of the fire line I was on.

Dan Darcy (now DCNR Noojee):

I think there were about 30 'dozers on that fire. At least half were from the timber industry who were particularly good as they knew how to operate in steep bush conditions and exactly what was required when putting in a 'dozed fire line - You didn't have to keep checking and guiding them as they were pretty self reliant and most knew the area.

THE CANN RIVER/ORBOST FIRES:

On 31 January, lightning started a fire in the Cann River area, near Combienbar. Over the next ten days it burnt out 127,000 hectares. On 4 March, during extreme fire conditions, a fire started on the southern edge of the January fire (suspected to be a relight from that earlier fire had managed to jump the 300 kilometres of regularly patrolled fire control lines) and spread towards Mallacoota during the ensuing week. A further 126,100 ha were burnt.

1983 CANN RIVER FIRES STATISTICS

	JANUARY FIRE (NO. 12)	MARCH FIRE (NO. 16)
FIREFIGHTERS	462	607
'DOZERS	35	32
TANKERS	45	61
RETARDANT DROPS	395	157
TOTAL SUPPRESSION COST -	\$2.7 MILLION (INCLUDING \$400,000 IN MACHINE HIRE COSTS)	

Gus Geary (in 1983, District Forester Orbost District, Forests Commission), currently Regional Manager, Alexandra, Department of Conservation and Natural Resources:

The big Cann River fire started from lightning strikes. Denis Read was District Forester, Cann River area and was in charge of the fires in his district. I was looking after the Orbost district. We heard that land gales were predicted that would send the fire north which would burn out the Errinundra Plateau.

We had 30 bulldozers taken up to the area, most from the timber industry. If we were going to save Errinundra Plateau, we would need to put in a dozed track from the NSW border along Coast Range Road and Hensleigh Creek Road almost to Combienbar (see map). The 'dozers were dropped off at intervals and they worked non-stop around the clock up to where the other 'dozer had started. We put that 'dozed line in within 36 hours - just in time. Gary Squires (now Regional Manager Orbost Region DCNR) was in charge of that fire line. The 'dozer drivers and the Commission fire fighters had to chase up a spot fire every now and then, then the 'dozer driver would go back to the task of the main fire line.

Along the track they would build the occasional pit to put themselves and their 'dozers in if they couldn't hold the fire. In most cases we kept the fire from crossing that line and used it as a base to back burn to the main fire.

We met the deadline and stopped the fire from burning out the Errinundra forests, which included the six or seven hundred hectares of 500 to 600 year-old stands of rainforest, one of the main features that led to the area being declared a National Park in 1987. Ironically the industry people knew that if the area was burnt out there would be far less justification for the park and they could salvage log the area. But they still worked night and day to save the plateau forests. Some of the operators, like Frank Brunt, virtually had to be dragged off their machines because they had been working so long. He wasn't too impressed about letting anyone else on his new 'dozer, but he relented.

When the main fire hit, the 'dozer operators on the northern end had taken their machines into NSW and under Gary Squire's direction they had dug a big pit in the old Bondi seedling nursery where they buried the 'dozers, about 15 of them. After the fire had passed they dug them out and helped round up the fire.

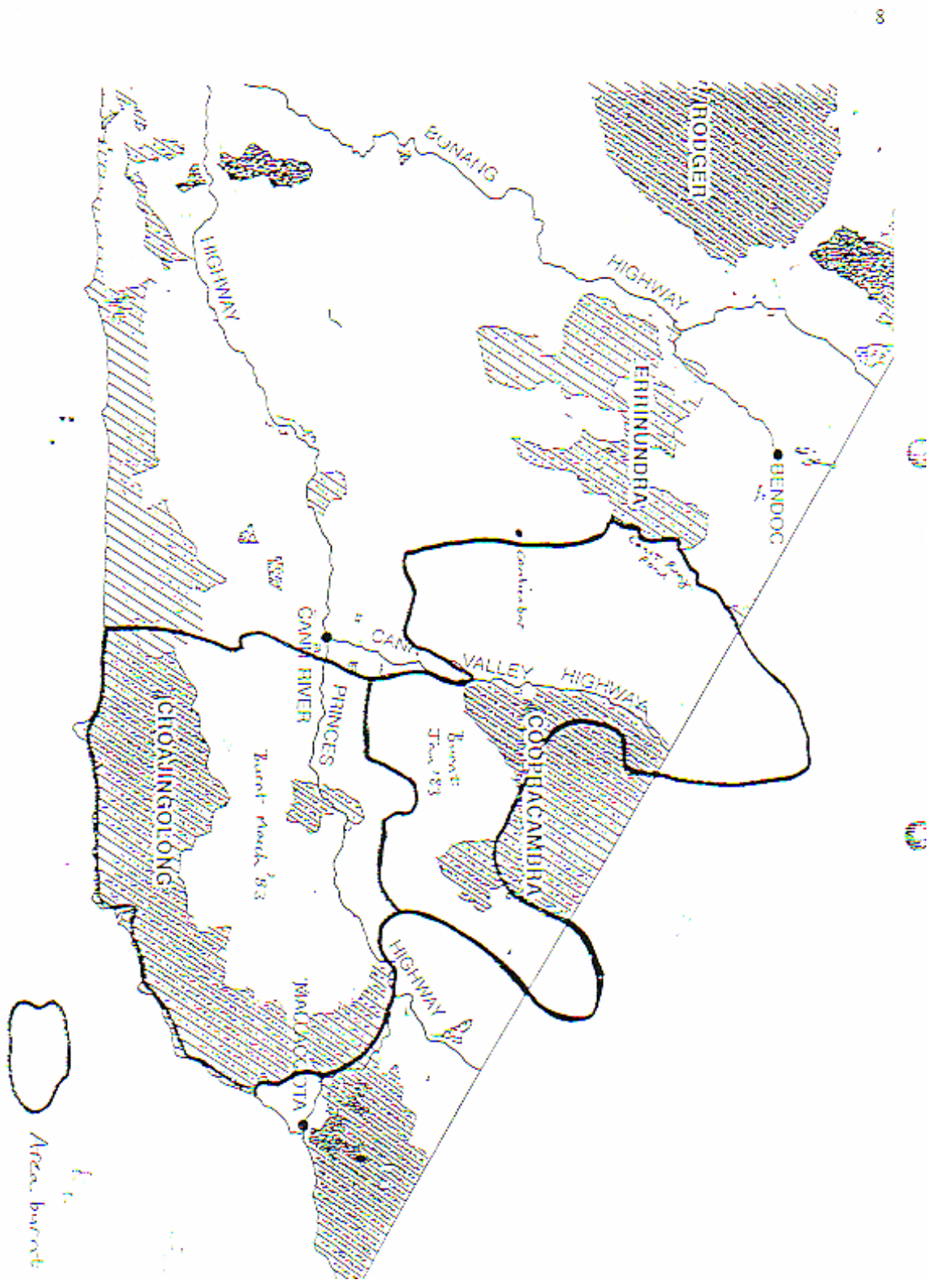
Frank Brunt (Orbost-based logging contractor, now logging in Alexandra area.)

(Frank Brunt left school at 16 and became a logging contractor. He has fought "probably two or three hundred" fires since then, big and small. In the 1983 East Gippsland fires, Frank put in close to a month's work on his 'dozer, cutting fire tracks. He started at Combiobar, headed across to Cann River, followed the Cann Valley into NSW and came back down along the Coast Range until he was back at Combiobar. After the fires, he went straight back to work cutting and hauling timber to keep local mills supplied - they hadn't had a log in for close to four weeks.)

I started right at the start of it and went from there. It was well over three weeks, day after day, hour after hour. I think I went 19 days straight without a break. My wife called up my (tree) faller at Bombala and said 'Get out and find him and send him home.'

I was in front of the fire all the time. The fire just kept chasing us. My machine did get buried, but that was the night Normie took over from me. He actually buried it. I think there was about 15 to 20 machines in it...she was a big hole! They were pushing and pushing for three or four hours trying to get it deep enough to get down underneath the fire. You dig a hole, put your machine in it and get down under your machine. You can still get a bit of oxygen and the fire will pass over the top.

That particular day -- the day they buried the machines -- I got back to Combiobar just as the wind came up, all of a sudden. It was that strong it was lifting the Toyota, taking it from my side of the white line to the other. My brother had a camp up in the bush...a bus all decked out with kitchen, shower, that sort of thing. The wind picked up the bus and carried it 200 metres. Burnt it all out. (Frank also described how the wind shoved a heavy skidder -- a log hauling machine -- 50 metres.)



Area burnt in Far East Gippsland from lightning fires 1983

I find the worst part of it is people telling you what you should do, where you should put tracks. You know yourself, for your own safety, whether you can put a track around a fire or whether you can't. Anybody can jump on a 'dozer and push a bit of stuff back, but you've got to contend with changing wind conditions, temperature. There's lots of things -- burning trees, rotten trees. You could be driving past an old stag that could be burning out. You've got a sixth sense...you know to watch him. If the things falls over and lands on top of the machine, it could crush you to the ground. The vibrations of the machine going past could bring him down.

(While Frank has strong views about being told how to do his job, he knows his limits. Near Tubbut, he was cutting a fire track up a 'razorback' spur with a near-vertical drop on either side. He stopped to wave at a helicopter buzzing overhead. The chopper began to fly away as Frank got back on his machine, but returned to buzz him again. Frank figured they were trying to tell him something. A ground check revealed, hidden from view by dense scrub, a sheer drop just 15 feet in front of the 'dozer. So narrow was the ridge line that Frank could not turn his machine around...and reversed out of the danger zone!)

Frank lost over a month's work fighting those fires but is philosophical about it: We're not after recognition. The job's there...you do it. If you can save a life, save a property, save a bit of forest, you've done a good job.

Denis Read (then FCV District Forester, Cann River) recently retired as Regional Manager, Portland Region, DCNR:

The fire was very hard to control and it was spotting 10 kilometres ahead of the main fire. We had hundreds of people fighting those fires. Even the Army was brought in. The most important contribution from the timber industry was the bulldozers and their operators who were of course experienced in bushwork. These machines were essential to make the fire lines around the fire. Typically, if the fire was not too hot, we would have a 'dozer tracking along the edge of the fire followed by other 'dozers widening the track and pushing any debris and fallen burning trees back across the line. Our fire tankers and crews would operate along these tracks putting out the hotspots, keeping the fire from jumping the track and backburning.

We were also bombing from the air using fire retardant or just water dumped from a large bucket suspended under a helicopter. Where it was too hot or the area too rugged or inaccessible we had to bring in a line some kilometres away and backburn to the main fire.

There were so many incidents and close shaves you could write a book about it. A couple of examples involving 'dozer operators come to mind. The 'dozers have the added advantage of being able to quickly dig a hole to get protection from the fire for the machine and the firefighters if things get too bad. On one occasion we had a group with two 'dozers working on Point Hicks road constructing a fire break when they were surrounded by fire. They quickly dug a hole large enough to accommodate the two dozers and two vehicles. Six people sheltered in the hole under the dozers until the fire had passed.

However, sometimes the fire comes on too quick to dig in. We had been painfully reminded of this earlier in that year. (In January '83, two Forests Commission employees, Mr Des Collins and Mr Allen Lynch, had been killed while operating a Commission 'dozer fighting the Daylesford fires.) George Bennett, a logging contractor to Sumberg's mill at Cann River, was putting a line in along the Princes Highway. He was one of those operators who really looks after his machine such as letting it idle for a while before switching it off. However this time, with the fire right behind him, he didn't have time to even stop the 'dozer. He jumped off the moving machine into one of our vehicles and they sped off down the highway. They had got out just in time.

Graeme Connely, a local logging contractor, also came close. He was 'dozing a line at "Dead Finish" on the opposite side of the lakes from Mallacoota. The helicopter had to drop a bucket of water on him as he was surrounded by fire. A few of our tanker crews had similar experiences. I understand in 1985 at the Bright fires in north east, Victoria when similar circumstances arose, that the forestry fire crews and 'dozer operators were less than impressed when they found out that the helicopter buckets had been dipping into the nearest water source - the Myrtleford sewerage ponds!

Tony Stephenson (then with FCV Cann River) now DCNR Cann River

At about 9 o'clock one morning we (myself, two local logging contractors and two tanker crews) were working on a fire edge off the Princess Highway east of the Thurra River. We were confronted with a "blow up" situation due to an unexpected wind change and within a few minutes we were surrounded by spot fires. We called for assistance from Ross Runalls in the helicopter to give an indication of the fire location. After a few minutes he said he couldn't see us for smoke and flames and advised us to get the hell out of it. We started "walking" the 'dozers as fast as we could up the middle of the highway. When we got to the foot of Mt Drummer things got too hot. We left the 'dozers in the middle of the road and drove east out of the fire to safety. We went back later on the day to find the 'dozers scorched but still intact.

Around midday, a few kilometres south of Mallacoota we were trying to hold an edge along the Betka track with seven bulldozers (local logging contractors and Eden pulp contractors), 70 men and about 20 vehicles including tankers. Winds were gusting up to 100 kilometres an hour. Despite the conditions we'd been able to hold that line all morning until the relative humidity dropped to 15%. The fire spotted over us. We retreated through the fires to the ocean at Shipwreck Creek.

On dark that evening we proceeded to clear our way out to Mallacoota by pushing burning debris from the tracks with the 'dozers reaching Mallacoota around midnight. On that same day I think there were about eight to ten 'dozers working around the Mallacoota township cleaning up and constructing fire breaks as the fire was coming towards them. They kept the fire out of Mallacoota. Breaks had also been constructed around Gypsy Point and Genoa.

COMMUNITY RESPONSES

Victorian communities rallied to support the fire fighters and those affected by the fires. In areas where the forest industries have a major presence (for example, East Gippsland where 40% of jobs were directly or indirectly dependant on the timber industry), industry members and their families were a significant part of that support.

For example, Bob Humphreys (then VAFI vice president) was Cann River district controller for the State Emergency Service during the fire. Most of the Marysville CFA are employed in the timber industry, a not uncommon occurrence in tightly-knit, self-reliant rural communities.

Helen Hoppner is the Victorian co-ordinator of the Forest Protection Society (FPS), a timber industry support group. She and her husband operate a logging contracting business. Helen is also a local Red Cross emergency services volunteer:

I offered my garage as a collection and sorting centre for the boot-loads of rations that were pouring in. Twice a day, two car loads of boxes and packages were taken to the local railway station to be loaded on to specially marked carriages going straight to a central distribution point in Melbourne.

We were all on standby to relieve other Red Cross volunteer teams at the fire front.

Jan Culton, like Helen a member of a logging family and an active member of FPS, was also a volunteer in the Ash Wednesday aftermath at Cockatoo:

My girlfriends and I went to the community hall. We comforted people, made beds, made sandwiches... There were people there with their cats and dogs. There were people crying because they had lost someone in the fires. Kids were crying because they didn't know where their dog was or their favorite Teddy or doll.

We all stayed there over two or three days. With the Salvos and the other volunteers we hopped into the hardwork.

SECTION 2

1. THE ROLE OF FIRE IN THE AUSTRALIAN ENVIRONMENT

Fire-adapted sclerophyllous vegetation (a broad description of Australia's eucalypt trees) dominates Australia's forests. Botanists believe that sclerophyllous vegetation evolved around the margins of rainforest and among some of the taller tree species whose crowns projected above the general canopy height and were therefore exposed to the sun and the drying wind. As the climate changed and aridity set in, the rainforests began shrinking, retreating to moist, protected 'refugia', while the sclerophyllous trees, better adapted to a dry climate, began to spread.

Fire has been a fundamental influence in forming and shaping vegetative communities. By the time Europeans arrived Aborigines had had a dramatic impact on these communities, the result of at least 50,000 years -- perhaps 100,000 -- of deliberate controlled management of the land by fire. Some scholars have argued that the dominance of sclerophyllous vegetation across Australia was not just the result of climate change, but was also the result of the introduction of fire by the first Australians.

In his foreword to the late John Vandenbeld's 'Nature of Australia' (ABC), the head of the ABC's Science Unit, Robyn Williams wrote: "Some Australian forests are as much a creation of people as are the parks of London and Vienna." Former Australian Heritage Commission archeologist Josephine Flood, in her book 'Archeology of the Dreamtime' described the whole Australian flora as an Aboriginal artefact: "One of the Aborigines' most important artefacts was one that is largely invisible to the archeologist: fire. Much of the vegetation encountered by early white settlers in Australia was not natural but artificial: an Aboriginal artefact created by thousands of years of burning the countryside."

Lowland forests were burnt by Aborigines to keep them open and park like to provide grazing for the animals they hunted for food. In fact, Aborigines fired the bush with prodigious frequency and application, for numerous different reasons. It has been suggested the regular "cool" burning was carried out primarily to reduce fuel loads to reduce the intensity of summer lightning fires. Ms Flood refers to the Anbara people of Arnhem land: "Fire was seen (by them) as necessary to clean up the country, and they regarded unburnt grassland as neglected."

The impact of such burning practices on the tall, closed mountain forests is uncertain as relatively few people lived in such areas. But, as Ms Flood and other archeologists have noted, "Aborigines never put out their fires." She notes that fire was used in the Blue Mountains to keep walking tracks open; in Tasmania, Aboriginal fire gradually converted rainforest dominated by the beech *Nothofagus* to heath and sedgeland.

Despite the uncertainties, it is inconceivable that tall forests such as the valuable ash forests of the Central Highlands escaped human fire influences altogether. Indeed, if it can be argued that the continent-wide spread of sclerophyllous Eucalypt vegetation was a result of Aboriginal burning, it is difficult to argue that these forests entirely escaped human fire influences and were entirely the product of 'natural' (ie, lightning-started) fires. Even if these tall, closed forests were not hospitable environments, Aboriginal bands regularly migrated with the changing seasons, exploiting both coastal and highland areas; to get from one to the other often involved traversing heavily forested areas. At the very least, their traditional pathways would be burnt to keep them open; given that fires were never extinguished, it is reasonable to assume there were 'escapes' which led to wide-scale burning.

With or without human influences, however, the ash forests have grown to become dependant on fire, producing tonnes of fuel in the form of dry bark which accumulates around the base of a tree as it is shed. Ash is fire sensitive; its crown does not regenerate after severe fires and the tree dies. But at the same time the fire is the key to the survival of the species as it creates the seed bed conditions necessary for the establishment of a new forest. In the absence of fires for a long time the understorey vegetation would become dominant and the ash forest would eventually disappear. Unlike responsible timber harvesting, fire does not recognise sites of significance, streamside buffers, wildlife corridors, habitat zones and steep slope exclusions. For thousands of years fires have caused massive erosion and destruction of flora and fauna. However under this regime forests have still flourished. In contrast, ash timber harvesting offers a controlled small scale alternative through the use of dispersed clearfelling "coupes" of less than 40 hectares under tight regulations; the fires of Black Friday, January 13, 1939, killed some 200,000 hectares of forest in a matter of days, which is far more than would have been harvested -- and regenerated -- over an eighty year period.

The European response to fire has been pragmatic: some settlers used fire almost as much as Aborigines to clear land and to promote the growth of sweet grasses; others tried to eradicate fire or to manage it through fuel reduction burning. Today's managers use fuel reduction burning as a control measure. However, during the summer high risk period their response is to manage fire by trying to extinguish fires. They have little choice; fire kills people and destroys farms and towns.

No government has satisfactorily solved the dilemma of the need, on one hand, to protect rural communities, and on the other to regenerate forests excluded from timber harvesting, forests which have adapted to fire to the extent of being dependant on it. Many large areas of ash forests set aside in parks and reserves are in this category. The 'let-it-burn' school of forest fire management argues a theoretically sound and superficially plausible case that since fire is natural and necessary, fires in national parks and wilderness areas especially should not be extinguished.

But this approach in highly populated areas such as Victoria so ignores human needs, especially safety, that the policy is untenable in practical terms. Fire management, including control, suppression and prevention, must balance these competing needs.

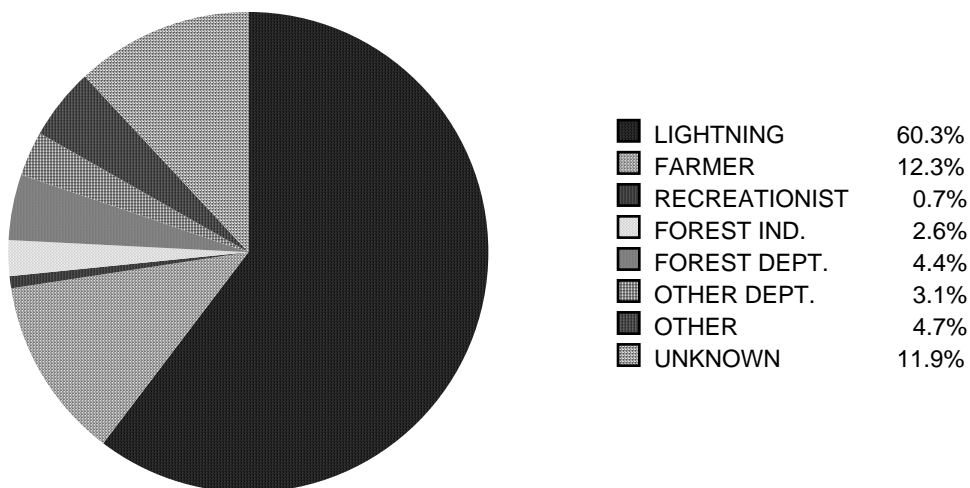
So long as fire has the potential to occur on the scale of Black Friday, January 13, 1939 or Ash Wednesday 1983, no government has the option of adopting a let-it-burn policy. There would be insurrection in the bush! In those few days around January 13, 1939, some 1.2 million hectares (more than a quarter of the State's forests) were burnt. This included some 70% of the Central Highlands Ash forests which were killed outright.

2. CAUSES OF FIRE

A report to the Minister of Forests in 1982 by a taskforce on "Fire protection and fuel reduction burning in Victoria" noted that in the nine year review period (1972 - 1982) there were 4196 fires which burnt 964,225 hectares.

The report concluded that lightning was the greatest single cause of fire throughout the state, being responsible for 23.9% of all fires by number. However when viewed in terms of area burnt, lightning became even more important, accounting for 60.3% of the total area burnt as shown below:

FIRE CAUSES 1971/72 - 1981/82



**Source: "Fire Protection and Fuel Reduction Burning in Victoria"
Report to the Minister for Forests, Sept 1982**

East Gippsland is the most forested area of Victoria with over 90% of its forest cover retained, almost all of it on public land. According to the 1985 LCC Descriptive Report, in 1982/83 the region experienced fires which were "the most extensive and damaging in Victoria since 1939". Eighty nine fires occurred of which 57% were due to lightning, burning 233,850 ha: 99% of the area burnt originated from lightning fires.

3. THE ROLE OF INDUSTRY IN FIRE CONTROL

While the CFA and forestry services have provided the bulk of the personnel and fire tankers in the post-war years, governments have relied heavily on the timber industry to directly or indirectly provide much of its fire fighting machinery in forested areas.

Heavy machinery, especially bulldozers, is needed to make fire lines, the virtual starting point of fire control. It is not uncommon to find more than half the machinery in the field in major forest fires is timber industry machinery operated by timber industry workers. There have been cases where every machine deployed against fire is an industry machine. Other machines owned by forestry departments are often available as a result of activities such as road construction.

While logging operators are reimbursed for machinery and personnel supplied to fight fires, there is a significant cost involved which is not covered: other machinery and trucks often cannot work when key logging machinery is transferred to fire operations. To date, logging contractors have been willing to carry that cost; they are often from the very communities they are trying to protect. There is also a significant risk to life and limb.

Without this machinery, no government could mount an effective fire fighting capacity without a substantial increase in funding. The machinery is readily available close to the fires, the industry workers have the skills to operate it in steep, rough, dangerous country.

Were this machinery not available, governments would be faced with a massive cost burden to replace it. Since fire is so obviously seasonal, an inevitable consequence would be that much of it would lie idle for most of the year. The overall skill level of operators would be dramatically reduced. A reduction in forestry activity would also impact on the personnel employed by the forestry service.

The important role of industry has been recognised in the following reports and statements although it is not well understood in the broader community.

"Australia is one of the most fire prone areas in the world. The Forest Products Industry has played a vital role in the management of these forests having built or contributed to the building of several thousand kilometres of forest roads - a state asset which permits access for fire suppression.

The industry also provides readily available on site machines and experienced operators for fire fighting."

"In Victoria the most productive hardwood forests are fire climax species which rely on widespread intense wildfire for regeneration. Timber harvesting operations can offer a controlled, small scale alternative method to the regeneration of these fire climax species without the hazards associated with wildfires".

- Statement to the Victorian Government made by ten major unions and the forest products industry, 1985.

"A reduction in the level of forestry activity would have wide implications for regional fire management. There would be few forestry employees experienced in forest fire fighting, particularly at the tasks of fire boss and sector boss, and a reduction in the level of equipment available for fire fighting....Also there would be a reduction in the number of bush workers and more importantly a reduction in the number of heavy bulldozers and plant operators which are essential for the rapid control of large fires or fires in heavy fuels."

- Dr Phil Cheney of the CSIRO, National Bushfire Research Unit, recognised as one of the country's leading authorities on bushfire (if not THE leading authority), submission to the Eden EIS (1986).

"I refer to your request for details of the Department's use of sawmill industry personnel, machines and equipment for fire fighting.

I am sorry to advise you that the Department's records are not in a form that allows extraction of the information you seek. However I can state that the industry makes a significant contribution to the Department's fire fighting capability. In fact sawmill machines located in the forest are often the quickest and most accessible equipment to a fire, and the access to experienced bush operators is vital to the Department's fire control effort.

For example in the Orbost region in January 1988 the industry provided 12 out of 15 machines on the Byadbo Wilderness fire which started in the Kosciusko National Park, NSW and extended into the Snowy-Tingaringy National Park, Victoria; and in October 1988 11 out of 13 machines on the Bemm River fire. Industry machines worked in excess of 750 hours on each of these fires.

The loss of this resource, either due to damage by vandals or as a result of the curtailment of logging operations, could result in significant delays in attacking small fires and ultimately contribute to an increase in damage to forest values and losses to the community.

Vandalism which results in breakdowns of the equipment during fire operations can jeopardize not only the fire control operation but the lives of the operators and crews working with the equipment.

[There had been a disturbing growing incidence of sabotage of the logging machinery that is used for fire-fighting - our comment]

Sawmill industry personnel, machines and equipment have made, and I believe will continue to make, a significant contribution to the control of fire on public land in Victoria. Their importance should not be underestimated."

- Letter by Mr Barry Johnston, Chief of Fire Protection Branch DCE on 29th December 1989.

"The logging industry is often called upon to assist with firefighting. Individual logging companies provide bulldozers and other machinery to establish fire lines. This machinery is scattered throughout the forested areas and can be quickly mobilised for firefighting. The logging companies in their day-to-day operation provide their own maintenance and fuel supply back-up in the field which is used to support company machinery at the fire line. The machinery operators are skilled and experienced in forest activities and through past experience understand the dangers of fire line construction."

"Fire management strategies have been developed to ensure that the resources available for fire management are used in the most effective manner. Changes in the way forests are used have significant impacts on these strategies. Increased use of forests for exclusively conservation purposes will under current arrangements, tend to reduce the resources available to control fire".

- RAC Forest and Timber Inquiry Draft Report 1991

"As the Orbost Region consists of 88% public land, it is very dependant on the machinery working on that public land in the timber industry for assistance. Alternative machinery would need to come a considerable distance to assist and would be far less efficient for quick suppression of fire.

From this point of view the Orbost Region, more so than any other Region in the State, relies very heavily on the co-operation of forest industry equipment to assist DCE with fire suppression." (Machinery available to the region for fire fighting in 91/92 is 36 bulldozers, 7 graders and 8 floats of which 97%, 29% and 87% respectively are directly related to timber production.)

- G Squires, Regional Manager
DCE Orbost Region, 11/2/92

With or without the timber industry, the Government and relevant agencies must meet the legal responsibility to protect life and property. Clearly the timber production activities provide a base funding for DCNR personnel which allows "economics of scale" savings. There is no doubt that some DCNR work centres would no longer be viable without industry revenue.

The release of draft DCE accounts for the year ending June 30th 1991 concluded **that commercial forestry in general imposes a lower net cost on government than alternative forms of non-commercial land management. Thus net native forest management costs would increase if timber production ceased.**

In the absence of a native forest industry, the provision of fire trail access, skilled personnel and machinery would either dramatically escalate in cost or, more likely given budget constraints, significantly decline.

The withdrawal of large areas of State Forest for inclusion in wilderness and national parks and the current budget constraints have raised considerable concerns in the industry about the ability of DCNR to provide a safe workplace for firefighters, as required under the Occupational Health and Safety Act. Environmental groups have been very critical that increased funds have not been made available to manage the new Park areas that were previously State Forests.

The Auditor-General in his Special Report No 16 on Fire Protection, April 1992 stated as follows:

"The absolute importance of effective fire protection within Victoria is reinforced by the fact that the State is widely recognised as one of the most fire hazardous areas in the world. This situation poses a real dilemma to government decision-makers in determining the level of financial resources which are necessary, over time, to contain the State's fire risk to acceptable levels.

One of the key findings was that:

"Management of fire prevention and fire suppression in State forests, national parks and other protected public lands is one of the most important responsibilities of government. The Department of Conservation and Environment's fire management personnel recognise this position and have pursued their responsibility in a conscientious and dedicated manner."

However a number of shortcomings and weaknesses were identified which "raise serious concerns about the State's fire-fighting capability in particular areas of the State". Specifically the audit found that "many of the State's important fire access tracks, which are vital to effective fire protection, were in a very poor condition", there was an "under-achievement of fuel reduction burning" and "around 31% of the Department's fire-fighting equipment was obsolete and required replacement at an estimated cost of \$4.5 million".

There is an urgent need to address these deficiencies and to more adequately consider the implications of any further losses in timber production capacity.

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