

Otway Water Book 15

FIRE

and the Big Swamp (Revised edition Jan. 2012)



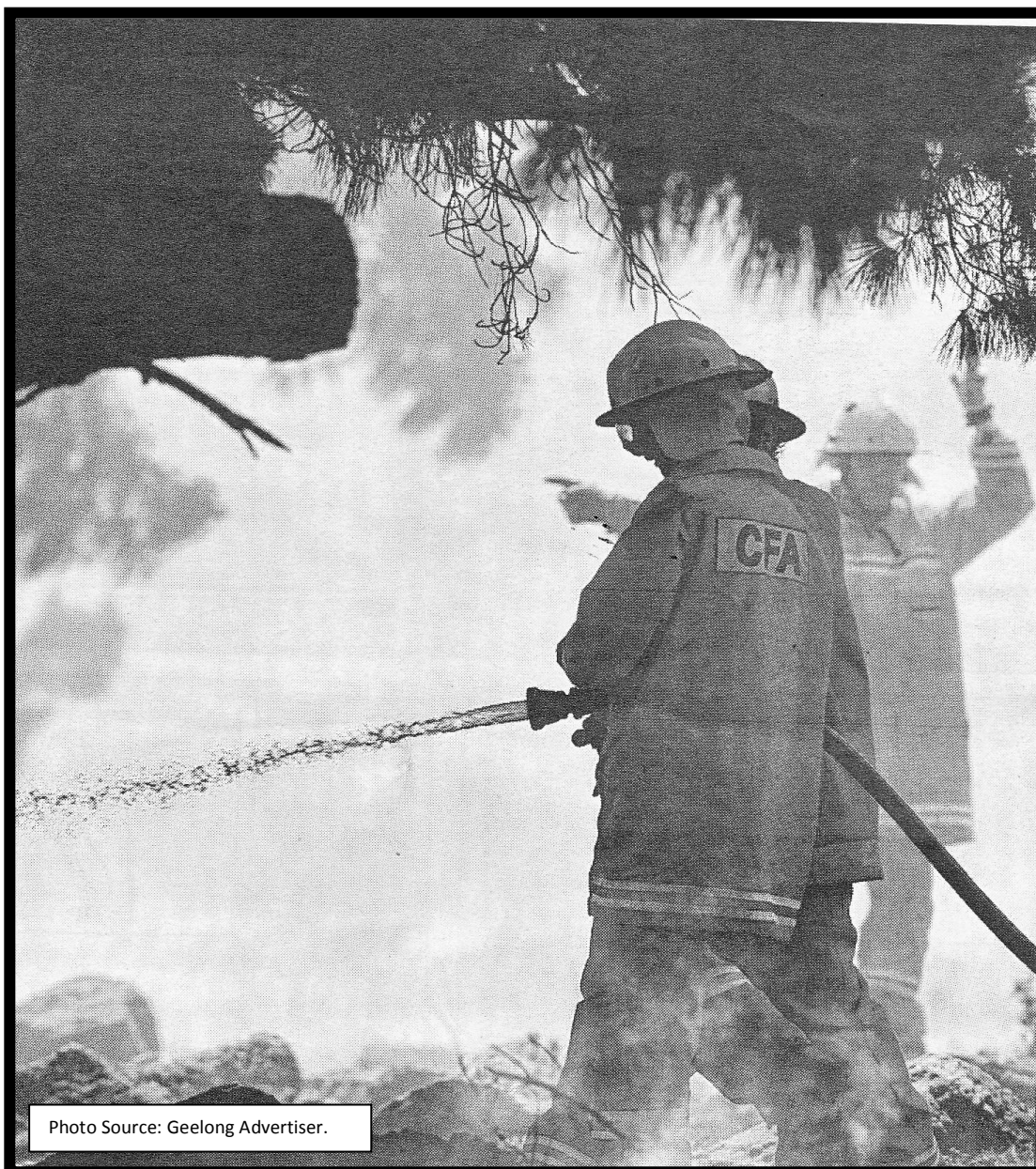


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September 2010, *“Put simply the Government does not have the skills to manage groundwater in the state effectively.”*⁽¹¹⁾

“Sustainable management of the State’s groundwater resources is critically important and will be given a high priority by a Liberal Nationals Coalition Government.”⁽¹¹⁾

A Liberal Nationals Coalition Government will:

Ensure local groundwater users are active participants in the development and ongoing review of Groundwater Supply Protection Area management plans.⁽¹¹⁾

In a 2011 report the Regional Development Australia Barwon South West Committee⁽¹⁰⁾ included the following statement in the section headed “Threats.”

“Our significant coastal and forested areas are at high risk of bushfire, posing a risk to our infrastructure, environment, community and economy.”

Colac Herald 14-11-2011

Residents must prepare for fire

Authorities are urging Colac district residents to prepare fire plans this week.

This week is Fire Action Week and Victorian Minister for Bushfire Response Peter Ryan reminded people to be fire-ready.

“Victoria is one of the most fire-prone areas in the world and the government’s focus is on encouraging people to get prepared, be fire-ready and plan to survive,” Mr Ryan said.

“We know 75 per cent of people in high-risk bushfire areas don’t have a comprehensive bushfire survival plan so our message this week is – if you live in a bushfire-prone area, now is

the time to prepare and to practise your bushfire survival plan,” he said.

Otways town Lavers Hill will practise an evacuation on Friday to help authorities develop a fire management model for bushfire-prone areas.

Fire services commissioner Craig Lapsley said fire safety was “everyone’s responsibility”.

“But it is our responsibility to provide the community with the information and the avenues to build their understanding and awareness of fire safety,” Mr Lapsley said.

The Colac Herald will publish its annual Fire Action Week feature on Wednesday.

Bush bomb ticking

DANNY LANNEN

WINCHELSEA farmer Allen Mackenzie reckons the equivalent of an atom bomb is waiting to blow outside his window.

Mr Mackenzie, 70, believes forest fuel accumulated on Crown land neighbouring his property over 20 years is primed to go up in furious fire.

"There's an atomic bomb sitting out there, she'll blow up and you won't stop it," Mr Mackenzie said yesterday.

"From my place she's non-stop to the coast.

Geelong Advertiser 13 January 2005

INTRODUCTION

There can be no doubt that the Black Saturday fire in 2008 was a catastrophic event. On this same day a wind change prevented a fire that originated in the Camperdown region, from reaching the Otway Ranges. It was an extremely close call. If this fire had started closer to the Ranges the Black Saturday scenario would have been repeated in the Otways. Difficult to defend terrain and combustible forests would have seen massive social, economic and environmental impacts.

Due to the climate changes taking place, similar conditions as experienced on Black Saturday are predicted for the future. Combine a smouldering peat fire in the Big Swamp wetlands that has been burning underground since 1997 with a Catastrophic Fire Danger Index day and a resulting wildfire starting early in the day, may well make the Black Saturday blaze seem insignificant (see pages 29-30). The Big Swamp wetlands are situated on the northern edge of the foothills of the Otway Ranges.

A wildfire originating from the Big Swamp on a Black Saturday type day would be at the Bass Strait coast within hours. The usual afternoon south west change would then turn the fire and drive the flames along the coast and into the outskirts of Geelong (see page 10). This could happen within hours and most certainly all on the same day – early morning at the Big Swamp, by lunch time at the coast and approaching Geelong in the evening.

This book gathers together statements and data that clearly demonstrate that this is a distinct possibility.

Black Saturday bush fire 2008, Victoria, Australia...

- 173 children and adult lives lost,
- 930 injured
 - 800 people admitted to hospital care
 - 130 people with a fire related injury or illness
- 4 500 square kilometres of land burnt,
- 2029 homes destroyed, businesses and livelihoods ruined (insurance claims estimated to be \$1.2 billion),
- Untold economic hardships encountered,
- Unaccountable natural resources degraded, ruined or lost,
- \$593 million spent by the Government on fire suppression efforts,
- Volunteer costing to fight the fires and reinstate assets impossible to calculate,
- RSPCA estimates more than 1 million animals perished
- Livestock accounted for 11 800,
- 3% of the Yarra Valley vineyard area was burnt with smoke taint yet to be calculated,
- 10% of the mountain ash forests in the Central Highlands burnt,
- 98 932 hectares of Parks Victoria estate affected,
- \$76.7 million estimated as cost of replacing assets and infrastructure, and
- \$5 million damage to Melbourne Water's natural and built assets,

at a **TOTAL** estimated *conservative* cost of **\$4 billion**⁽¹²⁾

Russia 2002 peat fires...

As a result of dried out peat-land fires being an annual occurrence in several regions of Russia, promises were made to re-wet the dried out peat bogs to prevent a reoccurrence of fires escaping and causing serious wild fire devastation.

Russia 2010 peat fires...

- Peat and forest fires rage,
- 53 people lost their lives,
- 1 200 homes destroyed,
- 1 million hectares of forest disappeared in flames, and
- millions of dollars shaved off the Russian GDP.

Russia 2011 peat fires...

- The threat of destruction and appalling air pollution from peat fires escaping, remains.
- Despite winter rains and snow 64 peat fires continue to burn around Moscow.
- “... *the minute the snow is gone, they are back on fire.*”⁽⁸⁾
- May 2011, 421 wildfires are burning in forests and peat bogs covering 116 098 hectares in Siberia and the Urals.

The Big Swamp in the foothills on the Northern Edge of the Otway Ranges.

The Big Swamp on Boundary Creek, caught fire in 1997. It re-ignited fourteen months later in 1998⁽⁹⁾ and again 12 years later in March 2010. The CFA fears that brown coal has also caught fire. With hot northerly winds blowing this smouldering peat/coal has the potential to ignite large tracts of the Otway Ranges all the way to Bass Strait. The consequences of this on a Catastrophic Fire Danger Index rated day would be devastating.

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As is the usual experience in the Otway Ranges, the afternoon winds swing towards the east. On Ash Wednesday these winds fanned consuming fires along the coast towards Geelong. Although this happening destroyed hundreds of homes and endangered life, it would pale into insignificance if ever the peat fire in the Big Swamp escaped early in the day, and especially so on a Catastrophic Fire Danger Index rated day.

At a **17 November 2010** meeting at COPAC Colac, to discuss the recommendations of the Black Saturday Royal Commission, it was stated by Mark Gunning when referring to the peat fire in the Big Swamp, that it was ***the biggest time bomb ever facing the Western District.*** (Mark was the CFA Region 6 Operations Manager at the time the Fire Control Strategy 1998/99 for the Big Swamp was prepared, see page 10)

Cause and Effect.

There can be no doubt whatsoever that the major factor causing the wetlands of the Big Swamp at Yeodene, Victoria, Australia, to dry out has been the extensive and prolonged groundwater extraction by Barwon Water from the borefield at Barwon Downs.

The arguments, data and evidence supporting this stance are presented in Otway Water Books 8-13.⁽¹³⁾

Peat Wetlands and Fire.

- De-watering a peat wetland makes it extremely prone to fire.
- Once alight a peat bed can burn or smoulder underground for decades.
- Peat bed fires are extremely difficult to contain and extinguish.
- Smouldering peat can surface and reignite wild fire at any time.
- This can occur kilometres from the original wildfire site.

Wikipedia (retrieved 19 June 2010) has this to add regarding Coal seam fires...

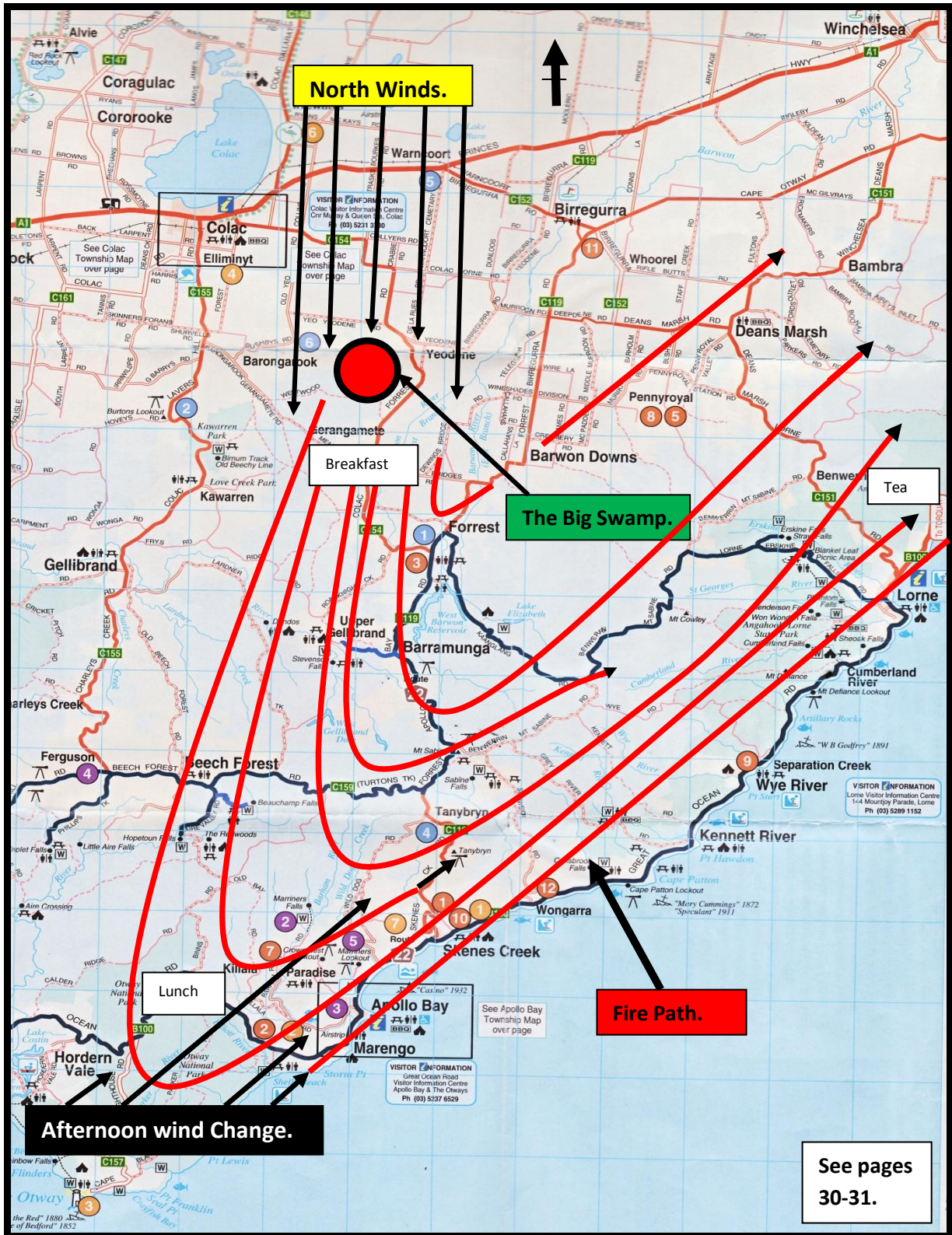
- Once extinguished if any remaining dry coal absorbs water, the resulting heat of absorption can lead to re-ignition of a once quenched fire as the area dries.
- Coal fires have arisen as a consequence of fluctuations in groundwater level, which can increase the temperature of the coal up to 30°C, enough to cause it to spontaneously ignite.

Wikipedia (retrieved 19 June 2010) also has this to say regarding peat fires...

- Peat fires can even burn underground, re-igniting after the winter, provided there is a source of oxygen (see pages 25 & 26),
- Groundwater extraction may affect peat sites,
- Peat can burn undetected for long periods of time, months, years and even centuries,
- Peat fires are emerging as a global threat with significant economic, social and environmental impacts.

How much of the Otway Ranges will be set ablaze from a fire escaping out of the Big Swamp?

The map on the next page indicates the precarious nature that a fire in the Big Swamp presents to the security of the residents of much of the Otway Ranges and district.



The smouldering and or dried out brown coal and peat wetland of the Big Swamp is a threat to the security of the Otway Ranges. The following pages amply demonstrate this.

1986 – “Environmental Issues Barwon Downs Groundwater.”⁽⁵⁾

Quentin Farmar-Bowers identified that with groundwater extraction from the Barwon Downs Borefield, the risk of incident and intensity of fires could increase. This statement was made assuming that the extraction rate would not exceed 1600 ML/year – the 1995 licence was set at 12 000 ML/year and was then increased in 2004, to 20 000 ML/year.

1997 saw the end of one of the wettest periods in the Otway Ranges and yet the top end of the Big Swamp had dried out and was extremely susceptible to fire. Extracts from the CFA “*Yeodene Peat Swamp Fire History Risk Identification and Mitigation Plan Discussion Paper April 2010*,”⁽⁴⁾ that confirm this situation.

- Only a small section of the Big Swamp caught fire, “...*approx 1 ha of peat become involved in wildfire.*”
(The total area of the Big Swamp has been estimated to be between 7 hectares to 100 hectares.⁽¹⁵⁾)
- In the lower edge of the Big Swamp, “*CFA crews worked for a number of days running a hoselay and water relay operation to attempt to secure the eastern edge of the fire in the peat swamp that at this stage did not have a mineral earth control line along it due to the boggy nature of the ground. This was eventually abandoned...*”
- A fuel reduction burn was attempted in this eastern sector of the Big Swamp, however, “*This was partially successful as in some areas in the peat swamp it was too wet to burn due to the amount of water covering the surface of the swamp.*”
- In regard to the area of the Big Swamp that was burning “*...there was little that could be done with the fire in that area due to lack of water, access and depth of the ash beds and heat generated from these.*”

(In 2010 the whole area of the Big Swamp was on fire and once again the no flow in Boundary Creek made fighting this fire very difficult.)

1997/98 Summer

Extracts from the CFA “*Yeodene Peat Fire Control Strategy for 1998/99 Fire Danger Period.*”⁽¹⁾ Prepared at the end of the 1997/98 Fire Danger Period (FDP).

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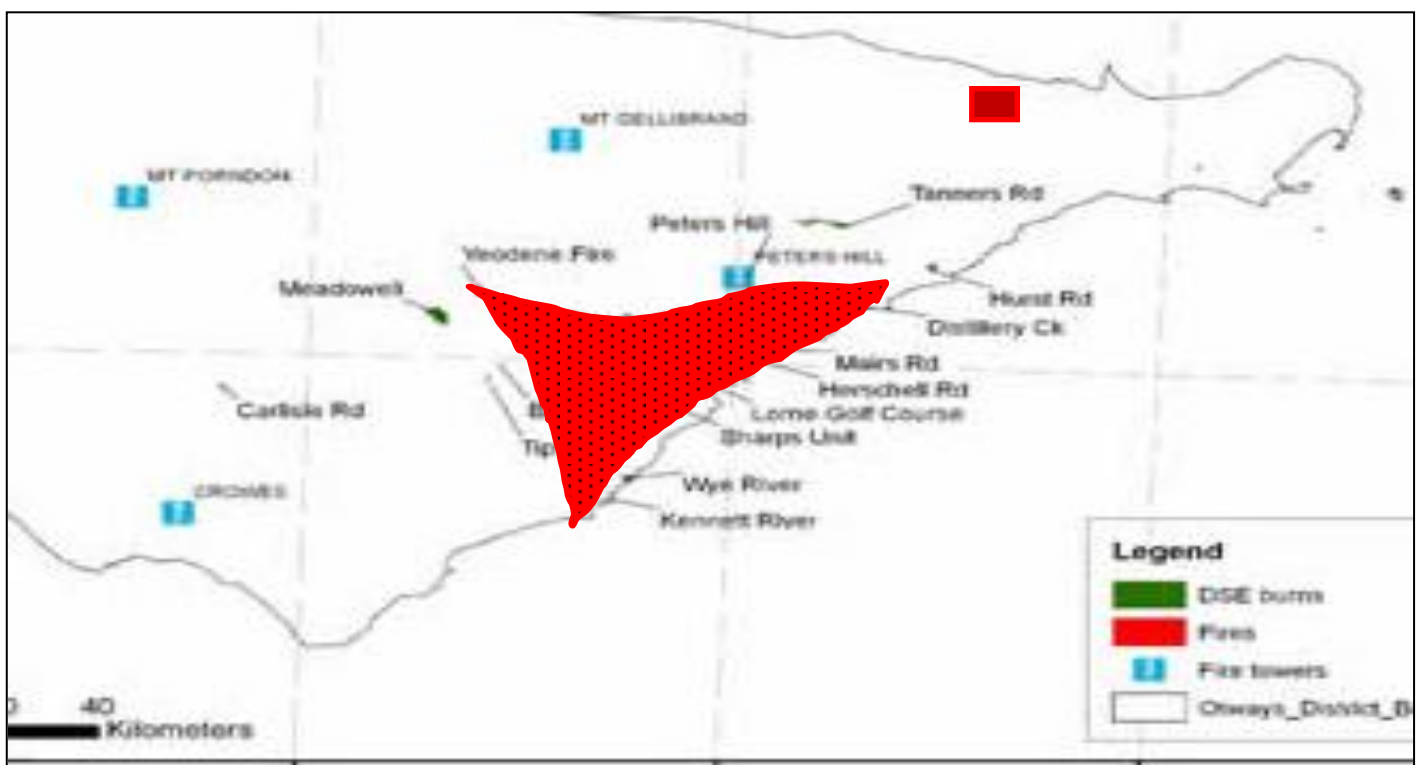
10 October 1997 the westerly and top end section of the Big Swamp caught fire.

- “...*the peat fire was not able to be extinguished by conventional methods and continued to burn throughout the last Fire Danger (FDP) Period as expected.*”
- “*Throughout the Summer (1997/98) smoke was continually seen to be coming from the burning peat.*”
- “*On March 12 1998 at approximately 1130 hours in extreme weather conditions and on a day of Total Fire Ban, the peat fire escaped...*”
- “*This was despite an NRE vehicle being on the scene, but unfortunately not within striking distance to effect an immediate fire attack.*”
- “*Given the conditions it is doubtful whether an immediate attack would have in fact been successful.*”
- “*It must be emphasised that this fire had the potential to extend from grasslands back into the Otway Ranges where ground attack would have been impossible.*”
- “*The consequences of this have been equated to the destruction caused during the 1983 fires in the Otways and possibly worse, as there are significant coastal towns which would have been under threat and had already been recognised as being undefendable in the event of fire.*”
- “*The threat may well exist again over the 1998/99 FDP if the fire continues to burn in the remaining peat which extends a further 7 kilometres or so along Boundary Creek towards Barongarook, and subsequently into unburnt bushland.*”
- “...*there was also an element of luck involved...*”

1998 John Modra, who was acting as a Situation Analyst in the CFA headquarters on the day that the peat fire broke out of the Big Swamp, makes this statement...

Miracle wind change on 12th March 1998

A totally unexpected wind change stopped the Yeodene bushfire from spotting its way into the Otways on the 12th March 1998. 3 hours earlier than expected, the wind change prevented a fire front developing that would have engulfed Lorne and the Great Ocean Road, in the same way the fire of 1983 did not stop going south till it hit the sea. A strong northerly drove the fire to spot into forest north of Forrest within hours of starting. I was in the CFA headquarters in Bromfield Street doing situation reports at the time and had mapped the main fire



front and the many spot fires now kilometres ahead of the main fire.

Part of my job was to advise the team about possible wind changes. Wind gauges in Warrnambool, Portland and Mt

Porndon indicated that the cool change was about 4 hours away. As a result, the order was about to be given to evacuate the Otways, as no one was expected to survive on any roads or buildings between the fire and the coast.

I walked outside as the decision to evacuate was about to be implemented, and discovered the wind change had arrived in Colacand would soon be at Yeodene.

Even though the great risk of another Otway's holocaust was very clearly on the cards (red spots) from this ongoing smouldering peat patch , no one was onsite when the fire started (I and others had visited the site on the morning of that day on my way to other property visits ---because of the very high risk)

From John Modra on Situation analysis at CFA headquarters Colac on 12th March 1998

7 May 2007 – in a personal email from a CFA Officer, Colac.⁽⁹⁾

Part of this email discussed the 1997 Big Swamp peat fire re-igniting and included this...

“This fire burnt for 14 months in the peat swamp and eventually escaped burning over 600 ha of private and public land.” Later reports would indicate that the fire re-ignited in the same summer of 1997-98, making it a much smaller time frame than 14 months.

In 2008 – Retired CFA volunteer fire-fighter; Captain of the Kawarren RFB, Deputy Group Officer Corangamite Group Fire Brigades; Brigade Delegate to the Shire of Otway and Group Delegate Region 6 Fire Prevention Committee, Keith Armistead, had these things to say when regarding groundwater extraction in the Otway Ranges.

- When comparing the devastating 1983 Ash Wednesday fire with the fire that escaped from the Big swamp in 1998... *“This*

(the 1998 fire) *was later in the afternoon with only moderate severe weather conditions, on an extreme day.*”

- If the 1998 peat fire had escalated earlier in the day, “...*the end result may have been significantly different.*” The afternoon wind change to the South-West allowed fire fighters to prevent the fire reaching difficult to defend Otway forest.
- The speed of the Ash Wednesday fire. “*Using the example of the fire that originated in Deans Marsh on that day it rapidly arrived at the Eastern edge of Lorne and with the South-West change decimated the coastal region to the East.*”
- Fire escaping from the Big Swamp area on an Ash Wednesday type day, “...*the fire would reach the Coast somewhere South West of Kennett River, with the same change, given the rate of spread of this type of fire, I firmly believe in this scenario, it would be extremely difficult to successfully evacuate the residents of Lorne and possibly, many of the other smaller coastal towns.*”

2 March 2010. On a day rated as a Fire Danger day of Moderate, the Big Swamp fire surfaced after 12 years smouldering underground.

5 March 2010. Fire and Incident Reporting Officers were unable to access the point of origin of the fire out in the Big Swamp due to the danger of personnel falling through the surface crust into hot ash beds.



Posted March 19, 2010 11:00:00

Re: the peat fire at Yeodene.

The CFA operations manager Nick Brown says fires burning in peat can be hard to extinguish.

“(It’s) been burning for 12 or 13 years now. We’ve got to make sure that we have that area secure for the next year and years to come,

because we're still not sure if it's going to be possible to actually extinguish it," he said.

Mr. Brown helped fight the original fire in 1997.

"Following the outbreak two weeks ago we've had a few people come out the woodwork and say they've just seen a few puffs coming out from there from time to time and it now appears, and we're 99-point-nine per cent certain that it's a re-igniting, coming out of the peat."

April 2010 - Extracts from the CFA "Yeodene Peat Swamp Fire History Risk Identification and Mitigation Plan Discussion Paper April 2010."⁽⁴⁾

- On October the 10th 1997 a nearby fire spotted into the Big Swamp and burnt approximately 1 ha of peat.
- *"During the next month a number of flair ups were observed in the fuel on the peat bed to the east of the fire run."*
- *"During the day of March ???????? 1998 a smoke sighting was spotted from the Mt Gellibrand Fire Spotting Tower in the vicinity of the Yeodene area."*
(In an CFA Fire Operations Officer's report⁽¹⁾ it states that this date was March 12 1998 at approximately 1130 hours.)
- *"... crews were unable to contain the fire before it impacted on a significant amount (680Ha) of private property and assets south east of the swamp."*
- *"DSE crews had patrolled the area earlier in the day and had not reported any fire activity."*
- *"Long distance spotting was up to 5 km and there was also mass short distance spotting..."*
- *"The weather on this day put the FDP Index in the high range with winds initially in the north west but backing to more west and moderating later in the day. Some rain was experienced over the next few days."*
- *"Mop up work continued for a number of days after and ongoing monitoring of the peat area still continued throughout the winter and FDP on the following years."*

- *“FLIR flights over the area continued over the next few fire seasons...”*
- *“Indications from these flights suggested that the fire in the peat area had self extinguished as there was no residual heat present.”*
(Comment: The depth of residual heat detection from these flights is approximately one metre).
- *“Anecdotal evidence after the March 2010 escape, some residents around the wider area suggested that there may have been intermittent smoke sightings in the area between late 1998 and March 2010.”*
- In the event of fire escaping from this area “... *potentially having disastrous consequences for communities in the path of an escape e.g. Forrest, Barramunga, Barwon Downs, Wye River and Lorne amongst others.*”
- Regarding the 2010 fire escape from the peat, *“Fire investigations concluded that this fire was ignited from residual fire still remaining in the “Jurassic Park” area of the peat on Boundary Creek, which it would appear to have been smouldering deep underground since 1997.”*
- *“...in these areas the surface has subsided by up to a metre.”*
- *“It is difficult to estimate the depth of burning due to the extreme heat of the ashbed and dangerous access to dig down to ascertain the depth of fire...”*
- *“...it would appear that the less compacted top .75mt of soil is burning first and then the more compacted layer below that is becoming involved.”*
- *“It would also appear at the time of writing that approx 40-50% of the total area inside the containment lines i.e. trenching and rising non organic ground north of Boundary Creek is still on fire.”*

RISK IDENTIFICATION.

- *“Ongoing risks are considerable due to the potential for a long period of burning in the swamp which is likely to be years*

rather than months given previous experience of 1997/98 until 2010.”

- *“The fire could continue burning deep underground and breach the trenches thus engaging other available areas of peat to the south of the contained burning area.”*
- *“All of these scenarios of escape have possibilities and may have serious consequences for life and property to the south east and north of the contained burning area.”*
- *“Townships like Forrest, Barwon Downs, Barramunga, Wye River and Lorne could potentially come under threat from an escape from this area and day rated Very High FFDI and above may make first attack success difficult in containment on these potential escapes without further and continuous mitigation actions.”*
- *“...due to the long term risk of escape.”*
- *“An Ash Wednesday type scenario laid over an ignition from this source could be highly catastrophic to life and property in the Otway area.”*
- *“As the lowering of water tables in peat/swamp areas continues...This will continue to pose ongoing long term issues for fire response...”*
- *“The long term health issues due to exposure to this smoke pose a risk to members of the public and should be noted.”* It should also be noted the risk to CFA members would be even higher at any fire front.
- *“...smoke impact from Birregurra, Yeodene Township, Forrest, Barwon Downs, Colac and Barongarook have been received...”*

OTHER SWAMPS & PEAT WETLANDS.

- *“There are very significant areas of this type of fuel throughout south west Victoria within what will be known as CFA area – Barwon South West.”*
- *“It would be doubtful that these areas are fully known.”*
- *“A search of available land mapping information stored in various repositories should be made...”*

- *“...to prevent the possibility of the peat fire continuing east along Boundary Creek and potentially to the West Barwon River through private farmland with significant further peat deposits downstream on Boundary Creek.”*
- *“In one case at Swan Marsh, from interviews with land owners, it would appear that the fire had remained smouldering underground for a period of 26 years before emerging to the surface after minor works by a fencing contractor.”*



Posted May 18, 2010 11:00:00

The CFA duty officer, Brian Brady, says crews are determined not to let the fire break its boundaries.

“The Country Fire Authority (CFA) fears it will not be able to extinguish a fire burning in peat at Yeodene, near Colac, before summer.

“The bottom line is we can’t let it get out,” he said.

“I mean we’ll do our very best to stop it getting out, but if it did, well... it’s not worth thinking about.”

August 2010 - five months after the Big Swamp Fire Surfaced Last.

“Yeodene Peat Fire Community Update Newsletter,” prepared by Country Fire Authority(CFA), Department of Sustainability and Environment(DSE), Colac Otway Shire(COS) & Parks Victoria(PV).

- *“... is still active due to smouldering peat.”*
- *“... a peat fire burns underground and will smoulder for long periods of time.”*
- *“At Yeodene, the peat is still burning below the surface and is a significant risk to health and safety.”*

DSE's media release included.

- ***"Yeodene peat fire still smouldering despite recent rain."***
- ***"...although the visible smoke from the Yeodene peat fire has decreased, people need to be aware that the fire is still active."***
- ***"the fire is still smouldering beneath the surface..."***

Colac Otway Shire's media release included.


- ***"A wildfire that surfaced on March 2, 2010 in a peat swamp ...is still active due to smouldering peat."***

4 ■ GEELONG ADVERTISER, THURSDAY 2 SEPTEMBER 2010 www.geelonginfo.com

For peat sake, put it out

PETER BEGG

Underground fire burning since 1997



AN underground peat fire near Colac has been burning since 1997 with no end in sight, the CFA revealed yesterday.

The fire, at Yeodene southeast of Colac, has sparked other fires in the area and continues to worry authorities with the approach of another fire season.

The fire was first discovered 13 years ago when it sparked a larger fire which consumed about 700 hectares of bush.

One of the plans being pursued by the CFA would see a series of sprinklers erected on the site using bore water to dampen down the surrounding area.

But a local engineer Michael Delahunty told the *Geelong Advertiser* that he had proposed to the authorities that the area could be flooded and the fire extinguished.

Mr Delahunty did not think the CFA's plan for sprinklers would work. "I would build a clay wall and back the water up against it," Mr Delahunty said. "It would be only just above ground level, and be filled by the natural flow."

"I put the proposal to them but for some reason they don't like it."

CFA Region 6 acting operations manager Dean Manson said yesterday he did not think the area could be flooded.

Mr Manson said the peat area was over a couple of aquifers and these had drained away, like the peat swamp, during the prolonged drought.

"The water table of the aquifers has gone down and the area doesn't hold water," Mr Manson said. "We've looked at a number of other options as well."

The area containing the peat fire is private land, and apart from that, the public has been warned to keep clear because of the obvious and hidden dangers.

Peat fires can burn underground leaving a thin crust of top soil through which people and vehicles can fall.

At the Yeodene site, smoke can be seen rising from the ground, while trees in the immediate vicinity have died because of the heat.

Mr Manson said there were peat fires in Europe that had been burning for hundreds of years.

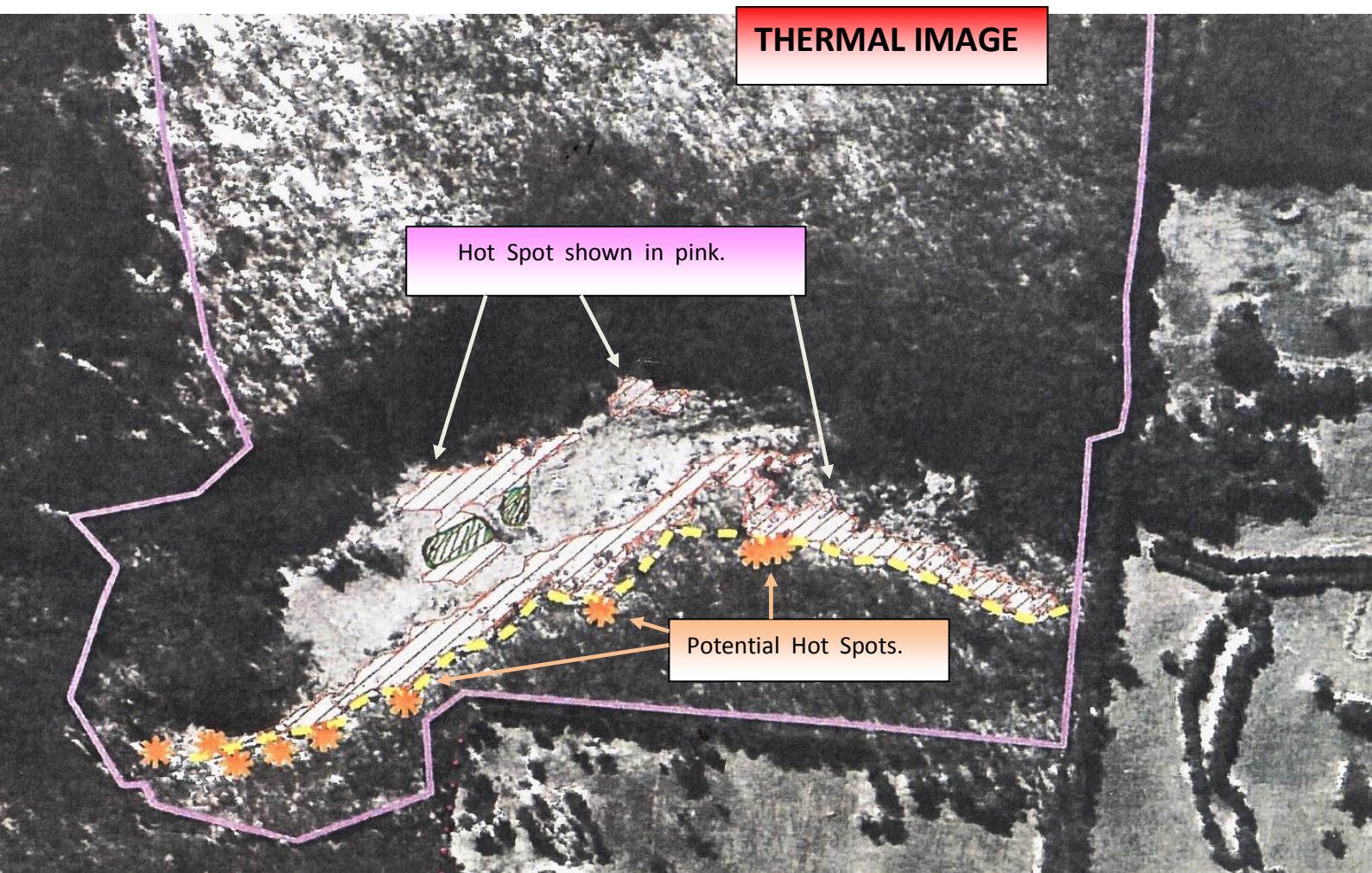
"They are very difficult to put out," he said.

September 2010, 6 to 7 months after the Big Swamp Fire showed no visible signs of burning.

A FLIR (infra red) flight over the Big Swamp area in September by the State Air Desk identified a considerable number of hot spots (see next page) and potential hot spots.

NOTE:

1. the thermal imaging detecting heat is limited to approximately one metre depth,
2. the images are then interpreted by the State Air Desk overlaying the images with hot spots and potential hot spots, and
3. the September images were taken after significant rain events,
4. it took over ten months to obtain these images and could only be achieved through the Freedom Of Information process, and
5. it would appear that the CFA readily suppresses documentation that should be readily available for public scrutiny (see page 28).



12 October 2010 – CFA (Region 6) & Colac Otway Shire held a community meeting in the Yeodene Hall discussing the Yeodene peat swamp fire.

Actions to be followed for the 2010-2011 summer fire season were presented. It was stated at this meeting that the peat could continue to smoulder for 20 years; consequently access tracks to be kept clear; regular visits to the site and a sprinkler system to be put in place.

The southerly access tracks were not kept clear of fallen trees; the sprinkler system was not installed and access tracks to the south became overgrown with one metre high grass (observation by the author and local residents). Thankfully it was a wet 2010-2011 summer FDP.

Addressing issues of water and fire

In the interests of accuracy, I wish to address a number of points raised by Ms Victoria Moore, of Gerangamete, on the Yeodene peat fire and ground-water use.

The Barwon Downs borefield operates under licence from Southern Rural Water and is used to supplement Geelong's supply during drought.

This sustainable water source has thrown Geelong a lifeline several times over the past 30 years and, without it, the people of Geelong would have been in dire straits.

The borefield was brought online in 2006 and has provided an average 33 megalitres a day up until recently. It is not being used at present because of significant rainfall over the past month.

The Barwon Downs aquifer is not fed solely by Boundary Creek; the main source is the Barongarook High, an area spanning 40 square kilometres, where the aquifer reaches the surface.

It has been acknowledged previously that Boundary Creek can be affected by pumping, but equally it must be recognised that many rivers and streams have been impacted by extreme dry conditions over long periods.

Many ran dry during the recent decade-long drought, but are now flowing again following major falls in the catchments.

Under its operating licence, Barwon Water releases two megalitres a day into Boundary Creek when natural flows fall below one megalitre.

Further, monitoring records clearly show the creek has run dry even when the borefield was not operating.

Contrary to Ms Moore's claim, there is no scientific evidence to support the theory that the Barwon Downs aquifer is connected to that at Anglesea.

The geology in this area tells us that there is no connection.

On the issue of the peat fire, the CFA recently reported this started in October, 1997. It is believed it has continued to burn since then, presumably during wet and dry weather and pumping and non-pumping periods.

There is no doubt the drought has been a contributing factor to drying out the immediate area.

The CFA is currently determining the best option for minimising any risk associated with the peat fire, particularly during this summer. Barwon Water is one of a number of agencies being consulted.

17/9/2010
Joe Adamski
General Manager,
Strategy and Technology,
Barwon Water

The bore field had been brought online many times before 2006.

Creeks in other areas of the Otway Ranges outside the influence of the Barwon Downs Borefield have continued to flow.

The creek often runs dry when pumping has ceased, however, drawdown effect from pumping can last for decades after extraction finishes.

During dry periods before massive water extraction, the aquifer used to overflow into Boundary Creek providing a substantial summer flow.

This water disappears straight into the aquifer during dry periods leaving Boundary Creek downstream completely dry.

Mail update for peat fire

by Jennifer Chiu

Fire authorities have created a mailing list to keep Colac district residents updated about a peat fire that began 12 years ago.

Department of Sustainability and Environment and Country Fire Authority representatives discussed the Yeodene peat fire during a community meeting at Yeodene Hall on Tuesday.

CFA District Six operations officer Nick Brown said residents who attended the meeting registered their contact details to receive updates about the fire.

"We've initiated a process where people can register their names so we can provide them with information," Mr Brown said.

"It will give them a more direct information flow than what we've had," he said.

"Primarily, we're hoping with that form of communication we can address the issues."

Mr Brown said about 40 residents from towns such as Yeodene, Gerangamete, Forrest,

"We're organising with local health agencies to provide some advice to residents as to what they can do."

NICK BROWN



Birregurra and Barwon Downs attended the meeting.

He said the CFA outlined its management plan for the peat fire.

"From our point of view, we learnt a couple of things the locals were needing and they learnt a bit from us too," he said.

Mr Brown said air quality was one of the residents' main concerns.

"We can engage with the EPA and they've agreed that if it starts putting up smoke again, they can monitor it," he said.

"We're organising with local health agen-

cies to provide some advice to residents as to what they can do."

The CFA told residents the Yeodene fire would continue burning "for years to come".

"At last check, there are still sections that are burning, but with the recent weather it's hard to determine the extent of it that's on fire," Mr Brown said.

"As it dries out and we get appropriate detection equipment online, we'll have a better idea," he said.

"We're not expecting it to all of a sudden go out, even with the rain."

Still no action on fire

COLAC HERALD 21 Sep 2011
As we head into another fire season, what used to be called summer and what we all looked forward to, there has still been nothing put in place in regard to the big swamp and the peat fire at Yeodene.

Back in September 2010, the CFA had a community information meeting to discuss their response to the drying out of the big swamp and the subsequent peat fire.

We were informed that bores were to be put in place to take water out of the high rise of the aquifer under the peat and a sprinkler system assembled to wet down the surface during high fire risk days to protect the unsecured southern side of the peat.

The peat area would be patrolled by the volunteers also on high fire risk days and an agreement was made between the CFA and farmers to have access to their water until such times as this was done.

So far the CFA has done nothing and 12 months have gone by.

This agreement should now be withdrawn until such time as the CFA gets off its backside and does something, and locking up volunteers means they are not available should a fire occur elsewhere.

If the peat erupts again this year and it breaks out into Barongarook we will have a catastrophe on our hands.

Home insurance provides 80 per cent of the annual CFA budget statewide and it is becoming too expensive for many people.

As I am insured, at quite some expense, I consider I am totally within my rights to demand action, and so should others.

This is a supreme example of one authority passing the buck onto another authority that passes it on, to yes you guessed it, the community.

Victoria Moore,
Gerangamete

Victoria wrote into the Colac

Herald late into the summer of 2010 -11 stating that none of the promises made at the October 2010 meeting in Yeodene, had been implemented. The above article written by her, dated 21 September 2011 highlights a distinct lack of action to implement the promises made in October 2010.

The fire at Yeodene has been burning underground for up to 13 years.

“... a peat fire that has been burning in south-west Victoria for more than 12 years.”

What are the Chances of the Fire Escaping Again?

Assuming the peat continues to smoulder.

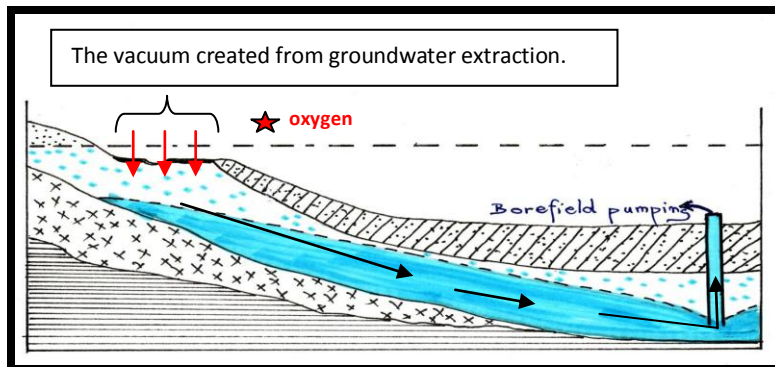
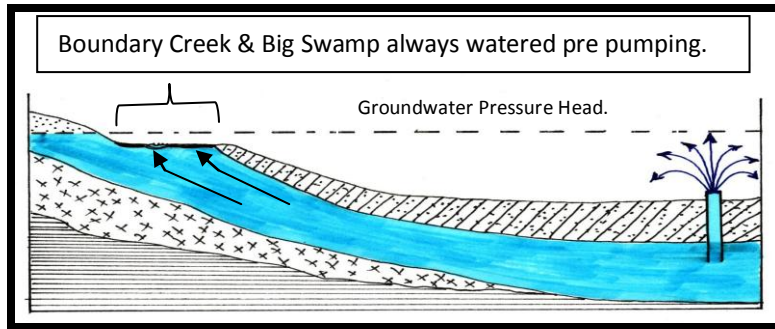
Extracts from Evans⁽⁴⁾

- *“Ongoing risks are considerable due to the potential for a long period of burning in the swamp...”*
- *“The fire could continue burning deep underground and breach trenches thus engaging other available areas of peat to the south of the contained burning.”*

(Comment: If the fire was to burn underground as described here, it is feasible that it could travel underground in any direction before surfacing. At the 12 October 2010 community meeting in the Yeodene Hall, it was stated by CFA officers that the fire was thought to be travelling one metre a day underground.)

Resumption of groundwater extraction

- With the resumption of groundwater extraction, air will be sucked down through the peat into the vacuum being created below (see explanatory diagrams on page 26). The Big Swamp sits directly above a natural vent where the aquifer being exploited comes to the surface.⁽⁷⁾



- The humidity and high porosity of peat allows air to easily get inside the peat layers allowing the peat to smoulder deep underground.

Vulnerability

- ***“Peat has a high carbon content and is naturally porous. Therefore, once dry, peat areas are highly vulnerable to ignition and the resulting fires are almost impossible to extinguish without re-establishing natural groundwater levels.”***⁽³⁾
- ***“...even extreme daytime temperatures may initiate a peat fire.”***⁽³⁾
- Underground smouldering peat burns slowly and at a low temperature. This can lead to “flare ups” or sudden transitions to flame combustion.⁽³⁾
- It is very hard to locate and extinguish these seats of fire.
- With much of the soil being hydrophobic winter rains will not rewet all areas of the dried peat.⁽⁶⁾
- ***“As at December 2010, there is evidence to suggest that this fire is still smouldering in the peat within that swamp.”***⁽²⁾

- *“The nature of fires burning in the peat is that they tend to smoulder and spread through the layers of organic matter for long periods and are extremely difficult to extinguish.”⁽²⁾*
- *“Under such circumstances, there is potential for this smouldering material to surface and start another wildfire.”⁽²⁾*

Assuming the peat is totally extinguished.

- The area of the Big Swamp has outcrops of iron rock making it susceptible to lightning strike and with volumes of dried peat this becomes an extremely potent mix.



There are numerous coffee iron rocks strewn around the Big Swamp area.

- There is the risk of spontaneous ignition. Given the right conditions even at relatively low temperature and grain size of the peat, self ignition is a distinct possibility.
- *“There is also the potential for the fire to spontaneously ignite in the peat under certain conditions.”⁽²⁾*
- Careless recreational pursuits within the dried out Big Swamp peatlands are another potential ignition source that could involve four wheel driving, motor biking, hiking, horse riding etc.

January 2011 Colac Otway Draft Rural Living Strategy⁽¹⁴⁾

The Executive Summary is very pertinent to the fire within the Otway Ranges and District. These extracts highlight this fact.

- *“... 50% of the Shire is identified as having high wildfire risk...”*
- *“The southern part of the Shire includes the Otway Ranges and is identified as being “highly constrained” indicating that the settlements are highly impacted by environmental factors as this is an area subject of high wildfire risk.”*
- *“Until further direction is provided by State Government, it is crucial that the Rural Living Strategy take a precautionary approach towards encouraging further growth of settlements located in areas of extreme fire risk.”*

Page | 28

Due to policy directions of the State Government and the high wild fire risk for areas south of the Princes Highway, research suggests that these areas are less suitable and desirable for rural living opportunities.

21 August 2011 Efforts to Seek Information from the CFA.

It would appear that the CFA does not take kindly to being queried or asked for information. To obtain the thermal image seen on page 22 it took over ten months. The last 50 days of this ten month period was taken up going through the Freedom Of Information (FOI) process.

True to this form of delay and obfuscation, efforts to gain copies of Appendix 1-5 of the “Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan”⁽⁴⁾ took 193 days. (see Appendix Two).

Scenarios of Potential Impacts if the Big Swamp peat fire escapes as per CFA Documentation.⁽²⁾

In the introduction of this document it states that these scenarios are based on a series of assumptions. In summary these assumptions are usually applicable to summer conditions.

Scenario 1 – Fire Danger Index – Approximately 30 (Very High)

Any wildfire which starts in the Yeodene Swamp and with a north to northwest wind and with no fire intervention, has the potential to reach the settlement of Barwon Downs within 1 hour and Forrest within 2 hours. The main arterial Colac to Forrest Road, would most likely be impacted upon.

The overall potential risks for damage to community assets and infrastructure would be minimal, provided that fire units could be deployed promptly and efficiently.

Scenario 4 – Fire Danger Index – Approximately 100 Plus (Catastrophic)

- ***“Fire predictive models suggest that a wildfire that develops and continues to burn under these conditions will extend over Otway Ranges and into the settlements along the coast between Lorne and Kennett River (depending on the wind direction).”***
- Barwon Downs within the first hour; Barramunga within 1.5 hours and Lorne within 2.5 hours, depending on the wind direction.
- ***“The potential risk to the residents in and around the settlements of Yeodene, Gerangamete, Barwon Downs, Forrest, Yaugher, Barramunga, Kennett River, Separation Creek and Lorne will be significant.”***
- ***“Similarly the potential risk to the travelling public will be significant – particularly on the Colac-Forrest Road, the Birregurra-Forrest Road, the Forrest-Apollo Bay Road, the***

Great Ocean Road and any connecting or “link roads” in the area.”

- ***“The potential risks for damage to community assets and infrastructure in and around the settlements of Yeodene, Gerangamete, Barwon Downs, Forrest, Barramunga, Kennett River, Wye River, Separation Creek and Lorne will be significant – particularly as the fire intensity and rate of spread will be very high to extreme.”***
- ***“There are very few sites between the settlements along the Great Ocean Road that would provide adequate refuge.”***

In the 4 scenarios presented by the CFA there has been no consideration given to a south westerly wind change that usually happens mid to late afternoon. If this were to happen the fire would then race along the coast towards Geelong, as it did in the Ash Wednesday fire.

Coal Seam Gas

Otway Water Book 16 deals in some detail with the prospects of Coal Seam Gas (CSG) extraction in the Otway Ranges and District. Needless to say the well documented impacts of CSG on ground and surface waters will only exacerbate the wildfire risks in the Otways.

CONCLUSION

There can be no doubt that the smouldering peat in the wetland of the Big Swamp is in fact ***the biggest time bomb ever facing the Western District*** (see page 7). Considering that the Big Swamp is located in one of the most bush-fire prone locations in the State (see Appendix One), this is a frightening statement.

Every indication suggests that this has come about as a result of extensive urban groundwater extraction.⁽¹³⁾

Five things are blatantly obvious:

1. the first peat fire in the Big Swamp happened after one of the wettest periods in the Otway Ranges.

2. a definitive answer to the question, “*Did groundwater extraction cause this wetland to dry out and as a result become a high risk wildfire hazard to the Otway Ranges and District?*” must be established,
3. every effort must be made to ensure that the smouldering peat does not escape again,
4. the multitude of other wetlands in the Otway Ranges must not be allowed to be impacted in a similar fashion, and
5. the potential risks and impacts of Coal Seam Gas extraction in the Otway Ranges requires serious study, consideration and appropriate legislation (see Otway Water Book 16).

Colac Herald, Monday, August 22, 2011 | 5

Agencies recruit for firefighter positions

The State Government wants Colac and district people to become seasonal firefighters to help Victoria be “fire ready”.

Environment and Climate Change Minister Ryan Smith said the Department of Sustainability and Environment and Parks Victoria needed more than 600 firefighters for the warmer months.

He said the government would base recruits at 81 locations across the state, including the Otways and Colac district.

“These firefighters will be at the frontline of protecting Victorians from bushfires in the state’s parks and forests,” Mr Smith said.

“Earlier this year, 123 permanent firefighters were employed to assist with year-round fire prevention works such as planned burns, slashing and maintenance of fuel breaks.

“The first intake of project firefighters will commence in October to help carry out planned burn operations and other vital preparation work ahead of the fire season.

“We’re looking for people who are fit and healthy; hold a current driver’s licence and, more than anything, are keen to help protect communities from bushfire,” he said.

“A range of seasonal positions are on offer, including roles as firefighters, machine operators, hover exit crew and rappel crew members.”

Experienced DSE and Parks Victoria officers will train recruits.

Will this be enough?

APPENDIX ONE

Newspaper cuttings 2007-2011

~~✂~~ Echo 1/11/07 2007

Fire risk hotting up

Aleks Devic

FIRE restrictions will hit the Surf Coast and Geelong from November 12.

Colac Otway residents will be prevented from lighting open fires from today as the region's CFA chiefs warn of another horror fire season.

CFA manager John Mealia said residents in Geelong and the Surf Coast were running out of time to put in preventative measures before restrictions started.

"This fire season is moving in rapidly. Last summer, was one of the most difficult, long and challenging seasons we have faced and this coming fire season is shaping up to be just as dangerous," Mr Mealia.

"Continued drought, low rainfall and weather bureau predictions of higher than average temperatures will only increase the risk of deadly wildfire this season."

Region 7 CFA boss Bob Barry said fire danger was already high in forest and bushland areas while grassland areas were rapidly drying out.

"People need to recognise that wildfire is a very real possibility in their neighbourhood even this early in the season," Mr Barry said.

"We cannot control the weather but we can control the fuel loads in our communities to make them safer."

Mr Barry said Geelong residents needed a permit before they did any burning off.

Surf Coast were residents urged to consider weather conditions before any burning.

For further information phone 1800 240 667 or visit www.cfa.vic.gov.au.

WILDFIRE ALERT

Soaring temperatures put Colac Otway residents on notice

Yasmin Paton

WILDFIRE is threatening Colac and the Otways with the freak March heat wave providing perfect conditions for an inferno.

"The weather conditions that we've experienced lately, the high temperatures, low humidity, and high winds, they're ideal conditions for a wild

fire," Department of Sustainability and Environment fire management officer Damian Kerr said.

"Conditions are extremely dry at the moment and we're still facing very high fire dangers right across the district."

Mr Kerr, who manages the Barwon Otways region, said while the department and Country Fire Authority was

prepared for fire, residents must continue to take precautions.

"They still need to be alert that fires could occur," he said.

With cooler weather conditions yesterday, the DSE completed three fuel reduction burns near Anglesea, Birregurra and Mount Gellibrand.

Mr Kerr said if temperatures rise, further burns planned for Colac, Bar-

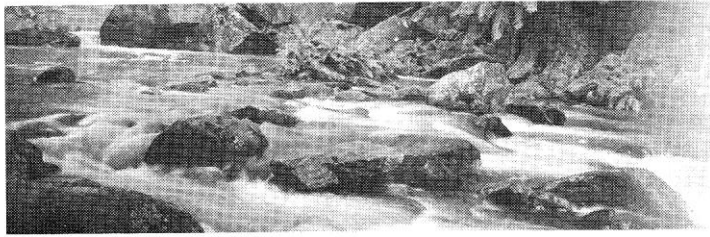
ongarook, Port Campbell, Kennedy's Creek, Lorne, Barwon Downs, Anglesea, Carslisle River, Gellibrand and Burton's Lookout would be postponed.

Although not the result of warm weather, a skid steer loader with an electrical fault sparked a fire in Skenes Creek North during the early hours of Tuesday morning.

Colac based CFA operations officer Ken Kayler-Thomson said the fire burnt the timber in the truck and damaged 4ha of thick scrub area.

The fire, which burned for about eight hours, caused about \$200,000 damage and was attended by 17 fire trucks and two bulldozers.

● If you live in a fire prone area, we'd like to hear your story. Text us on 042 TXT ECHO or email news@theecho.com.au



Our Environment
Part of an ongoing series

Dealing with fire and its impacts

Fire has always been a part of the Australian environment.

Even before European settlement, fire was used by the indigenous people to regenerate flora and fauna across the countryside and naturally occurring fires from lightning were regular occurrences.

Colac Otway Shire Council has seen the value of bringing fire management and environmental management closer together.

In a restructure and with the appointment of a new Municipal Fire Prevention Officer, the fire prevention portfolio of the council now sits within an improved and expanded environment and community safety unit.

Mark Gunning is the new MFPO and has years of experience in fire management.

The newly-shaped team has prepared and implemented a new Municipal Fire Prevention Plan which has key elements looking at how land use and occupation interact with our natural environment in the context of preventing uncontrolled fires that are not in the interests of a healthy environment.

The new plan also identifies and appreciates the role of fire in protecting and enhancing growth of endangered plant species to encourage and re-establish natural habitat for fauna identified at risk.

Council's fire prevention



by Colac Otway Shire environment manager Stewart Anderson

planning has adopted a new inspection process which has attempted to educate landholders and users about their year-round responsibilities in reducing fire hazards.

While protecting the environment and a person's own property are real incentives for people to reduce fire hazards, unfortunately not all people make an effort to reduce fire hazards.

The council's fire prevention plan identifies that enforcement is a necessary component of a strong fire prevention strategy

and people who do not do their part in the community can expect the council will take action against them.

The local laws team, also part of the environment and community safety unit, plays an important part in further defining fire use in the shire.

Local laws works to reduce the number of days smoke affects our air, allowing burning in residential, commercial and industrial areas only on Fridays and Saturdays between set hours.

Prohibiting burning of plastics and other offensive materials throughout all areas of the shire improves air quality and reduces ground contamination from chemicals contained within the substance residue.

As the council starts to look at roadside fire protection from the perspective of environmental protection, we are finding more opportunities to work in partnership with Country Fire Authority groups to help protect vegetation of high conservation value.

Fire is an all-year-round issue for our environment and requires year round vigilance by our community to ensure that fire hazards are reduced and that responsible use of fire is a part of our daily lives.

We look forward to community support in protecting all parts of our environment from unmanaged fire.



It has many benefits but peat is a repeat offender

Nature's fire starter

by Aidan Fawkes

As smoke drifted above Colac and district earlier this month, firefighters sought to explain how fire had started in seemingly undisturbed country at Yeodene, south-east of Colac.

Two days later they confirmed peat – the dark fibrous material that is the first stage of plant matter's transformation into coal – was responsible for the blaze.

Incredibly, this month's fire might have started with a Yeodene blaze in 1998 that had smoldered away in the ground until the peat dried enough to burst into flames.

And although the surface fire is out, fire chiefs say there is no guarantee the peat at Yeodene will not smolder for years.

Found at the base of swamps, peat is a valuable natural resource used as a soil conditioner, for turf wickets, golf courses and fuel.

As the peat country adjoining Boundary Creek at Yeodene, burned away, Colac district employees at the southern hemisphere's largest peat



PEAT: BioGreen's Don Scott lets a handful of carbon-rich peat fall through his hands. 100311NH060A

mining operation were going about business as usual.

Peat processor BioGreen mines 236 hectares of swamp land at Swan Marsh, extracting about 10,000 cubic metres annually, and sells it to the retail and commercial markets.

The company's managing director Mike Walker says peat is helping municipal councils and farmers throughout Australia.

"That whole area where Swan Marsh is was a lake basin and

over time the basin was drained when the farming settlements started to come into the area," he said.

But why does it burn?

The irony of peat is that while it has a moisture content of 70 per cent, it burns well when dry.

In Scotland, Ireland and Finland peat is a widely-used domestic and industrial energy source, burnt to create electricity.

"If you look at it from the point of view of the

carbon chain, you have from one end of the scale diamond and at the other is peat. In between are coal, brown and black, and whatever else," Mr Walker said.

"Peat is a fuel source so if you don't get it out it can burn for years and years," he said.

"We had a fire go through Swan Marsh a long time ago and you can still see the remnants of the fire if you dig down," he said.

"There's a burnt layer of peat. It's an

orangey colour."

Firefighters will complete burns at Yeodene in a bid to prevent the peat fire from flaring up next season.

For Mr Walker and his company, peat is their future.

"It's a carbon source and Australian soils lack carbon," Mr Walker said.

"With the carbon trading scheme getting off the ground, people putting a value on carbon, we should be in a good position moving forward."

✓
Geelong Ad. 24/09/2011

Bushfire maps' Geelong fears

PETER BEGG

MOST of the Geelong region has been declared bushfire-prone as good rains prompt fears that fuel loads this summer will be excessive.

While the Otways and parts of the Surf Coast are a given when it comes to bushfire risk, the latest mapping shows large areas of the Bellarine Peninsula and farmland to Geelong's north are also bushfire-prone.

The only areas not at risk are urban Geelong and parts of Leopold, Drysdale, Ocean Grove and Torquay.

Towns to the west of Geelong, such as Inverleigh, Bannockburn and Shelford, are surrounded by

bushfire risk areas, while Anglesea, Aireys Inlet and Lorne are themselves at risk.

The new bushfire maps are the culmination of two years of work and implement a key recommendation of the Victorian Bushfires Royal Commission.

Announcing the new bushfire mapping, State Planning Minister Matthew Guy said the maps identifying bushfire-prone areas would be used to determine who would be required to undertake a bushfire attack level (BAL) assessment in order to obtain building permits.

"The royal commission heard evidence that ember attack is the predominant bushfire attack mechanism," Mr Guy said.

"Until now, BAL assessments

were required on every new dwelling in Victoria, but the new bushfire-prone mapping clearly shows which areas now require the assessment. The mapping uses the best available science, responds to bushfire threat in a statewide approach and ensures the lives of Victorians are of primary concern."

The maps are available from local councils and at www.land.vic.gov.au and www.dpcd.vic.gov.au/planning

The CFA has warned that a spate of grass and scrub fires around the state earlier this week was an early sign of things to come during the looming bushfire season.

peter.begg
@geelongadvertiser.com.au

APPENDIX TWO

Malcolm Gardiner
1805 Colac Lavers Hill Road
Kawarren
Vic 3249
ph (03) 52 358 325
www.otwaywater.com.au

From: Mal Gardiner <otwaywater@yahoo.com.au>
To: Monica Barnes <M.Barnes@cfa.vic.gov.au>
Sent: Friday, 20 May 2011 12:10 PM
Subject: Re: FOI request

Hi Monica,
Sorry to Bother you again, Monica, but I have been denied documents on the grounds that they are CFA internal material. This seems quite strange as I have a copy of the actual paper and so do other people outside the CFA. My request under the FOI Act is as follows.

I would like a copy of the five appendix that go with the document titled
" YEODENE PEAT SWAMP , FIRE HISTORY, RISK IDENTIFICATION AND
MITIGATION PLAN,
Discussion paper, APRIL 2010."
(Author: Michael Evans CFA, Colac.)

Wouldn't it be nice and appropriate to be able to obtain this material at a local level without all the angst?

I have attached a copy of my concession card.

Cheers,
Malcolm.

*

From: Mal Gardiner [<mailto:otwaywater@yahoo.com.au>]
Sent: Tuesday, 31 May 2011 11:29 AM
To: Monica Barnes
Subject: Re: FOI request

Hi Monica,
Just checking that you received my last FOI request date 20 - 5 - 2011.
If you could let me know yo have it that would be fine.
Thanks,
Malcolm.

[Print - Close Window](#)

Subject: RE: FOI request
From: Monica Barnes (M.Barnes@cfa.vic.gov.au)
To: otwaywater@yahoo.com.au;
Date: Tue, 07 Jun 2011 16:39:26

Page | 38

Hi Mal,

Sorry I must confess it was not clear to me from your first email that you were issuing another FOI request. I had not had an opportunity to respond asking for clarification of what you were wanting to know.

I will forward an official reply email later this week.

Kind regards

Monica Barnes

Monica Barnes

Manager FOI – Privacy & Appeals

CFA

8 Lakeside Drive
East Burwood Vic 3151

Telephone: (03) 9262 8512

Mobile: 0419 582053

Currently only working Tuesday, Thursday and Fridays

Our ref: G61 1011 11/1028
Enquiries: Monica Barnes
Telephone: (03) 9262 8512
Fax: (03) 9262 8322
Your ref:



9 June 2011

Mr Malcolm Gardiner
1805 Colac Lavers Hill Road
KAWARREN VIC 3249

Dear Mr Gardiner

**REQUEST FOR ACCESS TO DOCUMENTS UNDER THE FREEDOM OF INFORMATION
ACT 1982 (Vic)**

I refer to your letter seeking access to documents under the provisions of the Freedom of Information Act 1982 ('the Act') and advise your request was received 20 May 2011.

You have specifically requested the following information:

*"Copy of the fire appendix pages/documents that are part of the document titled
"Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan"
discussion paper April 2010 - Author: Michael Evans CFA, Colac."*

Your Freedom of Information application was received on 20 May 2011. In accordance with section 21 of the Act, CFA is required to notify you of its decision no later than 4 July 2011.

Request being considered

I advise your request is currently being considered in accordance with the provisions of the Act. At the completion of enquiries, I will forward a written response to your request advising of all documents located and those to be released upon receipt of the applicable processing fee. That fee is based on a search fee of \$20.00 per hour or part thereof, \$0.20 cents per page for black and white photocopying and \$1.00 per page of colour printing.

To assist with future communications with this office could you please quote our file reference number, located at the top left hand corner of this letter.

If you have any queries please do not hesitate to contact me on 9262 8512.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Monica Barnes', written over a horizontal line.

**Monica Barnes
Freedom of Information Officer**

Headquarters: 8 Lakeside Drive, Burwood East, Victoria 3151
Postal Address: PO Box 701, Mount Waverley, Victoria 3149
Telephone: (03) 9262 8444 Fax: (03) 9264 6200

www.cfa.vic.gov.au

Our ref: G61 1011 11/1028
Enquiries: Monica Barnes
Telephone: (03) 9262 8512
Fax: (03) 9262 8322
Your ref:

-8- Received
8/7/11
[Signature]



4 July 2011

Mr Malcolm Gardiner
1805 Colac Lavers Hill Road
KAWARREN VIC 3249

Dear Mr Gardiner

REQUEST FOR ACCESS TO DOCUMENTS UNDER THE FREEDOM OF INFORMATION ACT 1982 (Vic)

Further to your letter seeking access to documents under the provisions of the Freedom of Information Act 1982 ('the Act') specifically requesting the following information:

"Copy of the fire appendix pages/documents that are part of the document titled "Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan" discussion paper April 2010 - Author: Michael Evans CFA, Colac."

Charges

Charges apply in accordance with section 22(3) of the Act in relation to search time and photocopying. I must notify you of my opinion that the charge for conducting a search for the documents to which access is requested will exceed the amount of \$50.00, as prescribed by regulation 8 of the Freedom of Information (Access Charges) Regulations 2004.

The estimated charge has been calculated as follows:

Search time:	\$60.00
(2 hrs 30min @ \$20.00 per hour or part thereof)	
Photocopying:	\$ 6.00
(est. 30 page(s) @ 20c/page)	
Total	\$66.00

Deposit

In accordance with section 22(4) of the Act you are required to pay a deposit of \$25.00 on account of the charge. Please note that, should you proceed with this request, the final charge for search time may exceed the estimated charge.

Your rights

Please advise whether you wish to proceed with this request. If so, you have the right to discuss with me practicable alternatives for altering the request or reducing the anticipated charge, including reduction of the charge if you waive, conditionally or unconditionally, the need to comply with the time limit specified in section 21 of the Act.

Headquarters: 8 Lakeside Drive, Burwood East, Victoria 3151
Postal Address: PO Box 701, Mount Waverley, Victoria 3149
Telephone: (03) 9262 8444 Fax: (03) 9264 6200

www.cfa.vic.gov.au

-9-

Mr M Gardiner

Page 2
4 July 2011

The person who calculated this charge is Monica Barnes, Freedom of Information Officer. You may apply to the Ombudsman for a review of this charge. If the Ombudsman believes the matter is of sufficient importance for the Victorian Civil and Administrative Tribunal to consider, he may issue a certificate to that effect and you may then elect to appeal the charge. An appeal to the Victorian Civil and Administrative Tribunal must be made within 60 days from the day on which you receive this notice. You may exercise your right to appeal whether or not you have paid the required deposit.

Page | 41

Yours sincerely



Monica Barnes
Freedom of Information Officer

-10-

Malcolm Gardiner
1805 Colac Lavers Hill Road
Kawarren
Vic 3249
ph (03) 52 358 325
www.otwaywater.com.au
otwaywater@yahoo.com.au

Date 21-07-2011



Dear Monica,
Please find enclosed a cheque of \$66 for payment of collecting and sending the material as requested as per accompanying letter, your ref. G61 1011 11/1028.

Thank you,

Malcolm.

Our ref: G619 1011 11/1028
Enquiries: Monica Barnes
Telephone: (03) 9262 8512
Fax: (03) 9262 8322
Your ref:



9 August 2011

Mr Malcolm Gardiner
1805 Colac Lavers Hill Road
KAWARREN VIC 3249

Dear Mr Gardiner

**REQUEST FOR ACCESS TO DOCUMENTS UNDER THE FREEDOM OF INFORMATION
ACT 1982 (Vic)**

I refer to your correspondence in relation to seeking access to documents under the provisions of the Freedom of Information Act 1982 ('the Act') specifically requesting the following information:

Copy of the fire appendix pages/documents that are part of the document titled "Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan" discussion paper April 2010 - Author: Michael Evans CFA, Colac.

Your payment of the \$66.00 was received on 27 July 2011. Please note that I only requested a deposit of \$25.00 given the final figure was estimated at \$66.00 and I confirmed that the final figure may vary. In accordance with section 22(5) of the Act your request is, for the purposes of section 21 of the Act, deemed to have been received on 27 July 2011. Accordingly, I am required to notify you of my decision on your request no later than 10 September 2011.

If you have any queries please do not hesitate to contact me on 9262 8512.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Monica Barnes', written over a horizontal line.

Monica Barnes
Freedom of Information Officer

Headquarters: 8 Lakeside Drive, Burwood East, Victoria 3151
Postal Address: PO Box 701, Mount Waverley, Victoria 3149
Telephone: (03) 9262 8444 Fax: (03) 9264 6200

www.cfa.vic.gov.au

Our ref: G61 1011 11/1028
Enquiries: Monica Barnes
Telephone: (03) 9262 8512
Fax: (03) 9262 8322
Your ref:



12 September 2011

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Mr Malcolm Gardiner
1805 Colac Lavers Hill Road
KAWARREN VIC 3249

Dear Mr Gardiner

**REQUEST FOR ACCESS TO DOCUMENTS UNDER THE FREEDOM OF INFORMATION
ACT 1982 (Vic)**

Further to your letter seeking access to documents under the provisions of the Freedom of Information Act 1982 ('the Act') specifically requesting the following information:

"Copy of the fire appendix pages/documents that are part of the document titled "Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan" discussion paper April 2010 - Author: Michael Evans CFA, Colac."

Decision

I have assessed all the documents held by CFA that fall within the scope of your request. Documents which fall within the categories requested by you have been processed in response to the request. In total 43 relevant pages have been discovered. My decision on access is to:

- Grant access in part to 13 pages; and
- Grant access in full to 30 pages.

Thirteen pages have been denied in part pursuant to section 33 of the FOI Act. Section 33 states that a document is an exempt document if its disclosure would involve the unreasonable disclosure of information relating to the personal affairs of any person. Under section 33(9), "information relating to the personal affairs of any person" includes information that identifies any person or discloses their address or location; or from which any person's identity, address or location can reasonably be determined. I have decided that this information concerns the personal affairs of persons and that its disclosure would be unreasonable in the circumstances. On this basis, such information is considered to be exempt matter under section 33 of the Act and has been deleted in accordance with section 25 of the Act.

Access has been granted in full to 30 pages given the nature and details related to the matter on those pages.

Headquarters: 8 Lakeside Drive, Burwood East, Victoria 3151
Postal Address: PO Box 701, Mount Waverley, Victoria 3149
Telephone: (03) 9262 8444 Fax: (03) 9264 6200

www.cfa.vic.gov.au

Charges

In my letter of 4 July, I outlined an estimated charge calculated as follows:

The estimated charge was calculated as:

Actual Charges were:

Search time: (2 hrs 30min @ \$20.00 per hour or part thereof)	\$60.00	\$60.00
Photocopying: (est. 30 page(s) @ 20c/page)	\$ 6.00	\$19.00 13 colour pages @ x \$1.00 30 pages @ 20c
Total	\$66.00	\$79.00

Your payment of \$66.00 was received on 27 July 2011; therefore your documents will be released immediately upon receipt of the balance, being \$13.00.

Your rights

If you are dissatisfied with any aspect of my decision you may ask for an internal review of the decision by writing to the Chief Executive Officer of CFA within 28 days of receipt of this notice.

Yours sincerely



Monica Barnes
Freedom of Information Officer

Malcolm Gardiner
1805 Colac Lavers Hill Road
Kawarren
Vic 3249
ph (03) 52 358 325
www.otwaywater.com.au
otwaywater@yahoo.com.au



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Date 21-10-2011

Dear Monica,

Re; your reference G61 1011 11/1028.

Please find enclosed the amount of \$13 as the balance of the FOI request first made 20 May 2011.

I am sorry that this reply to your last letter dated the 12 September 2011 has taken so long to be written. You did write and say in your previous mail that under the FOI process you had to have an answer to me no later than the 10 September 2011. As this did not happen and Kay and I flew out of Australia on the 13 September and did not return until yesterday, this is the reason for the delay in writing to you. I hope that this has not caused you any inconvenience.

I look forward to receiving the documents.

Regards,

Malcolm Gardiner.

Patron: The Honourable Alex Chernov, AO, QC - Governor of Victoria



Our ref: G61 1011 11/1028
Enquiries: Monica Barnes
Telephone: (03) 9262 8512
Fax: (03) 9262 8322
Your ref:

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10 November 2011

Mr Malcolm Gardiner
1805 Colac Lavers Hill Road
KAWARREN VIC 3249

Dear Mr Gardiner

**REQUEST FOR ACCESS TO DOCUMENTS UNDER THE FREEDOM OF INFORMATION
ACT 1982 (Vic)**

Further to your letter seeking access to documents under the provisions of the Freedom of Information Act 1982 ('the Act') specifically requesting the following information:

"Copy of the fire appendix pages/documents that are part of the document titled "Yeodene Peat Swamp, Fire History, Risk Identification and Mitigation Plan" discussion paper April 2010 - Author: Michael Evans CFA, Colac."

I note your comment about the late provision of a decision from my office, please note that the decision due date was 10 September, as this was a Saturday the decision was dispatched on the first working day thereafter namely 12 September 2011.

I acknowledge receipt of your cheque for the balance payment of \$13.00 in access charges under section 22 of the Act.

Accordingly, please find attached copies of documents to which access has been granted in accordance with my decision letter of 12 September 2011.

Yours sincerely

A handwritten signature in black ink, appearing to be 'M. Barnes'.

Monica Barnes
Freedom of Information Officer

P.S. I hope you enjoyed your holiday 😊

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Postal Address: PO Box 701, Mount Waverley, Victoria 3149
Telephone: (03) 9262 8444 Fax: (03) 9264 6200

www.cfa.vic.gov.au

Subject: Thanks for the FOI material
From: Mal Gardiner (otwaywater@yahoo.com.au)
To: m.barnes@cfa.vic.gov.au;
Date: Tuesday, 15 November 2011 11:18 AM

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Hi Monica,

Kay and I did have a fabulous time in Italy and Hong Kong thanks very much.

In regard to the FOI request I only wanted copies of the Appendix one to five. I already had a copy of Mike Evans report as it was in general circulation way back in June 2011. For some reason the names that you deleted from this section of the FOI had not been deleted from the copy I was given in June.

So I will assume that I should disregard the names and use your copy as a reference.

Thanks for your efforts.

Ciao, ciao,

Malcolm.

Malcolm Gardiner
1805 Colac Lavers Hill Road
Kawarren
Vic 3249
ph (03) 52 358 325
www.otwaywater.com.au

COUNTRY FIRE AUTHORITY

REGION 6

Telephone: (052) 31 5606

113 Bramfield Street
Colac 3250

Postal: Box 298
Colac 3250

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Please Quote
GC/PH

19 April, 1989

The Secretary,
Ms. V. Veticovic,
Natural Resources & Environment Committee,
19th Floor, Nauru House,
Collins Street,
MELBOURNE 3000

Dear Madam,

RE: KAWARREN/GERANGAMETE UNDERGROUND PUMPING PROPOSAL

At the last meeting of the Region 6 Regional Fire Prevention Committee, a motion concerning the Kawarren/Gerangamete Underground Pumping Proposal was moved, and carried.

As a result of this motion, I was directed to write this letter bringing the matter to your attention.

The motion was as follows:

"That this committee ask will they consider the possible effect of their Ground Water Proposal for the Gellibrand System on the surface soil moisture and vegetation moisture status of the river flats associated with this system, and the possible changes to the wildfire hazard in this area, as these flats play a major strategic role in the Municipal Fire Prevention Plan."

Your due consideration of this matter would be appreciated.

Yours faithfully,



Ian Selliseth,
Executive Officer
REGION 6 RFPC

BIBLIOGRAPHY

1. Brady B., 1998: Yeodene Peat Fire Control Strategy for 1998/99v Fire Danger Period. Country Fire Authority, Region 6, Victoria.
2. Colac Country Fire Authority, Region 6, Victoria. June 2011: Draft Preparedness & Response Plan – Yeodene Swamp Fire.
3. Department of Health Western Australia 2006: Minimising the Impacts of Peat Smoke, Environmental Health Guide.
4. Evans M., April 2010: Yeodene Peat Swamp Fire History Risk Identification and Mitigation Plan, Discussion paper. Country Fire Authority, Region 6, Victoria.
5. Farmer-Bowers Q., October 1986: Environmental Issues Barwon Downs Groundwater, South Western Region Water Management Strategy.
6. Gardiner M. J., May 2011: Otway Water Book 14. www.otwaywater.com.au (August 2011)
7. Gardiner M. J., October 2010: Otway Water Book 12. www.otwaywater.com.au (June 2011)
8. <http://www.trust.org/alertnet/news/moscow-faces-more-peat-fires-this-year-greenpeace/> (June 2011)
9. May 2007: Email between M. Gardiner & M. Evans regarding the peat fires in the Yeodene district, Unpublished.
10. Regional Development Australia Barwon South West Committee. January 2011: Barwon South West Victoria’s region of opportunity.
11. The Victorian Liberal Nationals Coalition’s Policy and Plans for 2010 State Election.
12. Royal Commission 2009 Victorian Bushfires, Volume One Appendix A, Estimated Cost of the Fires.
13. www.otwaywater.com.au (August 2011)
14. Colac Otway Shire, January 2011: Draft Rural Living Strategy.
15. 2020 Engineering Solutions, March 2010: Yeodene Peat Deposit Bushfire Hazard Control, Concept Document. Colac Forrest Road, Colac Vic 3249.

