



BUSH FIRE ADVISORY COMMITTEE MINUTES

Thursday 17th of March 2022

General Meeting – 5.30pm

Function Room, Kalamunda City Offices , 2 Railway Road, Kalamunda

1. OPENING OF MEETING

Chairperson – Cr. John Giardina welcomed attendees, thanks all members for attending, both in person and via Teams, Introduces Doug Childress from Claratti who will be presenting to BFAC.

2. ATTENDANCE AND APOLOGIES

Attending Members:

Cr. John Giardina – City of Kalamunda, Councillor – South East Ward
Mike Ward – Kalamunda Community Emergency Services Manager
Sean Winter – Deputy Chief Bush Fire Control Officer
Tony Moiler AFSM – Captain, Kalamunda Volunteer Fire & Rescue Service
David Stewart – Captain, Kalamunda Volunteer Bush Fire Brigade

City Staff:

James Wickens - Manager Environmental Health and Community Safety
Michael Hall – City of Kalamunda Senior Fire Mitigation Officer

Visitors:

Paul Southam – DFES District Officer South East
Steve Lake – Fire Control Officer, Kalamunda Volunteer Bush Fire Brigade
Dave Carroll – Fire Control Officer, Kalamunda Volunteer Bush Fire Brigade
Doug Childress – Claratti.
Stephen Llanwarne – Claratti.

Apologies:

Cr. Andrew Osenton – City of Kalamunda, Councillor – North Ward
Peter Varelis – City of Kalamunda, Director, Development Services
Brian McGinley – Foreman, Kalamunda Volunteer Fire & Rescue Service
Michael Pasotti – DBCA – Fire Coordinator
Warwick Martindale – Local Manager State Emergency Service

Minutes:

Andrew Haselden – Lieutenant, Kalamunda Volunteer Bush Fire Brigade

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



3. CONFIRMATION OF PREVIOUS MINUTES

Moved: Tony Moiler

Seconded: Sean Winter

4. MATTERS ARISING FROM PREVIOUS MINUTES

4.1. BFAC Terms of Reference Review

ACTION – James Wickens to update the TOR and distribute to BFAC.

James Wickens advises that the changes to the terms of reference as agreed at the last BFAC meeting were made and accepted at a general council meeting. – Closed.

4.2. DPAW Request to Clear Vegetation – Mundaring Wier Road.

ACTION – Lewis Van Bommel to refer to M Hall for review/action.

Michael Hall advises that the noted vegetation was cleared by the City work crew before Christmas and acknowledged by DPAW with their thanks. – Closed.

5. CORRESPONDENCE IN/OUT

5.1. Correspondence Out – Nil,

Correspondence In – A letter was received from the City of Armadale, addressed to Mayor Thomas, regarding the actions of Kalamunda Volunteers at the Canning Mills Road incident. A City of Armadale vehicle was involved in a burn over and was assisted by the crew of the Kalamunda Bush Fire Brigade 2.4 appliance. Cr Butterfield (Mayor of the City of Armadale) asks that their thanks and appreciation are extended to the Kalamunda volunteers who assisted with the rescue of the City of Armadale volunteers, for their efforts and putting themselves in harm's way to help in an emergency situation.

Letter attached to these minutes, Attachment #1.

Action Item -

Mike Ward asks if the City would also acknowledge this, **Mike Ward and James Wickens** are to provide background to **CR Giardina** for presentation at a general council meeting.

***Post meeting update** – This action item was completed during the March ordinary council meeting. Mayor Thomas acknowledged the actions of these fire fighters during this meeting and advised that she will be writing to each of them. – Action item closed.*

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



6. GENERAL BUSINESS

- 6.1. Claratti Bushfire Detection and Telecommunications Presentation, Douglas Childress & Stephen Llanwarne. The presentation and brief are attached to these minutes as Attachments #2 and #3.

This presentation and proposal to the City of Kalamunda was requested post discussions with Minister Wyatt in October 2021, which is also the reason behind Claratti's focus on the Hasluck Electorate.

Claratti's Presentation proposes a renewable energy powered (Solar Wind and Diesel) compound providing a high-speed telecommunications and early warning Bushfire detection solution. Part of this proposal allows for a thermal smoke and fire detection system tower providing a 40km detection radius with accuracy to 1 square meter.

Questions,

Tony Moiler notes that he has addressed Council and DFES before, stressing that due to the telecommunications systems now being mobile based, fragility has been introduced into the emergency communications systems. Tony Moiler also notes that there is resistance in areas such as Gooseberry Hill to adding new towers to the scarp.

Douglas Childress acknowledges that resistance is likely and needs to be managed throughout the process to address those that may doubt the technology benefits.

CR Giardina queries what the coverage provided by one tower would be, Douglas Childress advises that while this is a desktop exercise it is very adjustable once a land survey is conducted, and the design finalised.

CR Giardina comments that if a service can be placed further into the bush and still provide coverage, it is less likely to be rejected by residents.

Douglas Childress notes that a large tower can be erected in a more remote location with micro towers installed in more populated areas to fill gaps.

Tony Moiler enquires about the operating costs for this proposal

Douglas Childress advised that the capital costs are proposed to be sourced through State and local government entities. Claratti will build and operate the towers, then hand over the facility to DFES or the like, with the operating costs charged by Claratti.

Sean Winter notes his support for anything that provides additional services to blackspot areas but believes that the early detection may not make a large difference in severe fire weather. Sean Winter

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



notes that funding must also be allocated to additional frontline firefighting equipment such as additional fire trucks.

Douglass Childress advises that the project will create an ongoing income stream to Claratti , but believes that a profit share scheme is a likely negotiated outcome,

Paul Southam asks who Claratti has spoken with from DFES.

Douglas Childress notes that he has only met with reasonably lower-level personnel from DFES but has spoken with a number of Members of Parliament and hopes that this introduction may open doors with DFES/DPAW, and local members.

Stephen Llanwarne advises that the proposed funding concept is a loan based one, where the cost is borne by Government entities, paid back over time through profits made from the commercial services provided from the tower.

CR Giardina thanks Douglas Childress for his presentation and notes that at high level the proposal requires a government entity to open their wallets, which may prove difficult with money tight at this time. CR. Giardina agrees however that presenting through these kinds of forum, is the only way that these doors will be opened.

Dough Childress and Stephen Llanwarne leave the meeting.

6.2. Fire Hazard Reduction Notice – M Ward.

Mike Ward, discusses the fire hazard notice which was distributed to BFAC members for comment (See Attachment #4)

Mike Ward notes that while the fire hazard notice approvals are independent to BFAC, he welcomes comments from the committee.

Steve Lake asks about a clause requiring the removal of all cuttings from slashing and whether it is practical to remove all cuttings on large blocks. Steve Lake notes that this has come up a few times and asks if similar comments have been received by the City. Mike Hall advises that on the City controlled blocks, they are slashing close to 10ha at a time and would require additional machinery to row and collect this amount of slashed materials to comply.

Mike Ward asks Steve Lake to provide him with an email summarising these comments, which will be passed onto the City's fire reduction team for review against the notice. Mike Ward notes that this clause is more applicable to smaller blocks. Steve Lake advises that the standing section requiring DFM under 8 tonnes would adequately cover the risk.

(Email provided post meeting - Attachment #5)

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



7. AGENCY UPDATE

7.1. DFES

7.1.1. Paul Southam thanks Mike Ward for covering the District Officer position in late 2021. Paul Southam notes that this season has been relatively busy with a number of deployments early in the season and thanks the Kalamunda volunteers for participating in these deployments,

Paul Southam advises that we are well above the seasonal average for fire conditions this year with substantial rain not forecast for some time. He also notes that negotiations are in place for the extension of the aerial firefighting appliances.

Paul Southam acknowledges that COVID has played havoc with brigades throughout the state and thanks Kalamunda for moving early with COVID planning and restrictions throughout the high threat period, and thanks the City their assistance also.

7.2. DPAW – Nil tabled.

7.3. City of Kalamunda CESM – Mike Ward

Mike Ward provides a presentation on the Canning Road incident – (Attachment #6) noting that most of the participants in this BFAC meeting had some involvement with this incident.

In summary,

- The final fire size was 95.8Ha,
- fire intensity was higher than would be expected during the initial stages of the fire.
- 120 personnel were on the fire ground at the peak of the incident,
- 218 community alerts/warnings were issued and
- Kalamunda volunteers maintained a presence on the fireground round the clock for 6 days.
- The cause was not determined but the fire is believed to be accidental.

Mike Ward also noted that there were a number of other incidents within the City during this period that VBFB and VFRS crews also responded to.

The only recovery that was required was the hosing down of residential properties hit with fire retardant during the aerial fire suppressant drops. These roofs and gutters were cleaned to ensure that the affected properties water tanks could be used for drinking water when the rains return.

Sean Winter notes that regarding the record of damage, the whole of the historic Canning Mills townsite covers around 40ha with most of the archaeological sites affected by the fire. Sean Winter advises that six sites were directly affected or damaged by the fire and should be noted with the damage from this incident.

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



General Business

7.3.1. James Wickens provides an update from the City fire break property inspections noting that from the 1st of November,

- 3,826 inspections have conducted (including first and follow up inspections),
- 2,777 properties have been visited with 1,049 follow ups.
- Of the properties inspected, 1,830 properties were compliant on the first inspection
- 87 infringements have been issued.

CR Giardina asks how this compares with previous years; James Wickens advises that he will provide a formal update post the close of the inspection season at the BFAC AGM.

7.3.2. Mike Hall advises BFAC that the City has procured new loaders and a 14,000 litre water tanker. The water tanker and a loader were used to assist fire fighting efforts at the Canning Mills incident.

7.3.3. Sean Winter advises that at the end of this fire season, he will be stepping down from the position of Deputy Chief Bushfire Control Officer. Sean has held this position since 2017. Steve Lake will replace Sean as the new Deputy Chief with Sean returning to a Fire Control Officer position.

8. NEXT MEETING

8.1. Next meeting, Thursday 21st of July (AGM), 1730hrs, Derek Fletcher Training Room, Kalamunda Volunteer Bush Fire Brigade / State Emergency Service, 20 Raymond Road, Walliston.

(Venue to be confirmed pending COVID Restrictions)

Future Meetings for 2022, and the 20th of October.

9. CLOSURE

9.1. Meeting closed at 18:44hrs

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



Attachment #1

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 **F** 9293 2715 **E** enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 **PO Box** 42, KALAMUNDA WA 6926

ABN 60 741 095 678

**OFFICE OF THE
MAYOR**

Our Ref: G/MO/1-05

21 February 2022

Mayor Margaret Thomas JP
City of Kalamunda
Margaret.thomas@kalamunda.wa.gov.au



7 Orchard Avenue Armadale
Western Australia 6112
Locked Bag 2 Armadale
Western Australia 6992
T: (08) 9394 5000
F: (08) 9394 5184
info@armadale.wa.gov.au
www.armadale.wa.gov.au
ABN: 798 6326 9538

Dear Mayor Thomas

RE: Thank you to Kalamunda Volunteer Bush Fire Brigade Members

As you are aware, there was recently a fire near Canning Mills Road which threatened homes and burned through many hectares of bushland. As part of the emergency response, three Local Government Volunteer Fire Brigades attended. Those being the City of Armadale, City of Gosnells and the City of Kalamunda.

Unfortunately the City of Armadale truck, was involved in a serious incident referred to as 'a burn over'. All members of the truck's crew remained safe and managed to avoid significant injury during the incident, due to two important factors. Firstly, they followed all the safety protocols and enacted their training and secondly, the City of Gosnells and City of Kalamunda Volunteer Fire Brigades jumped into action and hosed down the truck. Thankfully due to their quick response no one was hurt.

I would like to take this opportunity to thank both brigades and specifically the following individuals.

Kalamunda Volunteer Bush Fire Brigade

- **2.4R Appliance**
 - 1st Lieutenant – John Idland
 - Firefighter – Liam Day
 - Firefighter – Tony Fowler
 - Firefighter – Al McPhail

Can I ask that you please extend our thanks and appreciation for their efforts and putting themselves in harm's way to help in an emergency situation? The people who volunteer to work on the fire ground at bushfire events are very brave. We thank them and wish them all the best with the summer season now upon us.

Kind regards

A handwritten signature in black ink, appearing to read "R. Butterfield".

Cr Ruth Butterfield
Mayor, City of Armadale



Attachment #2

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678

CLARATTI LIMITED
Unit 2b, 36 Irvine Drive
Malaga, WA 6090
P: 1300 073 085
W: claratti.com
ABN: 642 169 337



17 March 2022

Bushfire Advisory Committee
Kalamunda WA 6076

RE: Bushfire & Telecommunications Presentation Brief

Dear Bushfire Advisor Committee members,

Thank you for allowing me to present our proposed Bushfire prevention & wireless network proposal. As referenced, this proposal was originally created post our discussion with Minister Wyatt in October 2021, which is the reason we focused on the Hasluck electorate.

I trust the information below will provide you with an adequate level of comfort to refer the presentation to your colleagues and put your support forward.

Finally, the Hasluck presentation is only the tip of the iceberg, as I have already designed a network of similar devices, cover over 5,000 kms providing services to key areas such as:

- Bullsbrook, Brigadoon, Muchea, Chittering, Gingin north to Geraldton
- Dunsborough to Augusta
- Derby, Broome to One Arm Point (West Kimberley's)
- Derby, Wyndham, Kununurra too Far Away Point (East Kimberley's)

I would welcome any other locations where you would like a proposal, please do not hesitate to contact me.

Thank you again for the opportunity to share our solution, which I will truly appreciate any support you can provide.

Please feel free to call or email me with any questions or to arrange a meeting to discuss the enclosed brief further.

Sincerely,

Douglas S. Childress
Chief Executive Officer
doug.childress@claratti.com
+61 401 317 795

**Current state**

Residents across Australia, especially in outlying metro and regional areas largely suffer from access to reliable Internet access and technology ("Technology"), which in the event of a Bushfire becomes vital and potentially life threatening not only to the residents but to our emergency service personnel.

The underlying causes are:

1. Internet access in outlying metro areas is either too far from the exchange for copper-based services, no access to NBN services or the surrounding areas are densely wooded, causing wireless 3g/4g/5g services to perform at sub-standard levels; and
2. Existing telecommunication providers rely on traditional A/C power to power their towers, which in the event of a Bushfire is lost; and
3. The loss of mains A/C power is either caused intentionally or unintentionally, which causes the loss of telecommunication services.

The severity of the above issues is real and are having an unnecessary catastrophic effect on people lives and our economy. Here is a quick summary to highlight the severity of the issues and the impact of doing the same old thing is having:

- With cost approaching \$100 billion – Australia's costliest natural disaster
- Australia's current fires dwarf the US fires
- The deadliest bushfires in the past 200 years took place in 1851, 1939, 1983, 2009 and 2019-20
- The term "megafire" is a new one, defined as fires >400,000 hectares
- The 2009 Black Saturday fires in Victoria killed 173 people
- Since then, Australia has have had over 10.7 million hectares burnt
- The federal government budget \$2 Billion in January 2020 to the National Bushfire Recovery Fund

Reference article published on 17 January 2020 via www.theconversation.com

Conclusion

The presentation, I shared with you is a conceptual design, however, it is built using off the shelf components and the skills and expertise of Green Powertel, which is joint venture company, majority owned by:

- Claratti Limited, public unlisted company, which wholly owns Intelligent IP Hosting Pty Ltd ("IIPH") which is an Australian licensed telecommunications carrier #485. IIPH specialises in delivering industrial carrier grade telecommunications infrastructure and all forms of wired, wireless, Cloud and other Technologies.

For more information, please visit www.claratti.com



- Positive Off-grid Solutions, which specialises in the manufacturing and supply of industrial commercial grade off-grid solar, wind and diesel-powered solutions.

For more information, please visit www.positiveoffgridsolutions.com.au

The proposed Green Powertel solution **resolves items 1 & 2** and **eliminates item 3** as our proposed solution has zero reliance on mains power.

In addition to the above three benefits, there are countless other benefits such as:

1. An early warning, long range (up to 40kms) 360° smoke detection system, which can detect over 16,000 shades of gray. ***The NEW age watch tower***
2. Dual “fire rated” drones, which are remotely monitored/controlled 24x7x365 via a remote command center
3. The drones can be remotely flown to the exact smoke coordinate(s) and stream live video to emergency services
4. Each telecommunications facility “compound” is a secure compound with a fire rescue chamber and access to 100,000 plus liters of water storage

Dear member, I am holding a key out to you and ask that you help me in any way possible, to unlock the doors to our state and federal leaders and emergency services.

Let's be proactive on fire disaster management, rather than reactive.

Together with your support, we can reduce the unnecessary risks to loss of life, property, cost and as a country be better equipped to deal with an ever-evolving climate.

Sincerely,

Douglas S. Childress
Chief Executive Officer

doug.childress@claratti.com
+61 401 317 795

Confidential for authorised use only

Green Powered Telco Solution for Fire Zones with Community Benefits

Leveraging the latest in technologies to better service our Emergency Services Team and provide a better connected and safer environment for everyone

power & communications anywhere



Confidential for authorised use only

100% Australian Owned



Renewable Power



Telecommunications



Excellence in Stand
Alone Power Systems
www.positive.net.au

- ✓ 100% Built in Australia
- ✓ 90% of goods sourced outside of China
- ✓ Creations of local jobs
- ✓ We feasible possible we source from Australia as a priority



Licensed carrier supplying rugged
telecommunications & IT solutions
www.claratti.com

greenpowertel.com

power & communications anywhere



The proposed solution

Renewable energy powered (solar, wind & diesel) telecommunications & early warning Bushfire detection solution

- Thermal smoke & fire detection up to 40kms within 1sqm
- Artesian bore & storage capabilities
- Fire Rescue Chamber
- Drone 1st Responder
- DFES & BOM Integration capabilities
- Improved community Internet access



Confidential for authorised use only



greenpowertel.com

power & communications anywhere



Confidential for authorised use only

The key features & benefits

Top 10 reasons to support this proposal

- ✓ High-speed Internet (up to 5G) into regional areas with no or limited coverage
- ✓ Self-contained eco-friendly environment with inbuilt Fire protection capabilities
- ✓ Redundancy communications mesh network – one site fails the rest continue
- ✓ Easily expandable based on renewable standalone power
- ✓ Early warning smoke & heat sensors to detect ignition with pinpoint 1m accuracy
- ✓ Remote control drone-based ignition confirmation & fire management
- ✓ Real-time access to rich data for early warning & fire management
- ✓ Ability to add DFES & Bureau of Meteorology (BoM) equipment to towers
- ✓ Fire rescue safety pod and water refilling facility
- ✓ Conservative commercial take-up be able to repay funding within 10-years

greenpowertel.com

power & communications anywhere



Confidential for authorised use only

The Incumbent Solution Shortcomings

The current state in Fire Zones

- ☐ Loss of mains power = Loss Telecommunications
- ☐ Limited remote coverage
- ☐ Limited ways to reach & communicate with residents
- ☐ No plans of rectifying above issues, due to incumbent's cost for solutions
- ☐ In a fire crisis, neither the residents nor emergency services can rely on telecommunications
- ☐ No provision of water supplies
- ☐ 12.5% of Hasluck residents have zero Broadband coverage

greenpowertel.com

power & communications anywhere



**GREEN
POWERTEL**



Imagine what could have been prevented with an early warning system

4th of February 2021, Perth Hills
Bushfire enters fourth day

Key points:

- The number of homes lost remains at 71 after others were saved overnight
- But emergency services say the threat from the bushfire is far from over
- An emergency warning remains in place across a vast area



**GREEN
POWERTEL**

power & communications anywhere

Confidential for authorised use only

power & communications anywhere

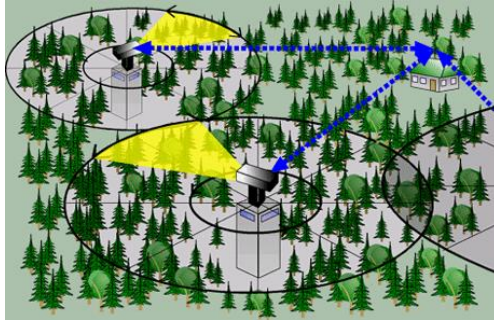
Communications is key

Having access to reliable communications provides many benefits, such as

Confidential for authorised use only



✓ Realtime 360° long-range thermal imagery cameras



Sophisticated optical sensor can detect the difference between 16,384 shades of the colour grey and has a number of sophisticated mathematical algorithms which can discern the unique characteristics of smoke.



- Alert received
- GPS location identified
- Launch Drone
- Fly to GPS location
- Provide Live real-time view

✓ Realtime Drone 1st Responders

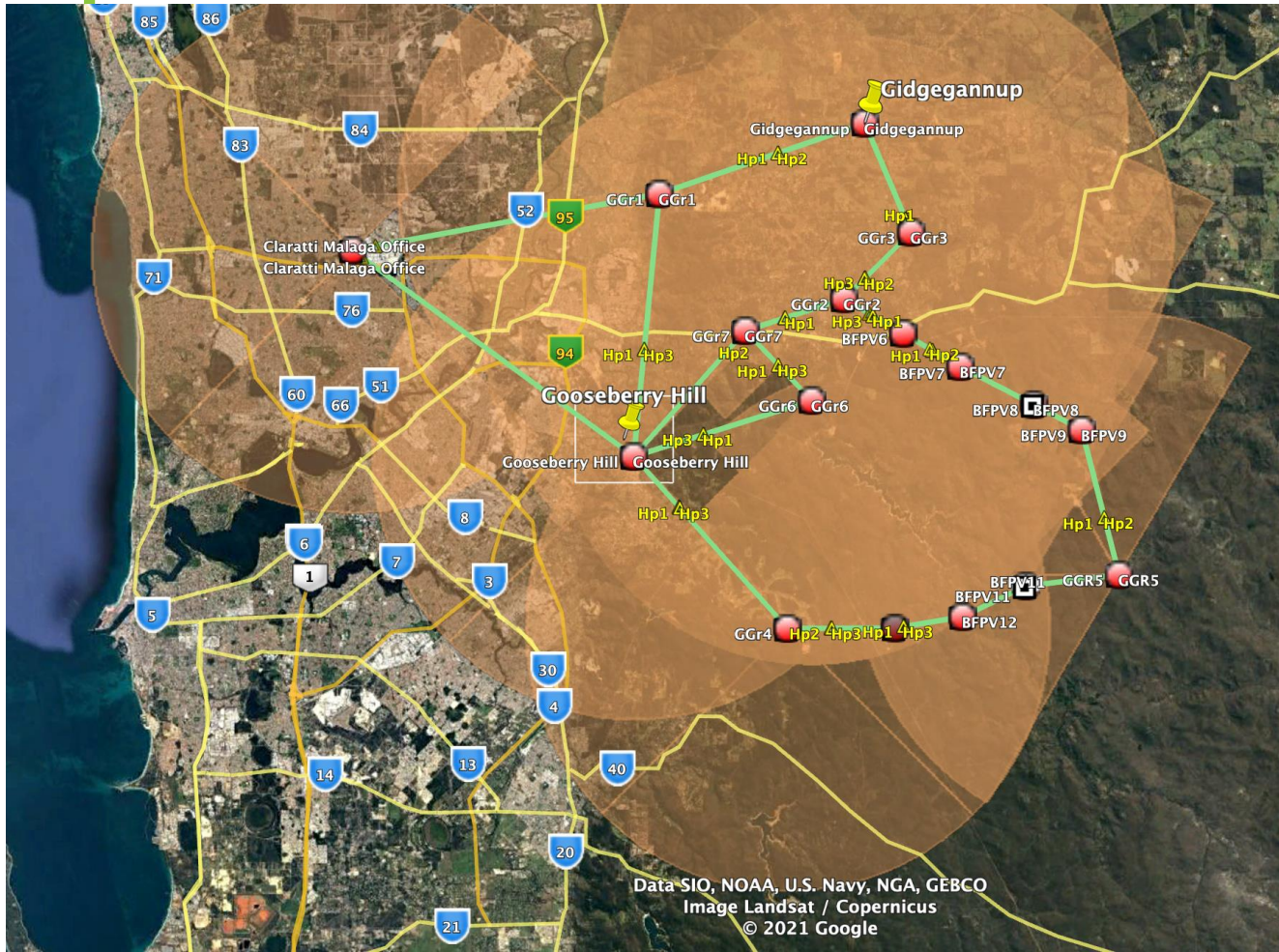


Remote Control
Alert Investigation



Confidential for authorised use only

The proposed Hasluck Telco coverage & cost



Description	Per Unit Budget
100% Renewable Telco Unit	\$1.00m
Fire rescue POD	\$0.80m
Water Tanks & Bore	\$0.15m
Sundries & Other	\$0.30m
Total Unit Budget*	\$2.25m
Estimated # of Units	16
Estimated Budget*	\$36.0m

*Actual price will vary based on requirements



For more information

Doug Childress
Managing Director

+61 401 317 795

Doug.Childress@claratti.com

power & communications anywhere



Green Powered Telco Solution for Fire Zones with Community Benefits

Proposal Brief		Incumbent Services	Proposed Solution	Delivery Methods
Green Powertel propose to provide a 100% renewable energy powered by wind and solar carrier grade, fire rated, 4G/5G telecommunications solution that can be rapidly deployed in remote and dense populated fire zones		Services which are either present, limited or non-existent	Products, service, economic and community benefits encapsulated within the proposed solution.	Products & Services, technologies to be used to deliver the Proposed Solution(s)
General Telco Services	Telco Services: 4G/5G Coverage	Limited	✓	Microwave & Fibre
	Telco Services: Creation of local community based jobs	Limited	✓	Site Works, Civil, Maintenance, etc.
	Telco Services: Education & Health	Limited	✓	Tele Education & Health
	Telco Services: Operates without mains power	✗	✓	Solar, Batteries, Wind & Diesel
During an Emergency Bushfire situation	Emergency Services: Early Fire detection (ignition & smoke)	✗	✓	Long-range thermal Camera & Sensors
	Emergency Services: Drone video confirmation & capabilities	✗	✓	Self charging remote Drone landing pads
	Emergency Services: Telco infrastructure protection	✗	✓	Fire retardant boundary
	Emergency Services: Wind speed & direction tracking - Fed to BOM	✗	✓	BOM technology on Communications Mast
	Emergency Services: Realtime "Live Data" collection & supply	✗	✓	Live sensor data feeds to DFES
	Emergency Services: Fire Rescue Pod & Water Supply	✗	✓	Rescue POD w/Bore and Water Tanks
	Emergency Services: 24x7 Proactive Remote Monitoring & Controls	✗	✓	Carrier grade Telco network



Attachment #3

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678

CLARATTI LIMITED
Unit 2b, 36 Irvine Drive
Malaga, WA 6090
P: 1300 073 085
W: claratti.com
ABN: 642 169 337



18 March 2022

Bushfire Advisory Committee
Kalamunda WA 6076

RE: Bushfire & Telecommunications Presentation Brief

Dear Attendees of the Kalamunda meeting 5.30pm Thursday 17th 2022,

Thank you for your time to allow me to present the next generation 100% renewable powered fire zone telco solution.

We have spent considerable time and resources after going through the Royal Commission into Fires across Australia to create an experience that addresses many of the concerns from the Royal Commission.

Early alerts experience:

- Today the satellite alert capability from a satellite that is 10,000km above the earth's surface will only recognise a 2 square kilometre square area which requires the fire to be well advanced to detect heat from a fire
- Our solution can from a 17-kilometre radius of the tower detect an ignition within one square meter immediately when it occurs to report the GPS position for further action
- With an ignition we alert DFES, launch our drone and feed live video back to DFES

Population management experience:

- We create a mobile application so DFES can set off an alarm to mobile phones of residence in the fire zone alerting them to the fire
- The resident then acknowledges the alert which enables GPS tracking of that resident so DFES can monitor how many residents are in the fire zone and then directly communicate with individuals or the group
- Our Telco solution has its own standalone power and fire protection so will provide telecommunication throughout the fire emergency
- By adding BOM technology to the towers combined with thermal cameras, wind speed and fire direction data will constantly be fed back to feed DFES fire models for tracking the locations, directions and speed of the fire/s
- Evacuation instructions and directions can be automatically delivered to everyone according to their location
- In the worst-case scenario where a resident can't escape, DFES will have the GPS location of the resident/s and be able to direct water bombers to drop water directly on the trapped resident



Funding experience:

- We are only looking for an interest bearing loan, which we will pay back in under 10 years from revenues generated through providing much needed Internet access and other telco services
- We will work with DFES and local councils to provide what service they require

Summary:

Our solution will provide the ability to address concerns of the community, provide much needed assistance to the Firefighters and create a situation where the government are supporting a project which pays for itself.

If you have any colleagues in WA or around Australia who you believe would like to get an understanding of our next generation fire management initiative, please get them to contact me directly.

Our proposal ticks every box

Community Benefits	<ul style="list-style-type: none"> ✓ Towers - 100% Green Powered ✓ Placed out of sight & camouflaged ✓ High-speed internet provided ✓ Fire danger web application
Fire Fighter Benefits	<ul style="list-style-type: none"> ✓ Advanced warning system ✓ DFES provided new technology ✓ Water supply & safety refuge ✓ Profits will help fund equipment
Government Benefits	<ul style="list-style-type: none"> ✓ Money invested as a loan ✓ Repaid + Interest over 10 yrs. ✓ Incredible story ✓ Countless benefits above

Together let's reduce the destruction and unnecessary cost which fires have been having on our communities.

Sincerely,

Douglas S. Childress
Chief Executive Officer
doug.childress@claratti.com
+61 401 317 795



Attachment #4

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678



File Number:	
Date:	08/03/2022
Officer:	Grant Howatson

Memorandum

To: Tim Parry, James Wickens, Peter Varelis,

CC: Mike Ward

From: Grant Howatson

Subject: 2022-2023 Fire Hazard Reduction Notice review and update.

Bush Fires Act 1954

Part III Prevention of bush fires

Division 6 General restrictions, prohibitions and offences

s.33

Details	Legislation
	<p>(1) Subject to subsection (2) a local government at any time, and from time to time, may, and if so required by the Minister shall, as a measure for preventing the outbreak of a bush fire, or for preventing the spread or extension of a bush fire which may occur, give notice in writing to an owner or occupier of land situate within the district of the local government or shall give notice to all owner or occupiers of land in its district by publishing a notice in the <i>Government Gazette</i> and in a newspaper circulating in the area requiring him or them as the case may be within a time specified in the notice to do or to commence to do at a time so specified all or any of the following things –</p> <p>(a) To plough. Cultivate, scarify, burn or otherwise clear upon the land fire-breaks in such manner, at such places, of such dimensions, and to such number, and whether in parallel or otherwise, as the local government may and is hereby empowered to determine and as are specified in the notice, and thereafter to maintain the fire-breaks clear of inflammable matter;</p>

	<p>(b) To act as and when specified in the notice with respect to anything which is upon the land, and which in the opinion of the local government or its duly authorised officer, is or is likely to be conducive to the outbreak of a bush fire or the spread or extension of a bush fire,</p> <p>and the notice may require the owner or occupier to do so -</p> <p>(c) as separate operation, or in co-ordination with any other person, carrying out a similar operation on adjoining or neighbouring land; and</p> <p>(d) in any event, to the satisfaction of either the local government or its duly authorised officer, according to which of them is specified in the notice.</p> <p>(3) The owner or occupier of land who has received notice under subsection (1) fails or neglects in any respect duly to comply with the requisitions of the notice is guilty of an offence.</p>
--	---

Details	Fire Hazard Reduction Notice
Action points	<ol style="list-style-type: none"> 1. Style Guide remains. 2. 'First and Final Notice' remains. 3. Dates updated. 4. Reference to legislative responsibility remains. 5. Main headings remain bold and coloured to draw attention and emphasis on those areas. 6. 'Fire-break' description updated. 7. 'Dead Flammable Material' updated. 8. 'Slashing' description updated. 9. 'Asset Protection Zone' description updated. 10. 'Variation' description updated. 11. 'Additional Works' description updated. 12. Fire-break definition updated to clarify living lawns. 13. Fuel Load definition updated to clarify mulch, woodpiles and burn piles.
Reasoning	<ol style="list-style-type: none"> 1. Colours and branding remain in line with Kalamunda image and style guide. PR to review and confirm. 2. 'First and Final Notice' to remain. The addition for the 2020/2021 season had the desired impact. It is noted residents were drawn to attention of the Notice, making comment of they have never received this notice before and were wanting more information regarding the Notice due to the wording added. 3. Dates reflect the start of the oncoming fire season. 4. No changes made. 5. Headings – No change made. PR to review and confirm style colour.

	<p>6. Fire-break dimensions bolded to emphasise the requirements. Common confusion or complaints during 20/21 season were particular to the height clearance. Many breaks had good width but did not action pruning or trimming for height. Consider breaking down further to like Asset Protection Zone (APZ) to dot points as still having height clearance not been complied to.</p> <p>Fire Breaks are to be Installed or upgrade to -</p> <ul style="list-style-type: none"> • 3-metre-wide bare mineral earth, • 4-metre-high clearance, • Continuous (no dead ends) and trafficable • As close as possible inside the entire perimeter of the land. <p>Maintained, reticulated living lawns that are kept completely green is acceptable in conjunction with, or in lieu of, a mineral earth fire break/s (see definition FIRE BREAK).</p> <p>7. On review, no change made.</p> <p>8. Removal of the work Dead from in front of 'Grasses' as they can be live but overgrown and pose as much risk as dead grasses. Residents were not keeping the maintenance up as the notice only stated 'dead grasses' in the Slashing description, 'dead' was included in front of grass, shrubs, and plants after the Notice print run was completed for 20/21.</p> <p>9. On review, no change made.</p> <p>10. Dates updated. Change 'other' to 'alternative'. This change reflects the same wording in the guide to understanding the FHRN. Alternative gives better requirements to having still to mitigate the risk of containing a fire on or to their property.</p> <p>11. On review, no change made.</p> <p>12. On review, no change made.</p> <p>13. On review, no change made.</p>
--	--

Details	Print
Recommendations	<ul style="list-style-type: none"> • Continue to print the Notice paper same at 2021/2022. • Continue to not print the Notice on a gloss finish paper.

Summary

The Fire Hazard Reduction Notice is a Notice is an obligation of local government produced under legislation. It clearly states what is to be done by property owners / occupiers. This review builds on the revamp of the Notice from 2020/2021. The layout and look remain the same as the 2021/2022 Notice with changes to some individual words. Having a Notice that looks familiar to the previous year will hope to have the effect that property owners / occupiers will be able to easily identify it from the year before.

Attachment 1 – 2021/2022 Notice

City of Kalamunda

FIRST AND FINAL NOTICE

FIRE HAZARD REDUCTION NOTICE 2021/2022

NOTICE TO ALL OWNERS AND OCCUPIERS OF LAND WITHIN THE CITY OF KALAMUNDA

Pursuant to Section 33 of the Bush Fires Act 1954 (WA), the City of Kalamunda (City) gives written notice to act as specified in this notice to land that you own and/or occupy and with respect to any matter which is upon the land that you own and/or occupy within the City. Failure or neglect to comply with this notice is an offence and can result in a penalty of up to \$5000. The City advises that its officers, servants, workmen, contractors, vehicles, machinery, and appliances (as the officers deem fit) may carry out the requirements of this notice that are not complied with by the date specified above, and any costs and expenses incurred may be recovered from you as the owner and/or occupier of the land.

ALL LAND WITH A TOTAL AREA OF 4000m² OR MORE

□ FIRE BREAKS
Install or upgrade a 3-metre-wide by 4-metre-high clearance, bare mineral earth, continuous (no dead end) trafficable fire break as close as possible inside the entire perimeter of the land. Maintained, reticulated living lawns that are kept completely green is acceptable in conjunction with, or in lieu of, a mineral earth fire break/s (see definition FIRE BREAK).

□ DEAD FLAMMABLE MATERIAL (DFM)
Reduce and/or maintain all dead flammable material below 8 tonne per hectare (see definition FUEL LOAD).

□ SLASHING
Slash, mow, or trim dead grasses, dead shrubs, and dead plants to a height no greater than 50mm and remove cuttings/brush across the entire property.

□ ASSET PROTECTION ZONE (APZ)
Maintain a fuel reduced zone around all buildings or assets which extends 20 metres from the outmost point of the building or asset.

- Gutters, roofs, and walls of all buildings to be free of flammable matter and maintained.
- Fuel load within the 20-metre zone is reduced and maintained to no more than 2 tonne per hectare.
- Trees over 5 metres in height within the 20-metre zone to be under pruned up to 2 metres.
- Trees or shrubs within 2 metres of the asset shall be pruned to a height no greater than 2 metres and/or pruned away from the asset to a distance no greater than 2 metres.

ALL LAND WITH A TOTAL AREA LESS THAN 4000m²

□ DEAD FLAMMABLE MATERIAL
Reduce and/or maintain all dead flammable material below 8 tonne per hectare (see definition FUEL LOAD).

□ SLASHING
Slash, mow, or trim dead grasses, dead shrubs, and dead plants to a height no greater than 50mm and remove cuttings/brush across the entire property.

□ CLEAN GUTTER DEBRIS
Gutters, roofs, and walls of all buildings to be free of flammable matter and maintained.

VARIATION TO THE FIRE HAZARD REDUCTION NOTICE
If you consider it impractical to meet a requirement/s of this Notice, you may apply to the City for a variation no later than 1 October 2021.

Note: A variation is not an exemption but an application to employ other methods of property preparedness to land that you own and/or occupy.

An administration fee of \$150 applies for applications received after 1 October 2021.
If your application is not granted you must comply with all requirements outlined in the Fire Hazard Reduction Notice 2021/2022.

Variation request application forms are available before 1 October 2021 on the City's website at: www.kalamunda.wa.gov.au/our-city/fire-variation

COMPLIANCE DUE BY: 1 NOV 2021

ASSESSMENTS COMMENCE FROM: 1 NOV 2021

Important: The works outlined below must be completed by 1 November 2021 and maintained in this state up to and including 31 March 2022.

ADDITIONAL WORKS
You may be required to carry out further bushfire property preparedness works on your land to reduce any fire hazards considered necessary by a Fire Officer. If required, these will be outlined in a 'work order' and sent to the address of the owner and/or occupier.

EMERGENCY MANAGEMENT PLANS AND CITY APPROVED TREATMENT PLANS
All properties and/or land subject to a Bushfire Management Plan, Emergency Management Plan, or an approved Bushfire Attack Level assessment (BAL), as a result of subdivision, development application or a City approved treatment plan, must comply with the listed requirements in their entirety. **Compliance with any additional plans does not constitute compliance with this Notice.**

ENVIRONMENTAL CONDITIONS
Any property subject to environmental values such as, but not limited to, Threatened Ecological Communities (TEC), Bush Forever sites, Declared Rare Flora and Fauna (DRF) sites etc, should seek further information about what can or cannot be done prior to carrying out requirements under this Notice.

DEFINITIONS

FIRE BREAK: A strip of land free of all flammable material with the intention of minimising the spread or extension of a bushfire and provide safe access on the property for emergency vehicles and other firefighting operations.

- Clearance must be no less than 3-metres wide and 4-metres in height inside and along all boundaries (including boundaries adjacent to roads, rail and drain reserves and all public open space reserves).
- Must not be more than 4-metres wide (further width extensions may be considered upon written application for approval to the City).
- Maintained, reticulated living lawns are lawns considered to be kept completely green. Driveways may be acceptable in conjunction with, or in lieu of, mineral earth fire breaks. Contact a City Fire Officer for further assistance.
- Must have a corner turning radius of up to 10 metres.
- Must be a mineral earth break with a continuous trafficable surface for a 4WD vehicle, be clear of any obstructions and must not terminate in a cul-de-sac (dead end).

FUEL LOAD: Can be live and dead vegetation that accumulates over time.
This Notice refers only to dead vegetation.

Fire fuels include = leaf litter, grasses, twigs (up to 6mm diameter), bark etc.
Heavy (course) fuels include = branches, logs, stumps etc.

- A fuel load depth of 15mm (fine fuels) to the mineral earth is indicative of approximately 8 tonne per hectare. The more fuel load, the higher the flame height and increased fire intensity.
- Much piles, stored firewood and burn piles can contribute to fuel loading on land and must be stored safely away from assets, removed from the property, or actioned as directed by a Fire Officer.

If you require any further information, please contact the City of Kalamunda Community Safety team on (08) 9257 9999, email at enquiries@kalamunda.wa.gov.au or visit www.kalamunda.wa.gov.au/our-city/fire

Rhonda Hardy
CHIEF EXECUTIVE OFFICER

kalamunda.wa.gov.au
1 9257 9999 | 9257 9919 | enquiries@kalamunda.wa.gov.au
3 Railway Road, KALAMUNDA WA 6215 | PO Box 42, KALAMUNDA WA 6026
A 081 60781 005 076



Attachment #5

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 F 9293 2715 E enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 PO Box 42, KALAMUNDA WA 6926

ABN 60 741 095 678

Fire Hazard Reduction Notice - Slashing / DFM

Lake, Steve <Steve.Lake@kalamundabfb.org.au>

Thu 17/03/2022 6:21 PM

To: michael.ward@dfes.wa.gov.au <michael.ward@dfes.wa.gov.au>

Cc: Haselden, Andrew <Andrew.Haselden@kalamundabfb.org.au>

Hi Mike,

As discussed at BFAC.

This falls under the category of **all land with a total area of 4000m² or more**
Slashing - "remove cuttings/swath across entire property"

If a block is entirely grass (>50mm), then the overall fuel load is unlikely to be >8 tonne per hectare. This requirement becomes almost an additional requirement to further reduce the fuel load just because the block is grass.

In terms of practicality, I don't think it is feasible for property owners on large properties to remove cuttings/swath following slashing.

CC Andrew for minutes

Steve Lake 132251

Fire Control Officer

City of Kalamunda

Ph: [0417944150](tel:0417944150)

Steve.Lake@kalamundabfb.org.au | www.kalamundabfb.org.au



Attachment #6

UNCONFIRMED

kalamunda.wa.gov.au

T 9257 9999 **F** 9293 2715 **E** enquiries@kalamunda.wa.gov.au

2 Railway Road KALAMUNDA WA 6076 **PO Box** 42, KALAMUNDA WA 6926

ABN 60 741 095 678



Canning Mills Bushfire

1 February 2022

Incident 559539

Mike Ward



FOR A SAFER STATE





FOR A SAFER STATE

Overview

Initial call & Response

12:40 pm – 1 February- 000 call reporting small scrub fire starting on side of Canning Road, Canning Mills.

12:47 pm – Armadale Fire & Rescue arrived on the West side of the fire (Canning Mills Road)

12:49 pm –City of Kalamunda Fire Protection crews can see a large plume on route, called 2nd alarm

12:52 pm – Chief mobilized and Requested Gosnell and Armadale Bush Fire Brigades.

12:55 pm – Kalamunda FCO Mike Hall calls 3rd alarm and request police for road closures on canning Road and Canning Mills Road.

1:06 pm Chief Mike Ward on-route request an additional frontloaded and dozer for fire line construction.





FOR A SAFER STATE

Overview continued

Initial call & Response

1:37 pm – Canning Mills Control established with control point to be at the Kalagullen Oval.

1:47 pm am – City of Armadale bush fire appliance is involved in a “Burn Over” with its crew rescued and bought to control with 2 fire-fighters receiving minor injuries.

2:41 pm – Emergency Warning issued to the Versteeg Grove Estate, Martin.

2:52 pm – Chief declares the incident a level 2 incident and transfers control to DFES under section 13 of the Bush Fire Act.





FOR A SAFER STATE

Overview continued

Initial call & Response

6:00 pm – Fire retardant is used in 3 drops from the Large Air Tanker (LAT) to establish Fireline to defend the martin estate.

8:15 pm – Fire was tracked by machinery, fire contained, but not controlled.

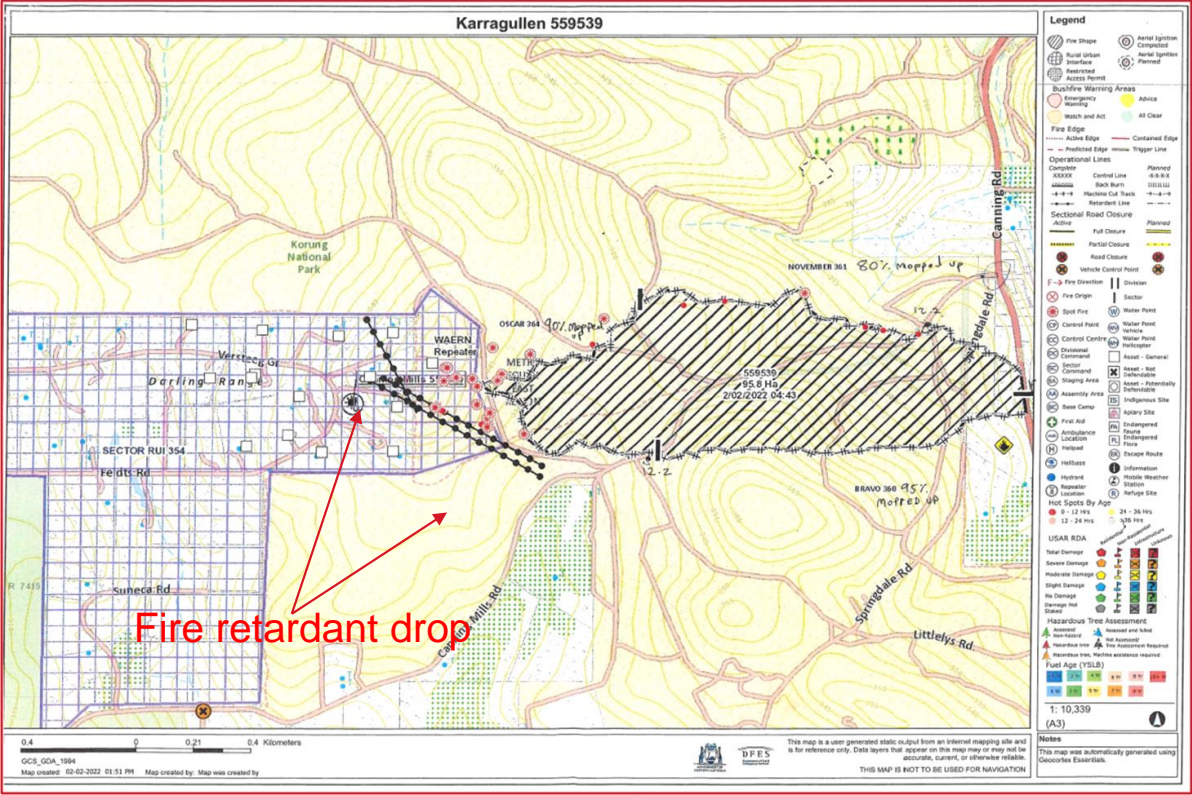
07:00 am, 3/2/22 - DFES transferred control back to the City of Kalamunda (Chief) as the incident was now downscaled to a level 1 incident.

1:30 5/2/22 – Incident handed over to DBCA as the incident was in their tenure (Korung National Park).





Final Fire Shape – 95.8 Ha





FOR A SAFER STATE

Incident Statistics

- 40km/h Easterly winds.
- Rate of spread of the fire was 600-800m per hour, with erratic fire behaviour.
- Fire was spotting 80m ahead of the fire front.
- Fire ran into and was contained in 1-year-old fuel (vegetation) from a previous DBCA mitigation burn in 2020-21.
- Final fire size was 95.8 ha.



1 Year old fuel from DBCA mitigation burn



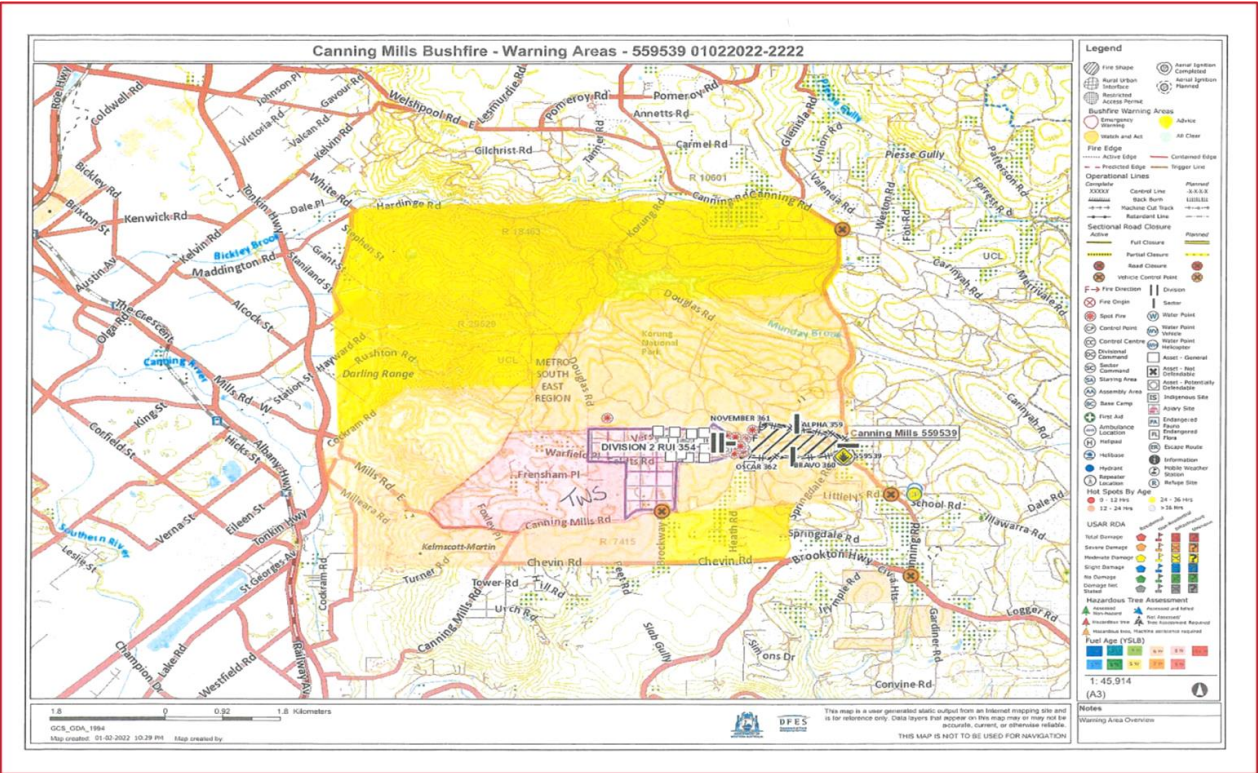
FOR A SAFER STATE

Incident Statistics

- Over 120 personnel were on-site at the peak of the incident.
- 218 community alerts and warnings were issued over the duration of the Incident, from an Advice to an Emergency Warning.
- Kalamunda bush fire brigade was in attendance for 6 days to ensure it was safe, working day and night shifts.
- The City of Kalamunda sent a front-end loader and the new 12,000lt bulk water tanker to assist with the incident.



Alerts & Warnings





FOR A SAFER STATE

Recovery

- Fire was considered accidental with no cause found.
- The only recovery requested was for the cleaning off the fire retardant that was used in fire construction that drifted onto the houses. This was completed by the City of Gosnells.
- Only damage sustained to infrastructure or assets was a dozer damaged a driveway and slight marking to the heritage-listed section of Canning Mills Road.

