



Shire of Northam  
*Heritage, Commerce and Lifestyle*

## **Shire of Northam**

### **Minutes**

### **Bush Fire Advisory Committee**

**9 July 2019**

UNCONFIRMED

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## 1. DECLARATION OF OPENING

The Presiding Member, Cr T M Little declared the meeting open at 5:32pm.

## 2. ATTENDANCE

### Voting Committee:

Councillor – Shire of Northam	Terry Little
Chief Bush Fire Control Officer	Mathew Macqueen
Deputy Bush Fire Control Officer	Simon Peters
Inkpen Brigade	Nic Dewar
Clackline Muresk Brigade	Joe Marasco
Bakers Hill Brigade	Kris Brown
Grass Valley Brigade	Sam Moss
Irishtown Brigade	Rob Herzer
Jennapullin Brigade	Aaron Smith
Wundowie Volunteer Fire and Rescue Service	Jeffrey Roberts
Northam Volunteer Fire and Rescue Service	Greg Montgomery

### Non Voting

Community Emergency Service Manager	Brendon Rutter
District Officer Northam	Daniel Hendriksen

### Staff:

Executive Manager Development Services	Chadd Hunt
Executive Assistant - CEO	Alysha McCall

### Gallery:

Grass Valley Bush Fire Brigade	Chris Marris
Clackline Bush Fire Brigade	Mathew Letch
	Bob Stockman
	Michael Letch
	Blair Wilding
Wundowie VFRS	Andrew Wilson
	Mathew Sangston
Bakers Hill Bush Fire Brigade	Andrew Burrows

### 2.1 APOLOGIES

Irishtown Brigade	Murray McGregor
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Southern Brook Brigade  
Councillor – Shire of Northam

Paul Antonio  
Carl Della

### 3. DISCLOSURE OF INTERESTS

Item Name	Item No.	Name	Type of Interest	Nature of Interest
Honorarium's for Chief & Deputy Chief Bush Fire Control Officer	5.5	Mathew Macqueen	Financial	He is the CBFCO.
		Simon Peters	Financial	He is the DCBFCO.

### 4. CONFIRMATION OF MINUTES

#### 4.1 COMMITTEE MEETING HELD 9 APRIL 2019

##### RECOMMENDATION / COMMITTEE DECISION

Minute No: BFAC.212

Moved: Kris Brown

Seconded: Sam Moss

That the minutes of the Bush Fire Advisory meeting held 9 April 2019 be confirmed as a true and correct record of that meeting.

CARRIED 11/0

## 5. COMMITTEE REPORTS

### 5.1 CHIEF BUSHFIRE CONTROL OFFICER (CBFCO) REPORT

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Matt Macqueen Chief Bush Fire Control Officer
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Officer Declaration of Interest:</b>	Nil.
<b>Voting Requirement:</b>	Simple Majority
<b>Press release to be issued:</b>	No

#### BRIEF

For the Committee to receive and note the report provided by the Chief Bushfire Control Officer.

#### ATTACHMENTS

Nil.

#### BACKGROUND / DETAILS

The CBFCO report for the 2018/19 bushfire season will be provided at the meeting.

#### CONSIDERATIONS

##### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

##### Financial / Resource Implications

Nil.

##### Legislative Compliance

Nil.

### **Policy Implications**

Nil.

### **Stake Holder Engagement / Consultation**

Nil.

### **Risk Implications**

Nil.

### **OFFICER'S COMMENT**

#### **Damage to appliances.**

This past season has seen an increase in damage done to the both the appliances and in some cases the buildings.

While it is accepted that accidents can occasionally happen, the majority of the damage that has occurred this season is due to carelessness.

We have had an incident where a brigade has borrowed another brigade's appliance, then upon returning the unit damaged the surrounds of the fire shed. This damage went unreported for several months which lead to frustration within the brigade as no-one could identify when or how the damage occurred.

We have also had multiple incidents of heat damage to several appliances this past season, one incident in particular involved an appliance being exposed to such a high level of heat, it melted the side mirror that has been coated in a fire proof coating. That one incident alone caused over \$4,000 worth of damage to the appliance as a result of the mirror damage and all signage down the side of the appliance being melted.

The fire proof coating on the mirror withstands up to 800 degrees of heat before failure, an appliance parked close enough for this type of damage to occur poses a significant risk not just to the appliance potentially being lost to fire, but has the potential to cause horrific injuries to the personnel both inside the cab and on the back deck, in all cases the driver of an appliance is responsible for safety of the appliance itself, but most importantly his/her crew on the appliance, please continue to reinforce the "LACES" message to all crew on the fire ground to ensure safety is out highest priority.

#### **OSH issues and PPC**

There was an incident in February this year where an appliance was driven fire call conditions to an incident, with 5 personnel on a 3 seater appliance.

Please be reminded that DFES SOP 3.5.10 – Crew Safety at Bushfires that has been developed from Directive 3.5 – Bushfire provides the only circumstances when riding on the back of an appliance is permitted.

Emergency service vehicles are provided exemptions under certain circumstances from penalties being applied under the Road Traffic Code 2000. Riding on the back of an appliance for obvious reasons is not one of them.

Had the offence been reported to Police by a concerned member of the public (dash cams are common nowadays) the driver could have been issued with a \$550 infringement + 4 demerit points, each of the personnel on the back deck also committing an offence could have been issued with an infringement of \$550 + 0 demerit points.

Road safety is something that the WA Police take extremely seriously, I would like to encourage us all to form the same view.

The potential legal ramifications aside, this is incredibly dangerous and in the event of something going wrong there is the potential to cause severe injury or even death to one of your crew members, again we need to be better at looking out for each other. The community and indeed your families don't want to see a tragedy event involving our volunteer firefighters, again please ensure personal & crew safety are the highest priority at all times.

On a more positive note, this past season was the best I've seen to date with an estimated 60% increase in personnel wearing their issued PPC. It was also noted that personnel on the fire ground were reminding each other about safe work practices, and donning their PPC which is fantastic to see, so together as a team we are all working towards making our environment on the fire ground as safe as we possibly can. We are currently achieving 85% of personnel on the fire ground are utilising the correct PPC, this is encouraging that the message of personnel safety is getting through and I look forward to working towards 100% as we look towards the future.

#### **RECOMMENDATION / COMMITTEE DECISION**

**Minute No: BFAC.213**

**Moved: Nic Dewar**

**Seconded: Robert Herzer**

**That Council note the Chief Bushfire Control Officer Report as provided.**

**CARRIED 11/0**

## 5.2 COMMUNITY EMERGENCY SERVICES MANAGER REPORT

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Brendon Rutter Community Emergency Services Manager
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Officer Declaration of Interest:</b>	Nil.
<b>Voting Requirement:</b>	Simple Majority
<b>Press release to be issued:</b>	No

### BRIEF

For the Committee to receive and note the update provided by the Community Emergency Services Manager.

### ATTACHMENTS

Nil.

### BACKGROUND / DETAILS

N/A.

### CONSIDERATIONS

#### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

#### Financial / Resource Implications

Nil.

#### Legislative Compliance

Nil.

#### Policy Implications

Nil.

## **Stake Holder Engagement / Consultation**

Nil.

## **Risk Implications**

Nil.

## **OFFICER'S COMMENT**

### **2018/2019 Bush Fire Season**

The 2018/2019 fire season finally came to a close with the Horton Rd Fire back in May.

The Horton Rd fire was a very prolonged and complex incident and one that burnt with such ferocity the fire ground resembled something you would expect to find during January/February. The fire behaviour was extremely erratic and serves best as a stark reminder that our seasons are getting longer and even though the weather, may be changing the prolonged dry conditions mean that fires of this magnitude have the potential to occur very late in the season, something we must be extremely mindful of as we head into the permit season following the prohibited burning period.

It is important to acknowledge all the volunteers who attended the Horton Rd fire but in particular the Inkpen & Bakers Hill members who maintained a consistent presence on the fire ground for 72 hrs post incident to monitor and deal with any re-occurring hot spots.

Fires such as this highlight how quickly we can be caught off guard, to have a level 2 incident in late May is not what most would expect however it is fast becoming a harsh reality of our changing climate.

For 5 days post fire the our Volunteer Chief Bush Fire Control Officer, the Deputy Chief and myself worked with the owners of the mulching facility to develop a strategy to initiate a controlled process for full extinguishment of over 30,000 cubic mtrs of mulch products at various stages of processing. Once restorative works were under way I would attend the site each day to liaise with the property owners and their staff, and in conjunction with ongoing advice from DWER and continuing air quality monitoring throughout the recovery works the site was able to be restored to normal operations.

The owner of the property tasked all of his staff each day to operate 5 x front end loaders, 2 x back hoes, and 3 x water carts that worked consistently to extinguish the mulch piles. There was approx. 800,000 ltrs of water used each day to achieve total extinguishment. Total size of this fore was 272 Ha and during the peak of the incident there was over 50 appliances and 175 personnel involved in fighting the fire.

The incident was finally declared closed by myself on Friday May 31<sup>st</sup> at midday 16 days after the fire started, the total loss to the business owner as a result of this fire is an estimated \$500,000 with an estimated \$10,000 - \$15,000 per day for the recovery operation.

The Fire investigations team had attended the incident and identified the point of ignition was on a neighbouring property, the cause is still being investigated however preliminary advice is that the cause is not suspicious.

Thankfully our season was once again relatively quiet with a total of 78 incidents within the Shire of Northam for the financial year.

During the restricted period there was a high number of incidents that were a result of escaped permit burns, many of these were due to prescribed conditions on the permit not being adhered to which resulted in a large number of infringements being issued this year additional to record numbers of official cautions being handed to land owners for non-compliance.

There was a high number of caution notices given in respect to members of the public due to being provided with incorrect information by brigade members, in particular surrounding misinformation around 1mtr garden refuse burns.

All brigade members are urged to speak to their BFCO's before providing advice to members of the public as they are the ones who make amendments to accommodate changes in the season, if a member of the public is issued an infringement for breaching the conditions set by Council on advice from the BFCO's I'm sure that would lead to a conversation with their information source that is best avoided in the first place, so please either refer all enquiries to the Shire website, or ensure you are providing correct information if approached by members of the public.

### **Community Engagement & Recruitment**

Speaking with each brigade over the past 12 months there is a clear message from each brigade and that is membership. I'm working on launching a recruitment drive in the near future that may involve some open days at some of our key fire stations.

I'm also hoping to raise our profile within the community particularly in the west of the Shire, so to enable this I encourage all brigades to attend as many community events as possible. Please let me know if there is an event you would like the brigade to participate in and I'll come along to support your efforts with recruitment material and assist with general advice to members of the public. I can arrange whatever resourcing you may require to make your attendance a success.

### **Council Policies**



With the adoption of the Bush Fire Manual there is a number of council policies that have now been superseded by either the manual itself or by the formalisation of any SOP's.

**A8.2 – Harvest, Vehicle Movement &/or Hot Works Ban** has been superseded by SOP 16

As a result of the policy being superseded, officers will recommend the policy be rescinded by Council.

### **LGGS Funding**

We have received preliminary advice from DFES regarding the operational budget and all approved line 9 items for the 2019/20 fiscal year.

I'll be in touch with relevant brigades to advise what works have been approved as part of this process in due course.

To date we have not received any formal advice regarding any capital expenditure, once this comes in I'll provide a further update to brigades.

### **Annual Fleet Servicing**

I'll be sending out requests for quotes by Mid July to all eligible repair technicians within the Shire of Northam for the annual servicing and inspection of all operational appliances. Information will be provided to each perspective workshop about the service standard required, and to ensure that each appliance is certified ready for operations, specifically certifying all systems, especially foam systems and communications equipment as these seem to be our reoccurring issues.

I ask that all brigade members please do a thorough check of your appliance, and ensure that all VFR's are completed to enable any repair work to be carried out as part of the annual service, if there is any issues at all, please let me know and I'll assist where I can.

### **Bakers Hill Fire Station**

Recent information has come to light that has placed a hold on the tender being awarded for the construction of the Bakers Hill Fire Station.

Staff are working through the issues at the moment, and the brigade will be briefed in due course.

As soon as an outcome is developed moving forward I'll provide an update in the progress of the facility.

### **Training**

We are now in the training period and as Training is an important part of what we do to keep our skillset current, I encourage all training officers to work with your brigades and if any training courses are needing to be run, please let me know. Once we hit out minimum numbers I'll arrange for the course to be setup prior to the new season.



I'm also on hand for all brigade training nights to brush up on anything that needs to be worked on specific to your brigade.

### **Criminal History Checks**

In accordance with DFES Circular 75/2016 an internal process has now been established with a provider appointed for the provision of criminal history checks for all volunteer applications. This is a requirement for new membership applications only.

### **Reserve Management Plan**

Over the past few months I've been developing the Shire of Northam Reserve Management Plan. The document is still being developed and will be released once complete.

The document has captured all reserves either owned by or vested with Council to ensure that mitigation strategies are being implemented with any works being recorded against the land parcel.

This will also be utilised for MAF funding as we apply for the next round in the coming months.

Recent discussions have taken place around road reserves, these are now eligible for MAF funding and a treatment programme will be developed as part of the funding round that will be incorporated into the Reserve Management Plan.

Mat Macqueen has played an integral role in the development of this document which needs to be acknowledged as he has given up many volunteer hours to assist council with the important work.

### **Brigade Burns on Private Property**

An issue has arisen with respect to Brigades undertaking burning on private property. There is subsequently insurance and legal issues that arise from the current practices that are being undertaken. It is proposed that BFAC and Council consider adopting a Standard Operating Procedure (SOP) for undertaken brigade burns.

Staff have prepared a draft Standard Operation Procedure for discussion with BFAC representatives and Brigades. The intent of the SOP is to provide guidance and a procedure for Brigades in how to manage the hazard reduction burning. This has been provided as Attachment 2. Comments are being sought in relation to this and it is proposed that the SOP be endorsed by BFAC at its next meeting before the next fire season.

## RECOMMENDATION / COMMITTEE DECISION

**Minute No: BFAC.214**

**Moved: Aaron Smith**

**Seconded: Kris Brown**

**That Council note the Community Emergency Services Manager Report as provided.**

**CARRIED 11/0**

Discussion was held around the following:

- SOP. 16 and the issue that has resulted in the development of this. The Community Emergency Services Manager advised that the issue raised is in relation to liability. Reference was made to the Bush Fires Act 1954, section 33(4) where a local government can direct its BFCO or another officer of the local government to enter the land and undertake remedial work, if this is occurs they are covered by the local government. The Executive Manager Development Services advised that the SOP is currently a draft, it was suggested that any concerns or queries in relation to the draft SOP be discussed after this meeting to address these prior to being circulated to brigades.

### Attachment

Date	Motion No	Item No	Subject	Motion	Action By	Comment	Status
18-Jul-18	C.3415	11.1	BUSH FIRE ADVISORY COMMITTEE MEETING HELD ON 3RD JULY 2018	<p>That Council:</p> <ol style="list-style-type: none"> <li>1. Note the Community Emergency Services Manager Report as provided.</li> <li>2. Note the Risk Assessment for vehicle and structural fires.</li> <li>3. Endorse the construction of a new Bakers Hill Fire Shed on a portion of Reserve 3308 subject to approval being issued by the Department of Heritage, Planning and Lands and the additional funding being provided by the ESL to be referred back to Council for formal approval following the submission of a planning application and consultation with adjoining landowners and the Bakers Hill Progress Association.</li> <li>4. Appoint Mr Mathew Macqueen as the Chief Bushfire Control Officer and Mr Simon Peters as the Deputy Chief Bushfire Control Officer for the 2018/19 period.</li> <li>5. Accept the revised Fire Breaks &amp; Fuel Load Notice for the 2018/19 period subject to the following amendments: <ol style="list-style-type: none"> <li>a. Section 1 – Building Protection Zone, item 15 being removed which relates to roof mounted evaporative air coolers being fitted with ember proof screens;</li> <li>b. Section 3 – Land with an area greater than 10,000m<sup>2</sup> (1 hectare), item 3(2) add 'excluding cropped and/or stubble land';</li> <li>c. Section 10 – Harvest, Movement of Vehicles and Hot Works Ban, Remove the proposed additions as highlighted in Attachment 1.</li> <li>d. Amending the Firebreak requirements to be consistent with the requirements detailed in 2017/18 Firebreak &amp; Fuel Load Notice(with reference to having different requirements for lots less than 10 hectares and a separate section for lots greater than 10 hectares) with the addition of remnant vegetation requiring a firebreak of 3 metres within 10 metres of the property boundary.</li> </ol> </li> <li>6. Request the Chief Executive Officer to investigate an annual fee for the Chief and Deputy BFCO for the</li> </ol>	CESM	<p>Update 10/12/2018</p> <ol style="list-style-type: none"> <li>1. No action required.</li> <li>2. No action required.</li> <li>3. Matter currently on hold, item being presented to the July Council meeting to not award the tender. It is recommended to continue consultation with the Bakers Hill Fire Brigade and the Bakers Hill Progress Association over the suitable location for a new or expanded Fire Brigade Shed.</li> <li>4. No action required.</li> <li>5. Complete.</li> <li>6. Report being presented to BFAC on 9 July 2019 for consideration.</li> </ol>	Open

Bush Fire Advisory Committee Meeting Minutes  
9 July 2019

Date	Motion No	Item No	Subject	Motion	Action By	Comment	Status
19-Dec-18	C.3562	11.1	BUSH FIRE ADVISORY COMMITTEE MEETING HELD ON 27 NOVEMBER 2018	<p>2018/19 season and the findings be presented to the next Bush Fire Advisory Committee meeting.</p> <p>That Council</p> <ol style="list-style-type: none"> <li>1. Note the Chief Bushfire Control Officer Report as provided.</li> <li>2. Note the Deputy Chief Bushfire Control Officer Report as provided.</li> <li>3. Note the Community Emergency Services Manager Report as provided.</li> <li>4. Pay an annual honorarium of \$2,500 to the volunteer CBFCO &amp; \$1,500 to the volunteer DCBFCO commencing in the 2018/19 Fire Season.</li> <li>5. Endorse SOP16, SOP17 &amp; SOP18, and acknowledge that these SOP's will be included in the future Section 8 SOP's of the Bush Fire Manual, subject to; <ol style="list-style-type: none"> <li>a. Dot point 2 of SOP16, being amended to remove reference to 'a harvest ban shall be imposed' and redrafted to reflect that the notification of the potential for a fire ban the following day is an advisory notice only and that a decision to impose a fire ban will be made on the day and necessary notification provided at that time.</li> <li>b. Staff undertaking a final review of the SOP's to ensure they align with the bushfire manual and make any necessary adjustments to cause this to occur if it is not the case.</li> </ol> </li> <li>6. Endorse the current Risk to Resources process and that all Brigades abide by the outcomes of the Risk to Resources process and the final decision made by the Shire of Northam.</li> <li>7. Notes the Risk to Resource Document (stages 1 and 2) as attached and refers it to a Bush Fire Advisory working group for further development.</li> </ol>	CESM	<p>Update 20/02/2019</p> <ol style="list-style-type: none"> <li>1. No action required.</li> <li>2. No action required.</li> <li>3. No action required,</li> <li>4. honorariums paid at end of season</li> <li>5. Complete.</li> <li>6. No Action Needed</li> <li>7. Sections 3,4,5 have been workshopped and will be provided to BFAC in March</li> </ol> <p>Update 13/03/2019</p> <ol style="list-style-type: none"> <li>7. R2R being finalised, will be tabled at next BFAC meeting</li> </ol> <p>Update 05/04/2019</p> <ol style="list-style-type: none"> <li>7. Sections 4 &amp; 5 have been workshopped and endorsed by council, Section 3 the BRMP is attached to the BFAC meeting on the 9th April 2019</li> </ol> <p>R2R is still under way and an announcement about the completion is pending final review by officers and staff.</p> <p>Update 12/06/2019 - R2R is complete, sent to brigades</p> <p>12/06/2019 - BFAC scheduled for 9/07/2019</p>	Open
17-Apr-19	C.3627	11.4	BUSH FIRE ADVISORY COMMITTEE MEETING HELD ON 9 APRIL 2019	<p>That Council:</p> <ol style="list-style-type: none"> <li>1. Endorse the Bushfire Risk Management Plan as provided in Attachment 1;</li> <li>2. Requests the Chief Executive Officer to apply for the MAF (Mitigation Activity Fund) for implementation of the Bushfire Risk Management Plan.</li> </ol>	CESM	<p>Update 04/07/2019</p> <ol style="list-style-type: none"> <li>1. No action required.</li> <li>2. Received grant. Due to late rain, unable to action any items. Funds were required to be returned. Officers will reapply in the next round of funding.</li> </ol>	Open

Bush Fire Advisory Committee Meeting Minutes  
9 July 2019



Date	Motion No	Item No	Subject	Motion	Action By	Comment	Status
				<p>3. Request the Chief Executive Officer to incorporate the appropriate actions from the Bushfire Risk Management Plan within the Corporate Business Plan;</p> <p>4. Request the Chief Executive Officer to incorporate the Bushfire Risk Management Plan within Section 3 of the Bush Fire Manual;</p> <p>5. Note the Chief Bushfire Control Officer Report as provided;</p> <p>6. Note the Community Emergency Services Manager (CESM) Report as provided.</p> <p>7. Note Bush Fire Brigade Safety Committee report as provided.</p> <p>8. Refer the matter relating to the CBFCO &amp; DCBFCO annual allowance and a second DCBFCO to the brigades for further discussion; and</p> <p>9. Request the outcomes from the brigade's discussion to be presented to the next BFAC meeting.</p>		<p>3. Complete. Corporate Business Plan being presented to Council in July 2019.</p> <p>4. Incorporated. To be provided to all Brigades.</p> <p>5. No action required.</p> <p>6. No action required.</p> <p>7. No action required.</p> <p>8. Brigades currently holding General/AGM's. Expected to be completed in coming weeks.</p> <p>Update 12/06/2019 - Nothing further from Brigades, will await a proposal from current CBFCO. Update 4 July 2019, awaiting proposal from current CBFCO.</p> <p>9. No action to date, dependent on completion of item 8.</p>	



## Attachment 2

### SOP.19 BRIGADE BURNS ON PRIVATE PROPERTY

Procedure No.	SOP.19
Procedure Subject:	Brigade Burns on Private Property

#### Introduction

Burning off private land is not a power of a Bush Fire Brigade or a Bush Fire Control Officer unless directed by Local Government in the circumstances described in Section 33 (4) and (6) of the Bush Fires Act.

In other words, a property owner who is subject to a Local Government notice to remove hazards and does not want to do the work personally may request the Local Government to do the work. The Local Government can also act in default of the owner or occupier. In both circumstances the brigade/contractor can be directed by the Local Government to carry out the work as specified in the notice.

There is no other way in which brigades can carry out burning of private land and still enjoy the immunity conferred by the Bush Fires Act.

Local Governments have a crucial role in ensuring that proper direction is given to brigades and that appropriate notices have been issued to landholders as required by Section 33.

In summary, a brigade operating in accordance with the powers and duties described in the Bush Fires Act, enjoys immunity from liability. If a brigade operates outside these parameters, members may well have liability for damage caused as a result. Accordingly, all requests direct from landholders to brigades must be referred to the Local Government so that Local Government may lawfully direct the brigade to act.

#### Procedure

1. The land owner / occupier (applicant) makes contact with the Brigade.
2. The FCO (or their delegate) must visit the proposed burn site with the applicant and establish the aims and objectives of the burn and identify any risks.
3. Alternatives to burning should be identified and considered if practical.
4. The Brigade is to cost the burn and provide a quote to the applicant on behalf of the local government for the work to be carried out by the Brigade.
5. If the scope and cost of the burn is agreed to by the applicant, the applicant is required to send a written request through to the CESM.
6. The FCO is to prepare a burn plan in consultation with the brigade members and the property owner/occupier and submit the plan with a private works request form to the CESM for approval.
7. The CESM in consultation with the CBFCO is to assess the burn plan with any proposed variations to the conditions to be discussed with the FCO prior to being recorded on the burning plan. Any alterations are to be dated and initialled by the CESM and/or CBFCO.
8. Once the plan is approved, the CESM and/or CBFCO is to approve the plan in writing, which will authorise the brigade to carry out the works.
9. A 'permit to burn' must be issued to the applicant (Not the Brigade) before any burning is carried out during the Restricted Burning period.
10. The Shire of Northam will invoice the applicant and receive the outstanding monies.
11. On receipt of payment, the local government will forward the monies to the Brigade upon receipt of a brigade invoice

### 5.3 RESOURCE TO RISK DOCUMENT

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Brendon Rutter Community Emergency Services Manager
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Officer Declaration of Interest:</b>	Nil
<b>Voting Requirement:</b>	Simple Majority
<b>Press release to be issued:</b>	No

#### BRIEF

The 2018 Shire of Northam Resource to Risk Assessment.

#### ATTACHMENTS

Attachment 1: Resource to Risk Document.

#### BACKGROUND / DETAILS

In 2018 Council Officers in conjunction with Bushfire Brigade volunteers initiated the extensive process for the assessment, creation and endorsement of the Resource to Risk (R2R) document. The last R2R completed in 2012 had failed to deliver outcomes due to never being formally endorsed by either Council or the HMA for fire of the time, FESA. The previous R2R from 2004 also seems to have fallen short of delivering suitable outcomes for both the Volunteer Bush Fire Service and the communities that they all protect.

#### CONSIDERATIONS

##### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

##### Financial / Resource Implications

Administrative implications only as all resourcing is eligible to be funded through the LGGS process

## Legislative Compliance

Nil.

## Policy Implications

Nil.

## Stakeholder Engagement / Consultation

Volunteer Chief Bush Fire Control Officer – Shire of Northam  
Volunteer Deputy Chief Bush Fire Control Officer – Shire of Northam]  
Wundowie Volunteer Bush Fire Brigade  
Inkpen Volunteer Bush Fire Brigade  
Bakers Hill Volunteer Bush Fire Brigade  
Clackline/Muresk Volunteer Bush Fire Brigade  
Irishtown Volunteer Bush Fire Brigade  
Southern Brook Volunteer Bush Fire Brigade  
Grass Valley Volunteer Bush Fire Brigade  
Bush Fire Prone Planning  
Department of Fire & Emergency Services

## Risk Implications

- Reputational –High
  - The last Resource to Risk Assessment was completed back in 2012, however it would appear that for unknown reasons the R2R was never formally endorsed by council or FESA as the HMA for fire at the time and as a result, none of the recommendations have been officially endorsed or acted on.
  - Failing to endorse the R2R at present would cause the bushfire brigade volunteers to lose faith in council
- Financial - Low
  - The LGGS funding covers all operational expenses incurred by council as a result of compliance with obligations under the Bush Fires Act 1954 & the Emergency Management Act 2005
- Compliance - High
  - Officers believe that by endorsing and approving activities based on proposed outcomes of the R2R process will ensure that Council is able to achieve compliance with obligations under the Bushfires Act 1954
- Legal – High
  - Officers believe that due to identified risks within the community, Council is obliged to ensure risk are minimised by either ensuring risk treatments are completed in an effort to reduce identified risk, or the provide capability to brigades responsible for the district the risk has been identified as being a part of.

## OFFICER'S COMMENT



Officers have recently completed a Resource to Risk assessment on behalf of council and after final review present the final document for endorsement.

Each brigade has been involved throughout the process as much as practical by way of holding workshops to establish the specific local risks within each fire district.

Each brigade has been assessed using the same risk based approach identifying brigade strengths by skillset, brigade incidents, and vehicle turnouts. This data was compiled together with data obtained from CENSUS to identify accurate population size, number of dwellings, land mass etc.

Officers have met with each brigade to ensure that any data utilised through this process is as accurate as possible, and to ensure that Brigades were able to adjust/amend any data they felt were inaccurate.

The consultation process has been extensive and as a result of multiple brigade & BFB service level workshops which included the development a 5 & 10 yr strategic plan that begins with an initial reallocation of current brigade resourcing for the coming 2019/2020 season, and to ensure that any identified risk within each brigade district is appropriately resourced into the future by documenting a proposed future fleet requirement to enable timely applications for appliances through the annual LGGS application.

The final result is a comprehensive risk assessment on each fire district within the Shire of Northam. In addition to the fleet requirements the R2R document has also identified the need, in certain circumstances, for additional mitigation works or bush fire preparedness. These have been documented within the document and will be progressively worked through by staff.

## RECOMMENDATION / COMMITTEE DECISION

**Minute No: BFAC.215**

**Moved: Nic Dewar**

**Seconded: Robert Herzer**

**That Council endorse the Resource to Risk document and approve the delivery of the following action items to deliver on the proposed outcomes:**

- 1. Endorse the reallocation of current appliances across brigades as follows and identified in Section 5 of this document, commencing in the 2019/2020 bush fire season:**

2019 – 2020 Bushfire Season	
Brigade	Notes
<b>Inkpen BFB</b>	
LT	Formerly Irishtown LT/2
2.4R	
<b>Wundowie BFB</b>	
LT	Formerly Irishtown LT/1
<b>Bakers Hill BFB</b>	
LT	
2.4U	
<b>Clackline BFB</b>	
LT	
2.4R	
<b>Northam Central BFB</b>	<b>New Brigade</b>
2.4R	Formerly Irishtown 2.4R
<b>Irishtown BFB</b>	
1.4B	Formerly Inkpen 1.4B
<b>Southern Brook BFB</b>	
1.4B	
<b>Grass Valley BFB</b>	
1.4B	Formerly Clackline 1.4B
4.4B	

- 2. Endorse the creation of the Northam Central BFB to be housed in a location as approved by the Chief Executive Officer.**
- 3. Endorse the creation of an Emergency Services Cadet Unit.**

**CARRIED 9/2**

Discussion was held around the following:

- The proposed location of the Northam Central Brigade. The Community Emergency Services Manager advised that this is yet to be determined

however the Shire of Northam Depot is proposed in the interim. It was confirmed that this will be within the Northam town site.

- Where the data was collected for the turnout times. The Community Emergency Services Manager advised that this was provided by DFES using an algorithm on a set criteria. This is applied across the state and is calculated by determining the average speed that can be travelled on gravel and bitumen road. It was noted that this will not always be an accurate representation.
- How the risk assessment was conducted for the Wundowie town site which is in the Wundowie VFRS gazetted brigade district. The Community Emergency Services Manager advised that although the Shire brigades are secondary response to the VFRS an assessment has still been undertaken as it is a town site within the Shire of Northam. This assessment is from the local governments perspective only with consideration given to the fuel loading, access/eagres points and resources available.
- The reference to VFRS units are utilised for asset protection only and whether the words 'as required' can be added as this is interpreted as the VFRS only utilised for RUI. It was agreed that these words can be included.
- Grass Valley being listed as having a poor response time. Information was sought in relation to what determines this and what they are being measured against. The Community Emergency Services Manager advised that this will need to confirmed however it is a measurement from DFES which is applied across the state. It was identified that the Grass Valley response times were incorrect and were showing as Inkpen's, it was advised that this table will be corrected.
- The lack of consultation was raised by the Northam VFRS, the Executive Manager Development Services advised that invitations were sent to workshops.
- The Community Emergency Services Manager outlined that this is a living document. This process was completed in 2012 however it the document was never endorsed by Council and implemented.

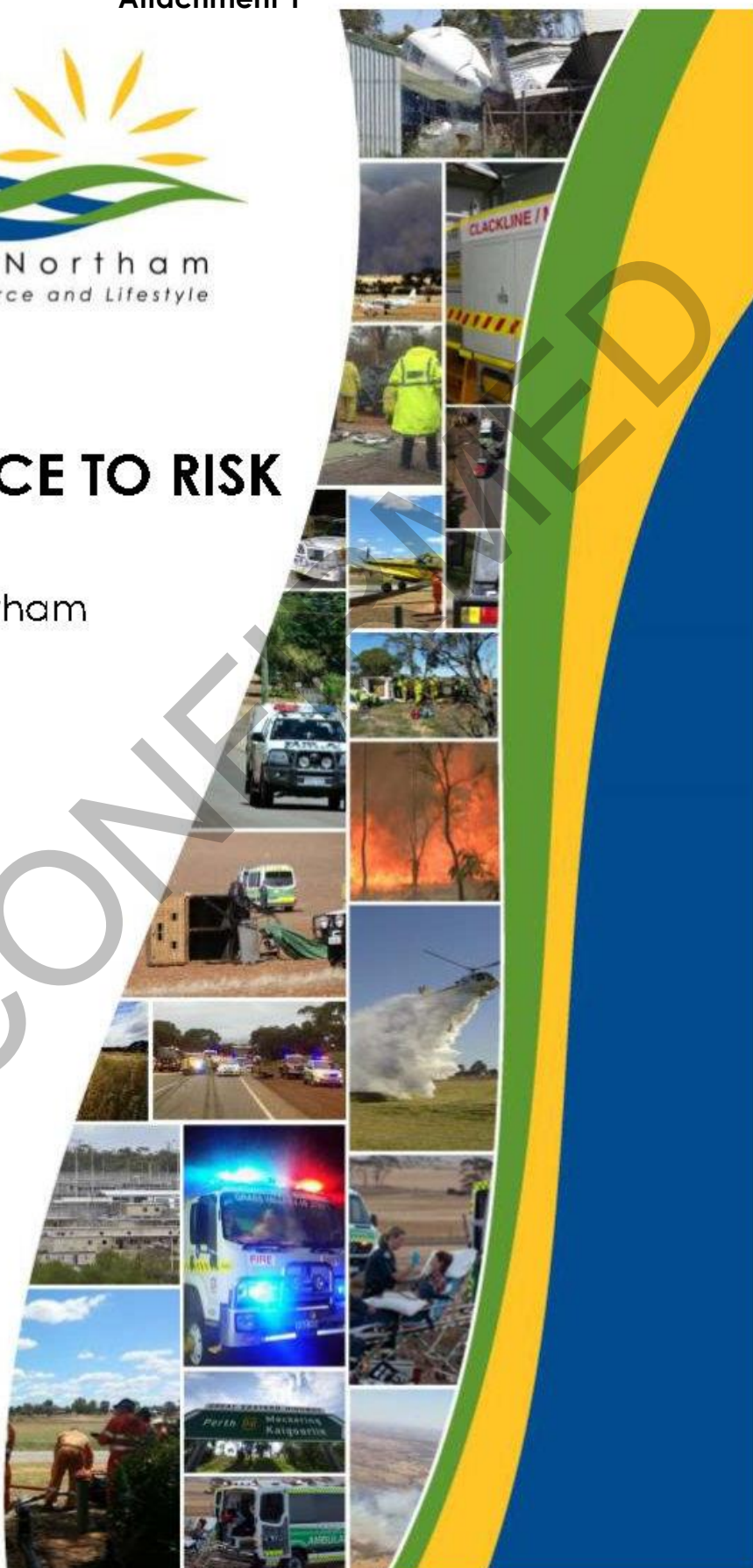
## Attachment 1



# RESOURCE TO RISK

Shire of Northam

2019





Shire of Northam  
Resource to Risk (R2R) Assessment

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### Introduction

This Resource to Risk (R2R) assessment has been undertaken by the Shire of Northam Emergency Management staff and the appointed Chief Bushfire Control Office in conjunction with representatives of the Department of Fire & Emergency Services (DFES), and in collaboration the volunteer bushfire bridges located within the Shire of Northam.

The DFES recommended process for assessment of the R2R criteria uses different methodology to that used for the Bushfire Risk Management Plan (BRMP). The R2R process is intended to identify the best location and mix of appliances to ensure an ongoing competent and efficient community based bushfire response capability that is supported by Emergency Service Levy funding arrangements.

A BRM Plan is a strategic document that identifies assets at risk from bushfire and their priority for treatment within a treatment schedule. The identification of assets is more comprehensive than that in the DFES R2R process. A BRM Plan categorises assets as Human Settlement (including Special Risk and Critical facilities), Economic (including Critical infrastructure), Environmental and Cultural.

Land managers are responsible for implementing treatments participate in developing the BRM Plan to ensure treatment strategies are collaborative and efficient, regardless of land tenure. Importantly, response capability is not considered to be a risk treatment in a BRM Plan. The Shire of Northam BRM Plan is an addendum to this document.

The R2R assessment has been carried out based on the DFES recommended process and considers the strengths and opportunities that exist in and around the Shire of Northam, as well as revealing threats and weaknesses through risk assessment, analysis and treatments. Where possible, this R2R assessment uses elements of the Shire of Northam BRM Plan to ensure a comprehensive approach to the management of bushfire risk in the Shire of Northam. This includes the capacity to support volunteer brigades and ensure their viability well into the future including the establishment of a cadet unit.

The R2R process involves five (5) stages:

- Stage 1 - Bushfire Risk Identification
- Stage 2 - Local Government response criteria and key risk assessment
- Stage 3 - Risk reduction and control assessment and strategies
- Stage 4 - Identified Risk re-assessment after stage 3 mitigation strategies
- Stage 5 - Resource requirements



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### **Executive Summary**

The Resource to Risk (R2R) document has been undertaken generally in accordance with the guidelines provided by the Department of Fire and Emergency Services (DFES) template with additional mapping and analysis undertaken in consultation with various stakeholders.

In essence the assessment has indicated that there is insufficient resources within identified areas of the Shire to meet the desired response standard, there is issued with attracting and retaining volunteer fire fighters and there is additional mitigation works required within identified areas to reduce the risk implications for those areas.

The following is a broad summary of the assessment that is provided in further detail within the attached.

### **Bushfire Brigades**

As a component of this assessment the following key findings have emerged

- Majority of Brigades have an ageing membership base and are not attracting new members.
- There is a shortfall of Bushfire Brigade members aged between 15 to 34 (21%) and a significant proportion of volunteers are over the age of 55 (47%)
- Resourcing of the Wundowie BFB is required in order to provide additional appliances and volunteers within the western sector of the Shire of Northam
- The establishment, resourcing and membership of a Northam Central BFB will provide an opportunity to increase overall membership of bushfire fighters from people within the townsite of Northam, provide additional manning of appliances for attendance at incidents and potentially provide a mechanism for the establishment of a cadet unit/brigade
- A concerted effort is required to establish and develop Northam Central BFB
- A recruitment campaign is required to increase active memberships of all Bushfire Brigades
- The utilisation of both the Wundowie and Northam VFRS units have been included within the local government response criteria. It is recognised however that specific protocols are required for these units to attend and if other significant incidents (such as vehicle accident, structure fires etc.) are in progress that attendance cannot be guaranteed
- No private units have been included in the local government response criteria except for the Muresk LT at Muresk

### **Resource Allocation**

Following the establishment of the key response criteria and assessment of turn out times the following recommendations have been developed. These have been included within the strategic Plan-



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- Additional appliances are required within the western portion of the Shire due to the current and predicted growth in the area
- Additional units are required in the central and eastern portion of the Shire to provide adequate response resources and times

**Stage 1 (2019-20 Season)**

- o No new units to be included however includes reallocation of existing units (12) only.
- o Wundowie BFB be provided with a Light Tanker unit (relocated from Irishtown BFB)
- o Clackline-Muresk BFB will initially have a unit relocated (1.4B to Grass Valley BFB) but will revert to three units in stage 2 and 3
- o Northam Central BFB will be created and resourced with a 2.4R (relocated from Irishtown BFB) within Stage 1
- o Grass Valley BFB will have an additional appliance (former Clackline 1.4B)
- o Inkpen BFB will replace a 1.4B unit with a light tanker (relocated from Irishtown)
- o Irishtown BFB will be allocated a 1.4B (relocated from Inkpen)

**Stage 2 (2020-2025)**

- o Involves the request for three additional units and retainment of two existing units (refurbished and retained after new unit supplied) resulting in a fleet of 17 units
- o The reallocation and replacement of units is in response to the differing requirements for each of the brigades to response to the local issues including terrain and resources available (such as water supplies)
- o Inkpen will be resourced with 2 units (1.4b and 3.4U)
- o Wundowie BFB will be resourced with 2 units (2.4R and LT)
- o Bakers Hill BFB will resourced with 3 units (LT, 2.4U and 4.4B)
- o Clackline-Muresk BFB will be resourced with 3 units (LT, 3.4U and 2.4R)
- o Northam Central BFB will be resourced with two units (3.4U and 12.2)
- o Irishtown BFB will be resourced with two units (1.4B and LT)
- o Southern Brook BFB will be resourced with one unit (1.4B)
- o Grass Valley BFB will be resourced with two units (2.4R and 4.4B)

**Stage 3 (2025-2030)**

- o Involves the request for two additional units and refurbishment and upgrading of units at end of life resulting in a fleet of 19 units
- o Inkpen will be resourced with 2 units (4.4B and 3.4U)
- o Wundowie BFB will be resourced with 3 units (3.4U, 3.4R and LT)
- o Bakers Hill BFB will resourced with 3 units (LT, 3.4U and 4.4B)
- o Clackline-Muresk BFB will be resourced with 3 units (LT, 3.4U and 2.4R)

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- o Northam Central BFB will be resourced with three units (3.4U x 2 and 12.2)
- o Irishtown BFB will be resourced with two units (3.4R and LT)
- o Southern Brook BFB will be resourced with one unit (3.4B)
- o Grass Valley BFB will be resourced with two units (3.4U and 4.4B)

**Other Mitigation and Planning Required**

As a component of undertaking the revised risk assessment a number of mitigation strategies were identified that are required to ensure that the overall risk is reduced. These include the following –

- A number of vulnerable areas require the preparation, implementation and ongoing review of individual Bushfire Emergency Plans.
- A number of specific sites have Bushfire Management Plans that require review and implementation. A number of these were completed at the subdivision/development stage and are required to be reviewed and update to current standards.
- Reserve and other land under the control of Council require ongoing maintenance and fuel load management to reduce the intensity of fires
- A number of non-Council controlled reserve land requires ongoing maintenance and fuel load management to reduce the intensity of fire. The majority of those are identified in the Bushfire Risk Management Plan.

Shire of Northam  
Resource to Risk (R2R) Assessment

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### 1. Stage 1- Bushfire Risk Identification

To commence an assessment of bushfire risk extensive GIS mapping and assessment was undertaken.

The GIS mapping takes a layered approach, with the aim of identifying areas within the Shire of Northam that have perceived elevated risks. This layering includes;

- Shire of Northam local government area
- Shire of Northam bushfire brigade designated areas
- DFES mapping of bushfire risk areas
- Identification of population areas and key infrastructure
- Identification of DFES estimated response / turn out times for brigades

Based on the mapping assessment there are a number of areas identified within the Shire of Northam that do not meet the established R2R criteria.

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## 2. Stage 2 – Local Government Response Criteria and key risk assessment

### 2.1 Local Government Response Criteria

In order to assess the mapping, it is important to establish a response criteria or service standard that is acceptable to the Shire of Northam in relation to responding to bushfire threats.

The State Government has established a generic response criterion, which establishes a framework around acceptable levels/times for responding to bushfires based on a range of land categories. The State Government framework includes the following land categories – pastoral, rural/broad acre, South West Agriculture or Central West Coastal and Lower West Coastal.

The table below is from DFES guide for preparing a Resource to Risk document

**Table 1: Local Government Response Criteria**

**KEY=** \*Property under threat from bushfire # Turnout time to incident. + Aircraft and/or appropriate machinery where required

<b>PASTORAL</b>		Firefighting response for bushfire within 3 hours (200 + kms between services) + Firefighting response on site for property threat within 3 hours* Specialist Units (ICV) on site within 2 days
<b>RURAL BROADACRE</b>	/	Up to two firefighting appliances on site for bushfire in 1 hour (30 + kms between services)# 1 fire firefighting appliance on site for property threat in 1 hour Specialist Units (ICV) on site within 6 hours
<b>SOUTH WEST AGRICULTURAL or CENTRAL WEST COASTAL</b>		Up to 6 firefighting appliances on site for bushfire in 30 minutes (20kms between services) # 1 firefighting appliance on site for property threat in 30 minutes Specialist Units (ICV) on site within 3 hours
<b>LOWER WEST COASTAL</b>		Initial dispatch of 2 firefighting appliances on site for bushfire in 20 minutes (10 kms between services). 1 firefighting appliance on site for property threat in 20 minutes Specialist Units (ICV) on site within 1 hour, Perth Outer Metropolitan within 45 minutes



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The Shire of Northam has adapted these categories to ensure applicability to our context, whilst still utilising the turnout times as the basis for establishing Shire of Northam turnout times – refer table 2 below.

**Table 2: Shire of Northam Response Criteria**

KEY: * = Property under threat from wildfire; # = Turnout time to incident; Aircraft and/or appropriate machinery where required		+
<b>RURAL / BROADACRE</b>	# Up to 2 firefighting appliances on site for wildfire in 1 hour (>30 kms between services) # 1 fire firefighting appliance on site for property/Asset protection in 1 hour # Specialist Units (ICV) on site within 6 hours	
<b>SETTLEMENT/TOWNSITE/RURAL RESIDENTIAL AND RURAL SMALLHOLDING ZONES</b>	# Up to 6 firefighting appliances on site for wildfire in 30 minutes (20kms between services) * 1 firefighting appliance on site for property/Asset protection in 30 minutes # Specialist Units (ICV) on site within 3 hours	
<b>CRITICAL INFRASTRUCTURE</b> (includes properties with major infrastructure and/or large numbers of people either working, residing or otherwise at that facility)	# Up to 6 firefighting appliances on site for wildfire in 30 minutes (20kms between services) * 1 firefighting appliance on site for property/Asset protection in 30 minutes # Specialist Units (ICV) on site within 3 hours	

The Shire of Northam response time maps, as provided by DFES, have been provided in Appendix 2. It should be noted that for the purposes of undertaking the risk assessment, the 30 minutes response time mapping has been based on a 10 minute travel time from the Brigade Shed – this allows for volunteer turn out times to the Brigade sheds.

The turnout times for the 60 minutes response time are based on the actual 30 minute travel time from the brigade shed and 30 minute turn out time to the brigade shed. The above was undertaken to give a more realistic response time recognising the challenges of brigade members travelling to the specific fire shed.

The mapping has been based on the fire units travelling at 80km/hr on sealed roads and 60km/hr on unsealed roads.

It should also be recognised that the assessments in Appendix 1 and 3 have been based on the assumption that all Shire of Northam appliances are able to be crewed within the timeframes above, and no other active incidents being at that time. The assessment includes two (of two) Wundowie VFRS appliances and two (of three) Northam VFRS appliances being turned out. The exception is in the assessment of vulnerable areas within the Northam VFRS area where it has been assumed that all three appliances will be turned out. The turnout of the VFRS units will be for asset protection only – if a property is under threat the VFRS will turn out and defend the structure but are restricted from other forms of firefighting due to operational restrictions.

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The initial assessment (stage 3) does not include the possible attendance of a brigade from an adjoining local government at an incident outside of their local government area (i.e. within the Shire of Northam.). The revised risk assessment (stage 4) does however identify the use of appliances from outside the Shire of Northam and includes recommendations to ensure that the necessary agreements and protocols are in place for this to occur.

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## 2.2 Incident History

The Map below is developed from information sourced from DFES. The map shows the number and extent of level 1 and level 2 bushfire incidents that have occurred in the Shire of Northam over the past five years.

Although the mapping process also captures further information on each of the mapped fire incidents, it is not possible at this stage to demonstrate on a printed map. However, whilst not shown here, the data includes the following information –

- Type of fire
- Suspected cause of fire
- Type of units in attendance

**Figure 1: Incident History**





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Resource to Risk (R2R) Assessment

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### **2.3 Shire of Northam Brigade Profiles & Available Resources**

Pursuant to s41 of the Bush Fires Act 1954, the Shire of Northam has established the following brigades:-

- Bakers Hill
- Clackline-Muresk
- Grass Valley
- Inkpen
- Irishtown
- Jennapullin (Farmer Response Only)
- Southern Brook
- Wundowie (created but has no appliances, equipment etc.)

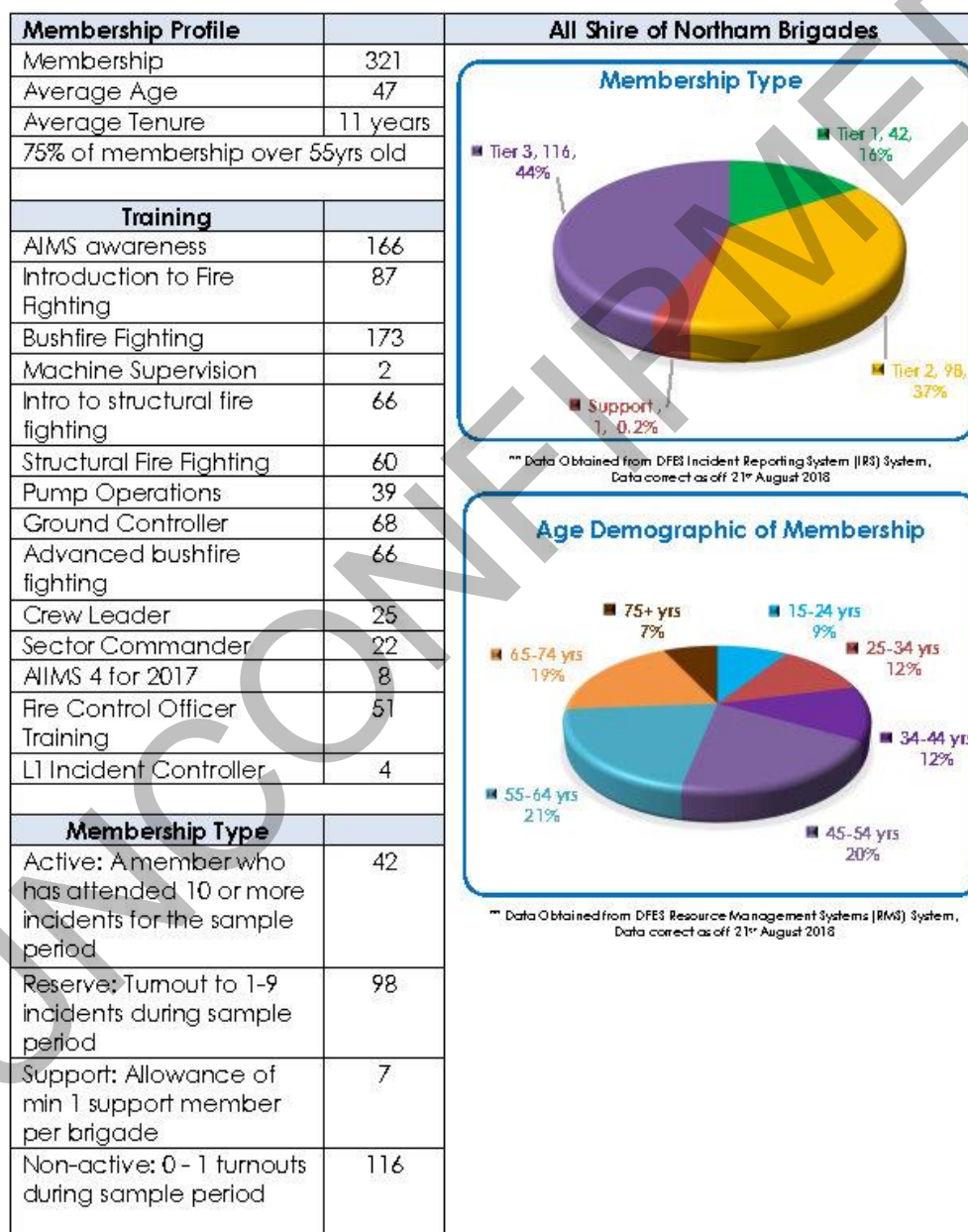
It should be noted that the possibility of creating the Northam Central Bush Fire Brigade has been suggested. Although at this stage this brigade has not been gazetted.



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The following information profiles the membership, training, recent brigade activity and available resources of the established bushfire brigades within the Shire. Using this information, a risk profile has been established for each brigade.

**Figure 2: All Shire of Northam Volunteer Bush Fire Service**



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Brigade activity		All Shire of Northam Brigades
Documented incident turn out		
2013/2014	111	
2014/2015	180	
2015/2016	119	
2016/2017	129	
2017/2018	108	
<b>Appliance &amp; Resources List</b>		
1.4R	3	
2.4R	3	
2.4U	1	
4.4B	1	
Light tanker	4	
Various mobile pumps	2	
Standpipe pumping trailer	0	
<b>External Available Resources</b>		
Shire of Northam works depot - Loaders, Graders, Posi Tracks, 2 x Water Carts and tree lopping teams, Traffic Management from the Shire	30-60 mins to mobilise	

Shire of Northam  
Resource to Risk (R2R) Assessment

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#### **2.4 Inkpen Volunteer Bush Fire Brigade – (6300)**

The Inkpen Fire District is a large agricultural district within the Shire of Northam, in the western section of the Shire of Northam.

There are approximately 12 private dwellings within the Inkpen location, with a further 38 private dwellings in the Woottating area. It is estimated that there is at least one additional outbuilding or structure per property, with many properties having multiple additional outbuildings.

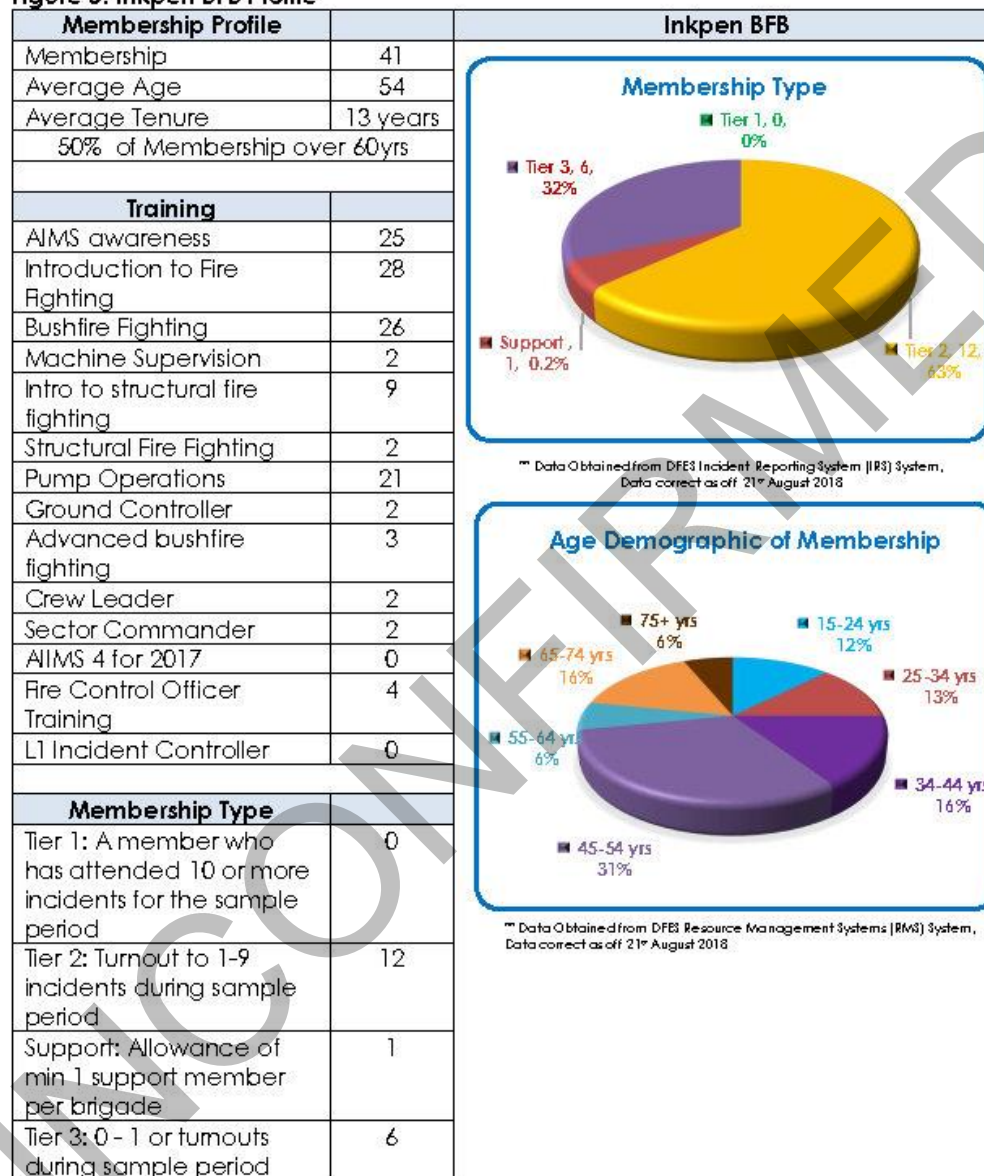
According to 2016 Census these dwellings equate to 20 residents within the Inkpen Area and 66 residents within the Woottating area. The district comprises approximately 167km<sup>2</sup> of predominantly broad acre properties and significant infrastructure in the brigade area includes the BGC quarry, Great Southern Highway, a composting facility on Horton Road and a waste disposal facility on Inkpen Road (just outside of Brigade District).

The Shire of Northam is experiencing some growth in rural/residential housing in the west of the Shire. Whilst, not currently within the Inkpen fire district, it is likely that this area will be developed further over the next 10 years given its proximity to the Perth metropolitan area.

The area is predominantly vegetated with Jarrah, marri and wandoo type forest, dryandra/banksia vegetation and cereal crops. There are large areas of remnant vegetation in the southern area of the brigade district being Water Catchment Reserves and a portion of National Parks.

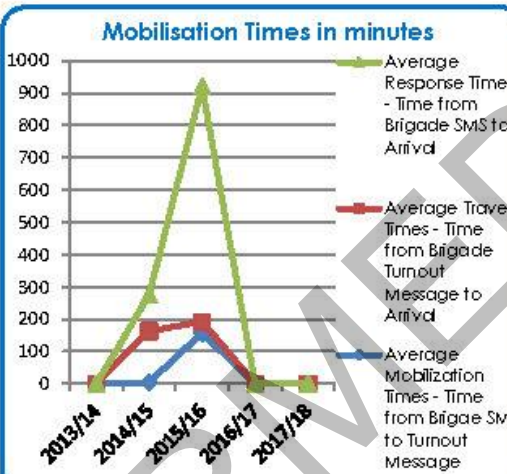
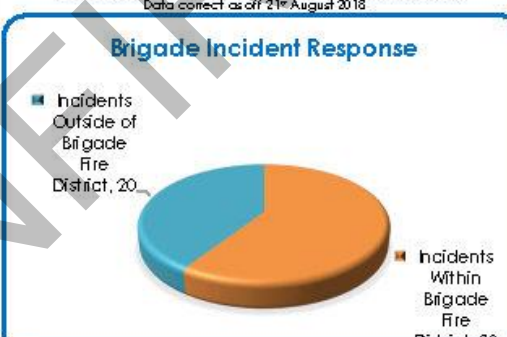
Shire of Northam  
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**Figure 3: Inkpen BFB Profile**





Shire of Northam  
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Brigade activity		Inkpen BFB	
Documented incident turnout		 <p><b>Mobilisation Times in minutes</b></p> <p>*** Data Obtained from DFBS Incident Reporting System (IRS) System, Data correct as off 21<sup>st</sup> August 2018</p>	
2013/2014	8		
2014/2015	16		
2015/2016	7		
2016/2017	7		
2017/2018	10		
<b>Bridge incident response 2013 – 2018 (June)</b>		 <p><b>Brigade Incident Response</b></p> <p>*** Data Obtained from DFBS Incident Reporting System (IRS) System, Data correct as off 21<sup>st</sup> August 2018</p>	
Incidents within the district	29		
Incidents outside the district	20		
<b>Appliance &amp; Resources List</b>			
1.4R	1		
2.4R	1		
2.4U	0		
4.4B	0		
Light tanker	0		
Various mobile pumps	0		
Standpipe pumping trailer	0		
1 bay facility with, Office/Comms Room	0		
2 bay facility with, Office/Comms Room	1		
3 bay facility with, Office/Comms Room	0		
Training Room	1		
Lunch Rooms	1		
Disabled Access Toilets and Showers	2		
<b>External Available Resources</b>			
Shire of Northam works depot - Loaders, Graders, Pesi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire	30-60 mins to mobilise		



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Resource to Risk (R2R) Assessment

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### **2.5 Bakers Hill Volunteer Bush Fire Brigade – (6029)**

Bakers Hill is a settlement 73 kilometres east of Perth on the Great Eastern Highway. The town is located within the Shire of Northam, between Wundowie and Clackline. There are numerous pockets of rural/residential and hobby farm areas being developed around the townsite. Current planning indicates that this will continue in the future.

Other significant infrastructure in the brigade district include Great Eastern Highway, Bakers Hill Townsite and the Inkpen Waste Disposal Facility. In the former area (now part of Wundowie BFB) other infrastructure includes El Caballo Lifestyle Village, El Caballo resort, El Caballo road house, tavern and shops and Linley Valley abattoir.

There are approximately 577 residential dwellings within the Bakers Hill area, and a further 37 dwellings in the Copley Area, it is further estimated that there is at least one extra outbuilding or structure per property. According to the 2016 census, these dwellings equate to a population of 1,257 in Bakers Hill, with a further population of 67 in Copley.

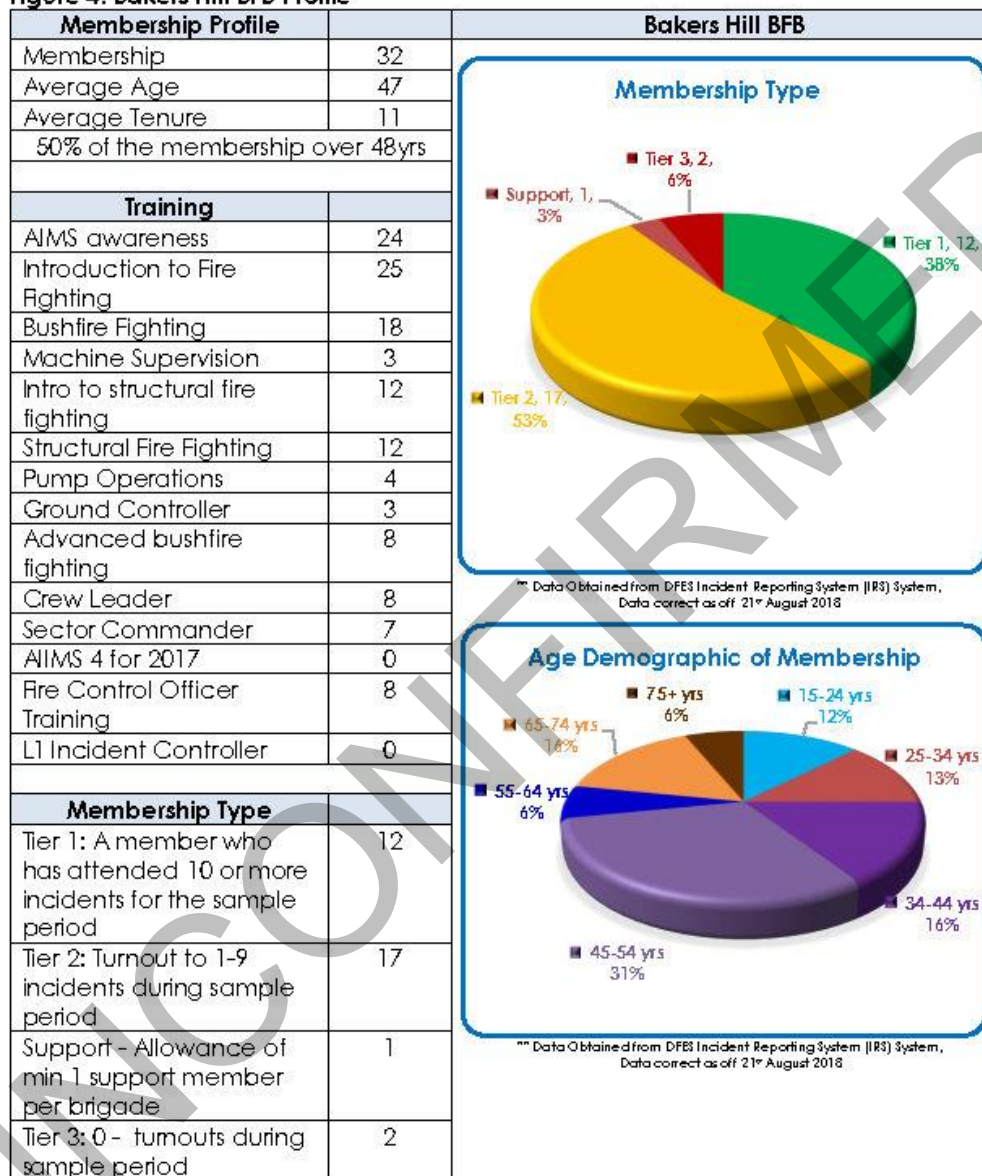
At approximately 180km<sup>2</sup>, the district comprises small mixed farming, hobby farms, and a small village with commercial/light industrial infrastructure.

The area is predominantly vegetated with jarrah, marri, wandoo forest with dryandra/banksia vegetation and cereal crops. There are several large pockets of remnant vegetation throughout the brigade district including private landholdings, Council managed reserves, DPaW managed reserves and sections of unallocated crown land (including the KEP track). A number of these remnant vegetation areas are located within close proximity to existing rural residential/hobby farm areas.

The Bakers Hill fire district was recently modified with the creation of the Wundowie BFB. For the purposes of this assessment, the original Bakers Hill fire district has been used in the initial assessment phase.

Shire of Northam  
Resource to Risk (R2R) Assessment

**Figure 4: Bakers Hill BFB Profile**



Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity		Bakers Hill BFB	
Documented incident turn out			
2013/2014	41		
2014/2015	39		
2015/2016	36		
2016/2017	47		
2017/2018	37		
Bridge incident response 2013 – 2018 (June)			
Incidents within the district	135		
Incidents outside the district	20		
Appliance & Resources List			
1.4R	0		
2.4R	1		
2.4U	0		
4.4B	0		
Light tanker	1		
Various mobile pumps	0		
Standpipe pumping trailer	0		
1 bay facility with, Office/Comms Room	0		
2 bay facility with, Office/Comms Room	1		
3 bay facility with, Office/Comms Room	0		
Training Room	0		
Lunch Rooms	0		
Disabled Access Toilets and Showers	1 (Not disabled)		
External Available Resources			
Shire of Northam works depot - Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire	30-60 mins to mobilise		

### Mobilisation Times in minutes

Year	Average Response Times (min)	Average Travel Times (min)
2013/14	40	20
2014/15	250	110
2015/16	150	80
2016/17	120	60
2017/18	30	20

\*\* Data Obtained from DFES Incident Reporting System (IRS) system, Data correct as off 21<sup>st</sup> August 2018

### Brigade Incident Response

Category	Count
Incidents Within Brigade Fire District	135
Incidents Outside of Brigade Fire District	20

\*\* Data Obtained from DFES Incident Reporting System (IRS) system, Data correct as off 21<sup>st</sup> August 2018



Shire of Northam  
Resource to Risk (R2R) Assessment

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## **2.6 Clackline-Muresk Bush Volunteer Bush Fire Brigade – (6142)**

Clackline is a locality in the Wheatbelt region of Western Australia, about 80 kilometres east/northeast of Perth. It is a large district with a distinct agricultural influence, which is being developed in pockets with multiple small land holdings and hobby farms. It is likely that this trend will continue in the years to come.

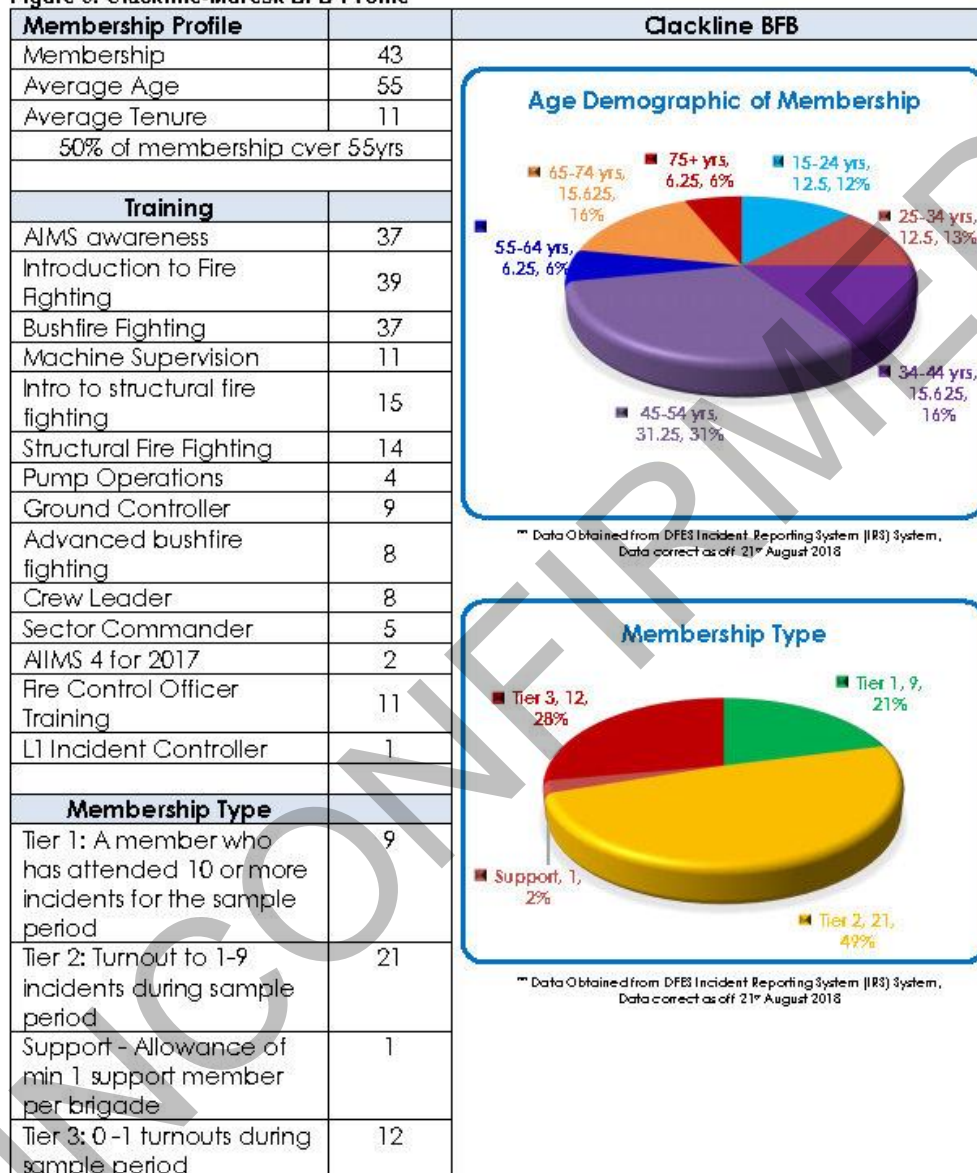
Other significant infrastructure in the brigade area includes the townsites of Clackline and Spencers Brook, the Muresk Agricultural Institute, Springhill recovery centre, Great Eastern Highway, the Yongah Hill Detention Centre and the Northam Army Camp.

The 2016 Census indicates Clackline has approximately 166 private residential dwellings (typically family homes) with an additional 3 residences in Muresk, 87 in Spencers Brook, 103 in Mokine and 46 in Burlong and 87 in Muluckine for a total of 492 private residential dwellings. It is estimated that there is at least 1 extra outbuilding or structure per property (more than 1 in many cases). According to 2016 Census these dwellings equate to Clackline having a population of 310, with a further 28 for Muresk, 206 for Mokine, 488 for Burlong, 218 residents in Muluckine & 51 for Spencers Brook bringing the population for the district to a total of 1,301 residents.

The area is approximately 291km<sup>2</sup> ha of predominantly broad acre agricultural farms and with a large number of small rural holdings and hobby farms. Other vegetation includes jarrah, marri, wandoo forest tending to York/Salmon gum and jam (*Acacia acuminata*) vegetation.

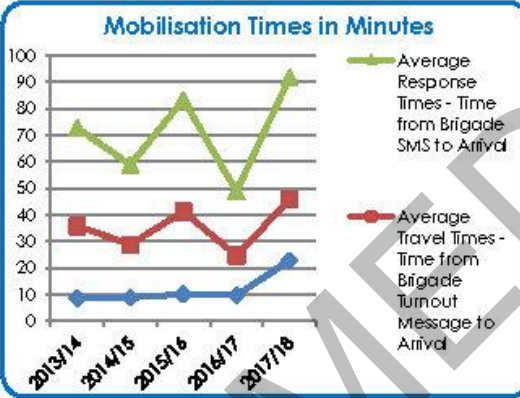
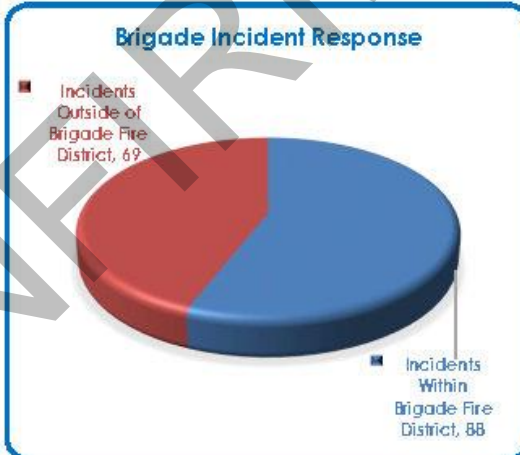
Shire of Northam  
Resource to Risk (R2R) Assessment

Figure 5: Clackline-Muresk BFB Profile





Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity		Clackline BFB	
Documented incident turn out			
2013/2014	36		
2014/2015	43		
2015/2016	36		
2016/2017	40		
2017/2018	24		
<b>Bridge incident response 2013 – 2018 (June)</b>			
Incidents within the district	88		
Incidents outside the district	69		
<b>Appliance &amp; Resources List</b>			
1.4R	1		
2.4R	1		
2.4U	0		
4.4B	0		
Light tanker	1		
Various mobile pumps	0		
Standpipe pumping trailer	0		
1 bay facility with, Office/Comms Room	0		
2 bay facility with, Office/Comms Room	0		
3 bay facility with, Office/Comms Room	1		
Training Room	1		
Lunch Rooms	1		
Disabled Access Toilets and Showers	1		
<b>External Resources Available</b>			
Shire of Northam works depot - Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic management from the Shire	30-60 mins to mobilise		

Shire of Northam  
Resource to Risk (R2R) Assessment

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**2.7 Irishtown Volunteer Bush Fire Brigade – (6301)**

Irishtown is a rural locality to the east of the Shire of Northam. The area is over 90% broad acre farming and has minimal significant infrastructure other than residences and farm buildings. There is a hall (cultural asset) and fire shed (critical infrastructure) located in Irishtown and historical buildings and church (cultural assets) at Katrine. The Avon River is a geographically significant and the Northam-Toodyay Road and the Perth-Adelaide Rail Line are critical infrastructure.

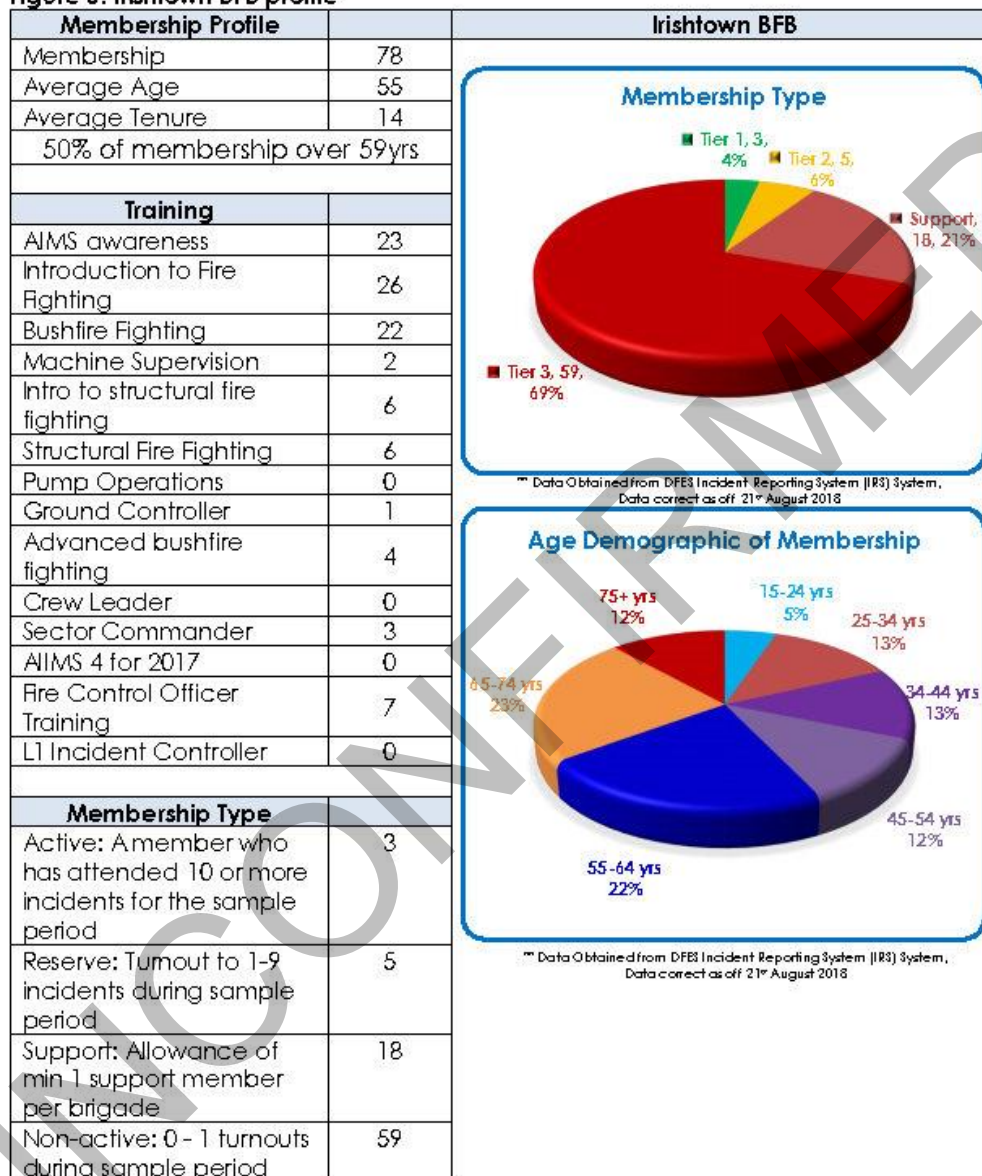
There are approximately 35 private dwellings within the district of Irishtown, another 21 in Wongamine, 23 in Katrine and an additional 29 within the Buckland area. According to 2016 Census these dwellings equate to a population of 73 in Irishtown, 39 in Wongamine, 43 in Katrine and 39 in Buckland.

There is approximately 194km<sup>2</sup> of predominantly broad acre farming with a small section of hobby farms on smaller lots.

This area transitions into the broad acre farming region and hence vegetation is reduced in large pasture areas, fires are more controllable. The area contains York/salmon gum and jam vegetation.

Shire of Northam  
Resource to Risk (R2R) Assessment

**Figure 6: Irishtown BFB profile**



Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity		Irishtown BFB																									
Documented incident turn out		<div>Mobilisation Times in Minutes</div> <table border="1"><caption>Mobilisation Times in Minutes (Approximate Data)</caption><thead><tr><th>Year</th><th>Average Response Times (min)</th><th>Average Travel Times (min)</th><th>Average Mobilization Times (min)</th></tr></thead><tbody><tr><td>2013/14</td><td>120</td><td>60</td><td>30</td></tr><tr><td>2014/15</td><td>320</td><td>160</td><td>20</td></tr><tr><td>2015/16</td><td>40</td><td>20</td><td>10</td></tr><tr><td>2016/17</td><td>60</td><td>30</td><td>20</td></tr><tr><td>2017/18</td><td>80</td><td>40</td><td>20</td></tr></tbody></table> <p>*** Data Obtained from DFES Incident Reporting System (IRS) System, Data correct as of 21<sup>st</sup> August 2018</p>		Year	Average Response Times (min)	Average Travel Times (min)	Average Mobilization Times (min)	2013/14	120	60	30	2014/15	320	160	20	2015/16	40	20	10	2016/17	60	30	20	2017/18	80	40	20
Year	Average Response Times (min)			Average Travel Times (min)	Average Mobilization Times (min)																						
2013/14	120			60	30																						
2014/15	320			160	20																						
2015/16	40			20	10																						
2016/17	60			30	20																						
2017/18	80	40	20																								
2013/2014	9																										
2014/2015	23																										
2015/2016	8																										
2016/2017	11																										
2017/2018	19																										
Bridge incident response 2013 – 2018 (June)		<div>Brigade Incident Response</div> <table border="1"><caption>Brigade Incident Response (2013 – 2018)</caption><thead><tr><th>Category</th><th>Count</th></tr></thead><tbody><tr><td>Incidents Within Brigade Fire District</td><td>29</td></tr><tr><td>Incidents Outside of Brigade Fire District</td><td>20</td></tr></tbody></table> <p>*** Data Obtained from DFES Incident Reporting System (IRS) System, Data correct as of 21<sup>st</sup> August 2018</p>		Category	Count	Incidents Within Brigade Fire District	29	Incidents Outside of Brigade Fire District	20																		
Category	Count																										
Incidents Within Brigade Fire District	29																										
Incidents Outside of Brigade Fire District	20																										
Incidents within the district	29																										
Incidents outside the district	20																										
Appliance & Resources List																											
1.4R	0																										
2.4R	1																										
2.4U	0																										
4.4B	0																										
Light tanker	2																										
Various mobile pumps	0																										
Standpipe pumping trailer	0																										
1 bay facility with, Office/Comms Room	0																										
2 bay facility with, Office/Comms Room	1 (Shed only)																										
3 bay facility with, Office/Comms Room	0																										
Training Room	0																										
Lunch Rooms	0																										
Disabled Access Toilets and Showers	0																										
External Resources Available																											
Shire of Northam works depot - Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire	30-60 mins to mobilise																										



Shire of Northam  
Resource to Risk (R2R) Assessment

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**2.8 Jennapullin Volunteer Bush Fire Brigade – (6314)**

Jennapullin BFB is made up predominately of a small group of farmers that utilise their own private equipment for the control and extinguishment of fire within the brigade's area of responsibility. They provide support for neighbouring brigades if requested, but lack the resources to travel outside of their district. They have small community of farmers who respond with their private vehicles/appliances to handle the initial attack of fire, while they wait for support and resources from their neighbouring brigades.

The 2016 Census indicates that Jennapullin has a population of 69 people.

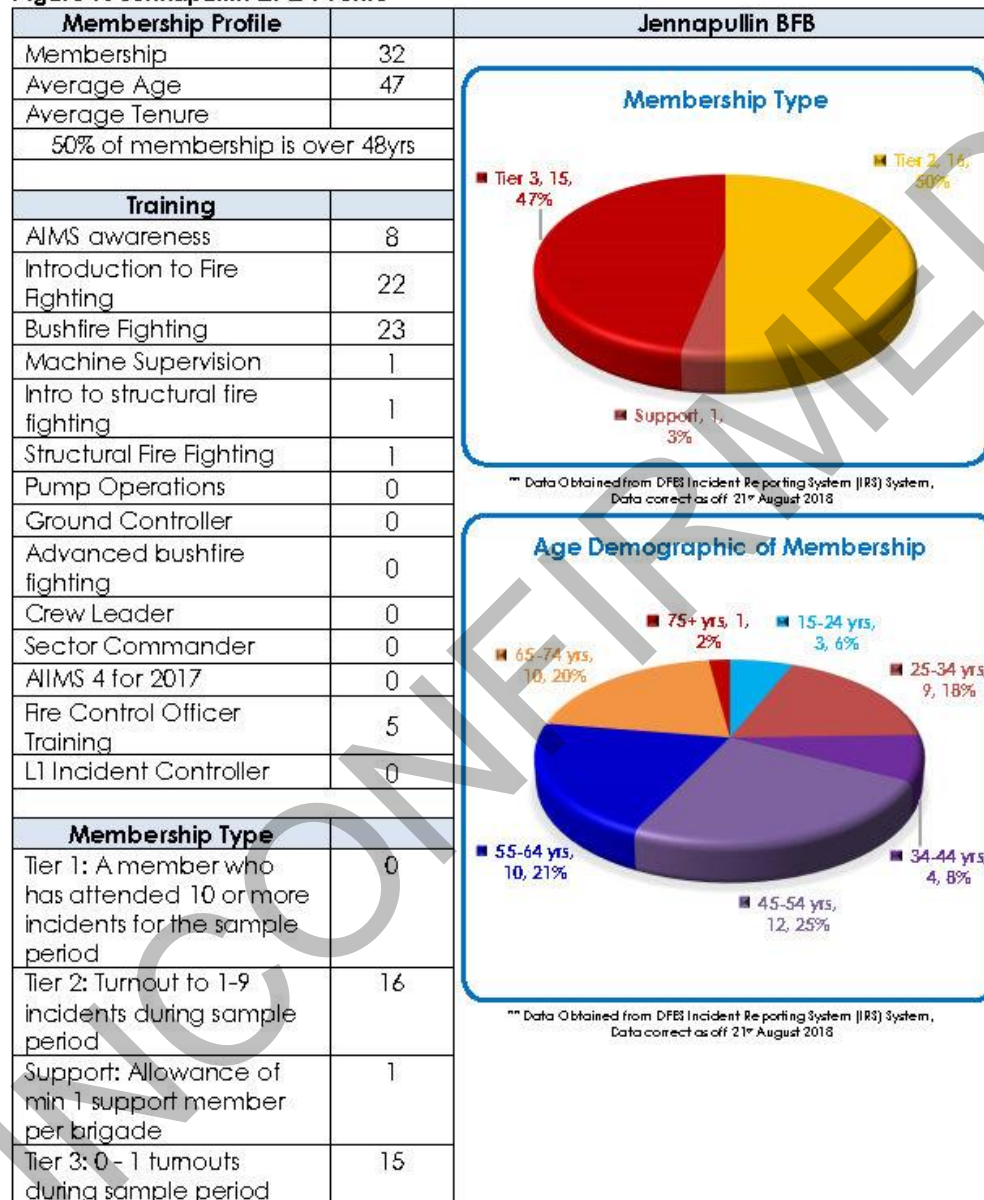
The area is approximately 105km<sup>2</sup> made up of rural blocks, typically of 12, 25, 50, 1000 hectares. The area is categorised of small mixed farming/hobby farms and mainly broad acre farming and has minimal significant infrastructure other than residences and farm buildings.

This area transitions into the broad acre farming region and hence vegetation is less with large areas of pasture. Fires are generally more controllable. Other vegetation includes York gum, salmon gum, jam (Acacia acuminata) vegetation and cereal crops.




Shire of Northam  
Resource to Risk (R2R) Assessment

Figure 7: Jennapullin BFB Profile



Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity		Jennapullin BFB
Documented incident turn out		 <p><b>Brigade Incident Response</b></p> <ul style="list-style-type: none"> <li>Incidents Within Brigade Fire District, 1</li> <li>Incidents Outside of Brigade Fire District, 20</li> </ul> <p><small>*** Data Obtained from DFES Incident Reporting System (IRS) System, Data correct as of 21<sup>st</sup> August 2018</small></p>
2013/2014	0	
2014/2015	1	
2015/2016	0	
2016/2017	0	
2017/2018	0	
Bridge incident response 2013 – 2018 (June)		
Incidents within the district	1	
Incidents outside the district	20	
Appliance & Resources List		
1.4R	0	
2.4R	0	
2.4U	0	
4.4B	0	
Light tanker	0	
Various mobile pumps	0	
Standpipe pumping trailer	0	
1 bay facility with, Office/Comms Room	0	
2 bay facility with, Office/Comms Room	0	
3 bay facility with, Office/Comms Room	0	
Training Room	0	
Lunch Rooms	0	
Disabled Access Toilets and Showers	0	
External Resources	Available	
Shire of Northam works depot – Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire	30-60 mins to mobilise	

Shire of Northam  
Resource to Risk (R2R) Assessment

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**2.9 Southern Brook Volunteer Bush Fire Brigade – (6588)**

Southern Brook is on the far North Eastern most Corner of the Shire of Northam. The area is over 90% agricultural operations with a small town settlement by way of a Town Hall (cultural asset), Fire shed & former Golf Course. Due to the area comprising mainly agricultural properties, the main bushfire risk period for Southern Brook is during an approximately 8 week period during the December - January harvest time. At all other times, the fuel load is minimal with only small amount of low/medium risk reserves throughout the brigade district.

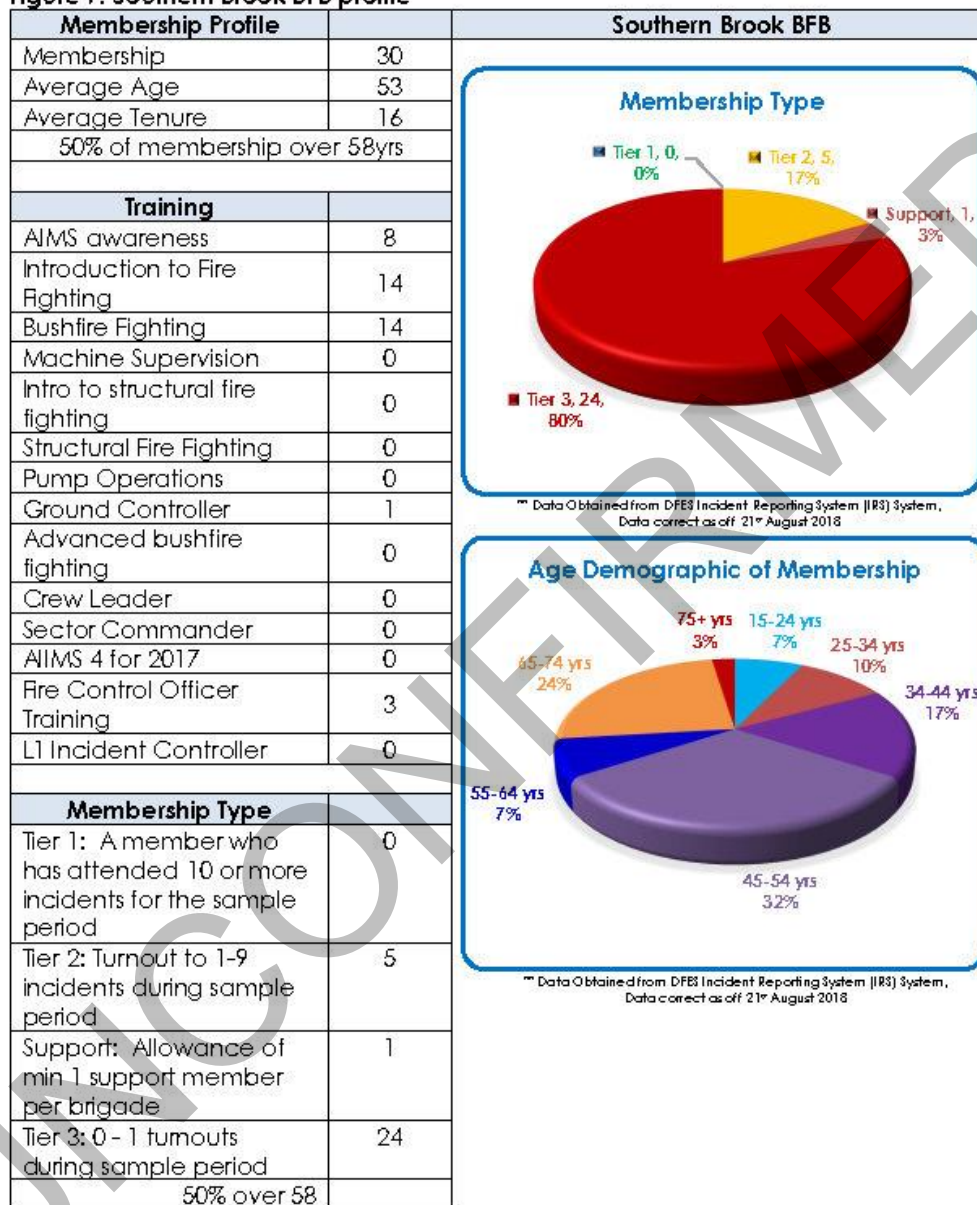
According to the 2016 Census data, there are 28 private residential dwellings in Southern Brook, and a further 22 in Malabaine. It is assumed that these dwellings have more than 1 additional outbuilding or structure. According to 2016 Census the dwellings equate to a population of 77 in Southern Brook, with an additional 45 in Malabaine.

The area is approximately 163km<sup>2</sup>. Rural blocks vary from 12, 25, 50 and 1000 hectare lots for small mixed farming, hobby farms and broad acre farming. The area has minimal significant infrastructure other than isolated residences and farm buildings.

This area transitions into the broad acre farming region and hence there is less vegetation on the large pasture areas where fires are more controllable. Other vegetation includes York gum, salmon gum, jam vegetation and the crops immediately before and during harvest.

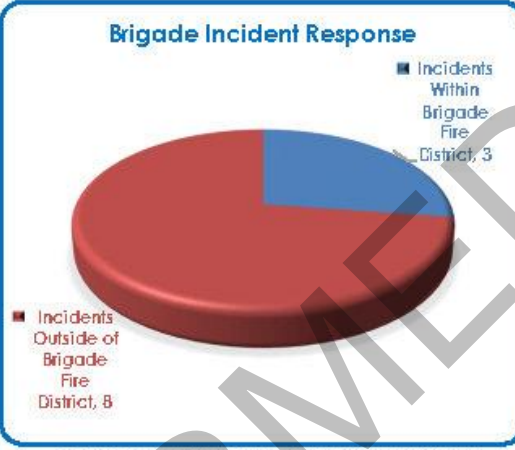
Shire of Northam  
Resource to Risk (R2R) Assessment

**Figure 7: Southern Brook BFB profile**





Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity		Southern Brook BFB	
Documented incident turn out		 <p><b>Brigade Incident Response</b></p> <ul style="list-style-type: none"> <li>Incidents Within Brigade Fire District, 3</li> <li>Incidents Outside of Brigade Fire District, 8</li> </ul> <p><small>Data Obtained from DFE3 Incident Reporting System (IRS) System, Data correct as of 21<sup>st</sup> August 2018</small></p>	
2013/2014	0		
2014/2015	5		
2015/2016	6		
2016/2017	4		
2017/2018	1		
Bridge incident response 2013 – 2018 (June)			
Incidents within the district	3		
Incidents outside the district	8		
Appliance & Resources List			
1.4R	1		
2.4R	0		
2.4U	0		
4.4B	0		
Light tanker	0		
Various mobile pumps	0		
Standpipe pumping trailer	0		
1 bay facility with, Office/Comms Room	1		
2 bay facility with, Office/Comms Room	0		
3 bay facility with, Office/Comms Room	0		
Training Room	1		
Lunch Rooms	1		
Disabled Access Toilets and Showers	1		
External Resources	Available		
Shire of Northam works depot – Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire	30-60 mins to mobilise		



Shire of Northam  
Resource to Risk (R2R) Assessment

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**2.10 Grass Valley Volunteer Bush Fire Brigade – (6267)**

Grass Valley is a small town site 13 kilometres east of Northam. Although there are 2 settlements - Grass Valley town site and Seabrook (human settlement assets), it is a predominantly a broad acre farming district. Other critical infrastructure in the brigade locality include Avon Industrial Park (Economic asset), Great Eastern Highway, Perth-Adelaide Railway, Northam-Cranbrook Highway and the Brigade shed. Geographical features include the Mortlock River and its tributaries. The Meenaar Nature reserve is a significant environmental asset.

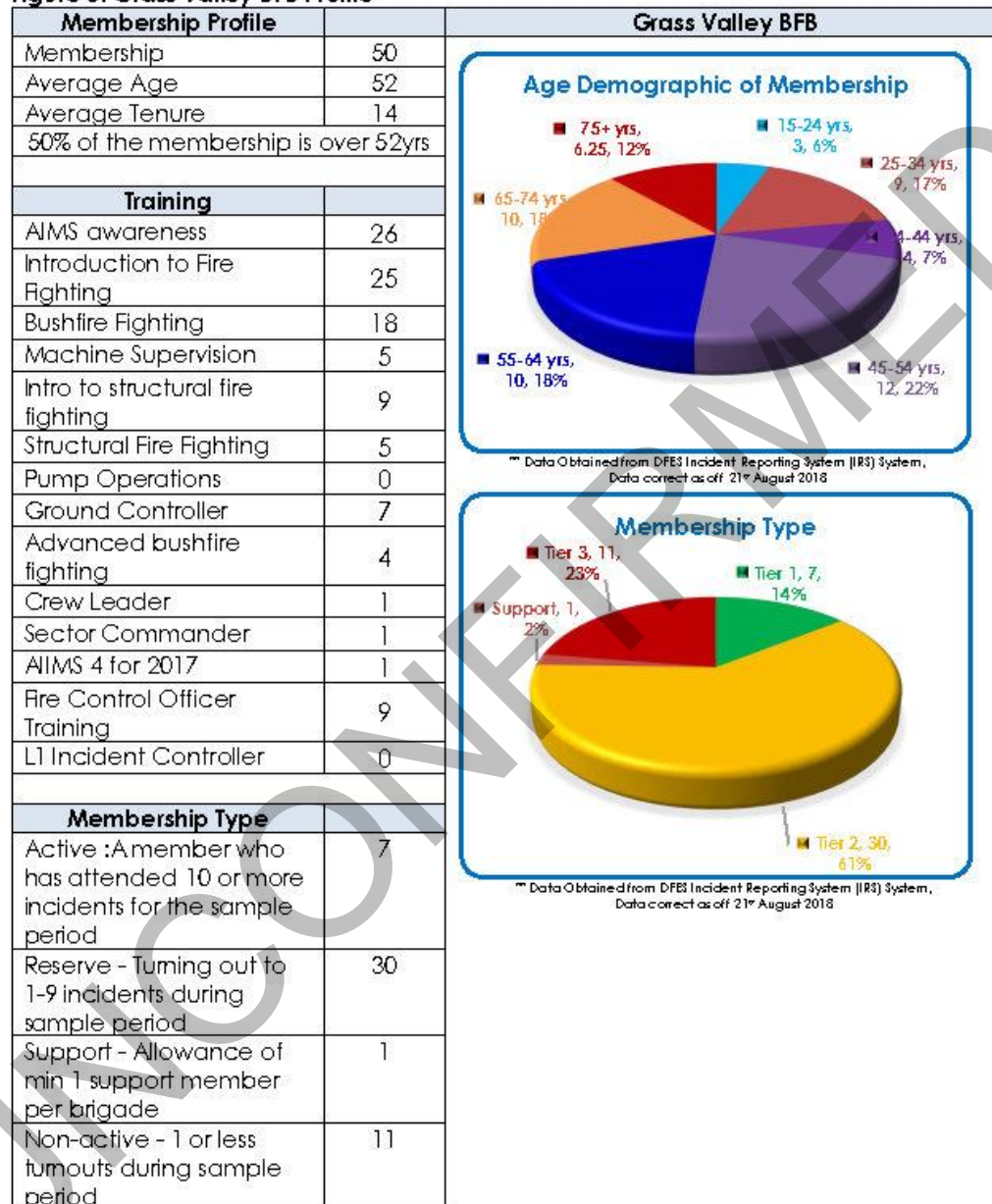
There are 78 private residential dwellings within the Grass Valley district, 30 dwellings in Throssell and an additional 12 in Meenaar. According to the 2016 census, these dwellings equate to a population of 176 residents in the Grass Valley area, 75 residents in Throssell and a further 34 in Meenaar.

There is 242km<sup>2</sup> of rural properties comprising 12, 25, 50 and 1000 ha lots used for small mixed farming, hobby farms and broad acre farming.

The area is predominantly vegetated with jarrah, marri and wandoo forest with dryandra/banksia vegetation and cereal crops. This area is adjacent to the broad acre farming region with large pasture areas. Hence vegetation outside of the Meenaar Nature reserve is less prone to fire and those that do occur are more controllable.

Shire of Northam  
Resource to Risk (R2R) Assessment

**Figure 8: Grass Valley BFB Profile**



Shire of Northam  
Resource to Risk (R2R) Assessment

Brigade activity			Grass Valley BFB	
Documented incident turnout				
2013/2014			22	
2014/2015			67	
2015/2016			33	
2016/2017			22	
2017/2018			20	
Bridge incident response 2013 – 2018 (June)				
Incidents within the district			38	
Incidents outside the district			65	
Appliance & Resources List				
1.4R			0	
2.4R			0	
2.4U			0	
4.4B			1	
Light tanker			0	
Various mobile pumps			0	
Standpipe pumping trailer			0	
1 bay facility with, Office/Comms Room			0	
2 bay facility with, Office/Comms Room			1	
3 bay facility with, Office/Comms Room			0	
Training Room			1	
Lunch Rooms			1	
Disabled Access Toilets and Showers			1	
External Resources			Available	
Shire of Northam works depot - Loaders, Graders, Posi Tracks, 2 x Water Carts and tree looping teams, Traffic Management from the Shire			30-60 mins to mobilise	

### Mobilisation Times in Minutes

Year	Average Response Times - Time from Brigade SMS to Arrival	Average Travel Times - Time from Brigade Turnout Message to Arrival	Average Mobilisation Times - Time from Brigade SMS to Turnout Message
2013/14	48	24	12
2014/15	70	36	10
2015/16	50	23	8
2016/17	42	22	9
2017/18	63	31	9

\*\*\* Data Obtained from DFES Incident Reporting System (IRS) System, Data correct as off 21<sup>st</sup> August 2018

### Brigade Incident Response

Category	Count
Incidents Outside of Brigade Fire District	65
Incidents Within Brigade Fire District	38

\*\*\* Data Obtained from DFES Incident Reporting System (IRS) System, Data correct as off 21<sup>st</sup> August 2018



Shire of Northam  
Resource to Risk (R2R) Assessment

## 2.11 Identification and Assessment of Bushfire Brigades

The ability of the Shire of Northam to manage potential bushfires goes beyond the simple physical infrastructure assessment. The volunteers who form our various bushfire brigades are critical to the Shire's response capability and are the community's most valuable asset. As such, an assessment of each brigade's capacity has been undertaken. It is based on the information provided in section 2 of this report and through consultation with the brigades. The matrix has been developed utilising the likelihood and consequence table (Table 3.)

Brigade	Risk statement	Consequence	Likelihood	Risk Rating
<b>Bakers Hill Brigade</b>	Cover significant area, including Wundowie	3	4	12
	Low membership base of volunteers	4	4	16
	New members not being attracted to the brigade	4	4	16
	Relatively small number of recently active members	3	4	12
<b>Clackline Brigade</b>	Ageing membership base	4	4	16
	Not attracting new members	4	4	16
	Small number of recently active members	3	4	12
	Poor response/turnout times	4	4	16
<b>Irishtown Brigade</b>	Ageing membership	4	4	16
	Not attracting new members	3	4	12
	Very small number of recently active members	3	4	12
	Potentially insufficient membership to utilise available appliances	4	3	12
<b>Jennapullin Brigade</b>	Poor response/turnout times	4	4	16
	No active members	3	3	9
	No appliance	3	3	9
	Not attracting new members	4	3	12
<b>Southern Brook Brigade</b>	No recently active members	3	3	9
	Not attracting new members	3	4	12
<b>Grass Valley Brigade</b>	Ageing membership	4	3	12
	Not attracting new members	3	4	12
	Poor response/turnout times	4	4	16
	Small number of recently active members	3	4	12



Shire of Northam  
Resource to Risk (R2R) Assessment



### 3. Stage 3 -Risk Assessment

#### 3.1 Identification & Assessment of vulnerable populations

The information gathered in stage 2 has contributed to the identification of areas which are not able to meet the Shire of Northam Response Criteria.

Table 2: (repeated here)

SHIRE OF NORTHAM RESPONSE CRITERIA	
KEY= *Property under threat from wildfire # Turnout time to incident. + Aircraft and/or appropriate machinery where required	
<b>RURAL / BROADACRE</b>	Up to two firefighting appliances on site for wildfire in 1 hour (30 + kms between services) # 1 fire firefighting appliance on site for property/Asset protection in 1 hour Specialist Units (ICV) on site within 6 hours
<b>SETTLEMENT/TOWNSITE/RURAL RESIDENTIAL AND RURAL SMALLHOLDING ZONES</b>	Up to 6 firefighting appliances on site for wildfire in 30 minutes (20kms between services) # 1 firefighting appliance on site for property/Asset protection in 30 minutes Specialist Units (ICV) on site within 3 hours
<b>CRITICAL INFRASTRUCTURE (includes properties with major infrastructure and large numbers of people either working, residing or otherwise at that facility)</b>	Up to 6 firefighting appliances on site for wildfire in 30 minutes (20kms between services) # 1 firefighting appliance on site for property/Asset protection in 30 minutes Specialist Units (ICV) on site within 3 hours

Each of the "non-compliant" areas were then been risk assessed in collaboration with local bushfire brigades using the DFES R2R process. The objective of the process is to assess the degree of bushfire risk for the various communities and/or areas considered "at risk". Areas which are assessed as being at an elevated risk (that is: areas that return a risk rating which exceeds '6') will be further assessed, incorporating risk mitigation (treatment) strategies as per the DFES R2R guidelines. Please note the risk ratings and the risk treatment strategies identified in the BRM Plan may differ from those in this R2R assessment.

The following risk table and associated information has been compiled, in accordance with Department of Fire and Emergency Services R2R Guidelines;

Shire of Northam  
Resource to Risk (R2R) Assessment



Table 3: Risk Matrix

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	Almost Certain 5	Moderate (5)	Moderate (10)	High (15)	Extreme (20)	Extreme (25)
	Likely 4	Low (4)	Moderate (8)	High (12)	Extreme (16)	Extreme (20)
	Moderate 3	Low (3)	Low (6)	Moderate (9)	High (12)	Extreme (15)
	Unlikely 2	Very Low (2)	Low (4)	Moderate (6)	High (8)	High (10)
	Rare 1	Very Low (1)	Very Low (2)	Low (3)	Moderate (4)	High (5)

TABLE 4 - LIKELIHOOD AND CONSEQUENCES – (EMERGENCY MANAGEMENT AUSTRALIA 2004)

	LIKELIHOOD
Rare	1 Less than once in 15 years
Unlikely	2 At least once in 10 years
Moderate	3 At least once in 3 years
Likely	4 At least once per year
Almost Certain	5 More than once per year

CONSEQUENCE - HUMAN LIFE AND PROPERTY
1. Insignificant or of little significance
2. Minor – No fatalities. Small number of minor injuries. First aid treatment may be required. No people are displaced. Little or no personal support required (support not monetary or material). Inconsequential or no damage
3. Moderate- Medical treatment required but no fatalities. Some hospitalisation. Localised displacement of people who return within 24 hours. Personal support satisfied through local arrangements. Local damage, rectified by routine arrangements. Community functioning with some inconvenience.
4. Major – Possible fatalities. Extensive injuries, significant hospitalisation. Large number displaced (more than 24 hours duration). Extensive resources required for personal support. Significant damage that requires external resources. Community only partially functioning, some services unavailable.
5. Catastrophic – Significant fatalities. Large number of severe injuries. Extended and large number requiring hospitalisation. General and widespread displacement for extended duration. Extensive damage. Extensive personal support. Community unable to function without significant support.

Shire of Northam  
Resource to Risk (R2R) Assessment



The following assessments have been categorised into their associated brigade areas. The assessment highlights that there are a number of potentially vulnerable risk areas because of insufficient resource(s) being able to get an incident in the area within the specified timeframe. This is summarised as;

No. of identified vulnerable areas	Brigade District
6	Wundowie Brigade area
1	Inkpen Brigade area
2	Grass Valley Brigade area
7	Bakers Hill Brigade area
0	Southern Brook Brigade area
9	Clackline Brigade area
0	Irishtown Brigade area
0	Jennapullin

(Appendix 1 provides the detailed assessment matrix)

The following represents a summary risk assessment undertaken within each of the identified areas to determine areas which represent a response risk. In some cases response times are outside of the Local Government Response Criteria. Some of these instances have been deemed as being "acceptable" based on a concept aligned to the ALARP (as low as reasonably practical) principle.



Shire of Northam  
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**3.1.1 Risk Assessment for Wundowie Bushfire Brigade area (formerly within Bakers Hill Bushfire Brigade Area)**

Vulnerable Area Risk Assessment – Wundowie Brigade Area			
<b>Wundowie Gazetted Town site and rural residential subdivisions.</b> (Currently the Wundowie VFRS gazetted brigade district)	<b>Likelihood</b>	<b>Consequence</b>	<b>Risk Rating</b>
	4	4	16
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Attachment 1 for current estimated response times)	<b>Target</b>	<b>Achieved</b>	<b>Total Incidents</b>
	6	4	18
<b>Risk treatments, Local Government Wide Controls and other mitigation measures:</b> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Reticulated water supply.</li> <li>• Creation of Wundowie Bushfire brigade.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Review Bush Fire Management Plans for subdivision areas and ensure compliance.</li> <li>• Review and implementation of existing strategic firebreak network.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Facilities include the Wundowie Primary School, Hall, Library, Day Care Centre and commercial, industrial and residential properties. The area is adjacent to significant areas of reserved natural vegetation to the north and east. Hyde Dr Subdivision is a rural/residential estate with approximately 60 lots with associated houses and buildings. Kep track is located to the north of the subdivision. There is a significant area of bushland to the east of the subdivision. The area includes the established Maringa Way and Olive Road subdivisions area and a relatively new rural residential area (Acacia Retreat). It is primarily rural/residential and hobby farming purposes comprising approximately 77 properties.			
<b>Access</b> There are a number of routes to the north and south. Hyde Dr has a single road entry point into a subdivision. There is an unconstructed road reserve along northern end of the subdivision. There is a semi-formal access to Kep track at end of Dawson Road. Maringer Way and Acacia Retreat have single road access to cul-de-sacs. A specific Fire Management Plan has been prepared for Acacia Retreat with emergency exit direct to GEH.			
<b>Fire Threat</b> External part of townsite Located within Bushfire Prone area. Northern part of the townsite bordered by large reserves. DBCA has completed a burning program in recent years to mitigate the risk.			
<b>Fire History</b> There has been 18 reported fire incidents in the area in the past 5 years. The majority of fires were classified as low-level incidents as they were contained to private property.			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Wundowie Bushfire Brigade Area			
<b>Mauravilla Estate</b> (Note: Currently within the Wundowie BFB area (previously Bakers Hill))	<b>Likelihood</b>	<b>Consequence</b>	<b>Risk Rating</b>
	5	5	25
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	<b>Target</b>	<b>Achieved</b>	<b>Total Incidents</b>
	6	2	2
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Creation of Wundowie Bushfire brigade.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implement Bushfire Management Plan.</li> <li>• Alternate means of emergency exit to be formalised.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Newly developed rural residential estate located north west of the Wundowie townsite. New houses and associated infrastructure being developed. Significant reserve land to the south. Further lots (Stage 3) to be developed south of existing lots. Longer term planning is for the area to be further developed for rural residential lots (refer Wundowie North-West Structure Plan).			
<b>Access</b> Extremely poor access, with single entry road being 3-5 kms long. Likelihood of residents becoming entrapped is very high. Currently only single road entry and exit until adjoining land to the east is developed and/or gazetted road constructed.			
<b>Fire Threat</b> Located within Bushfire Prone area.			
<b>Fire History</b> 2 Fires in 2018. (Note: as this estate is still under development, there is a potential for a higher degree of ignition sources and the subsequent increase of fire incidents to more than one per year in the future.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Wundowie Bushfire Brigade Area			
<b>Bodeguero Subdivision</b> (Note: Currently within the Wundowie BFB area - previously Bakers Hill)	<b>Likelihood</b>	<b>Consequence</b>	<b>Risk Rating</b>
	4	5	20
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	<b>Target</b>	<b>Achieved</b>	<b>Total Incidents</b>
	6	2	9
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Creation of Wundowie Bushfire brigade.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Predominately developed as a rural residential estate with approximately 52 lots located south west of the Wundowie townsite and adjacent to El Caballo resort and golf course.			
<b>Access</b> Single Road entry exit point north from Great Eastern Highway. No gazetted road access to the north of the subdivision. Physical barrier of water pipeline preventing residents to escape an emergency to the north of the estate.			
<b>Fire Threat</b> Located within Bushfire Prone area, multiple pockets of remnant vegetation with minimal risk treatment works. Large areas of swamp land which cause access/egress and suppression/containment difficulties. If a fire comes from the southeast it could cause catastrophic consequences due to access/egress issues.			
<b>Fire History</b> There has been 9 reported fire incidents in the area in the past 5 years. The majority of the fires are classified as low-level incidents as they were contained to private property.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Wundowie Bushfire Brigade Area			
<b>El Caballo Lifestyle Village</b> (Note Currently within the Wundowie BFB area (previously Bakers Hill))	Likelihood	Consequence	Risk Rating
	4	4	16
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	2	5
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Fire Management Plan prepared for estate.</li> <li>• Creation of Wundowie Bushfire brigade.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Relatively new development for over 45's comprising individual houses and existing and proposed communal facilities. Currently approximately 35 houses in the development. Specific Fire Management Plan prepared for the estate. Expected to grow significantly in coming years – proposed approximately 220 units.			
<b>Access</b> One entry/exit road. Alternate emergency access route constructed to Great Eastern Highway and included as part of fire management plan. No gazetted road access to the north of the subdivision. Physical barrier of water pipeline preventing emergency escape to the north of the estate.			
<b>Fire Threat</b> Located within Bushfire Prone area, multiple pockets of remnant vegetation with minimal mitigation works.			
<b>Fire History</b> There has been 5 reported fire incidents in the area in the past 5 years. The majority of fires are classified as low risk as either contained to private property or a vehicle fire.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Wundowie Bushfire Brigade Area			
Sims Road Subdivision. (Note: Currently within the Wundowie BFB area (previously Bakers Hill))	Likelihood	Consequence	Risk Rating
	4	3	12
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	2	10
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Creation of Wundowie Bushfire brigade.</li> <li>Bushfire Emergency Plan is needed for residents.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Approximately 20 Rural residential lots located north east of the Wundowie townsite. A majority of the larger properties have dwellings and associated outbuildings. Large area of remnant vegetation to the east and west.			
<b>Access</b> Fernie Road provides access to the north and south. Sims Road provides access south only.			
<b>Fire Threat</b> Located within Bushfire Prone area, large tracts of crown reserves & private property with high native vegetation fuel loads.			
<b>Fire History</b> There has been 10 reported fire incidents in the area in the past 5 years. The majority of fires are classified low – moderate level incidents as they were either contained to private property or were a vehicle fire.			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Wundowie Bushfire Brigade Area (Formerly Bakers Hill)			
<b>Doys/Gaden Road Subdivision</b> (Note: Currently within the Wundowie BFB area - previously Bakers Hill)	<b>Likelihood</b>	<b>Consequence</b>	<b>Risk Rating</b>
	3	3	9
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	<b>Target</b>	<b>Achieved</b>	<b>Total Incidents</b>
	6	2	5
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Bushfire Emergency Plan is needed for residents.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate to the north, west and east.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Approximately 30 Larger Rural Smallholding lots used for hobby farming purposes located west of Wundowie townsite. Various areas of remnant vegetation. Majority of properties have dwellings and associated outbuildings. There is a large area of remnant vegetation to the north.			
<b>Access</b> Good Access with Great Eastern Hwy & Linley Valley Road, Chedaring Rd to the south or back into the Wundowie Townsite to the east.			
<b>Fire Threat</b> Located within Bushfire Prone area, multiple pockets of remnant vegetation with high fuel loads and minimal mitigation works throughout the area.			
<b>Fire History</b> There has been 5 reported fire incidents in the area in the past 5 years. The majority of fires are classified as low-level incidents as they were either contained to private property or were a vehicle fire.			

Shire of Northam  
Resource to Risk (R2R) Assessment



3.1.2 Risk Assessment for Bakers Hill BFB Fire District

Vulnerable Area Risk Assessment – Bakers Hill Bushfire Brigade Area			
Carlin Road Subdivision	Likelihood	Consequence	Risk Rating
	5	3	15
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	2	13
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> </ul>			
<p><b>Characteristics</b></p> <p>Rural residential area located within a few kilometres of the Bakers Hill townsite. The subdivision has approximately 65 residents and abuts heavily forested areas to the north and west. To the east and south of the subdivision is predominantly rural farm and, with small pockets of forested areas.</p>			
<p><b>Access</b></p> <p>There are two main access/egress routes to the east and south of the subdivision.</p>			
<p><b>Fire Threat</b></p> <p>Located within Bushfire Prone area.</p> <p>Based on the assumption that the predominant threat of fire arises from the north and west quadrants. Provided residents are provided with sufficient warning the risk of people being unable to evacuate the area is low.</p> <p>Most of the area is an undulating landscape with a predominant slope factor of greater than 5 degrees.</p>			
<p><b>Fire History</b></p> <p>There have been 13 reported fire incidents in the area in the past 5 years, however six of these have been to the low level incidents in the lower risk east and south areas.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Bakers Hill Bushfire Brigade Area			
Koojeddah/Jose Road Subdivision	Likelihood	Consequence	Risk Rating
	5	4	20
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	4	19
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Rural residential area located north west of the Bakers Hill townsite and is characterised by significant areas of reserve land to the east and north by. Predominately developed with houses and associated infrastructure.			
<b>Access</b> There is no formal road access/egress to the north of the subdivision.			
<b>Fire Threat</b> Located within Bushfire Prone area. Surrounded by DBCA & Shire reserves characterised by heavy jarrah forest fuel loads. Undulating land with high slope factor above 5 degrees.			
<b>Fire History</b> There have been 19 reported fire incidents in the area in the past 5 years, however most are classified as low level incidents as they were contained to private property.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Bakers Hill Bushfire Brigade Area			
Bakers Hill Townsite	Likelihood	Consequence	Risk Rating
	5	4	20
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	4	22
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Reticulated water supply.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Includes special risk assets of the Bakers Hill Primary School, and Recreation Centre, sporting complex and numerous residential and commercial properties.			
<b>Access</b> Good access, with multiple egress routes.			
<b>Fire Threat</b> Located within Bushfire Prone area. Low fuel loads within townsite and surrounding agricultural land.			
<b>Fire History</b> There have been 22 reported fire incidents in the area in the past 5 years, however most were classified as low incidents as they were contained to private property.			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Bakers Hill Bushfire Brigade Area			
Redcourte/O'Driscoll, Subdivisions	Likelihood	Consequence	Risk Rating
	4	4	16
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	2	8
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Bushfire Emergency Plan is needed for residents.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate to the west and south.</li> </ul>			
<p><b>Characteristics</b></p> <p>Rural residential subdivision south of Bakers Hill townsite comprising approximately 67 lots. The area is predominately developed with housing and associated infrastructure (with the exception of vacant lots in Gum Tree Lane subdivision). There are areas of significant vegetation to the south and west. Tree farms (economic assets) are located to the east and southeast of the area.</p> <p><b>Access</b></p> <p>Good access, with multiple access/egress routes. Strategic firebreaks are installed with fire access gates.</p> <p><b>Fire Threat</b></p> <p>Located within Bushfire Prone area, the estates back onto a large privately owned bush block, with an extremely high fuel load.</p> <p><b>Fire History</b></p> <p>There has been 8 reported fire incidents in the area in the past 5 years, however most were classified as low level incidents as they were contained to private property.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Bakers Hill Bushfire Brigade Area			
Oyston Road/Glenmore Estate subdivision area	Likelihood	Consequence	Risk Rating
	4	4	16
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	6	12
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent vegetated estate and DBCA reserves.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Approximately 90 rural residential lots located south west of the Bakers Hill townsite. New subdivisions on Oyston Road are partially developed. Glenmore Estate is predominately developed with a mixture of hobby farming and lifestyle properties. There is a significant naturally vegetated property located to the north of Glenmore Estate.			
<b>Access</b> Oyston Road has direct access to Great Eastern Hwy to the north and Inkpen Road to the south. Glenmore estate has access to the north east via Anderson Road and Oyston Road to the north west.			
<b>Fire Threat</b> Located within Bushfire Prone area, Gleeson Hill & Cook St properties are vulnerable to large privately owned bush block with high fuel loads and has had little risk treatment works applied. This situation affects the Asset Protection Zones of adjacent properties. There is a large DBCA reserve to the south west, with very high fuel loads in native vegetation, and also has had little risk treatments applied. There is a high risk of fire ignition within the Inkpen Tip.			
<b>Fire History</b> There has been 12 reported fire incidents in the area in the past 5 years, however most are classified as low level incidents as they were contained to private property.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Bakers Hill Brigade Area			
Inkpen Road Waste Disposal Site	Likelihood	Consequence	Risk Rating
	4	4	16
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	6	6
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Bush Fires Act.</li> <li>• Site Management Plan.</li> <li>• Fuel management adjacent to site in accordance with the BRM Plan.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<p><b>Characteristics</b> Existing waste Disposal Site surrounded by significant vegetation.</p> <p><b>Access</b> Inkpen Road provides access to the north and south from the facility.</p> <p><b>Fire Threat</b> It is located within Bushfire Prone area.</p> <p><b>Fire History</b> There has been 6 reported fire incidents in the area in the past 5 years. As the majority of these were in the DBCA reserve that surrounds the refuse site, they have been classed as having the potential to pose a high – very high risk to the community.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



### 3.1.3 Risk Assessment for Inkpen BFB Fire District

Vulnerable Area Risk Assessment – Inkpen Bushfire Brigade Area			
Wundabiniring Road Area	Likelihood	Consequence	Risk Rating
	3	4	12
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	2	4
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Bushfire Emergency Plan is needed for residents.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent vegetated estate and DBCA reserves.</li> </ul>			
<p><b>Characteristics</b> Area zoned "Rural". It contains approximately 16 lots used for farming/grazing purposes. Most lots have dwellings and associated farm infrastructure located on them.</p> <p><b>Access</b> Approximately 8 lots have single exit/entry point back to Great Southern Highway. Remaining lots have direct access to Great Southern Highway.</p> <p><b>Fire Threat</b> Located within Bushfire Prone area, estate is surrounded on 4 sides with dense bushland, with high fuel loads, and minimal risk treatment works completed. There is limited water supply for firefighting. There are no reticulated hydrants and therefore a sole reliance on privately owned static water supplies.</p> <p><b>Fire History</b> There has been 4 reported fire incidents in the area in the past 5 years, however most are classified as low risk as were contained to private property or were vehicle fires.</p>			



Shire of Northam  
Resource to Risk (R2R) Assessment



3.1.4 Risk Assessment for Clackline- Muresk BFB Fire District

Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Clackline Townsite	Likelihood	Consequence	Risk Rating
	4	3	12
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	5	9
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Reticulated water supply.</li> <li>• Emergency response plan for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate and reserves to the north.</li> </ul>			
<p><b>Characteristics</b></p> <p>Small townsite located on Great Eastern Highway with assets including a hall, shop and post office a number of residential and rural residential lots. Contains approximately 30 mainly developed properties. Significant area of vegetation north of Great Eastern Hwy and areas of vegetation within the townsite.</p> <p><b>Access</b></p> <p>Direct access to Great Eastern Highway to the north. Multiple access/egress points to the North and South.</p> <p><b>Fire Threat</b></p> <p>Located within Bushfire prone area, there are multiple large scale reserves with high fuel loads, and minimal risk treatment works completed. Undulating land with high slope factor above 5 degrees.</p> <p><b>Fire History</b></p> <p>There has been 9 reported fire incidents in the area in the past 5 years, however most are classified as low level incidents as they were contained to private property or were vehicle fires.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Spencers Brook Townsite	Likelihood	Consequence	Risk Rating
	4	3	12
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	0	9
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Reticulated water supply.</li> <li>Emergency response plan for residents.</li> </ul>			
<p><b>Characteristics</b></p> <p>Small townsite located on Great Eastern Highway with assets including a hall, shop and post office a number of residential and rural residential lots. Contains approximately 30 mainly developed properties. Significant area of vegetation north of Great Eastern Hwy and areas of vegetation within the townsite.</p> <p><b>Access</b></p> <p>Direct access to Great Eastern Highway to the north.</p> <p>Multiple access/egress points to the North and South.</p> <p><b>Fire Threat</b></p> <p>Located within Bushfire prone area, there are multiple large scale reserves with high fuel loads, and minimal risk treatment works completed.</p> <p>Undulating land with high slope factor above 5 degrees.</p> <p><b>Fire History</b></p> <p>There has been 9 reported fire incidents in the area in the past 5 years, however most are classified as low level incidents as they were contained to private property or were vehicle fires.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Brigade Area			
Muresk Institute	Likelihood	Consequence	Risk Rating
	3	4	12
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	0	7
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Safety Management Plan.</li> <li>• Reticulated water supply.</li> <li>• Own fire appliance.</li> </ul>			
<b>Characteristics</b> Significant tertiary institution (Special risk human settlement, temporary accommodation asset) located approximately 18 km south of Northam townsite and adjacent to the Avon River. Currently comprises a number of educational buildings including classrooms, lecture theatres, laboratories, accommodation units, social facilities and a working farm.			
<b>Mitigation measures:</b> Currently has single privately owned Light tanker for “onsite” fire suppression purposes. Has own Safety Management Plan and a reticulated water supply throughout site. Maintains compliance with Shire of Northam Firebreak Notice.			
<b>Access</b> Single formal access point being Muresk Road. Secondary alternate exit across Avon River to York Spencers Brook Road.			
<b>Fire Threat</b> Small portion of education area within Bushfire prone area. Portion of the farm located within bushfire prone area. Due to own appliance on site, is able to respond quickly to minor incidents on site. This lessens the need for the standard Local Government Response Criteria to be applied for this facility.			
<b>NB:</b> This facility considered as a Vulnerable Land Use according to State Planning Policy 3.7 (6.6)			
<b>Fire History</b> There were 7 reported fire incidents in the area in the past 5 years, however are classified as moderate level incidents as they were contained to private property or were vehicle fires.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline- Muresk Bushfire Brigade Area			
Detention Centre	Likelihood	Consequence	Risk Rating
	5	5	25
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	2	5
Risk treatments, Local Government Wide Controls and other mitigation measures as per BRM Plan. Note: Commonwealth Land is not subject to local government provisions. <ul style="list-style-type: none"> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Immigration detention centre located 2.8 km west of Northam on Commonwealth land being the form Northam Army Camp. Centre contains numerous accommodations units, offices and recreation areas. The Northam Army Camp located to the west and vegetation located to the south west. Commonwealth land is not subject to the Shire's Firebreak notice requirements. It has accommodation for up to 800 people plus staff and associated subcontractors. <u>Specific arrangements are in place in case of emergency although not known to local volunteer emergency management personnel.</u>			
<b>Access</b> Formal access located on Mitchell Avenue with informal access to Great Eastern Highway via existing Army Camp access point. <u>Bushfire Brigades will not be allowed access into camp for asset protection.</u> The local brigades will not risk firefighter safety by entering premises without adequate assistance from law enforcement resources. Residents are locked down with no escape.			
<b>Fire Threat</b> Located within bushfire prone mapping area, the facility has highly flammable construction materials. There is remnant vegetation with moderate to high fuel loads surround the facility and an undulating landscape with slope factor above 5 degrees. Low bushfire fuel hazard within compound itself due to grounds keeping requirements.			
<b>Fire History</b> There has been 10 reported fire incidents in the area in the past 5 years, however are classified as moderate level incidents as they were contained to private property.			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Springhill Recovery Centre	Likelihood	Consequence	Risk Rating
	3	4	12
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	2	1
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Site specific Bushfire Management Plan. – Revised risk assessment is contingent on compliance with the Bushfire Management plan and risk treatment strategies identified in the BRM Plan.*</li> <li>• Risk treatment strategies to apply to surrounding properties as per BRM Plan</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> The former Army training centre is currently utilised as a recovery centre. It comprises a number of buildings including accommodation units, kitchen, function centre, recreation buildings and houses. Located adjacent to the Avon River (opposite side of Spencers Brook Road). It contains some vegetation and pasture land (former golf course) on site and there is vegetation to the north east of the site. The site has a specific Bushfire Management Plan.			
<b>Access</b> Single direct access to Spencers Brook Road.			
<b>Fire Threat</b> Buildings are located within Bushfire Prone mapping area. The river valley can act as corridor for fire travel with undulating land with exceeding a 5 degree slope factor. APZ is poorly maintained, with high fuel loads encroaching on perimeter fences.			
<b>Fire History</b> There has been 1 reported fire incidents in the area in the past 5 years.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Leeder Road/Mokine Area	Likelihood	Consequence	Risk Rating
	4	4	16
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	3	12
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan.</li> </ul>			
<b>Characteristics</b> Rural smallholdings estate located between Spencers Brook townsite and Clackline. It consists of approximately 85 properties that are mainly hobby farms/lifestyle lots with numerous dwellings and associated infrastructure. Numerous lots have vegetation on them and the surrounding land is used for pasture/grazing. More significant vegetation to the west. Has minimal reticulated water supply however there is a hydrant and a standpipe.			
<b>Access</b> Several cul-de-sacs (Moondyne, Boondine, Harvey and Avro Anson Roads that prevents emergency access/egress to the south.) No strategic firebreaks or emergency access/egress points.			
<b>Fire Threat</b> Located within a Bushfire Prone area there are large tracts of reserves with high fuel loads and minimal risk treatment works applied.			
<b>Fire History</b> There has been 12 reported fire incidents in the area in the past 5 years, however are classified as moderate level incidents as they were contained to private property.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Breen Rise /Raymond Court, & Benrua Area	Likelihood	Consequence	Risk Rating
	5	5	25
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	5	21
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan.</li> </ul> <p>NB compliance with the above does not greatly affect the inherent risk profile for this area.</p>			
<p><b>Characteristics</b> Approximately 60 Rural/residential lots and rural small holdings located to the south west of Clackline townsite. Mixed use of hobby farming and lifestyle lots. Some lots contain significant vegetation.</p> <p><b>Access</b> Several cul-de-sacs (Raymond Court, Virginia Court, Breen Rise) that connect to strategic firebreaks/emergency access points.</p> <p><b>Fire Threat</b> Located within Bushfire prone area, the area has extreme slopes above 10 degrees with high to extreme fuel loads in conjunction with difficult terrain and limited access.</p> <p><b>Fire History</b> There have been 21 reported fire incidents in the area in the past 5 years, mostly escaped burns that were extinguished before they became a greater threat.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Railway Road Area	Likelihood	Consequence	Risk Rating
	5	5	25
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	5	17
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for residents.</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan. Fuel management needs to be applied to the vegetated areas to the west and along Eadine road.</li> </ul> <p>NB compliance with the above does not greatly affect the inherent risk profile for this area.</p>			
<p><b>Characteristics</b></p> <p>Approximately 30 rural smallholding lots located north of the Clackline townsite and Great Eastern Hwy. It is a mixture of hobby farming and lifestyle properties (vegetated lots). There is an area of significant vegetation to the west and to the east between Railway Parade and Clackline-Toodyay/Eadine Roads.</p> <p><b>Access</b></p> <p>Several cul-de-sacs including Lukin, Connor and Railway Roads. Several access roads from Railway Road to Clackline-Toodyay Road and Eadine Road.</p> <p>There is a timber bridge (itself being vulnerable infrastructure) on Eadine Rd that could potentially be the only escape route if a fire approach is from the SW.</p> <p><b>Fire Threat</b></p> <p>Located within Bushfire prone area, heavy fuel loads in multiple DBCA reserves that have had little risk treatment works applied.</p> <p><b>Fire History</b></p> <p>There has been 17 reported fire incidents in the area in the past 5 years, made up of a mixture of vehicle and road verge fires.</p>			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Clackline-Muresk Bushfire Brigade Area			
Paynter Road/Searle Drive & Smith Road Area (Bobakine)	Likelihood	Consequence	Risk Rating
	4	4	16
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
<p>Target = Total No. of units able to arrive within 30 min.</p> <p>Achieved = Total No. of units able to reach target</p> <p>Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)</p>	6	0	6
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Bushfire Emergency Plan is needed for residents.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies on each property and for adjacent reserves and forest.</li> </ul>			
<p><b>Characteristics</b></p> <p>Approximately 15 rural residential lots located off Smith Road. Primarily lifestyle lots with majority of lots vegetated. Significant vegetation to the north and west.</p> <p>Reserve 42432(Bubaline Nature Reserve) and lot m1375 (privately owned) contains significant vegetation.</p> <p>Smith Rd - approximately 25 rural lots located at the end of Smith Road used for both agricultural and lifestyle purposes. Several lots contains significant vegetation.</p> <p>Nature Reserve 43077 and lot 322 (owned by the State of WA) contain significant vegetation.</p> <p><b>Access</b></p> <p>Searle Drive and Paynter Road are cul-de-sacs and provide the only means of entry/exit to the properties. Unconstructed road reserve at end of Paynter Road (approximately 3 km in length) to area adjacent to Clackline-Toodyay Road.</p> <p>Smith Road is a cul-de-sac which runs generally north from Eadine Road with no means of exit to the north.</p> <p><b>Fire Threat</b></p> <p>Located within Bushfire Prone area, heavy vegetation surrounding each subdivision, DBCA Bobakine Reserve and undulating terrain with slope factor around 10 degrees. Due to the slope rising up from the estate, it reduces the threat of fire but may cause winds to become unpredictable.</p> <p><b>Fire History</b></p> <p>There has been 6 reported fire incidents in the area in the past 5 years, escapes from burns and lightning strikes were the cause of the majority of the fires.</p>			

Shire of Northam  
Resource to Risk (R2R) Assessment



3.1.5 Risk Assessment for Grass Valley BFB Fire District

Vulnerable Area Risk Assessment – Grass Valley Bushfire Brigade Area			
Seabrook	Likelihood	Consequence	Risk Rating
	4	3	12
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	3	7
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Reticulated water supply.</li> <li>• Emergency response plan for residents.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Residential lots located adjacent to Mortlock River. Primarily used for residential/lifestyle purposes. Approximately 45 separate properties. Perth-Adelaide railway line located to the north. Seabrook Battery reserve located to the east and Mortlock River to the west. Generally surrounded by broad acre farming properties to the north and east, hobby farms to the south.			
<b>Access</b> Access East & West is via Muluckine Road, and across the railway line via Hunter Rd.			
<b>Fire Threat</b> Significant number of houses (approx. 30-32) within Located within Bushfire Prone area, surrounded by agricultural land, with pockets of vegetation along the Mortlock River. Seabrook Reserve has had some risk treatment works conducted in 2017.			
<b>Fire History</b> There have been 7 reported fire incidents in the area in the past 5 years, 1 of which was a structure fire, the remainder were escapes from burns.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Grass Valley Bushfire Brigade Area			
Grass Valley Townsite	Likelihood	Consequence	Risk Rating
	3	3	9
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	1	4
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>Compliance with Firebreak notice.</li> <li>Reticulated water supply.</li> <li>Emergency response plan for residents.</li> </ul>			
<b>Characteristics</b> Townsite includes Hall, Tavern, Post Office and associated residential infrastructure. It is surrounded by rural residential/lifestyle lots. Approximately 80 mainly developed separate properties. Some expansion of the rural residential properties to the west of the town is proposed. Great Eastern Hwy located to the north of the townsite and Pert-Adelaide Railway line separates the residential lots to the rural residential lots to the west. Generally surrounded by farmland.			
<b>Access</b> Main access and egress points are to GEH to the north and Muluckine Road to the south west.			
<b>Fire Threat</b> Part of the townsite and areas to the south east are Located within Bushfire Prone area, mainly surrounded by agricultural properties, with several small parcels of regrowth vegetation with low fuel loads.			
<b>Fire History</b> There has been 4 reported fire incidents in the area in the past 5 years, 1 of which was a structure fire, the remainder were escapes from burns.			



Shire of Northam  
Resource to Risk (R2R) Assessment



### 3.1.6 Northam Townsite and Environs

Vulnerable Area Risk Assessment – Northam Townsite and Environs (Note: This area is within a Gazetted Fire District, Bushfire response only is used for this asset)			
Avon Yards/CBH Complex	Likelihood	Consequence	Risk Rating
	4	3	12
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	6	6	12
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Reticulated water supply.</li> <li>• Bushfire Emergency Plan is needed for facility.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Significant rail and marshalling yards and regional CBH grain handling facility located on Northam-Toodyay Road (Critical infrastructure and economic assets). Within Northam VFRS district but likely BFB required for major incident due to the need to dedicate resources to both protecting structures/infrastructure and bushfire containment/suppression. Located on Perth-Adelaide Rail Line and Northam-Toodyay Road. The Avon River is located to the north. Cropping and grazing land located to the south and west, Great Eastern Hwy is located to the east and a landfill facility to the south east.			
<b>Access</b> Direct to Northam-Toodyay Road.			
<b>Fire Threat</b> The highest threat for this area is from the road/rail reserve. There is a history of fires being ignited by rail activity throughout the Avon Valley. It has also been reported that animal "strikes" along the power infrastructure within the area have caused fire ignition.			
<b>Fire History</b> There has been 12 reported fire incidents in the area in the past 5 years. The majority were landscape fires, however there have been multiple fires within the road/rail reserve as well as fires started by birds striking powerlines.			



Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Northam Townsite and Environs (Note: This area is within a Gazetted Fire District, Bushfire response only is used for this asset)			
Old Quarry Landfill Site	Likelihood	Consequence	Risk Rating
	4	4	16
<b>Standard Local Government Response Criteria</b> Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	Target	Achieved	Total Incidents
	6	5	9
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for facility.</li> <li>• Regular revision of Fire Management Plan.</li> <li>• Implementation of risk treatment strategies as per BRM Plan.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Significant landfill facility located to the west of the Northam townsite. Located within a valley and has remnant vegetation surrounding active tip face. Has existing Fire Management Plan and network of existing firebreaks. Would have significant environmental issues if a major fire was to occur. Currently within Northam VFRS district but likely BFB called for assistance.			
<b>Access</b> Single entry/exit point from Old Quarry Road.			
<b>Fire Threat</b> Landfill facilities are often categorised a “high risk” land use are known to be prone to ignitions. The highest threat arising from outside the facility is from area with the road/rail reserves and the animal “strikes” along the power infrastructure within the area. There has also been several escapes from burns by farmers in the area adjacent to the tip in the refuse site in the past 5 yrs.			
<b>Fire History</b> There has been 9 reported fire incidents in the area in the past 5 years, the Majority were landscape fires, however there were multiple fires within the road/rail reserve as well as fires started by birds striking powerlines. There has also been a large green waste fire within the facility itself.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Northam Townsite and Environs (Note: This area is within a Gazetted Fire District, Bushfire brigade response is not normally required but may be called upon for water capacity)			
West Industrial Area	Likelihood	Consequence	Risk Rating
	4	4	16
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	6	6	10
Risk treatments, Local Government Wide Controls and other mitigation measures: <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is needed for facility.</li> <li>• Implementation of risk treatment strategies as per BRM Plan.</li> <li>• New buildings to be constructed as per SPP 3.7.</li> <li>• VRFS units are utilised for asset protection as required</li> </ul>			
<b>Characteristics</b> Partially developed Industrial area on the western extremity of the Northam townsite. Major land uses include hay processing facility, earthmoving/landscaping supply business, Water Corporation treatment plant/storage dams and several vacant properties. Has potential for expansion in the future. Perth-Adelaide rail line and Avon River located to the north. Currently within Northam VRFS district but likely BFB called for assistance.			
<b>Access</b> Direct to Northam-Toodyay Road and GEH			
<b>Fire Threat</b> The highest threat for this area is from the road/rail reserve and the animal strikes along the power infrastructure within the area. High fuel loads along river area and difficult topography make it almost essential that air support is utilised as a priority. The Hay facility has also been designated as a Zone 3 response area by DFES for increased mobilisation during the high threat period.			
<b>Fire History</b> There has been 10 reported fire incidents in the area in the past 5 years, the Majority were landscape fires, however there was multiple fires within the road/rail reserve as well as fires started by birds striking powerlines			

Shire of Northam  
Resource to Risk (R2R) Assessment



Vulnerable Area Risk Assessment – Northam Townsite and Environs (Note: This area is within a Gazetted Fire District, Bushfire response only is used for this asset)			
East Industrial Area	Likelihood	Consequence	Risk Rating
	4	4	16
Standard Local Government Response Criteria	Target	Achieved	Total Incidents
Target = Total No. of units able to arrive within 30 min. Achieved = Total No. of units able to reach target Total Incidents = Total No. of incidents in 5yr period. (Refer to Appendix 1 for current estimated response times)	6	4	10
<p>Risk treatments, Local Government Wide Controls and other mitigation measures:</p> <ul style="list-style-type: none"> <li>• Compliance with Firebreak notice.</li> <li>• Bushfire Emergency Plan is required for all facilities.</li> <li>• Evacuation plan is needed for caravan park.</li> <li>• Implementation of risk treatment strategies as per BRM Plan.</li> <li>• New buildings to be constructed as per SPP 3.7.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<p><b>Characteristics</b> Partially developed Industrial area on the eastern extremity of the Northam townsite. Major land uses include machinery sales, workshops, Northam Turf Club, Truck assembly Area and roadhouse currently under construction. The Northam caravan park located in the precinct. A Caravan Park is a Human Settlement Asset, Temporary Occupation and has potential for expansion in the future. Northam-Goomalling rail line located in area and the Mortlock River and its associated vegetation dissects the area. Currently within Northam VFRS district but likely BFB called for assistance.</p> <p><b>Access</b> Direct to Yilgarn Avenue and GEH.</p> <p><b>Fire Threat</b> The highest threat for this area is from the road/rail reserve and the animal strikes along the power infrastructure within the area. The Mortlock River vegetation has the capacity to carry fire through the valley and act as a “wick” for fires arising outside of the area. Several fires to the East of this area are from escaped farmer burns. <b>NB:</b> This facility would be designated as a Vulnerable Land Use according to State Planning Policy 3.7 (6.6).</p> <p><b>Fire History</b> There has been 9 reported fire incidents in the area in the past 5 years, the Majority were landscape fires, however there was multiple fires within the road/rail reserve as well as fires started by birds striking powerlines. There has also been a large green waste fire within the facility itself.</p>			



#### **4. Stage 4- Revised Risk Assessments**

Following the assessment in Stage 3 a revised risk assessment was undertaken for all of those vulnerable areas included in that stage. The revised assessment has been undertaken using the reallocation of existing resources, incorporation of adjoining local authority resources (where appropriate/practical), additional treatment works identified in Stage 3 and potential additional resources.

##### **4.1 Prioritised Area Risk Reduction & Control**

Risk treatments in themselves do not amend a risk profile. Bushfire risk in a BRM Plan is assessed as an underlying value. Risk treatments such as fuel management have the potential to adjust a consequence rating but are typically temporary in nature and must be repeated on a regular cycle.

Some risk "controls" have the capacity to amend a risk profile, particularly if they can be applied to alter the likelihood. For instance if power infrastructure is re-engineered from being overhead conductors to an underground system

This section focuses on risk controls and treatments. In undertaking this section consideration has been given to a potential risk treatment strategy in accordance with the Shire's BRM Plan.



Shire of Northam  
Resource to Risk (R2R) Assessment



#### 4.1.1 Revised Risk Assessment for Wundowie Bush Fire Brigade Area (formerly within the Bakers Hill Bushfire Brigade Area)

Revised Risk Assessment -Wundowie Brigade Area			
Wundowie Townsite and surrounding rural residential subdivision	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	7*	Y
<b>*Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2020 -2025 Strategic Plan.</li> <li>VFRS units are utilised for asset protection only.</li> <li>Call out of Wooroloo BFB at time of incident report (*2 units from Wooroloo BFB can be on site within response time).</li> </ul>			
<b>*Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Second unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will increase number of units within response time.</li> <li>Third Unit for Bakers Hill BFB (4.4B as per 2020-2025 Strategic Plan) will increase number of units within response time.</li> <li>Formalise agreement with Shire of Mundaring/DFES for additional response from Wooroloo Bushfire Brigade – Has capability to be on site in Wundowie within response time.</li> <li>Ensure continuation of fuel management risk treatments on reserve areas in accordance with BRM Plan.</li> <li>Encourage Brigades to take part in regional annual regional RUI exercise within the town site or immediately surrounding area to ensure brigade readiness.</li> <li>Conduct community engagement activities to educate the residents within the RUI with information sessions specifically based on how to better prepare their properties.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment - Wundowie Brigade Area			
Mauravillo Estate Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	4	20
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	3	N*
<b>*Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>VFRS units are utilised for asset protection as required.</li> <li>Call out of Wooroloo BFB to incident (2 Units) can be onsite within 35 minutes.</li> <li>* 5 units onsite within 35 minutes considered acceptable.</li> </ul>			
<b>*Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan)</li> <li>Collaborate with Shire of Mundaring/DFES for additional response from Wooroloo Bushfire Brigade – Has capability to be on site in Wundowie in approximately 35-40 minutes.</li> <li>Emergency access/egress to be provided to the north of the estate to provide an alternate means of escape.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment - Wundowie Brigade Area			
Bodeguero Subdivision Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	4	16
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Immediate mobilisation of Wooroloo BFB to incident (2 units).</li> <li>Bakers Hill BFB (2 units) can be on site in approximately 35-40 minutes.</li> <li>VFRS units are utilised for asset protection as required</li> <li>*7 units onsite within 35-40 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Wooroloo BFB (2 units) can be on site within response time.</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>*Formalise agreement with Shire of Mundaring/DFES for additional response from Wooroloo and Chidlow Bushfire Brigades.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment - Wundowie Brigade Area			
El Caballo Lifestyle Village Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	4	16
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Immediate mobilisation of Wooroloo BFB to incident (2 units).</li> <li>Bakers Hill BFB (2 units) can be on site in approximately 35-40 minutes.</li> <li>VFRS units are utilised for asset protection as required</li> <li>* 7 units on site within 35-40 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>*Formalise agreement with Shire of Mundaring/DFES for additional response from Wooroloo Bushfire Brigades.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan.</li> </ul>			



Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment - Wundowie Brigade Area			
Sims Road Subdivision Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	3	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Bakers Hill Brigade (2.4R + LT) is approximately 35-40 minutes response time.</li> <li>VFRS units are utilised for asset protection as required</li> <li>* 5 units within 35 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>Additional unit for Bakers Hill BFB (4.4B as per 2020-2025 Strategic Plan).</li> <li>Collaborate with Shire of Toodyay/DFES for additional response from Morangup BFB.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment - Wundowie Brigade Area			
Days/Gaden Road Subdivision Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	3	3	9
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>• Automatic mobilisation of Wooroloo BFB (2 units) to incident.</li> <li>• VFRS units are utilised for asset protection as required</li> <li>• * 5 units within response time considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>• Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>• Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>• Collaborate with Shire of Mundaring/DFES to mobilise Wooroloo BFB (2 units).</li> <li>• Implementation of fuel management treatment strategies as per BRM Plan.</li> <li>• Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate to the north, west and east.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



**4.1.2 Revised Risk Assessment for Bakers Hill BFB Fire District**

Revised Risk Assessment- Bakers Hill Brigade Area			
Carlin Road Subdivision Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	3	15
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan – approximately 35 minute response time.</li> <li>Turn out of Wundowie VFRS (2 units) and Wundowie BFB will result in 5 units being on site within 35 minutes – consider acceptable.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Mobilise Wundowie VFRS and Wundowie BFB approximate turn out time 35 minutes (3 units).</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Ensure alternate exit route to the east (Chitty Road) is included in Bushfire Emergency Plan.</li> <li>Third unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 3 units being on-site within response time.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan).</li> <li>Ensure mitigation works are undertaken on Shire of Northam Reserve 25785 (Pony Club) is undertaken regularly.</li> <li>Advocate for fire mitigation works to be undertaken on the Unallocated Crown Land to the north and west (potentially included within Bushfire Risk Management Plan).</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Bakers Hill Brigade Area			
Koojeda/Jose Road Subdivision Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	4	20
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019- 20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Call out of Wundowie VFRS (2 units).</li> <li>VFRS units are utilised for asset protection as required</li> <li>* 5 units onsite within 30 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Third unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 6 units being on-site within response time.</li> <li>Second unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will result in 7 units being onsite within response time.</li> <li>Ensure adequate fire mitigation works are maintained on Shire of Northam Reserve 48721.</li> <li>Advocate for fire mitigation works to be undertaken on the Unallocated Crown Land to the north east (potentially included within Bushfire Risk Management Plan).</li> <li>Advocate for fire mitigation works on Reserve 14275 (DPaW) located to the west and north (potentially included within Bushfire Risk Management Plan).</li> <li>Alternate Emergency exit.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent reserves and forest.</li> </ul>			



Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Bakers Hill Brigade Area			
Bakers Hill Townsite Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>• Call out of Wundowie VFRS (2 units).</li> <li>• VFRS units are utilised for asset protection as required</li> <li>• * 5 units on site considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>• Additional unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 6 units being on-site within response time.</li> <li>• Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will result in 7 units being on-site within response time.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Bakers Hill Brigade Area			
Redcourte/O'Driscoll, Subdivisions Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	4	20
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Wundowie BFB and Wundowie VFRS (3 units) approximately 35 minute response time.</li> <li>VFRS units are utilised for asset protection as required</li> <li>* 5 units on-site within 35 minutes considered acceptable.</li> </ul>			
<b>*Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Additional unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 3 units on-site within response time.</li> <li>Additional unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will result in 7 units on site within 35 minutes.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate to the west and south.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Bakers Hill Brigade Area			
Oyston Road/Glenmore Estate subdivision area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	7	Y
Options required to meet revised Local Government Response Criteria <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Call out of Wundowie VFRS (2 units).</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
Additional measures required to support Revised Response Criteria <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Third unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 8 units being on site within response time.</li> <li>Second unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will result in 9 units on site within response time.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent vegetated estate and DBCA reserves.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Bakers Hill Brigade Area			
Inkpen Road Waste Disposal Facility Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments and Controls*)	Target	Achieved	Acceptable?
	6	7	Y
Options required to meet revised Local Government Response Criteria <ul style="list-style-type: none"> <li>Resourcing of Wundowie BFB as per 2019-20 Strategic Plan.</li> <li>Call out of Wundowie VFRS (2 units).</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
Additional measures required to support Revised Response Criteria <ul style="list-style-type: none"> <li>Third unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan) will result in 8 units on-site within response time.</li> <li>Second unit for Wundowie BFB (2.4R as per 2020 – 2025 Strategic Plan) will result in 9 units on site within response time.</li> <li>Fuel management adjacent to site in accordance with the BRM Plan.</li> <li>Bushfire Management Plan to be implemented for facility.</li> <li>Close facility on days of Very High Fire Danger Rating and above.</li> </ul>			



Shire of Northam  
Resource to Risk (R2R) Assessment



4.1.3 Revised Risk Assessment for Inkpen BFB Fire District

Revised Risk Assessment – Inkpen Brigade Area			
Wundabiniring Road Area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	4	16
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>* Although response times are just outside of the criteria – this is considered acceptable in this location.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for adjacent vegetated estate and DBCA reserves.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



**4.1.4 Revised Risk Assessment for Clackline-Muresk BFB Fire District**

Revised Risk Assessment – Clackline-Muresk Brigade Area			
Clackline Townsite Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Clackline-Muresk Brigade (2 units) response time approximately 35 minutes.</li> <li>Northam Central BFB (1 unit) and Northam VFRS (2 units) response time approximately 35 minutes.</li> <li>* 7 units can be on-site within 35 minutes – consider acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Develop protocol/procedure for turnout of Muresk LT and Spencers Brook LT.</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies for vegetated estate and reserves to the north.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Spencers Brook Townsite Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	0	N*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Clackline-Muresk Brigade (2 units) response time approximately 35 minutes.</li> <li>Northam Central BFB (1 unit) and Northam VFRS (2 units) response time approximately 35 minutes.</li> <li>* 5 units can be onsite within 35 minutes – consider acceptable.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Northam Central BFB response time approximately 35-40 minutes.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Muresk Institute Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	3	2	6
Revised Standard Local Government Response Criteria (considering Risk Treatments and Controls*) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	4	1	N*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Include Muresk LT (private) as available appliance.</li> <li>• Clackline Muresk Brigade (2 units) approximate turn out time of 35-40 minutes –.</li> <li>• Northam Central BFB (1 unit) and Northam VFRS (2 units) approximate response time 35-40 minutes.</li> <li>• VFRS units are utilised for asset protection as required</li> <li>• * 6 units onsite within 35-40 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Institute staff to be trained in Bushfire Awareness.</li> <li>• Bushfire Management Plan to be prepared for facility.</li> <li>• Turn out Northam VFRS (2 units) for asset protection as required.</li> <li>• Develop protocol/procedure for turnout of Muresk LT and Spencers Brook LT.</li> </ul>			



Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Detention Centre Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	5	25
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	3	Y
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Formal arrangements with Commonwealth Government and DFES are required.</li> <li>Consider boundary refinement to include area within the Northam VFRS area.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> Note: Commonwealth Land is not subject to local government provisions.			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Springhill Recovery Centre Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	3	4	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	3	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Clackline Muresk Brigade (2 units) approximate turn out time of 35-40 minutes.</li> <li>VFRS units are utilised for asset protection as required.</li> <li>* 5 units on site within 35 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Second unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan will result in 6 units being on-site within response time.</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> <li>Compliance with Bushfire Management Plan.</li> <li>Develop protocol/procedure for turnout of Muresk LT and Spencers Brook LT.</li> <li>Site specific Bushfire Management Plan. – Revised risk assessment is contingent on compliance with the Bushfire Management plan and risk treatment strategies identified in the BRM Plan.*</li> <li>Risk treatment strategies to apply to surrounding properties as per BRM Plan.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Leeder Road/Mokine Area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	4	16
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Bakers Hill Brigade (2 units) approximately 35-40 minute response time.</li> <li>* 4 units onsite within 35-40 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Additional unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Breen Rise /Raymond Court, & Benrva Road Area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	5	25
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	4	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Wundowie BFB (1 unit) and Wundowie VFRS (2 units) approximate response time 45 minutes.</li> <li>*7 units on site within 40 minutes – consider as acceptable.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Undertake management and improvement to strategic firebreaks and access ways.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan.</li> <li>NB compliance with the above does not greatly affect the inherent risk profile for this area.</li> </ul>			



Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Railway Road Clackline Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	5	5	25
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	4	N
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Northam BFB (1 unit) and Northam VFRS (2 units) approximate turn out time 40 minutes.</li> <li>Wundowie BFB (1 unit) and Wundowie VFRS (2 units) approximate turn out time 40 minutes.</li> <li>* Four additional units on-site within 40 minutes – consider acceptable.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Third unit for Bakers Hill BFB (4.4B) as per 2020-25 Strategic Plan will result in 5 units on site within response time.</li> <li>Call out Wundowie and Northam VFRS if structures under threat.</li> <li>Ensure mitigation works are undertaken on Shire of Northam reserves 29179 (Clackline Hall), 19542 (Clackline Railway Park).</li> <li>Ensure Mitigation works are undertaken on reserves not under Council control (Reserve 6322, 12541, 32400(Clackline Nature Reserve) and 12541 (Toilet/Standpipe Area) potentially through the Bushfire Risk Management Program.</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan. Fuel management needs to be applied to the vegetated areas to the west and along Eadine road.</li> <li>NB compliance with the above does not greatly affect the inherent risk profile for this area.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Clackline-Muresk Brigade Area			
Paynter Road/Searle Drive & Smith Road Area (Bobakine) Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	4	16
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	0	N*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Northam Central BFB (1 unit) and Northam VFRS (2 units) approximate response time 45 minutes.</li> <li>Clackline-Muresk BFB (2 units) approximate response time 40 minutes.</li> <li>Bakers Hill Brigade (2 units) approximately 40 minute total response time.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice. Due to the potential risk of entrapment, the plan should include options regarding leaving early on days of Severe+ FDR as well as reducing vulnerability of each lot.</li> <li>Ensure mitigation works are undertaken on Bobakine Nature Reserve (Reserve 42432) and Reserve 43077 possibly with funding through the Bushfire Risk Management Plan.</li> <li>Ensure private property complies with Firebreak order – refer to Bushfire Risk Management Plan.</li> <li>Maintain Emergency Water Supply tank on Smith Road.</li> <li>Implementation of fuel management treatment strategies as per BRM Plan - Maintenance of Risk Rating is contingent on continued implementation of fuel management treatment strategies on each property and for adjacent reserves and forest.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



**4.1.5 Revised Risk Assessment for Grass Valley BFB Fire District**

Revised Risk Assessment- Grass Valley Fire Brigade Area			
Seabrook Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Additional unit for Grass Valley (4.4B) as per Strategic Plan 2019-20.</li> <li>Northam Central Brigade created and resourced as per Strategic Plan 2019-20.</li> <li>* 5 units on site within 30 minutes considered acceptable.</li> <li>VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Additional unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan will result in 6 units on-site within response time.</li> <li>Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> </ul>			

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Risk Assessment- Grass Valley Brigade Area			
Grass Valley Townsite Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	3	3	9
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	2	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Additional unit for Grass Valley (4.4B) as per Strategic Plan 2019-20.</li> <li>• Southern Brook (4.4B) approximately 35 mins to arrival.</li> <li>• Northam BFB (1 unit) and Northam VFRS (2 units) approximately 35 response time.</li> <li>• * 6 units onsite within 35 minutes considered acceptable.</li> <li>• VFRS units are utilised for asset protection as required</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Bushfire Emergency Plan to be created &amp; distributed to residents with Firebreak notice.</li> </ul>			



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4.1.6 Revised Risk Assessment Northam Townsite and Environs

Revised Risk Assessment Northam Townsite and Environs			
Avon Yards/CBH Complex Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Northam Central BFB created and resourced as per Strategic Plan 2019-20.</li> <li>• Northam VFRS turned out by default as within the Gazetted Townsite.</li> <li>• VFRS units are utilised for asset protection as required</li> <li>• *5 units within 30 minutes considered acceptable with additional units (Grass Valley x 2) available for backup.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Bushfire Emergency Plan to be created &amp; distributed to facility.</li> <li>• Additional unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan.</li> </ul>			

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Revised Risk Assessment Northam Townsite and Environs			
Old Quarry Landfill Site Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Northam Central BFB created and resourced as per Strategic Plan 2019-20.</li> <li>Northam VFRS turned out by default as within the Gazetted Townsite.</li> <li>*5 units considered acceptable within 30 minutes – additional resources (Grass Valley x 2) available for backup.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Implement facility Bushfire Management Plan.</li> <li>Additional unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan.</li> </ul>			

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Revised Risk Assessment Northam Townsite and Environs			
West Industrial Area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	5	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>Northam Central BFB created and resourced as per Strategic Plan 2019-20.</li> <li>Northam VFRS turned out by default as within the Gazetted Townsite.</li> <li>* 5 units considered acceptable within 30 minutes – additional resources (Grass Valley x 2) available for backup.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>Additional unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan.</li> <li>Bushfire Emergency Plan is needed for facility.</li> <li>Implementation of risk treatment strategies as per BRM Plan.</li> <li>New buildings to be constructed as per SPP 3.7.</li> </ul>			

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Revised Risk Assessment Northam Townsite and Environs			
East Industrial Area Revised Risk Assessment	Likelihood	Consequence	Residual Risk
	4	3	12
Revised Standard Local Government Response Criteria (considering Risk Treatments, Controls and proposed additional measures) Refer to Appendix 3 for response times including recommendations from the 2019-20 Strategic Plan	Target	Achieved	Acceptable?
	6	4	Y*
<b>Options required to meet revised Local Government Response Criteria</b> <ul style="list-style-type: none"> <li>• Northam Central BFB created and resourced as per Strategic Plan 2019-20.</li> <li>• Northam VFRS turned out by default as within the Gazetted Townsite.</li> <li>• Grass Valley Brigade (2 units) total response time approximately 35 minutes.</li> <li>• * 6 units onsite within 35 minutes considered acceptable.</li> </ul>			
<b>Additional measures required to support Revised Response Criteria</b> <ul style="list-style-type: none"> <li>• Additional unit for Northam Central BFB (12.2) as per 2025-30 Strategic Plan.</li> <li>• Bushfire Emergency Plan is required for all facilities.</li> <li>• Evacuation plan is needed for caravan park.</li> <li>• Implementation of risk treatment strategies as per BRM Plan.</li> <li>• New buildings to be constructed as per SPP 3.7.</li> </ul>			



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## 5. Stage 5 – Resource Requirements

### 5.1 Additional resource requirements and/or proposed internal resource reallocation

During January 2019, a series of workshops were conducted with representatives from Inkpen BFB, Wundowie BFB, Bakers Hill BFB, Clackline BFB, Irishtown BFB, Southern Brook BFB and Grass Valley BFB.

The brigade members present at each workshop received a general update on the resource to risk document, and were given an insight into the risk assessment process that forms part of the Bushfire Risk Management Plan which forms stage 2 of the R2R document.

Once the risk has been identified in each district and a risk rating is applied, stage 3 of the R2R document investigates mitigation strategies to reduce the risk in each district.

Part of the R2R process includes an assessment of the current resource allocations within the Shire. This enabled further assessment of the resources that are specifically available to each district and whether the appliance is the correct type of unit for the identified risk of that district. The process also facilitated an examination of further efficiencies that can be achieved through either combining/collocating appliances/brigades or swapping appliances within the fleet to ensure the most appropriate appliance is based in the district.

After this assessment has been completed it is then possible to identify any gaps in coverage, and which strategies need to be employed to fill the gaps, such as

- a) The relocation of a brigade and any benefits in doing so
- b) Adjusting the fire district boundaries to achieve better coverage
- c) The creation of a new brigade
- d) A request for additional appliances through the LGS grants process.

The brigade recommendations involved a reshuffle of the current appliance allocations, and identified the type and number of appliances required in the future taking into consideration the anticipated growth areas and areas that have been identified as being of the highest risk.

Through the workshops, a 10yr strategy was developed to ensure the needs of the community both now and into the future could be appropriately resourced.

One such strategy identified was for the creation of the Northam Central BFB as a way of having a centrally based brigade that can assist anywhere outside

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the gazetted fire districts of the Northam & Wundowie townsites which are both serviced by their respective Volunteer Fire & Rescue Brigades.

A collaborative workshop was held at the Northam Recreation Centre on Tuesday 5<sup>th</sup> of Feb 2019 to consolidate the recommendations of each brigade's workshop, and to formulate a strategic plan for the Volunteer Bush Fire Service moving forward.

The workshop was well attended by Shire of Northam personnel as well as representatives from the below brigades. Representatives have developed a plan for the resourcing required for each fire district for the next 10 years taking into consideration the life and suitability of each appliance taking into consideration the anticipated future growth within each fire district starting with the 2019/2020 bushfire season.

<b>Workshop Attendance Record 5<sup>th</sup> February 2019 – Northam Rec Centre.</b>		
<b>Inkpen BFB</b>	<b>Bakers Hill BFB</b>	<b>Clackline BFB</b>
Nic Dewar	Steve Grey	Mat Macqueen
Daniel Wilson	Simon Grey	
<b>Irishtown BFB</b>	<b>Southern Brook</b>	<b>Grass Valley BFB</b>
Glenn Steer	Paul Antonio	Angus Cooke
	John Den Hollander	Chris Marris
<b>Shire of Northam</b>		
Chadd Hunt – Executive Manager Development Services		
Brendon Rutter – Community Emergency Services Manager		
Simon Peters – A/Chief Bush Fire Control Officer		

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**2019 – 2020 bush fire season**

The 2019-2020 season involves a reshuffle of the current appliances to ensure a more efficient allocation of resources to maximise the coverage of bushfire appliances for the safety of the community across the entire Shire of Northam.

The brigade and resource structure for the 2019-2020 season involves the creation of the Northam Central BFB which would include a provision for a potential Emergency Services Cadet Unit run in conjunction with a suitable host school, and Cadets WA.

This would allow cadets aged from 12-16 years to start their entry into the volunteer bushfire service under a curriculum based program that would assist the interested cadets to progress towards becoming active volunteers. When they reach the age of 16 they would be able to join the ranks as an active fire fighter with their local BFB.

<b>2019 – 2020 Bushfire Season</b>	
<b>Brigade</b>	<b>Notes</b>
<b>Inkpen BFB</b>	
LT	Formerly Irishtown LT/2
2.4R	
<b>Wundowie BFB</b>	
LT	Formerly Irishtown LT/1
<b>Bakers Hill BFB</b>	
LT	
2.4U	
<b>Clackline BFB</b>	
LT	
2.4R	
<b>Northam Central BFB</b>	<b>New Brigade</b>
2.4R	Formerly Irishtown 2.4R
<b>Irishtown BFB</b>	
1.4B	Formerly Inkpen 1.4B
<b>Southern Brook BFB</b>	
1.4B	
<b>Grass Valley BFB</b>	
1.4B	Formerly Clackline 1.4B
4.4B	



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**2020 – 2025 5yr plan**

The 2020-2025 plan involves another reshuffle of some of the appliances and a request for additional appliances to address an anticipated increase in growth on the Western edge of the Shire.

The 5yr plan involves a business case to retain the Inkpen 2.4 upon receipt of the 3.4U to enable a refit and re-deployment to the Wundowie BFB. The Clackline 2.4R should be retained, refurbished and redeployed to Grass Valley BFB as part of the 5yr plan.

There is a request for 3 x additional appliances, as indicated in the table below, over the 5yr period, with the current resources to be redeployed upon receiving approval and delivery for the requested appliances.

<b>2020 – 2025 5yr Strategic Plan</b>	
<b>Brigade</b>	<b>Notes</b>
<b>Inkpen BFB</b>	
1.4B	Formerly Irishtown Grass Valley 1.4B
3.4U	Approved 18/19- Retain 2.4R for Clackline
<b>Wundowie BFB</b>	
2.4R	Formerly Northam Central 2.4 - <u>Refurbished</u>
LT	Formerly Inkpen LT
<b>Bakers Hill BFB</b>	
LT	
2.4U	3.4U – Approved Indicative Program 2020-2025 – <b>DO NOT RETAIN</b>
4.4B	<b>** New Appliance – (Request 2020)</b>
<b>Clackline BFB</b>	
LT	Indicative Program 2020-2025
3.4U	Indicative Program 2020-2025 – Retain 2.4R, redeploy to GV BFB
2.4R	Formerly Inkpen 2.4R
<b>Northam Central BFB</b>	
3.4U	Formerly Wundowie LT - <u>Approved 17/18</u>
12.2	<b>** New Appliance – (Request 2022)</b>
<b>Irishtown BFB</b>	
1.4B	Formerly Inkpen 1.4B
LT	<b>** New Appliance – (Request 2025)</b>
<b>Southern Brook BFB</b>	
1.4B	
<b>Grass Valley BFB</b>	
2.4R	Formerly Clackline 2.4R - <u>Refurbished</u>
4.4B	



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### 2025 – 2030 10yr plan

The 10yr plan has been established based on the identified risk in each area as well as the anticipated growth within each district. Workshop representatives discussed a variety of different issues such as access and egress into rural residential estates, as well as issues around access to adequate reticulated water supply.

A number of appliances will have reached end-of-life, so discussions took place around ensuring that they would be replaced with the size & type of appliance that is most suited to the district they operate in.

The resource allocations for each district is based on formulating a 10yr plan as well also taking into consideration the life of the appliances taking us into the next 15-20 years.

2025 – 2030 10yr Strategic Plan	
Brigade	Notes
<b>Inkpen BFB</b>	
4.4B	LT - 4.4B @ EOL
3.4U	Approved 18/19
<b>Wundowie BFB</b>	
3.4U	** New Appliance – (Request 2027)
2.4R	2.4R – 3.4R @ EOL
LT	
<b>Bakers Hill BFB</b>	
LT	
3.4U	
4.4B	
<b>Clackline BFB</b>	
LT	
3.4U	
3.4R	Formerly Clackline 1.4
<b>Northam Central BFB</b>	
3.4U	
12.2	
3.4U	** New Appliance - (Request 2029)
<b>Irishtown BFB</b>	
3.4R	1.4B – 3.4R @ EOL
LT	
<b>Southern Brook BFB</b>	
3.4B	1.4B – 3.4B @EOL
<b>Grass Valley BFB</b>	
3.4U	2.4R – 3.4U @ EOL
4.4B	

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The brigade representatives agreed that there may be a need to reallocate resources in the future, it was discussed that a review of resourcing should be undertaken annually by the Shire of Northam CESM, and the Chief and Deputy Chief Bush Fire Control Officers.

If improvements/efficiencies are identified as a result of this review then a further collaborative workshop will be conducted with brigade representatives under the direction of BFAC to ensure the best outcome for the all residents across the entire Shire of Northam.

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**Appendix 1 Response capability as per Local Government Response Criteria**

	Bakers BFB	Wundowie VFRS	Inkpen BFB	Northam VFRS	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Total Units within 30 minutes	Total Units within 60 minutes
<b>Bakers Hill Area (including new Wundowie BFB area)</b>										
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>										
Wundowie Townsite and Hyde Drive, Acacia Retreat, Olive Road rural residential subdivisions	2	2							4	
Mauravillo Estate		2							2	
Bodeguero Way subdivision		2							2	
Linley Valley Abattoir		2							2	
Doy Road Subdivision		2							2	
El Caballo Lifestyle Village		2							2	
Sims Road Subdivisions Area		2							2	
Carlin Rd Subdivision	2								2	
Koojeda Road subdivision	2	2							4	
Bakers Hill Townsite	2	2							4	
Orchid Valley Subdivision (Redcourte, O'Driscoll)	2								2	
Glenmore and Oyston Road subdivisions	2	2	2						6	
Inkpen Road Waste Disposal Facility	2	2	2						6	
<b>Rural Broad Acre (within 1 hour)</b>	2	2	2	2				3		11

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	Bakers BFB	Wundowie VFRS	Inkpen BFB	Northam VFRS	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Total Units within 30 minutes	Total Units within 60 minutes
<b><u>Inkpen BFB</u></b>										
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>										
Wundabinning Road			2						2	
BGC Quarry/Composting Facility									0	6
<b>Rural Broad Acre (within 1 hour)</b>	2	2	2							6
<b><u>Clackline</u></b>										
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>										
Clackline Townsite	2							3	5	
Spencers Brook Townsite									0	
Muresk Institute									0	
Detention Centre				2					2	
Springhill Recovery Centre				2					2	
Leeder Road Area								3	3	
Breen Rise/ Benruea Road Area	2							3	5	
Railway Road Area	2							3	5	
Paynter Road Area									0	
Smith Road Area									0	
<b>Rural Broad Acre (within 1 hour)</b>	2		2	2	1		3	3		13
Rogers Road Area					1	1	3	0		5
Spencer Brook Road Area					1		3	3		7



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	Bakers BFB	Wundowie VFRS	Inkpen BFB	Northam VFRS	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Total Units within 30 minutes	Total Units within 60 minutes
<b><u>Irishtown</u></b>										
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)										
Frenches Siding							2		2	
Rural Broad Acre (within 1 hour)					1		3	3		7
<b><u>Jennapullin</u></b>										
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)										
Abattoir Goomalling Road				2					2	
Rural Broad Acre (within 1 hour)					1		2			3
<b><u>Southern Brook</u></b>										
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)										
Nil										
Rural Broad Acre (within 1 hour)				2	1	1	3			7

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	Bakers BFB	Wundowie VFRS	Inkpen BFB	Northam VFRS	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Total Units within 30 minutes	Total Units within 60 minutes
<b>Grass Valley</b>										
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>										
Townsite					1				1	
Seabrook				2	1				3	
Avon Industrial Park						1			1	
York-Northam Lifestyle lots				2		1 (northern part only)			3 (northern part only)	
<b>Rural Broad Acre (within 1 hour)</b>										
General				2	1	1	3			7
Hooper/Parker/Duck Pool/Quamkadne				2	1	1				4
<b>Northam Townsite</b>										
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>										
Avon Rail Yards and CBH Facility				3			3		6	
Old Quarry Waste Disposal Site				3			3		6	
West Industrial Area (Toodyay Road)				3			3		6	
East Industrial Area (Yilgarn Avenue)				3	1 (eastern portion only)				4 (eastern only)	

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Note: Assumes that Wundowie VFRS will turn out both appliances to incidents. VFRS will only attend for asset protection with approval of ComCen Supervisor or as required.

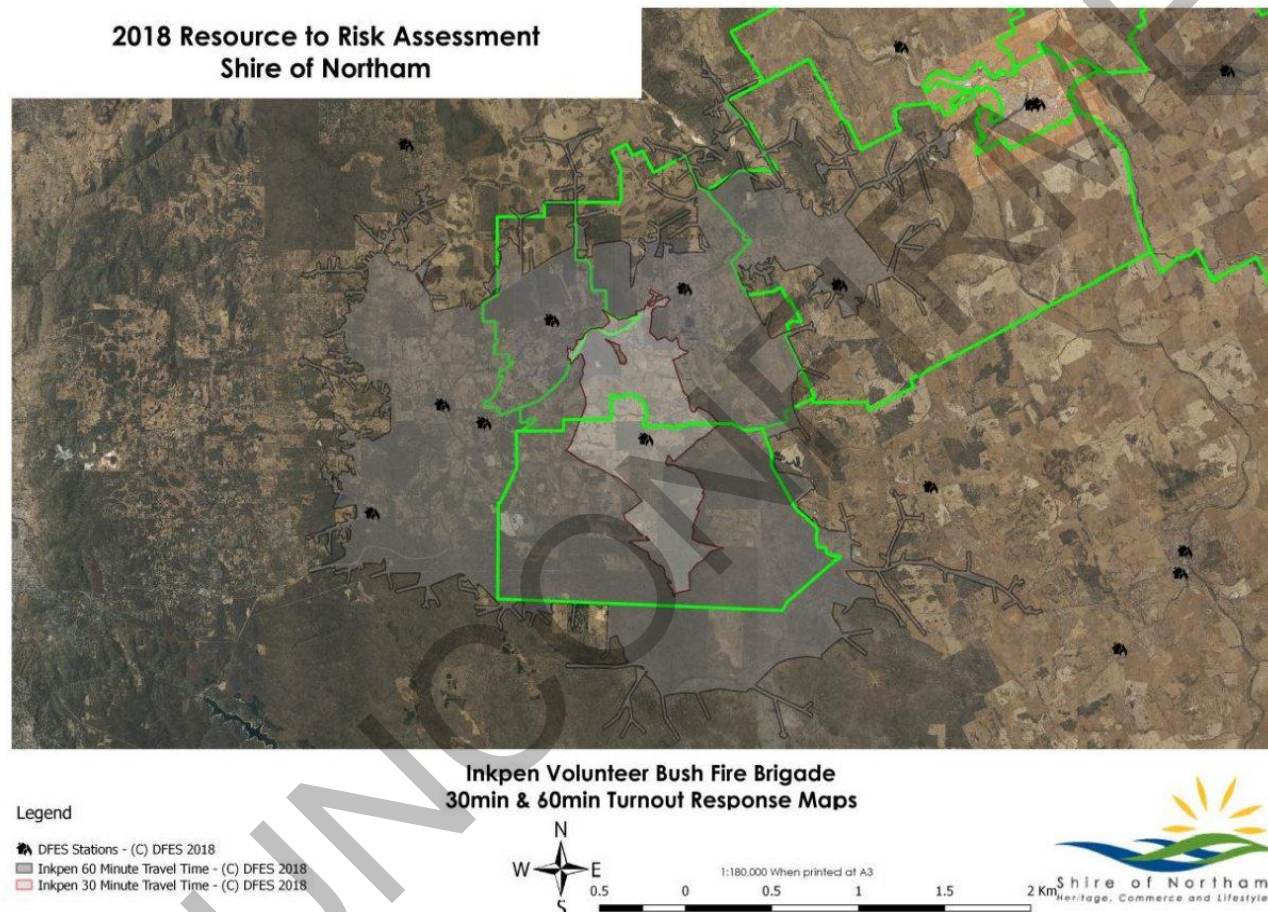
Note 2: Assumes that Northam VFRS will turn out 2 appliances to incidents not within the gazetted VFRS area and 3 to those within the gazetted VFRS. VFRS will only attend for asset protection with approval of ComCen Supervisor or as required.

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Appendix 2 Shire of Northam Bushfire Brigade Response Time Maps

a) Inkpen BFB 30 min & 60 min turnout maps

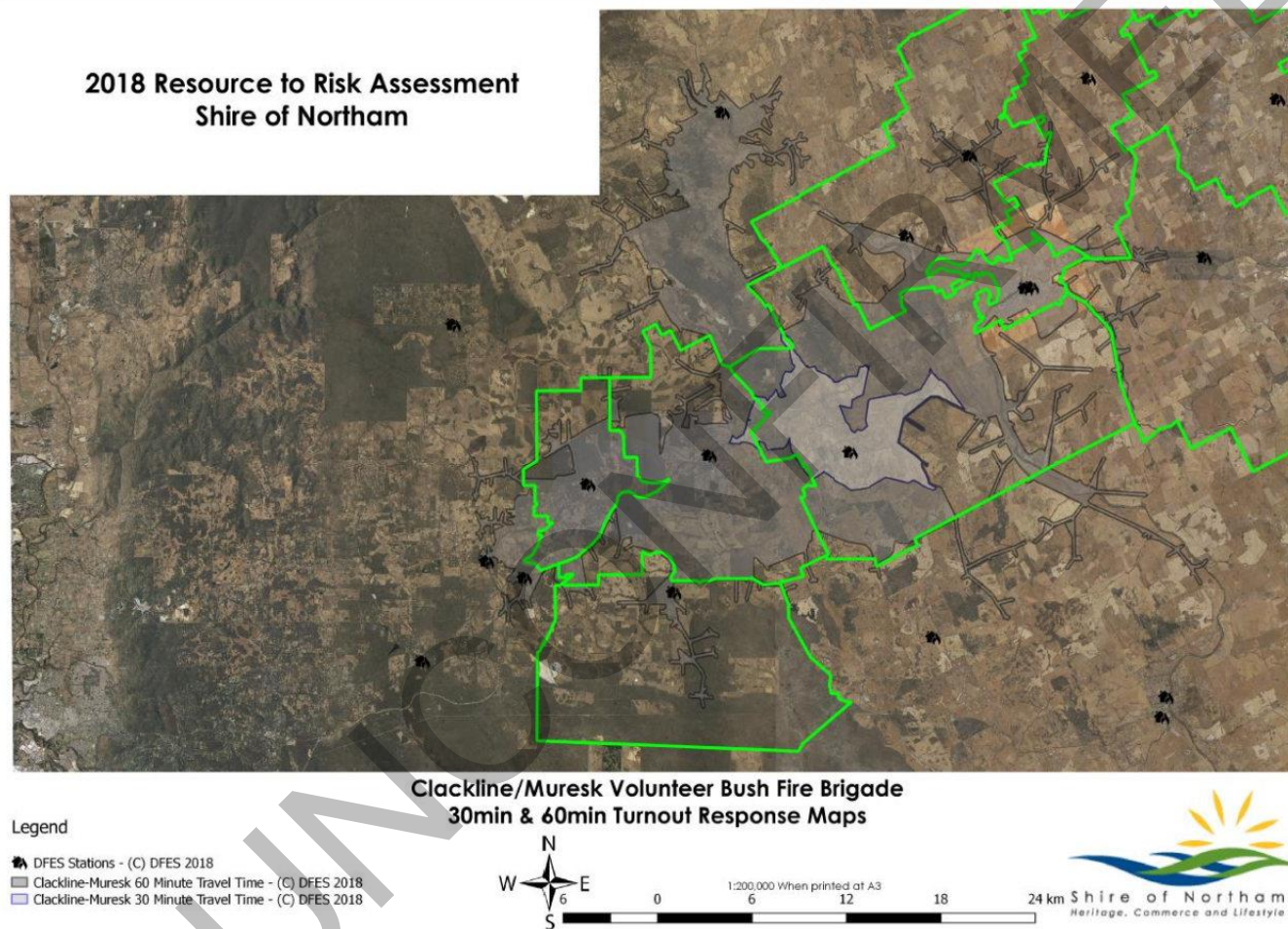




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Clackline 30min & 60 min turnout map

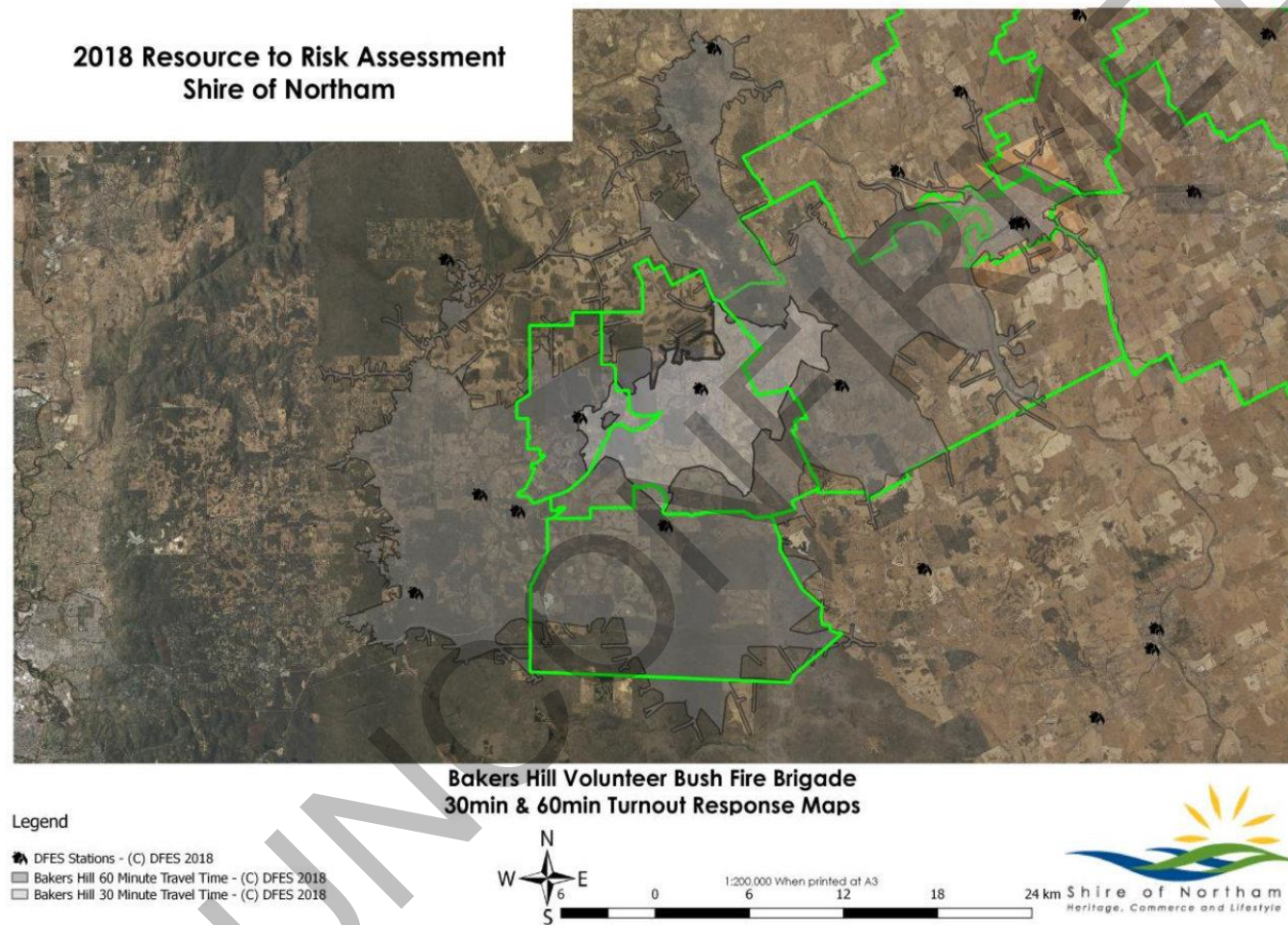


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b) Bakers Hill 30 min & 60 Min turnout maps

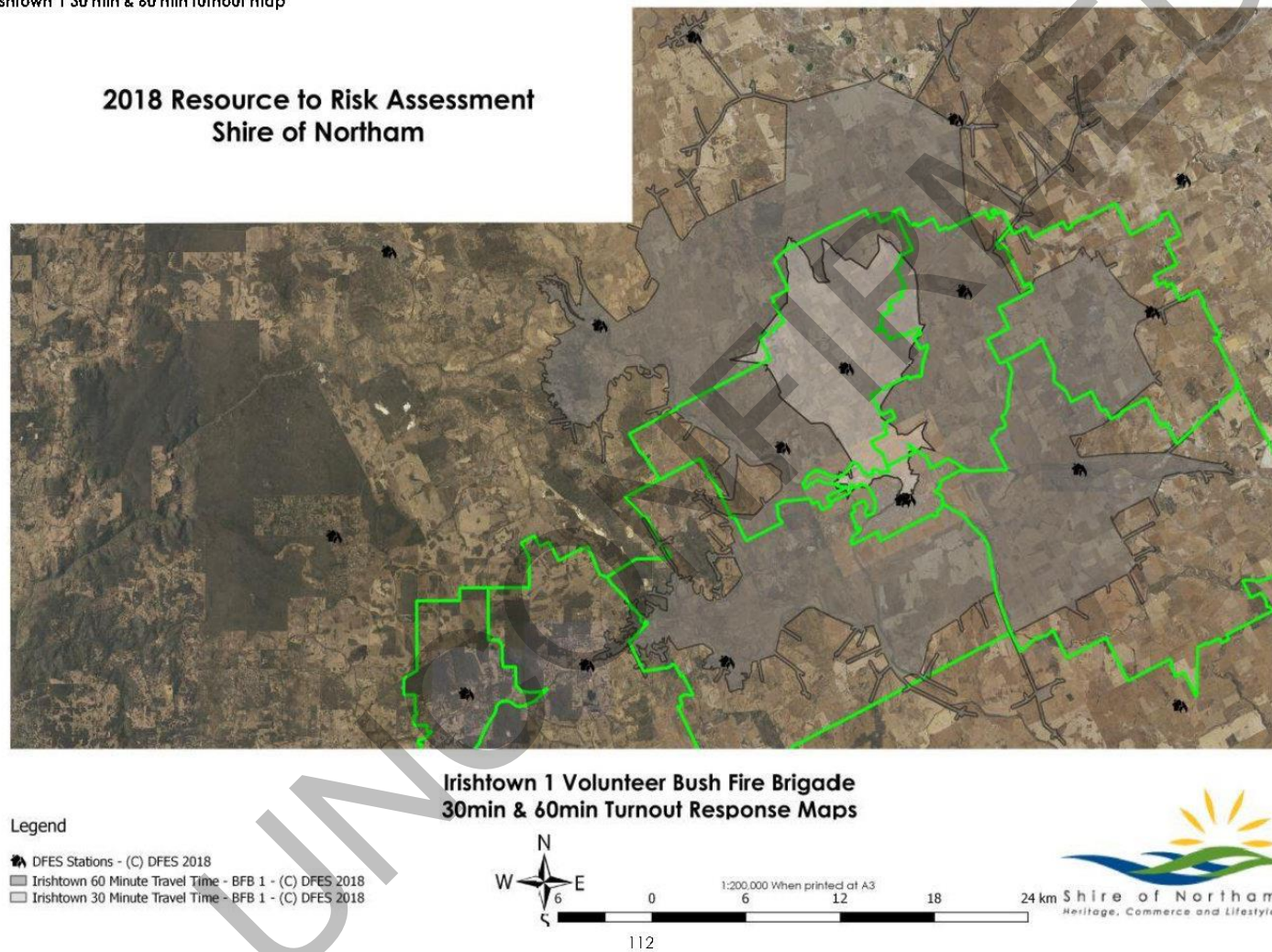


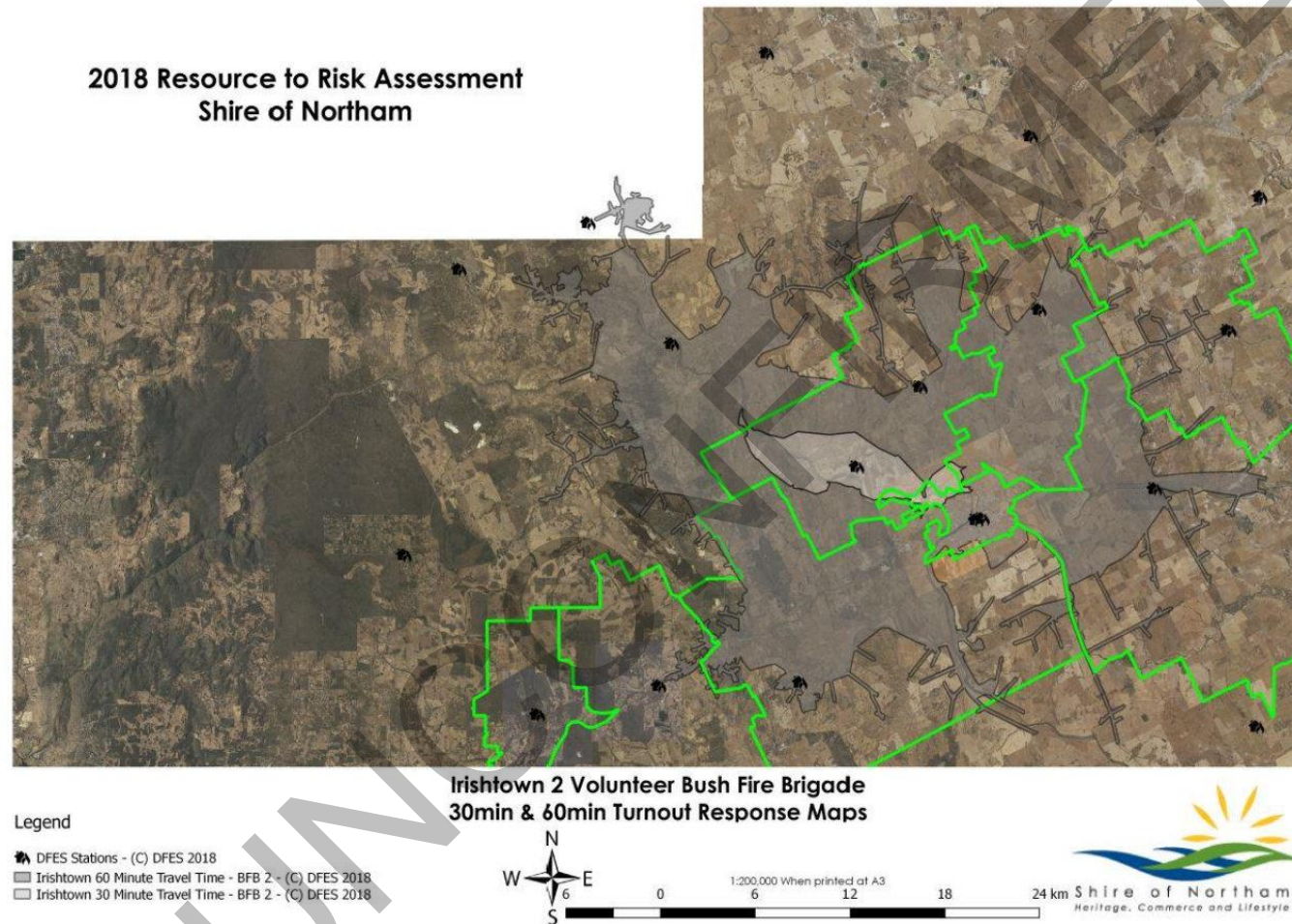


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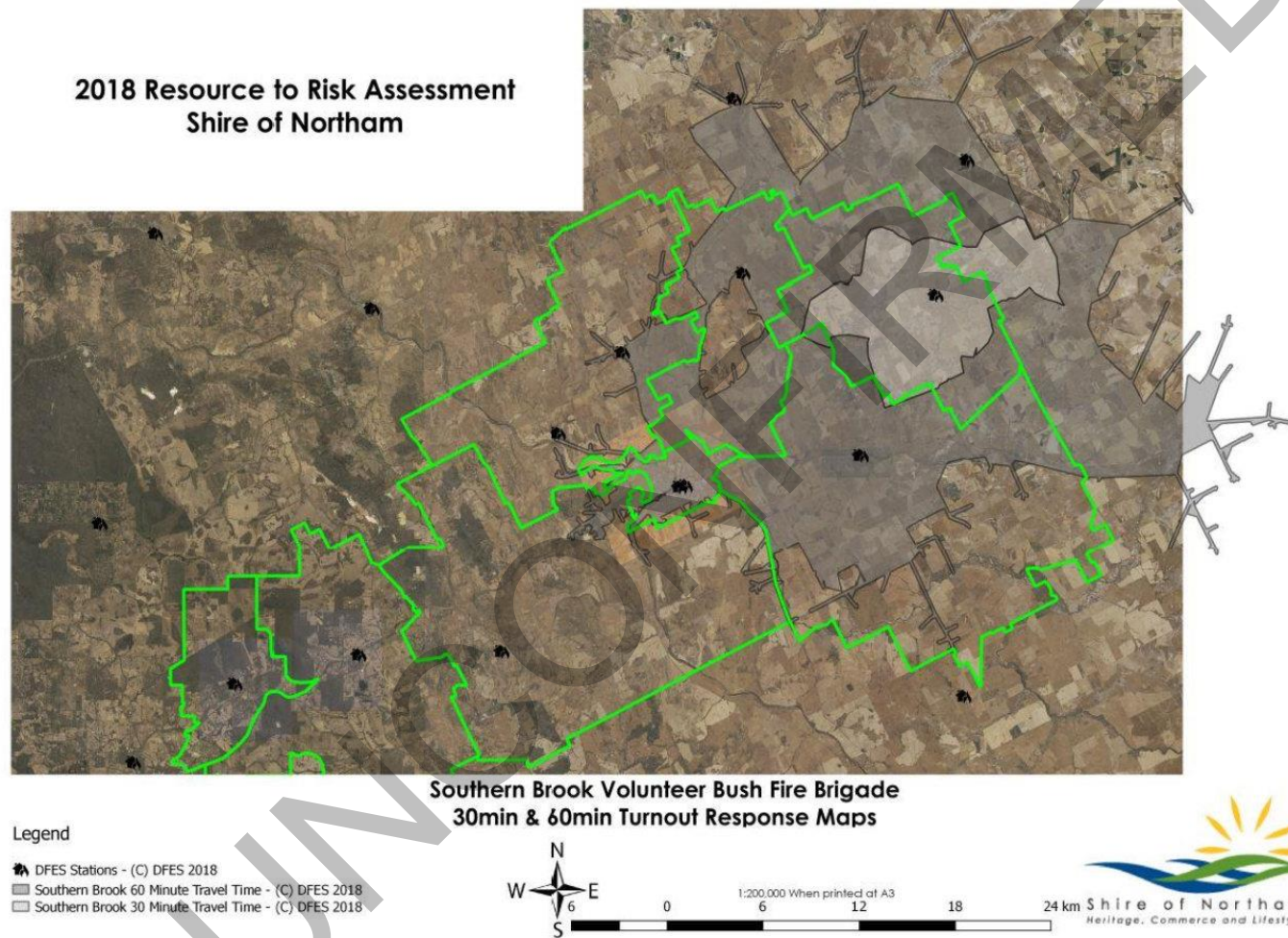
c) Irishtown 1 30 min & 60 min turnout map







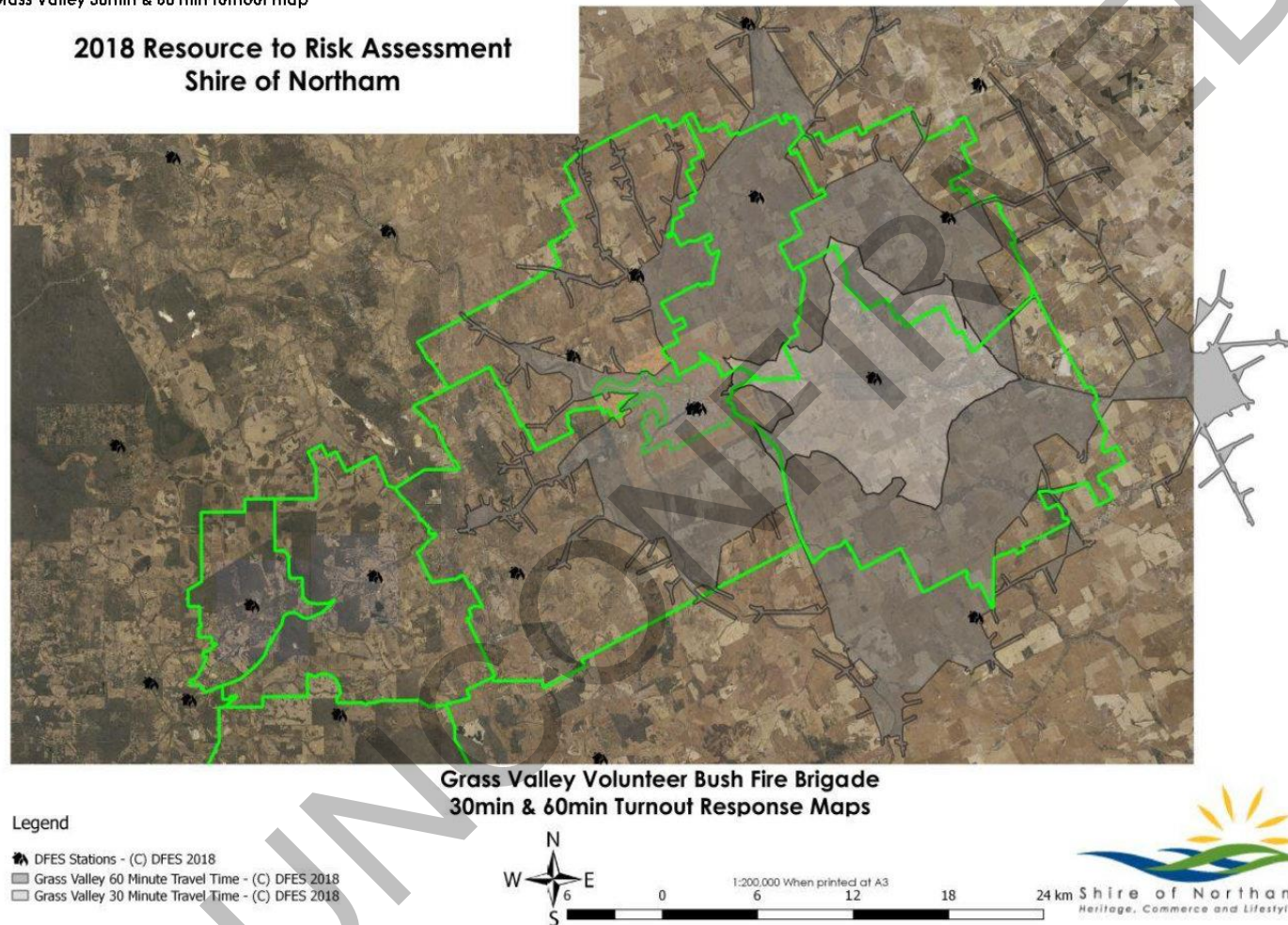
d) Southern Brook 30min & 60 min turnout map



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e) Grass Valley 30min & 60 min Turnout map



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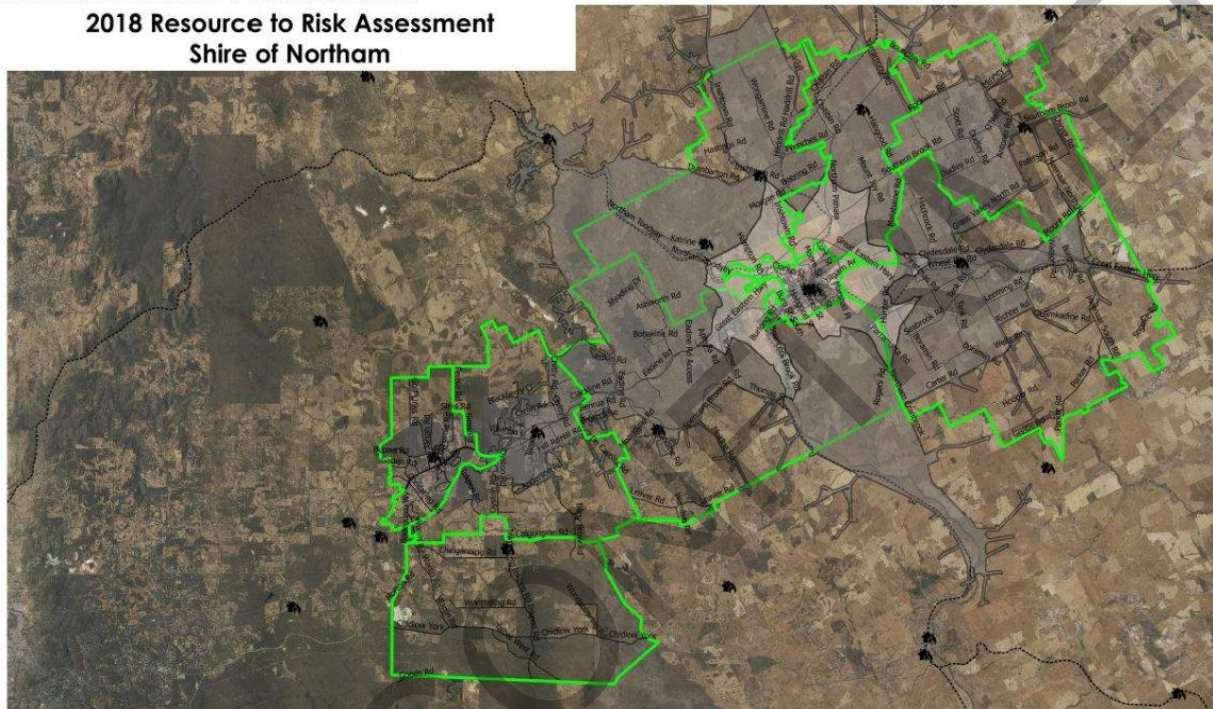


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f) Northam VFRS (and Northam BFB) 30min & 60 min Turnout Times

**2018 Resource to Risk Assessment  
Shire of Northam**



Northam VFRS 30min & 60min Turnout Time

Legend

-  DFES Stations - (C) DFES 2018
-  Northam VFRS 60 Minute Travel Time - (C) DFES 2018
-  Northam VFRS 30 Minute Travel Time - (C) DFES 2018

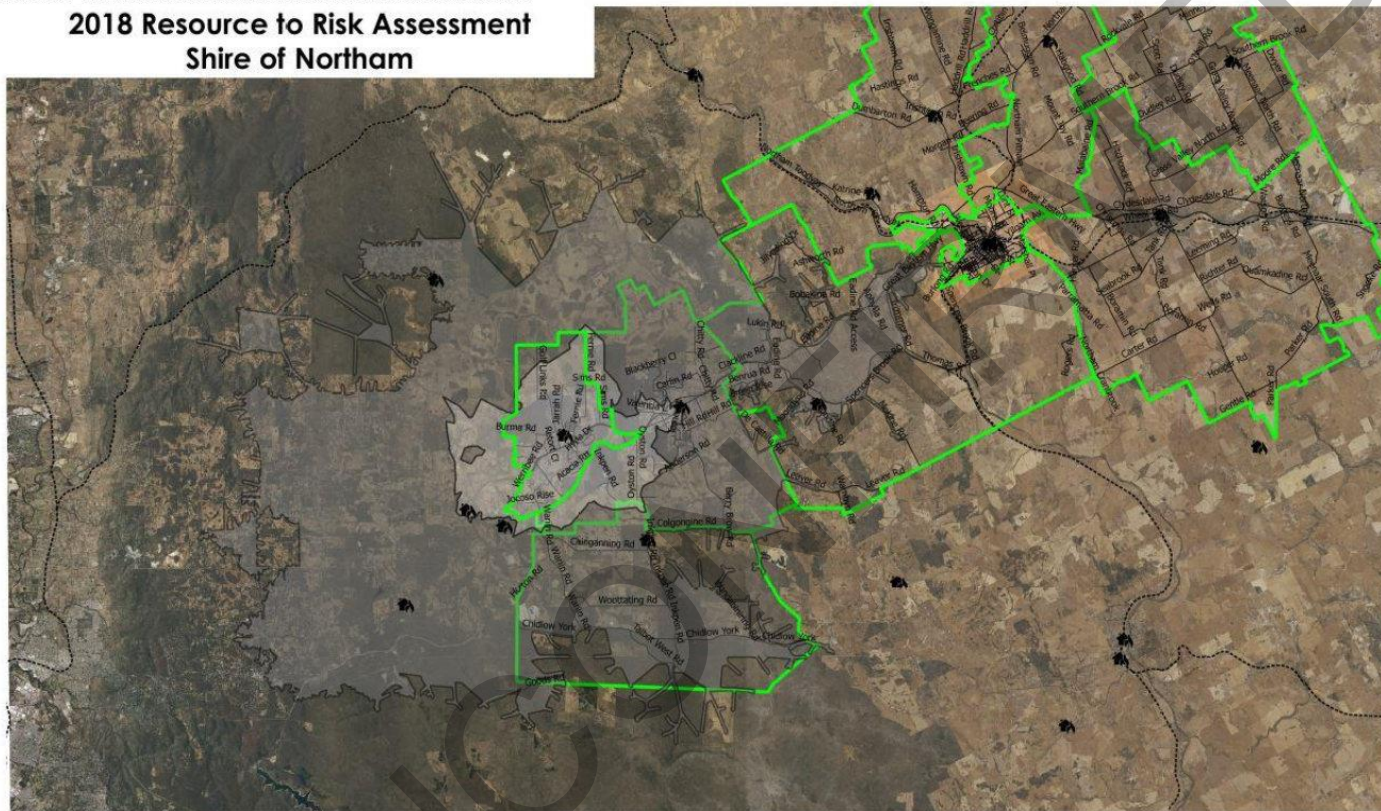


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g) Wundowie VFRS (and Wundowie BFB) 30min & 60min Turnout Times

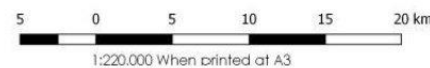
**2018 Resource to Risk Assessment  
Shire of Northam**



Wundowie VFRS 30min & 60 min Turnout Time

Legend

-  DFES Stations - (C) DFES 2018
-  Wundowie VFRS 60 Minute Travel Time - (C) DFES 2018
-  Wundowie VFRS 30 Minute Travel Time - (C) DFES 2018



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## Appendix 3 Response capability with Additional Treatment and Resources

Revised Brigade Areas	Bakers BFB	Wundowie VFRS	Wundowie BFB	Inkpen BFB	Northam VFRS	Northam Central BFB	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Additional Units	Total Units within 30 minutes	Total Units within 60 minutes
Revised Brigade Unit	2	2	1	2	2	1	2	1	1	2			
<b>BAKERS HILL AREA (INCLUDING NEW WUNDOWIE BFB AREA)</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Wundowie Townsite and Hyde Drive, Acacia Retreat, Olive Road rural residential subdivisions	2	2	1								* 2 units from Wooroloo BFB	7	
Mauravillo Estate		2	1									3	
Bodeguero Way subdivision		2	1								2 units from Wooroloo BFB	5	
Linley Valley Abattoir		2	1								2 units from Wooroloo BFB / 3 units from Chidlow BFB	8	
Doy Road Subdivision		2	1								2 units from Wooroloo BFB	5	
El Caballo Lifestyle Village		2	1								2 units from Wooroloo BFB / 3 units from Chidlow BFB	8	
Sims Road Subdivisions Area		2	1									3	
Carlin Rd Subdivision	2											2	
Koojeda Road subdivision	2	2	1									5	
Bakers Hill Townsite	2	2	1									5	
Orchid Valley Subdivision (Redcourt, O'Driscoll)	2											2	
Glenmore and Oyston Road subdivisions	2	2	1	2								7	
Inkpen Road Waste Disposal Facility	2	2	1	2								7	
Rural Broad Acre (within 1 hour)	2	2	1	2	2					2		11	11
<b>INKPEN BFB</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Wundabinining Road				2								2	
BGC Quarry/Composting Facility												0	6
Rural Broad Acre (within 1 hour)	2	2		2									6

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Revised Brigade Areas	Bakers BFB	Wundowie VFRS	Wundowie BFB	Inkpen BFB	Northam VFRS	Northam Central BFB	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Additional Units	Total Units within 30 minutes	Total Units within 60 minutes
<b>CLACKLINE</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Clackline Townsite	2									2		4	
Spencers Brook Townsite												0	
Muresk Institute											Muresk Private LT	1	
Defention Centre					2	1						3	
Springhill Recovery Centre					2	1						3	
Leeder Road Area										2		0	
Breen Rise/ Benruea Road Area	2									2		4	
Railway Road Area	2									2		4	
Paynter Road Area												0	
Smith Road Area												0	
Rural Broad Acre (within 1 hour)	2			2	2	1	2		1	2			12
Rogers Road Area					2	1	2	1	1	0			8
Spencer Brook Road Area					2	1	2		1	3			9
<b>IRISHTOWN</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Frenches Siding									1			1	
Rural Broad Acre (within 1 hour)						1	2		1	2			7
<b>JENNAPULLIN</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Abattoir Geomalling Road					2	1						3	
Rural Broad Acre (within 1 hour)						1	2	1	1				3
<b>SOUTHERN BROOK</b>													
Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)													
Nil													
Rural Broad Acre (within 1 hour)					2	1	2	1	1				7
<b>GRASS VALLEY</b>													
Settlement/Townsite/Rural Residential Area/Critical													

# Bush Fire Advisory Committee Meeting Minutes 9 July 2019

Shire of Northam  
Resource to Risk (R2R) Assessment



Revised Brigade Areas	Bakers BFB	Wundowie VFRS	Wundowie BFB	Inkpen BFB	Northam VFRS	Northam Central BFB	Grass Valley BFB	Southern Brook BFB	Irishtown BFB	Clackline BFB	Additional Units	Total Units within 30 minutes	Total Units within 60 minutes
<b>Infrastructure (within 30 minutes)</b>													
Townsite							2					2	
Seabrook					2	1	2					5	
Avon Industrial Park								1				1	
York-Northam Lifestyle lots					2	1	2	1 (northern part only)				3 (northern part only)	
<b>Rural Broad Acre (within 1 hour)</b>													
General					2	1	2	1	1				7
Hooper/Parker/Duck Pool/Quamkadin					2	1	2	1					6
<b>NORTHAM TOWNSITE</b>													
<b>Settlement/Townsite/Rural Residential Area/Critical Infrastructure (within 30 minutes)</b>													
Avon Rail Yards and CBH Facility					3	1			1			5	
Old Quarry Waste Disposal Site					3	1			1			5	
West Industrial Area (Toodyay Road)					3	1			1			5	
East Industrial Area (Yilgam Avenue)					3	1	2 (eastern portion only)					6 (eastern only)	
<p>Note: Assumes that Wundowie VFRS will turn out both appliances to incidents. VFRS will only attend for asset protection as required with approval of ComCen Supervisor.</p> <p>Note 2: Assumes that Northam VFRS will turn out 2 appliances to incidents not within the gazetted VFRS area and 3 to those within the gazetted VFRS. VFRS will only attend for asset protection as required with approval of ComCen Supervisor.</p>													

#### 5.4 NOMINATIONS FOR BUSH FIRE CONTROL OFFICERS (BFCO) 2019/20

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Brendon Rutter Community Emergency Services Manager
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Officer Declaration of Interest:</b>	Nil
<b>Voting Requirement:</b>	Simple Majority
<b>Press release to be issued:</b>	No

#### BRIEF

For the committee to recommend to Council the appointment of Fire Control Officers (BFCO) for the 2019/20 bush fire season.

#### ATTACHMENTS

Attachment 1: BFCO Voting Summary sheet.

#### BACKGROUND / DETAILS

Council resolved at its meeting held on 15 July 2015 the following (in part)–

5. *Endorse that the minimum standard to be appointed a BFCO include the recommendation to complete the following DFES training modules prior to 1st November 2015 and become a requirement in order to qualify to the position of Bushfire Control Officer for the 2016 and future fire seasons.*
  - *Introduction to Fire Fighting*
  - *Bush Fire Fire fighting*
  - *Structural Firefighting*
  - *Crew Leader/Advanced Firefighter and/or Sector Commander*
  - *FCO course or a refresher within the last 5 years*

In addition during the preparation of the Bush Fire Manual brigades developed a process to determine how members would be classed as active.



For a brigade member to be considered as active, they must have attended 4 brigade activities such as incidents, training, DFES training, Community Engagement Functions, Fundraising activities etc.

Brigades established this criteria to ensure that only members who were actively engaged with the brigades normal function would have a say in how the brigade was run.

## CONSIDERATIONS

### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

### Financial / Resource Implications

Advertising costs.

### Legislative Compliance

Section 38 (1) Bush Fire Act 1954 which states as follows:

38. *Local government may appoint Bush fire control officer*

- (1) A local government may from time to time appoint such persons as it thinks necessary to be its Bush fire control officers under and for the purposes of this Act, and of those officers shall subject to section 38A(2) appoint 2 as the Chief Bush fire Control Officer and the Deputy Chief Bush fire Control Officer who shall be first and second in seniority of those officers, and subject thereto may determine the respective seniority of the other Bush fire control officers appointed by it.

### Policy Implications

Nil.

### Stakeholder Engagement / Consultation

Chief Bush Fire Control Officer

Deputy Chief Bush Fire Control Officer

Captains of all Brigade

Volunteer Bush Fire Fighters whom nominated in accordance with the process outlined in the Shire of Northam Bush Fire Manual.

### Risk Implications

- Reputational –High
  - Ensuring that any person/s appointed as Bush Fire Control Officers have the capacity to manage emergency incidents within the Shire of Northam
- Financial - Low

- Officers believe the financial implications are low due to advertising costs being accounted for in annual budget process
- Compliance - Low
  - Officers believe that by following processes as defined in the Shire of Northam Bush Fires Manual in accordance with powers under the Bush Fires Act 1954, any compliance issues will be resolved.
- Legal – High
  - Officers believe that Council is obliged to ensure that any person/s appointed under 38(1) of the Bush Fires Act 1954 are suitably qualified to hold the position. In the interest of community safety Council has a duty of care to ensure that any person/s appointed as Bush Fire Control Officers have the right knowledge, experience & skillset and are capable of demonstrating a working understanding of the special powers of a Bush Fire Control Officer under Section 39 of the Bush Fires Act 1954 and their obligations to Council

## OFFICER'S COMMENT

Candidates that have nominated and subsequently applied for the position of Bush Fire Control Officer that meet the criteria as outlined in the Bush Fires Manual and determined as eligible to be appointed are listed below.

Captains from each brigade were invited to assess the suitability of all candidates, based on the following criteria in accordance with section 5 of the Bush Fire Manual.

- Meets minimum training requirements
- Is actively involved in brigade response to activities.
- Is able to suitably demonstrate a working knowledge of the Bush Fires Act 1954, and their obligations to council as endorsed officers.

Where a nominee has not achieved the minimum training requirements as prescribed by Council, voting captains identified the candidates they believe should be appointed only after further training has been achieved.

Until required training is completed the member is ineligible to be designated as a fully operational BFCO.

Officers will prepare a development plan and work with all prospective candidates to ensure training requirements are able to be achieved as soon as practical. Once the extra training is achieved and the personnel then meet the requirements of Council formal appointment can be granted by way of Certificate of Appointment, and further advertising as per standard advertising protocols.

The nominations for the Wundowie BFB are subject to the brigades inaugural AGM scheduled for July 20<sup>th</sup> 2019. Nominations will be raised at pre-season BFAC for formal appointment.

Bakers Hill BFB had 4 members nominate for BFCO, in accordance with section 5.6B a maximum of 3 active BFCO's can be appointed. The candidates in this report are the ones with the highest number of votes from the panel.

Officers believe that all attempts should be made to further develop our volunteers at every available opportunity, so with this in mind a development plan has been established for all members that require further training to identify what is required to progress to a designated BFCO for the Shire of Northam. A personnel development table has been provided for below.

A Development plan for each of the candidates that have support from the assessment panel for further development has been attached to this report. All boxes highlighted in red are ones competencies that need to be achieved.

#### **RECOMMENDATION / COMMITTEE DECISION**

**Minute No: BFAC.216**

**Moved: Kris Brown**

**Seconded: Robert Herzer**

**That Council appoints the following Fire Control Officers for the 2019/20 Season in accordance with the criteria set in section 5 of the Shire of Northam Bush Fire Manual:**

##### **Inkpen**

- Nic Dewar.
- Sim Kuiper- (Weather Officer Only)

##### **Wundowie BFB**

- TBA – Brigade AGM 20/07/2019

##### **Bakers Hill**

- Simon Peters.
- Kristafer Brown.
- Suzanne Brown.
- Gordon Ashman – (Weather Officer Only)

##### **Clackline / Muresk**

- Mathew MacQueen.
- Matthew Letch

##### **Irishtown**

- Robert Herzer.
- Murray McGregor -(Further training required before formal designation of BFCO)

**Jennapullin**

- Aaron Smith – (Weather Officer Only)

**Grass Valley**

- Christopher Marris
- Paul Reynolds - (Further training required before formal designation of BFCO)
- Philip Lloyd – Weather Officer + (Further training required before formal designation of BFCO)

**Southern Brook**

- Paul Antonio – (Further training required before formal designation of BFCO)

**Wundowie VFRS**

- Jeffery Roberts (Further training required before active status)

**Northam VFRS**

- Greg Montgomery

**Shire of Northam**

- Brendon Rutter.
- Kellee Walters (Administrative Only)
- Chris Turkich (Administrative Only)

CARRIED 10/1



## Attachment 1

Red indicates training that has not been completed or has expired. Green indicates training that has been completed.

	INTRODUCTION TO FIREFIGHTING	BUSHFIRE FIGHTING	STRUCTURAL FIRE FIGHTING	SECTOR COMMANDER	CREW LEADER	ADVANCED BUSH	FIRE CONTROL OFFICER
Jeffrey Roberts							
Murray McGregor							
Paul Reynolds							
Philip Lloyd							
Paul Antonio							

**Jeffrey Roberts – Wundowie VFRS** (Currently has national equivalent to Advanced Bush/Crew Leader)  
Fire Control Officer

**Murray McGregor – Irishtown BFB**  
Sector Commander **OR** Advanced Bush/Crew Leader

**Paul Reynolds – Grass Valley BFB**  
Crew Leader  
Fire Control Officer Refresher

**Philip Lloyd – Grass Valley BFB**  
Structural Fire Fighting

**Paul Antonio – Southern Brook BFB**  
Structural Firefighting  
Sector Commander **OR** Advanced Bush/Crew Leader

Mr Mathew Macqueen declared a "Financial" interest in item 5.5 - Honorary's for Chief & Deputy Chief Bush Fire Control Officer as he is the CBFCO.

Mr Simon Peters declared a "Financial" interest in item 5.5 - Honorary's for Chief & Deputy Chief Bush Fire Control Officer as he is the DCBFCO.

Mathew Macqueen and Simon Peters left the meeting at 5:59pm.

## 5.5 HONORARIUM'S FOR CHIEF & DEPUTY CHIEF BUSH FIRE CONTROL OFFICER

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Name: Brendon Rutter Position: Community Emergency Services Manager
<b>Responsible Officer:</b>	Name Position
<b>Officer Declaration of Interest:</b>	Nil
<b>Voting Requirement:</b>	Simple or Absolute Majority
<b>Press release to be issued:</b>	No

### BRIEF

At the April 2019 BFAC a decision to refer the honorarium to brigades for further discussion, with BFAC representatives to table the outcome of the discussion at the next BFAC meeting.

Officers to date have not received any formal advice from brigades so in the interest of progressing the honorariums further, in the absence of advice from brigades, officers have developed the proposal below for consideration of BFAC and Council.

### ATTACHMENTS

Nil.

## BACKGROUND / DETAILS

### MOTION / COMMITTEE DECISION

Minute No: BFAC.211

**Moved: Mr Nic Dewar**  
**Seconded: Mr Sam Moss**

**That Council:**

- 1. Refer the matter relating to the CBFCO & DCBFCO annual allowance and a second DCBFCO to the brigades for further discussion; and**
- 2. Request the outcomes from the brigade's discussion to be presented to the next BFAC meeting.**

The current resolution of Council is that the volunteer CBFCO is paid an annual honorarium of \$2,500 per annum and the DCBFCO is paid \$1500 per annum. This was resolved by Council in December 2011 following the recommendation from BFAC in November 2018.

## **CONSIDERATIONS**

### **Strategic Community / Corporate Business Plan**

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

### **Financial / Resource Implications**

This has financial implications to council and would need to be allocated as a line item in the annual budget process

### **Legislative Compliance**

There is no legislative compliance

### **Policy Implications**

Officers are unaware of any policy implications

### **Stakeholder Engagement / Consultation**

Officers have discussed at length with the Chief & Deputy Bush fire Control Officers. Officers have liaised with other Local Government CESM's during the research of this proposal about the effectiveness of the Honorarium payments.

### **Risk Implications**

- Reputational –High
  - Maintaining a good working relationship with the volunteer CBFCO & DCBFCO by way of providing an honorarium to acknowledge the demanding workload placed on the volunteer positions
- Financial - High
  - The amount provided to the volunteer CBFCO & DCBFCO would need to be included as a separate line item in the annual budget.
- Compliance - Low

- Officers don't believe there is any compliance issues relating to this item.
- Legal – Low
  - Officers don't believe there is any additional legal implications that council would be exposed to as a result of this item

## OFFICER'S COMMENT

Officers have reviewed the publicly available budgets of several local governments to investigate how many local governments pay honorariums to their CBFCO & DCBFCO and to use this information in forming a recommendation to council of a dollar amount for consideration.

The annual allowances/honorariums at the following local government areas have been identified.

Shire of Serpentine/Jarrahdale- \$10,000 for CBFCO only  
Shire of Busselton- \$1,500 for CBFCO & \$1,000 for DCBFCO  
Shire of Broome, - \$1,500 for CBFCO Only  
Shire of York, - \$1,200 for CBFCO only  
Shire of Ravensthorpe- \$4,333 for CBFCO only  
Shire of Manjimup- \$5,000 for CBFCO, \$3,000 for DCBFCO  
Augusta/Margaret River – Decided annually for CBFCO & DCBFCO  
Shire of Collie, \$1,000 for CBFCO only

The Shire of Northam currently provides both the CBFCO and DCBFCO positions with a mobile phone, and a Fire Support Vehicle/ Chief Vehicle.  
Some Shires also supply Fire Support Vehicles for their volunteer CBFCO & DCBFCO use at incidents during the fire season only.

The Shire of Northam has fortunately had 3 quiet bushfire seasons however officers acknowledge the high workload of these 2 volunteer roles throughout the year that require a lot of sacrifice from the officers to attend to their expected duties relevant to their positions. As such the officers incur significant out of pocket expenses due to attending multiple meetings at both brigade and district level each year including but not limited to BFAC, LEMC & DOAC meetings, additional to workshops, exercises, brigade trainings etc.

As an example for the past fire season an indicative log of hours from the CBFCO was kept, which indicates that in excess of 500 hours of voluntary time was involved in the role. A further breakdown of estimated times in the role indicated the following percentages –

- Direct Fire Attendance-24%
- Indirect Fire Attendance-8%
- Shire/Brigade Meeting within Shire –10%



- Other Meetings outside Shire-4%
- Phone calls/Emails-45%
- SoN Reserves/MAF funding/R2R-9%

It is recognised that this season also involved some additional meetings associated with the R2R, MAF Funding and assessment of Shire Reserves for fire mitigation works. It is also recognised however that the fire season was relatively quiet.

Given the responsibility of the role and the important function it provides to the Shire of Northam an equitable honorarium, is suggested.

#### **RECOMMENDATION / MOTION**

**Moved: Nic Dewar**

**Seconded: Kris Brown**

#### **That Council:**

1. **Allocate honorarium payments to the positions of the Volunteer Chief Bush Fire Control Officer (CBFCO) & Deputy Chief Bush Fire Control Officer (DCBFCO) of \$15,000 and \$5,000 respectively.**
2. **Incorporate the honorarium within the draft budget for a fixed total of \$20,000.**
3. **Authorise the Chief Executive Officer to pay the honorarium in equal monthly instalments to the relevant officer. The CBFCO is to receive \$1,250 per month, the DCBFCO is to receive \$416.66 per month.**
4. **Review the honorarium payments annually to ensure the amount is reflective of the workload on these critical positions.**

Debate was held around the motion.

Clarification was sought in relation to:

- What the current amount is for the CBFCO and DCBFCO. The Community Emergency Services Manager advised that the current amount is \$2,500 for the CBFCO and \$1,500 for the DCBFCO.
- Whether there has been any progress towards a second DCBFCO. The Community Emergency Services Manager advised that staff are waiting for advice from the brigades on this matter. Staff have not looked at potential candidates.

#### **AMENDMENT TO MOTION**

**Minute No: BFAC.217**

**Moved: Sam Moss**

**Seconded: Aaron Smith**

**The following amendments be made:**

- **Item 1: The words '\$15,000' be amended to '\$4,000', '\$5,000' to '\$1,500' and '(DCBFCO)' to '(DCBFCO's)';**
- **Item 2: The word '\$20,000' be amended to '\$7,000';**
- **Item 3: The words '\$1,250' be amended to '\$333.33' and '\$416.66' be amended to '\$125.00'.**

**CARRIED 6/3**

#### **SUBSTANTIVE MOTION / COMMITTEE DECISION**

**Minute No: BFAC.218**

**Moved: Nic Dewar**

**Seconded: Kris Brown**

**That Council:**

- 1. Allocate honorarium payments to the positions of the Volunteer Chief Bush Fire Control Officer (CBFCO) & Deputy Chief Bush Fire Control Officer (DCBFCO's) of \$4,000 and \$1,500 respectively.**
- 2. Incorporate the honorarium within the draft budget for a fixed total of \$7,000.**
- 3. Authorise the Chief Executive Officer to pay the honorarium in equal monthly instalments to the relevant officer. The CBFCO is to receive \$333.33 per month, the DCBFCO is to receive \$125.00 per month.**
- 4. Review the honorarium payments annually to ensure the amount is reflective of the workload on these critical positions.**

**CARRIED 6/3**

Mathew Macqueen and Simon Peters returned to the meeting at 6:08pm.

## 5.6 APPOINTMENT OF 2019/20 CHIEF BUSH FIRE CONTROL OFFICER (CBFCO) AND DEPUTY CHIEF BUSH FIRE CONTROL OFFICER (DCBFCO)

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Brendon Rutter Community Emergency Services Manager
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Voting Requirement</b>	Simple Majority

### BRIEF

Upon appointment of the Fire Control Officer's for the 2019/20 fiscal year, Council is required to appoint a Chief Bush Fire Control Officer (CBFCO) and Deputy Chief Bush Fire Control Officer (DCBFCO).

### ATTACHMENTS

Nil.

### BACKGROUND / DETAILS

Mr Mathew Macqueen is the current CBFCO and Mr Simon Peters is the DCBFCO.

### CONSIDERATIONS

#### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

#### Financial / Resource Implications

Advertising costs.

#### Legislative Compliance

Section 38 (1) Bush Fire Act 1954 which states as follows

38. *Local government may appoint Bush fire control officer*

- (1) A local government may from time to time appoint such persons as it thinks necessary to be its bush fire control officers under and for the purposes of this Act, and of those officers shall subject to section 38A(2) appoint 2 as the Chief Bush fire Control Officer and the Deputy Chief Bush fire Control Officer who shall be first and second in seniority

of those officers, and subject thereto may determine the respective seniority of the other Bush fire control officers appointed by it.

### **Policy Implications**

Nil.

### **Stakeholder Engagement / Consultation**

Officers have received nominations for Bush Fire Control Officers from brigades by way of endorsement at each brigades AGM.

### **Risk Implications**

Council is requested to appoint a CBFCO and DCBFCO who meet the minimum training requirements as per section 5 of the Shire of Northam Bush Fire manual.

### **OFFICER'S COMMENT**

Upon receipt of the nominations for Bush Fire Control Officer, officers check all candidates for compliance with minimum training requirements as defined in section 5.3 of the Bush Fire Manual.

At the time of conducting the assessment officers automatically check all candidates against the criteria for appointment of CBFCO & DCBFCO as defined by section 5.1 & 5.2 respectively of the Shire of Northam Bush Fires Manual.

Two candidates were identified as eligible to be appointed into either of these positions, Officers have spoken to both candidates who have both indicated they are happy to continue in their current role without change until such a time as other BFCO's complete higher training to become eligible to apply for the role.

### **RECOMMENDATION / COMMITTEE DECISION**

**Minute No: BFAC.219**

**Moved: Sam Moss**

**Seconded: Aaron Smith**

**That Council formally appoint the following qualified Bush Fire Control Officers to the position of Chief and Deputy Chief Bush Fire Control Officer.**

- 1. Chief Bush Fire Control Officer – Mathew Macqueen**
- 2. Deputy Chief Bush Fire Control Officer – Simon Peters**

**CARRIED 11/0**



## 5.7 BUSH FIRE ADVISORY COMMITTEE MEETINGS

<b>Address:</b>	N/A
<b>Owner:</b>	N/A
<b>Applicant:</b>	N/A
<b>File Reference:</b>	5.1.3.1
<b>Reporting Officer:</b>	Brendon Rutter Community Emergency Services Manager
<b>Responsible Officer:</b>	Chadd Hunt Executive Manager Development Services
<b>Officer Declaration of Interest:</b>	Nil.
<b>Voting Requirement:</b>	Simple Majority
<b>Press release to be issued:</b>	No

### BRIEF

For the Committee to have an opportunity to set meeting dates and times.

### ATTACHMENTS

Nil.

### BACKGROUND / DETAILS

N/A.

### CONSIDERATIONS

#### Strategic Community / Corporate Business Plan

Theme Area 3: Safety and Security

Outcome 3.1: Shire of Northam residents are able to pursue the fullest life possible without fear of or hindrance from crime and disorder.

#### Financial / Resource Implications

Nil.

#### Legislative Compliance

Nil.

#### Policy Implications

Nil.

#### Stake Holder Engagement / Consultation

Nil.

### **Risk Implications**

Nil.

### **OFFICER'S COMMENT**

In an effort to improve processes around BFAC meetings, and to ensure that brigades are able to plan their meetings to suit anything specific for BFAC, officers have established a draft annual schedule for each meeting which proposes that the BFAC meetings be held on the second Tuesday of March, June, September and November each year, with the agenda to be received by the committee at least 14 days prior to enable brigade discussion.

#### **RECOMMENDATION / COMMITTEE DECISION**

**Minute No: BFAC.220**

**Moved: Sam Moss**  
**Seconded: Nic Dewar**

**That Council schedule Bush Fire Advisory Committee meetings on the second Tuesday of March, June, September and November each year.**

**CARRIED 11/0**

## 6. MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN GIVEN

Simon Peters left the meeting at 6:26pm and returned at 6:28pm.

### 6.1 DRESS UNIFORMS FOR BRIGADE MEMBERS

#### RECOMMENDATION / MOTION

**Moved:** Kris Brown

**Seconded:** Mathew Macqueen

**That Council supply Shire of Northam brigade members with dress uniforms for non-firefighting events such as PR, meetings and training.**

LOST 6/5

Debate was held around the motion.

#### BACKGROUND

Email correspondence:

**From:** kris brown <brownkris8@gmail.com>  
**Sent:** Tuesday, 18 June 2019 5:41 PM  
**To:** Brendon Rutter  
**Cc:** Bakers Hill VBFB; Captain Bakers Hill VBFB  
**Subject:** Bfac item

Hi Brendan

Item for the bfac agenda from Bakers Hill VBFB

Bakers Hill VBFB would like bfac to request the Shire supply Brigade members dress uniforms so that when we have none Fire fighting events such as PR, Meetings, training we can wear a uniform to all match without wearing PPE that could look dirty.

Regards

Bfac Proxy

Kris.Brown  
0400 945 214  
2nd Lieutenant/FCO  
Bakers Hill VBFB

#### OFFICER COMMENT

Currently the dress shirts are not eligible items under the LGGS scheme. Depending on the take up of the uniform there could be significant cost to Council and or the brigades given that the ESL does not currently fund them.

Currently the Bush Fire Service is the only volunteer emergency service that doesn't have a dress uniform

As of 1<sup>st</sup> July 2019 the approx. costings are as follows,

- a) Dress shirts short sleeve \$60.65 GST & Long sleeve \$76.13 + GST
- b) Epaulettes \$22.09 + GST per pair
- c) BFB Tie \$26.26 + GST

It is suggested that the above information is taken back to brigade meetings, to discuss possible funding options that can be brought back to BFAC for further discussion.



## 6.2 ASSESSMENT QUESTIONNAIRE FOR FIRE CONTROL OFFICERS (FCO'S)

### RECOMMENDATION / MOTION

Moved: Sam Moss

That Council remove the recently instated assessment questionnaire for FCO's.

LAPSED OF WANT OF SECONDER

### BACKGROUND

Email correspondence:

**From:** Sam Moss <Samm@boekemans.com.au>  
**Sent:** Friday, 28 June 2019 4:27 PM  
**To:** Brendon Rutter  
**Subject:** BFAC items

Hi Brendan,

Can Grass Valley please submit the following for July BFAC:

- Grass Valley brigade wishes to place a motion to remove the recently instated assessment questionnaire. We believe from discussions with several FCO's that this is an unnecessary step, and one that will dissuade prolonging FCO service, as all current FCO's have completed the required DFES training levels as previously established in the workshops and this training is their proof of competency. If there is an issue of an FCO not taking control at a fire, this needs to be addressed at a brigade or 1 on 1 level between the FCO, their Captain and the CESM.

Thank you,

Sam.  
Grass Valley BFAC delegate.

*Regards*

**Sam Moss**  
Sales Representative  
**Boekeman Machinery**  
Phone: (08) 9622 6344  
Fax: (08) 9622 6355  
Mobile: 0409 220 482  
Address: 29 York Rd, Northam WA 6401  
Email: [samm@boekemans.com.au](mailto:samm@boekemans.com.au)  
Web: <http://www.boekemans.com.au>

### OFFICER COMMENT

Under Section 5C of the Bush Fire Manual, one of the dot points states that a member who is appointed as a BFCO for the Shire of Northam must have knowledge of the Bush Fires Act 1954, in order to try and ascertain if a potential

BFCO has a demonstrated understanding of the role a questionnaire was developed and included within the application package. The 10 questions that formed part of the BFCO application was designed in consultation with the CBFCO to assess the level of knowledge the BFCO of the Act and the responsibilities of that position.

Candidates were provided 2 weeks to answer the questionnaire, and it was conducted via email, this allowed adequate time for the candidate to research their answer if required prior to submission.

Only 5 out of the 15 candidates failed to hand in the questionnaire by the due date. Two of them confirmed that that had connectivity issues and hadn't received it, the other 3 declined to provide the information as they felt they didn't need to.

The assessment panel was only able to conduct an assessment based on the training records of the candidates. An assessment of their knowledge was unable to be conducted as the information was not supplied.

One of the critical questions was to ensure that all acting BFCO's understood their powers afforded to them by Council under the Bush Fires Act, everyone that completed the questionnaire was able to demonstrate this knowledge.

It is critical that all active BFCO's understand what powers they have, and under what circumstances they can exercise these powers. This is to ensure that our volunteer Bush Fire Control Officers conduct themselves in such a way that they are afforded the protections of the act.

## 7. URGENT BUSINESS APPROVED BY DECISION

Mr Robert Herzer raised how members can add items to the agenda. Items were submitted however have not been included. The Executive Manager Development Services advised that these need to be formatted in the form of a 'Notice of Motion'. It was advised that some guidelines will be prepared to assist brigades to raise matters for future BFAC meetings.

The Gallery raised whether there is general business. The Executive Manager Development Services advised that this has not been a part of the agenda for some time. BFAC meetings must follow the same process and format as Council meetings which do not have general business. It was advised that matters should be presented to BFAC through the brigade representative.

## 8. DATE OF NEXT MEETING

10 September 2019.

## 9. DECLARATION OF CLOSURE

There being no further business the Presiding Member, Cr Terry Little declared the meeting closed at 6:37pm.

"I certify that the Minutes of the Bush Fire Advisory Committee meeting held on Tuesday, 9 July 2019 have been confirmed as a true and correct record."

\_\_\_\_\_ Presiding Member

\_\_\_\_\_ Date