



Shire of  
Serpentine  
Jarrahdale

# Discussion Paper

## The Impact of Cardup Career Fire Station and the Extension of the Metropolitan Gazetted Fire District

April 2024



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## 1. EXECUTIVE SUMMARY

The establishment of the Cardup Career Fire and Rescue Service (CFRS) in Byford and the extension of the Metropolitan Gazetted Fire District (MGFD) in to the northern part of the Shire will bring about significant changes to emergency responses in the Shire of Serpentine Jarrahdale (the Shire). There are plans for a 24/7/365 CFRS to be operational by late 2024, resulting in adjustments to MGFD boundaries. This may result in a comprehensive remapping of brigade response areas, a review of volunteer bushfire brigade distribution, and a reassessment of roles and responsibilities. This strategic task and the associated engagement and collaboration with affected brigades, is intended to produce a clear understanding of Brigade response areas and seamless integration of response activities. There is also opportunity to build supporting relationships in respect of skill development between the CFRS and volunteer brigades, creating enhanced skill development and joint response arrangements to occur for local incidents.

The impacts on prominent Shire brigades, such as Byford, Oakford, and Mundijong Bush Fire Brigades (BFB), does necessitate a strategic approach to volunteer attraction and retention. The CFRS, for example, does not cover the full remit of prevention, preparedness, response and recovery arrangements as they pertain to, inter alia, bushfire events. Considering the bushfire prone landscape of the Shire and increasing rural urban interface that presents a high risk of bushfire impact, there is an important focus that includes prevention and preparedness - this is a particular focus for the Shire's volunteer brigades, as well as incident response currently. What this looks like into the future once the CFRS arrives is an important consideration to define.

The Department of Fire and Emergency Services (DFES) assumes legislative responsibility in specific response areas (such as the MGFD). But whilst having such responsibility, there is also an ethos which emphasises collaborative efforts in facilities planning, resource allocation and volunteer engagement. This proactive approach aims to maintain the strength of existing brigades, enhance overall emergency response capabilities, and navigate the changing landscape of emergency services within the Shire. It also needs to recognise that efforts need to remain focussed on prevention and preparedness activities, so that the hazard of bushfire is address through proactive actions that can reduce the elements which may combine to otherwise create incidents.

## 2. ISSUES

The key issues include:

1. The impact of Cardup Career Fire Station and the Extension of the Metropolitan Fire District for the northern parts of the Shire
2. How such impact will be experienced across the four elements of the disaster management continuum - prevention (mitigation), preparedness, response and recovery
3. How to manage impacts, such that opportunities can be leveraged upon while managing negative outcomes to ensure ongoing capability for emergency management within the Shire



- Ensuring the Shire’s 20 Year Facilities Plan for the Shire’s six Bush Fire Brigades, Emergency Support Brigade and SES Unit is reflective of the new operating environment and the proposed investment is sustainable.

### 3. BACKGROUND

Emergency Services response in the Shire is set to undergo significant changes with the establishment of a CFRS in Byford. DFES has announced plans for a 24/7/365 career fire and rescue station, named Cardup Fire Station, to be operational in late 2024. Situated on the corner of Doley Road and Orton Road, Byford, the Cardup CFRS site will see the MGFDF extended to cover over northern parts of the Shire, which will replace local response in the affected areas. This will also create new areas of Emergency Services Levy (ESL) Category 3 towards the southern parts of the Shire.

As shown in the following image, the MGFDF will represent the response requirements for the CFRS. It is worth noting this is based upon a timed response window, meaning many other parts of the Shire will remain outside of the MGFDF, resulting in local response ongoing in these areas.

### 4. CURRENT SITUATION

#### Boundary Adjustments

To accommodate the new Cardup CFRS response area, the Minister, through a notice in the Government Gazette, will adjust the boundaries of the existing MGFDF. This adjustment extends the district beyond the southern boundary of the Armadale CFRS. The proposed response area is delineated based on a seven-minute isochrone from the Cardup CFRS site, considering anticipated improvements to local road networks.

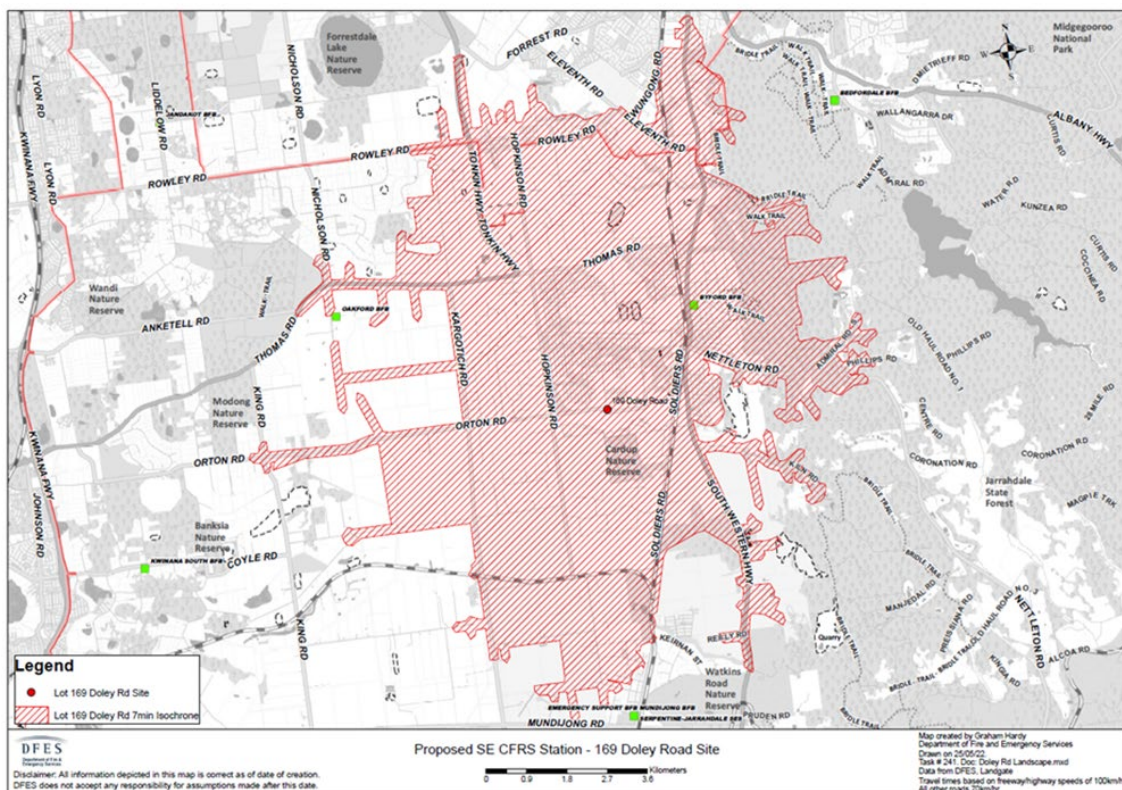


Figure 1 - Cardup Career Fire Station and seven-minute isochrone map

## District Declaration

The proposal involves the extension of the MGF. This designates the MGF as a district served by a permanent fire brigade.

This declaration is crucial for determining the appropriate ESL category.

## Consultation and Proposals

The Fire and Emergency Services (FES) Commissioner will communicate specific details to the local government regarding fire districts before implementation. This includes the area it bounds, considerations for the class of the brigade, method of fire protection, hazardous material incident control, and the rescue service in the district.

## ESL Assessment

An ESL assessment has been conducted, indicating changes to residents' ESL categories across the Shire, affecting ESL 1, ESL 3 and ESL 5 categories.

All land in WA is classified into one of five ESL categories based on the types of fire and emergency services available in the area as shown in the table below:

ESL Category	Typical Location	Emergency Response
1	Perth Metropolitan Fire District	The Perth metropolitan network of Career Fire and Rescue Service stations and the State Emergency Service
2	Regional Cities	A Career Fire and Rescue Service station plus a Volunteer Fire and Rescue Service and the State Emergency Service
3	Perth Metropolitan Fringe	A Volunteer Fire and Rescue Service unit and/or Volunteer Bush Fire Brigade supported by the Perth metropolitan network of Career Fire and Rescue Service stations and the State Emergency Service
4	Country Towns	A volunteer service with structural firefighting capability and the State Emergency Service
5	Pastoral / Rural Areas	The State Emergency Service network and volunteer fire services in the vicinity



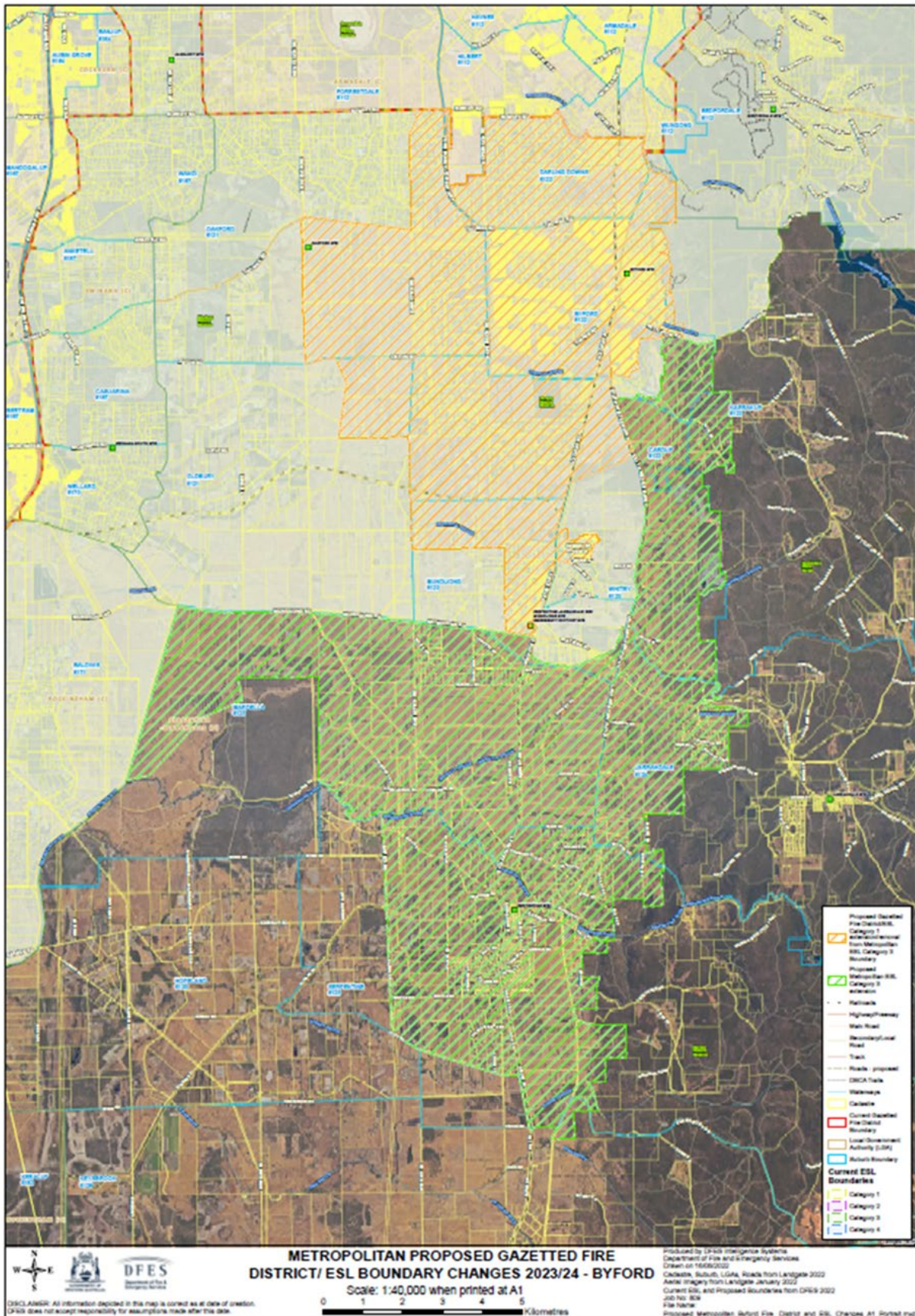


Figure 2 - Metropolitan Proposed Gazetted Fire District / ESL Boundary Changes 2023/24.

## Future Considerations

As future road network improvements are delivered, such as the Tonkin Highway extension, DFES will carry out reviews of the MGFDF response area to reflect a seven-minute isochrone from the Cardup CFRS site.

### Cardup CFRS

The Cardup CFRS is scheduled for practical completion in December 2024, with site clearing already finished. The crewing plan comprises 1 station officer and 5 firefighters, operating 24/7 on a four-platoon rostering system. The station will house a Scania Urban Pumper with Heavy Rescue capability, a Light Tanker, and a 3.4 Urban (3000 litre 4WD).

## 5. IMPACTS TO SHIRE BRIGADES

### Turnout numbers for brigades

The forthcoming changes will have implications for three prominent brigades within the Shire - Byford, Oakford, and Mundijong BFB. These brigades currently occupy extensive response areas that will integrate into the MGFDF. They stand currently among the top 10 busiest bushfire brigades in the State, collectively undertaking 1,715 turnouts in the past 5 years, with Byford BFB holding the ranking as the current busiest bushfire brigade in Western Australia.

The level of incident size, complexity and response was central to the advocacy efforts to secure a CFRS for the Shire, recognising the risk to resource need as documented through the emerging risk profile of complex structure fire, HAZMAT and serious crash rescue risk.

The table below outlines to number of turnouts for each brigade for the past 5 years:

	19/20	20/21	21/22	22/23	23/24*	Average turnout per year
<b>Byford</b>	155	140	122	133	92	122
<b>Mundijong</b>	91	64	97	107	78	78
<b>Oakford</b>	92	67	89	105	80	82

\* Incomplete stats are up to Jan 24 of the 23/24 FY

As the MGFDF expands, DFES will assume legislative responsibility and become the primary responder for incidents in approximately 75% of Byford's response area, 60% of Oakford's response area, and 30% of Mundijong's response area. Moreover, there is a potential that mobilised CFRS appliances will reach incidents within the remaining areas of the Shire before the local bushfire brigades. Although the local government (LG) will retain legislative responsibility outside the MGFDF, DFES is anticipated to arrive and secure the incident before the brigades reach the scene in many instances.

Byford, Oakford, and Mundijong will remain integral to supporting other brigades across the Shire during high-threat bushfire periods, and particularly in undertaking prevention and preparedness functions that are central to sustainable disaster

management. Efforts taken through mitigation, such as controlled burns, are important facets that need to be expanded as the rural urban interface continues to grow. Private property asset management is also a shared responsibility, with local brigades able to support private landowners in this endeavour. However, there will be a substantial decrease in the number of primary turnouts for these brigades, due to DFES holding legislative responsibility for jobs within the extended MGF. D.

Envisioned turnout numbers for these brigades are expected to align with the following projections. This also shows that response is not the only function for a brigade - prevention and preparedness statistics often go unpublished, but taken collectively, represent some of the most important investments in disaster management.

<b>Primary Incidents</b>	<b>Incidents Including Support</b>
Byford: 2	Byford: 60
Mundijong: 30	Mundijong: 80
Oakford: 20	Oakford: 80

### **Volunteer attraction and retention**

Currently, the three brigades boast a robust volunteer base, consistently able to crew their appliances promptly when called upon. These brigades actively engage in weekly training sessions, monthly meetings, and weekend training courses, demonstrating their commitment to preparedness and community service. Their involvement extends beyond emergency response, as they actively contribute to the community and maintain healthy community networks.

The table below outlines the number of volunteers for the six Bush Fire Brigades and Emergency Support Brigades:

<b>Brigade</b>	<b>Number of Volunteers</b>
Byford BFB	65
Emergency Support Brigade	26
Jarrahdale BFB	44
Keysbrook BFB	21
Mundijong BFB	39
Oakford BFB	40
Serpentine BFB	35

With the introduction of a CFRS, it is imperative to safeguard the existing strength of the brigades and uphold the value they provide. While first response commitments may decrease, this shift will allow members to redirect their efforts towards other crucial aspects of volunteerism, such as prevention and preparedness.

To support this transition, the Shire must ensure that meaningful opportunities are available to the brigades. This includes optimising turnout arrangements for incidents outside the MGF, developing a comprehensive Shire mitigation burning plan to keep brigades occupied during burning periods, and fostering close relationships with the DFES regional office through the DFES CESM Memorandum of Understanding



(MOU). This collaboration will ensure that SJ brigades continue to receive deployment opportunities to incidents beyond the Shire's borders.

To prevent any decline in membership, it is vital to keep brigades active and engaged. As the Shire grows, these brigades are likely to recruit more members, emphasising the need for sufficient facilities to accommodate this envisioned growth and future-proof their operations. By ensuring that brigades remain dynamic and connected to broader emergency response networks, the Shire can not only retain its current volunteers but also attract new ones, thereby strengthening community resilience.

**Mobilisation arrangements**

Throughout the Metropolitan High Threat Bushfire Period (HTP) parts of the Shire of Serpentine Jarrahdale are subject to enhanced mobilisation procedure, known as Zone 2a.

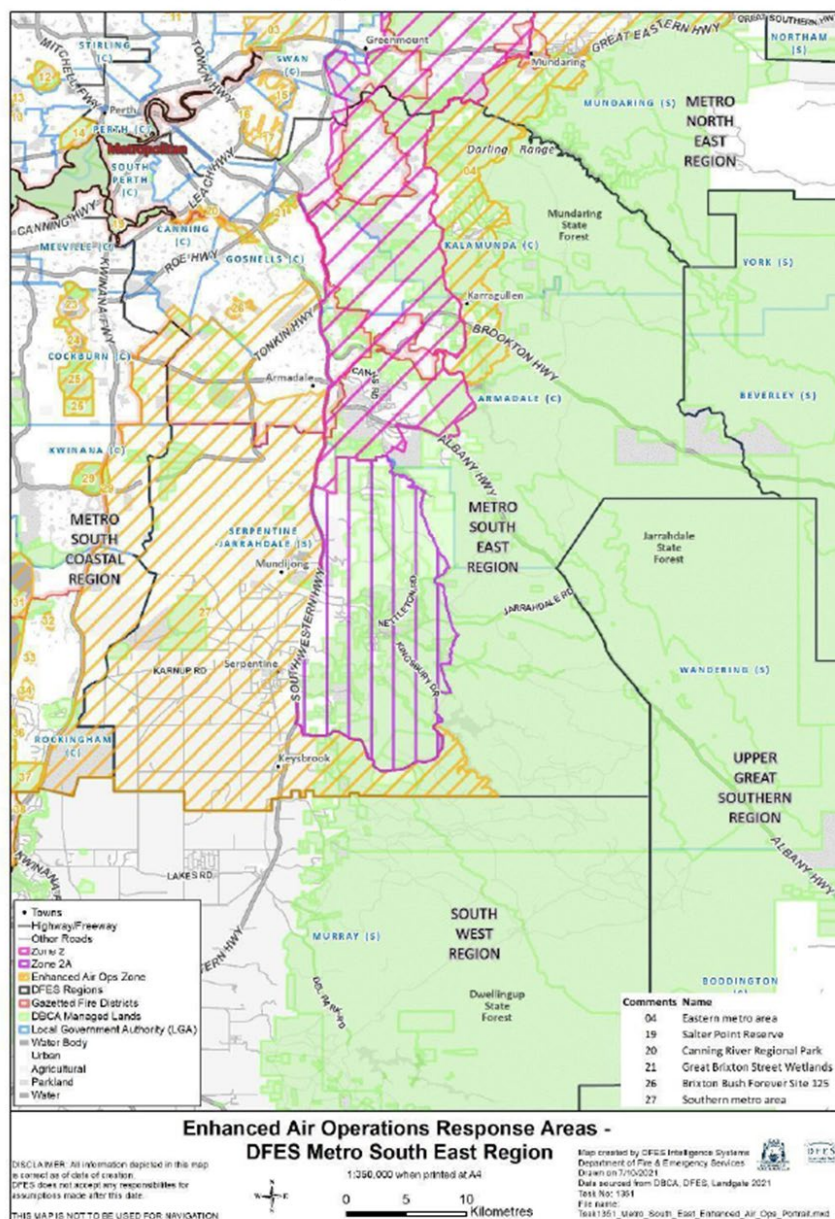


Figure 3 – DFES/DBCA Zone response Mapping Metropolitan South East

This area is the scarp side of South West Highway and stipulates one brigade from the nearest available local government BFB will be dispatched along with the nearest available Career Fire and Rescue Service. These arrangements will remain unchanged and will continue to see Byford and Mundijong remain as part of the initial response to incidents in areas within the SJ scarp that are classed as at a heightened bushfire risk during the HTP.

## 20 Year Facilities Plan

The Shire has a 20 Year Facilities Plan for the Shire's six Bush Fire Brigades, Emergency Support Brigade and SES Unit, which was endorsed in 2022.

In 2022, the Shire proactively undertook audits of the management, facilities, and operations of the Volunteer Bushfire Brigades as a gap analysis and to determine what corrective actions for minimum compliance with the WHS Act and Regulations to be completed by 31 March 2023. The WorkSafe Commissioner has provided a further update that the transitional period for minimum compliance with the new WHS Act and Regulations is now 31 March 2024.

In undertaking corrective actions to date and in consultation with the Brigades, additional actions to further mitigate or eliminate hazards within the facilities have been agreed via the following projects:

- a) Construction of the Oakford Fire Station.
- b) Byford Fire Station Enhancement Project.
- c) Serpentine Fire Station Enhancement Project.

A summary of the status of the three facility projects is provided below:

Project/Facility	Status
Oakford Fire Station – New Build	Concept Design complete following engagement with Oakford Volunteer Bush Fire Brigade, SJ Emergency Support Brigade and Department of Fire and Emergency Services.  Currently finalising tender process.
Serpentine Fire Station – Enhancement Project	Concept design has been agreed and a builder has been appointed to carry out the works. The PPE storage racks have also been delivered and the project team is working with the brigade to ensure the project is delivered in a timely manner without impacting the Brigade's operations.  Installation works have commenced.
Byford Fire Station – Enhancement Project	Concept design in progress to enable the project to progress to design and construction. Engagement is ongoing with the Brigade.  Staged construction design has been provided for consultation with the key stakeholders.

Given the changing landscape of emergency service response within the Shire, it is recommended that there is a review of the 20 Year Facilities Plan for the Shire's six Bush Fire Brigades, Emergency Support Brigade and SES Unit to ensure it is reflective of the new operating environment and future trends relating to the Shire's volunteer bush fire brigades.

This is particularly important to account for the pivoting of focus towards more prevention and preparedness activities, that could conceivably adjust both station and appliance requirements for the brigades.

### **Governance arrangements of the Shire's Emergency Services Team**

The Shire's Emergency Services Team provides support and engagement with the Shire's volunteer bush fire brigades. The team consists of:

- Community Emergency Services Manager (shared role between DFES and the Shire), who also undertakes the duties of Chief Bush Fire Control Officer (CBFCO) for the Shire
- Coordinator Emergency Services
- Bushfire Mitigation Officers x 2
- Technical Administration Officer

Given the evolving nature of emergency management and volunteer management, it is proposed that a governance review occur of the Emergency Services Team to ensure the governance structure delineate roles and responsibilities, ensuring accountability and effective decision-making within the team, management of volunteers as well as the management of emergency response.

### **Management of Bushfire Brigades and volunteer support**

Over the past several years, the Shire has evolved the way it engages and manages its volunteers, to ensure compliance with relevant Work Health and Safety legislation.

The new legislation requires the Shire to ensure, so far as is reasonably practicable, the health and safety of all of its workers, including volunteers. This means that the organisation must provide the same protections to its volunteers as it does to its paid workers. The protection covers the physical safety and mental health of all workers, including volunteers.

New policies and operating procedures have also meant there has been an increased onus on volunteers to ensure they are compliant with new legislation. The Shire has also commenced the introduction of a volunteer portal to support the on-boarding of volunteers, as well as providing a self-service functionality for volunteers.

To ensure that the Shire is providing a meaningful support service to the Shire's six Bush Fire Brigades, Emergency Support Brigade and its volunteers, the Shire proposes to undertake a Volunteer Survey. The survey would provide an opportunity for volunteers to provide feedback and insights, allowing the Shire to understand how to best allocate resources to meet the needs of both volunteers and the community they serve.



## **6. PREVIOUS EXAMPLES**

Limited precedents exist due to the rarity of the extension of the MGF. In past instances, CFRS entered areas already equipped with established structural and, in some cases, rescue capabilities across the response areas.

### **Success Fire Station**

In the early 2000s, the Success Fire Station opened, primarily covering the South Coogee BFB response area. Subsequently, with the online presence of the CFRS station, South Coogee BFB's numbers significantly decreased. An arrangement under a Memorandum of Understanding stipulated that, for bushfires reaching a 2nd Alarm level classification within the LG, the South Coogee bushfire brigade would be deployed to assist the CFRS brigade. This has resulted in the South Coogee BFB responding to 350 incidents in the past 5 years.

### **Ellenbrook Fire Station**

In 2009, the Ellenbrook Fire Station opened, predominantly covering the West Swan BFB response area. Since its inception, the West Swan brigade has remained one of the busiest in the state, providing support to the City of Swan's bushfire brigades and responding to 621 incidents over the last 5 years. There are no response-related MOUs, and the brigade is only subject to Zone 2 arrangements.

### **Butler Fire Station**

In 2005, the Butler Fire Station opened, initially operating out of a transportable structure until a permanent station was brought online in 2015. The Quinns Rocks bushfire brigade has also remained one of the busiest in the state, responding to 542 incidents in the last 5 years. Like West Swan, there are no response-related MOUs, however the brigade is also situated outside the Zone 2 arrangements.

All three of the above-mentioned brigades have realigned their core duties, which is now supporting neighbouring brigades, while still servicing a smaller brigade response area, or in some cases not having a response area.

## 7. RECOMMENDATIONS

### Governance arrangements of the Shire's Emergency Services Team

Given the evolving nature of emergency management and new Work Health and Safety legislation regarding the management and of it is proposed that a governance review occur of the Emergency Services Team to ensure the governance structure delineate roles and responsibilities, ensuring accountability and effective decision-making within the team, management of volunteers as well as the management of emergency response.

#### **Recommendation 1**

**The Shire undertakes a governance review of the Shire's Emergency Services Team to ensure the governance structure delineates roles and responsibilities, ensuring accountability and effective decision-making within the team, management of volunteers as well as the management of emergency response.**

### Allocation of Brigade Resources

Drawing on lessons learned from previous examples, where only one brigade was stationed within the MGF, it is prudent to assess the efficiency and effectiveness of the current brigade distribution. The aim of this is to identify opportunities to optimise resource allocation, facility investment and/or rationalisation, streamline operational procedures, and enhance overall emergency response capabilities.

As part of this remapping and rationalisation initiative, the Shire should engage in thorough consultations with relevant stakeholders, including DFES regional and LGGS staff, SJ brigades, and the community. Collaboration and open communication will be instrumental in fostering a unified and cohesive approach to restructuring brigade response areas.

By reviewing these options and undertaking a comprehensive review of brigade distribution, the Shire can enhance the overall resilience and efficiency of the emergency response system within the MGF and the broader Shire.

#### **Recommendation 2**

**The Shire undertakes a review of its volunteer bush fire brigade distribution and a review of the 20 Year Facilities Plan for the Shire's six Bush Fire Brigades, Emergency Support Brigade and SES Unit to identify opportunities to optimise resource allocation, facility investment and/or rationalisation, streamline operational procedures, and enhance overall emergency response capabilities.**

### Remapping of brigade response areas

Given the stipulations of the MGF's ESL 1 category, the Shire has limited options in determining the service levels. A significant portion of the northern region of the Shire is designated for a career fire and rescue service, backed up by a volunteer bush fire brigade service. Consequently, the Shire's brigades will be deployed only when incidents necessitate additional resources beyond what DFES can provide in a timely manner.

Upon confirmation of the MGF D boundaries, it becomes imperative for the Shire to undertake a comprehensive remapping of brigade response areas. This remapping exercise is essential to excise the MGF D from SJ brigades, ensuring a clear understanding of brigade response areas and seamless integration of services. Moreover, this task presents a strategic opportunity to evaluate and potentially rationalise the number and location of brigades situated within the MGF D.

### **Recommendation 3**

**The Shire undertakes a comprehensive remapping of volunteer bush fire brigade response areas to ensure a clear understanding of brigade response areas and seamless integration of services with the CCFS coming online.**

### **Volunteer attraction and retention**

In addition to the logistical considerations, the Shire should also assess the potential impact on the personnel associated with the affected brigades. Efforts should be made to provide clear communication, support mechanisms, and potentially explore opportunities for reassignment or additional training to accommodate any changes resulting from the remapping and rationalisation process.

Byford, Oakford, and Mundijong will remain integral to supporting other brigades across the Shire during high-threat bushfire periods, and particularly in undertaking prevention and preparedness functions that are central to sustainable disaster management.

### **Recommendation 4**

**The Shire undertakes a review of bush fire brigade roles and responsibilities, in consultation with the volunteer bush fire brigades, and explore opportunities for reassignment or additional training to accommodate any changes resulting from the remapping and rationalisation process, as well as opportunities for enhanced prevention and preparedness functions, to support volunteer attraction and retention.**

### **Management of Bushfire Brigades and volunteer support**

To ensure that the Shire is providing a meaningful support service to the Shire's six Bush Fire Brigades, Emergency Support Brigade and its volunteers, the Shire proposes to undertake a Volunteer Survey. The survey would provide an opportunity for volunteers to provide feedback and insights, allowing the Shire to understand how to best allocate resources to meet the needs of both volunteers and the community they serve.

### **Recommendation 5**

**The Shire undertakes a Volunteer Survey of the Shire's six Bush Fire Brigades and Emergency Support Brigade volunteers.**

***NB: The delivery of the proposed four recommendations will be delivered by independent persons or organisations to ensure transparency and objectivity and delivery of the recommendations would be subject to budget allocations by Council.***





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