



Summary Inspector- General Emergency Management Queensland Bushfire Review Report 2: 2019-20



CITATION

Queensland Fire & Biodiversity Consortium (2021), *Summary Inspector-General Emergency Management Queensland Bushfire Review Report 2: 2019-20*, Healthy Land & Water

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We are experts in research, monitoring, evaluation and project management. Our team has led many thousands of projects to restore waterways and landscapes, improve native habitats, manage weeds, protect native species, inform policy and educate communities on the best ways to improve and protect the environment for future generations.

Working in partnership with Traditional Owners, government, private industry, utilities and the community, Healthy Land & Water delivers innovative and science-based solutions to challenges affecting the environment. The combination of scientific expertise and on-ground management works to deliver Healthy Land and Water's mission to **lead and connect through science and actions that will preserve and enhance our natural assets and support resilient regions long into the future.**

About the Queensland Fire and Biodiversity Consortium

Healthy Land & Water's *Queensland Fire and Biodiversity Consortium* is a network of land managers and stakeholders devoted to providing a coordinated response and best-practice recommendations for fire management, fire ecology and the conservation of biodiversity in the state of Queensland through education, community engagement and applied research.

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We acknowledge that the place we now live in has been nurtured by Australia's First Peoples for tens of thousands of years. We believe the spiritual, cultural and physical consciousness gained through this custodianship is vital to maintaining the future of our region.

Commitment to our Reconciliation Action Plan

Reconciliation Australia has officially endorsed Healthy Land & Water's comprehensive [Reconciliation Action Plan \(RAP\)](#), which is a practical guide to how the organisation will deliver meaningful changes across the business in support of reconciliation.

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1 Executive summary

The Office's Queensland Bushfire Review (the 2018 Review) identified three key opportunities for improvement in the management of bushfire in Queensland: bushfire mitigation; community education and warnings; and where primary agency response runs in parallel with disaster management arrangements. The purpose of this review is to provide observations and insights about the September 2019 bushfire events and to consolidate recommendations of the 2018 Review.

This report summarises the bushfires around Sarabah (Scenic Rim), Stanthorpe/Applethorpe and Peregian Springs, looking specifically at community insights, hazard mitigation and risk reduction, preparedness and planning, and response. The review report defines observations and insights and presents them and case studies that highlight preparedness and response activities undertaken by government entities and the wider community. At the end of each section, the review highlights how insights might apply to the broader disaster management sector.

Bushfire risk was identified by more than 80% of community members surveyed. Respondents recognised QFES, local councils, SES, and Queensland Police Services have lead roles in disaster preparedness and response. Information sources identified include QFES (website) mail box flyers, social media, councils and radio.

In terms of risk identification and mitigation, in most areas, studies show a program of hazard burning is in place and being managed, but not all planned burns were able to proceed.

Pre-season exercises using bushfire scenarios provided substantial benefits in familiarising agencies with response coordination, communication and information arrangements. The focus of gathering locally identified risks from land holders in each of the council areas and generating a Regional Bushfire Mitigation Plan ensured the highest risk was known. Vegetation management, bushfire mitigation and hazard reduction are more effective through an all-sector consultative approach, supported and coordinated through Area Fire Management Groups using a risk-based approach.

Public engagement activities were evident across all 3 fire areas. Awareness sessions started early before the season. Community forums, before and after the fires, included relevant authorities and were live-streamed.

The issue of bushfire warnings is an opportunity for improvement. Many people expected individual warnings to mobiles or landlines. There is confusion from both disaster management entities and the community members of what some messages mean, particularly relating to evacuation, return and advice around "Watch and Act" warnings.

The Government Wireless Network (GWN), which is intended to enhance interoperability between disaster management entities, was hampered by the limited supply of radios and the need for a multi-agency response.

Embedding Liaison Officers in operations centres was crucial to interagency cooperation i.e. Queensland Police, Queensland Ambulance and Queensland Parks and Wildlife Service Officers provided expert advice to relevant centres.

The fire conditions and behaviour prompted observations about strategic thinking and decision making. It may be opportune for QFES to review ongoing incident management capability development for senior incident commanders.

Some good feedback was received around the QFES Situational Awareness Platform. Improvements could be made by providing consistent maps for use by frontline responders during events.

2 Introduction

2.1 Operating environment - 2019 overview of case studies

Case studies in the review cover the September 2019 bushfires around Sarabah (Scenic Rim), Stanthorpe/Applethorpe and Peregrin Springs, looking specifically at community insights, hazard mitigation and risk reduction, preparedness and planning, and response. A summary of each event is provided in Table 1.

Table 1. Short summary of case studies reviewed.

Case study Location/Area	Page No.*	Short Description of bushfire event
Sarabah (Scenic Rim)	12	<p><u>Date:</u> 2 September 2019.</p> <p><u>Conditions:</u> Very High fire danger rating; wind speeds were around 20km/hr, very high humidity, no bans or weather warnings in place.</p> <p><u>Event:</u> A vegetation fire started at Sarabah in the Scenic Rim local government area on the afternoon of 2 September; back burning ops began 3 September, including Saddleback Ridge.</p> <p><u>Warnings/Evac:</u> Residents warned to prepare for evac on 4 and 5 September, and told to evacuate 6 September as Emergency Warning was in place. Threat subdued by 14 September.</p> <p><u>Outcome:</u> ~ 5000 ha of land consumed, 11 houses and 5 commercial structures lost</p>
Stanthorpe Applethorpe	13	<p><u>Date:</u> 6 September 2019</p> <p><u>Conditions:</u> Bushfires propelled by strong winds up to 40- 50km/hr in the Stanthorpe and Applethorpe area.</p> <p><u>Event:</u> A bushfire broke out at about 3:00 pm in Amiens. It headed towards the Stanthorpe Racecourse before rapidly spread the fire to the east and then northeast.</p> <p><u>Warnings/Evac:</u> Stanthorpe's fire danger rating escalated from Severe to Catastrophic, and a local fire ban took effect over Southern Downs Regional Council area. 5.30 pm on 6 September "Watch and Act" raised to Emergency Warning, residents were advised to leave to evacuation centre.</p> <p><u>Outcome:</u> ~ 2,000ha of land consumed and four homes lost; 67 houses in Stanthorpe and 83 in Applethorpe without power.</p>
Peregrin Springs Peregrin Breeze Peregrin Beach (Sunshine Coast)	14	<p><u>Date:</u> 9th September 2019</p> <p><u>Conditions:</u> Winds up to 45km/hr</p> <p><u>Event:</u> In the late afternoon of 9 September, a fire broke out west of the Sunshine Motorway at Peregrin Springs. Strong winds carried the fire east.</p> <p><u>Warnings/Evac:</u> Danger rating at Very High; by 5:30 pm, residents in the fire's path were warned to evacuate north to Noosa. On 10 September - residents in the southern section of the potential impact zone were also advised to evacuate to the Coolool Beach Surf Club and the Multisport Centre.</p> <p><u>Outcome:</u> ~ 1,000ha of land consumed and one home lost.</p>

* Page number refers to page in IGE Review Report 2.

2.2 Purpose

The Inspector-General Emergency Management (IGEM) Office's Queensland Bushfires Review Report 2:2019-20 is to provide observations, insights and case studies about the September 2019 bushfire events and to consolidate recommendations of the 2018 Review. The approach to this review has been collaborative and aimed at maximising community safety outcomes whilst providing independent assurance to the Queensland Government.

2.3 Context

The review aligns with the functions of the IGEM Office (*Sect 16 of the Disaster Management Act 2003*). The emergency Management Assurance Framework contains the standard for disaster

management in Queensland, which establishes the performance requirements for all entities involved in disaster management and forms the basis of the Office's assurance activities. The purpose of an assurance activity under the framework involves discerning a level of confidence in the effectiveness of, or any component of, the arrangements for disaster management in Queensland.

2.4 Scope

This review focuses on a small proportion of the fires in Queensland at the beginning of the long 2019-20 fire season as a sample of the greater effort. Case studies cover the September 2019 bushfires around Sarabah (Scenic Rim), Stanthorpe/Applethorpe and Peregian Springs, looking specifically at community insights, hazard mitigation and risk reduction, preparedness and planning, and response.

The report also considers recommendations from the 2018 review where relevant.

2.5 Methodology

The report represents observations, insights and case studies that highlight preparedness and response activities undertaken by government entities and the wider community.

The report highlights best practice to share with the sector and ensures this practice is sustained where practicable. Opportunities for improvement are suggested when gaps in effectiveness in practice were observed.

2.5.1 Data collection

Evidence was gathered from a variety of entities in the three areas about preparedness and planning and response activities specific to these events. Data was collected via:

- Face-to-face discussions across the sector (local, state, federal government and NGOs).
- Review of documentation (legislation, policy, plans, reviews etc.).
- A telephone survey of residents in affected areas (November 2019, 300 surveys).
- A public submissions process (17 October 2019, 5 written submissions received).

2.5.2 Community consultation

Community members were asked about the extent of their awareness of local disaster management arrangements and their confidence in local preparedness and response capabilities. The survey also queried where respondents would seek information and warnings for a forecast or impending disaster.

3 Key findings

The information collected has been reviewed under a number of topics, including:

Community insights	(Report 2, p18)
Hazard mitigation and risk reduction	(Report 2, p20)
Preparedness and planning	(Report 2, p23)
Emergency communications	(Report 2, p32)
Response	(Report 2, p40)

Insights and the application of the insights for the broader disaster management sector are also provided for each topic. Appendices covering the *Terms of Reference*, *Community Survey Results* and *Recommendations* from the 2018 Bushfire Review are attached to the original document.

This summary presents key findings and recommendations of the report. Page numbers referring to the original document are included for ease of reference. Please refer to the IGE Queensland Bushfires

Review Report 2:2019-20 for full details that may not be present in this summary report. The report can be found online at: [https://www.igem.qld.gov.au/sites/default/files/2020-02/2019%20Qld%20Bushfires%20Review%20Report%20-%20PUBLIC 20 02 2020.pdf](https://www.igem.qld.gov.au/sites/default/files/2020-02/2019%20Qld%20Bushfires%20Review%20Report%20-%20PUBLIC%2002%202020.pdf)

3.1 Community insights

(Report 2, p18)

3.1.1 Community survey

Of disaster events considered most likely to impact the local community, bushfire was identified as the most likely disaster type to occur in all 3 regions surveyed. Respondents could list the lead organisations in disaster preparedness and response (i.e. QFES, local councils, State Emergency Services, Qld Police Services), but few identified the Local Disaster Management Group (LDMG) as having a role. There is a significant opportunity to build awareness around LDMG function.

The majority of respondents reported that they had received disaster preparedness information and could recall key messages: *be prepared, prepare supplies and have an evacuation plan.*

The single most likely source of information to be consulted was emergency services websites and/or Facebook pages. For immediate threats, most expected to receive advice via a text message to mobile phone or a localised warning such as a door knock, loud hailer or siren. Respondents indicated their confidence would improve with access to information relevant to how to prepare appropriately, warnings and alerts and advice on what local authorities do to conduct disaster preparedness and response.

3.1.2 Public submissions

A total of 5 public submissions were received (3 members of the public and 2 organisations). The public submissions reported that they felt that the limitations to local decision making around backburning negatively impacted firefighting efforts and brought attention to the issue of overgrown land (neglect or conservation reasons) being an increasing source of fire fuel. Organisational concerns focused on the efficiency of Queensland's current firefighting equipment and resources, recommending opportunities for further training and assistance.

3.2 Hazard mitigation and risk reduction

3.2.1 Hazard reduction burning

(Report 2, p20)

Recommendation 9 (2018 review)

Given an increasing risk of intense fires, the framework of legislation relating to vegetation management, bushfire mitigation and hazard reduction, together with mitigation and preparation priorities should be re-assessed. The re-assessment should aim to enable more appropriate and flexible means at the local level for the reduction of intense fires.

Queensland Government response — accepted-in-principle

The report acknowledges the Queensland Government has the necessary frameworks in place for mitigation. In finalising the State Bushfire Plan, QFES is assessing the appropriateness of the bushfire preparedness and prevention framework. The plan will be developed in the context of the increasing risk of intense fires and the need for local flexibility

The 2018 review found that planned burning is considered a very effective form of bushfire hazard reduction by key entities responsible for land management. The 2019 report found in most areas that a

program of hazard reduction burning is in place and being managed, although not all planned burns were able to proceed because of changing weather conditions.

Case study - Stanthorpe hazard reduction burn



(Source: QPWS)

A burn was conducted on 21 and 22 July 2019, despite some resistance from community members. The map above shows the burn scar, and the strong north westerly winds that were present near the ignition point on the day of the fire.

The below map on the left models where the September 2019 fire could have spread from the ignition point, assuming there was no hazard reduction burn. In comparison, the below map on the right shows the actual hazard reduction burn scar significantly reduced the magnitude of the 6 September fire and very likely saved a significant number of houses.



(Source: QPWS)

Post the fire, the same residents who were resistant to the hazard reduction burn praised staff from QPWS for saving their homes as a direct result of the pre-season burn that was conducted. This hazard reduction burn also highlights the important role of the Area Fire Management Group (AFMG) in

prioritising those hazard reduction burns identified during planning and the importance of land owners submitting prescribed burn plans to the AFMG.

Insight:

Where management of fuel loads within the landscape is approached using local knowledge and the most suitable method of hazard reduction, risk to the community and infrastructure is reduced.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- There is a shared understanding of bushfire risks and hazard mitigation strategies.
- Mitigation and risk reduction activities are informed by, and prioritised based on risk assessments and available resources.
- Mitigation and risk reduction activities be included in operation and strategic plans and considered as business-as-usual.
- Entities understand hazards and risks and encourage and enable community to help manage their own risks.

3.3 Preparedness and planning

3.3.1 Lesson management

(Report 2, p23)

Good practice

Lessons management has matured across the disaster management sector. Lessons management refers to collecting, analysing, disseminating and applying learning experiences from events, exercises, programs, and reviews. The value of taking a formal approach to identifying and learning lessons is that the sector can reduce the risk of mistakes reoccurring and increase the chance that successes are repeated.

As one senior QFES commander observed about the use of the QFES lessons management system during the February 2019 Wallangarra fires: *"We used the new QFES lessons management for the first time during the Wallangarra fires. They flagged things for us that we probably had already thought about but hadn't got around to doing. We now have a document that suggests we should do these things, so let's go and do them."*

Insight

The planning, preparedness, and response to the fires were enhanced through the lessons management process.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Lessons management contributes to reducing the impact of fires on the community.
- Entities are proactively working together in a cooperative environment, including sharing identified lessons to achieve better results for the community

3.3.2 Seasonal preparedness

(Report 2, p25)

Relevant 2018 recommendation 19

All disaster management groups should run an exercise that has the full involvement of a hazard-specific primary agency in the next 12 months and regularly thereafter.

Queensland Government response — Accepted-in-principle

Disaster management groups at all levels will be encouraged to implement an appropriate program of exercises based on risk and include hazard-specific primary agencies.

Good practice

Pre-season exercises using bushfire scenarios held in the Sunshine Coast and Stanthorpe areas provided substantial benefits in familiarising agencies with response coordination, communication and information arrangements. In one case, a location used in the exercise mirrored an actual bushfire location some months later. This ensured an immediate operational response could effectively be scaled up and maintained for the duration of the response. Continuity of response was maintained by scoping in advance how to reinforce and maintain a response of such magnitude through the deployment of skilled personnel and assets from other regions, sectors and interstate.

The Noosa hazard reduction burn was a case study of good practice made possible due to a high level of interagency support.

(Report 2, p26)

Insight

Queensland Fire and Emergency Services and other entities' response to the September 2019 fires; including the ability to be flexible, agile, and quickly scale up to respond to changing weather and fire conditions as required; was enhanced through planning and preparedness activities. This included:

- Frequent engagement with key stakeholders.
- Multi-agency exercising and planning.
- Pre-season briefings and the development of action plans.
- Use of predictive modelling and intelligence.
- Early pre-deployment of assets and personnel (including early stand-up of Regional Operations Centres and Incident Management Teams).

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Entities develop integrated capabilities and shared capacity to operationalise a disaster response.
- Planning outlines and details on how the impact of fires on the community will be reduced.
- Entities are working proactively together in a cooperative environment to achieve better Results for the community.
- A collaborative culture exists within disaster management.
- Entities proactively and openly engage with communities.
- A shared understanding of how the impact of fires will be managed and coordinated.

3.3.3 Area Fire Management Groups (AFMG)

(Report 2, p29)

The 2018 review found that "successful fire management groups are inclusive, engage well with stakeholders and do not appear as an extra layer of bureaucracy".

Relevant 2018 recommendations included:

- **Recommendation 4** – A good neighbour policy such as that of the QPWS, setting out clear expectations, be developed to guide all landholders (accepted by Queensland Government)
- **Recommendation 5** – All AFMG should adopt and be guided by a good neighbour policy (accepted by Queensland Government)
- **Recommendation 6** – AFMG should share seasonal risk information with local groups and actively and appropriately contribute to disaster management planning.
- *Recommendation 6* was also accepted by Queensland Government with the following response: AFMG will be more closely aligned to disaster management arrangements with a view to greater sharing of risk and planning information.

The 2019 report team found, during consultation with disaster sector entities, that there was a diverse understanding of the role of AFMGs and, in some cases, very limited knowledge.

One AFMG that has demonstrated particularly effective bushfire mitigation, hazard reduction and stakeholder involvement is in the South West Region. This case study highlighted some of the activities undertaken by this AFMG in the Toowoomba, Southern Downs, Goondiwindi and Western Downs Council areas.

AFMG stakeholders across the four council areas and Rural Fire Brigades were asked to complete a locally developed Bushfire Risk Assessment Report in December 2018 and followed up again in January 2019. The Bushfire Risk Assessment is about encouraging local stakeholders and brigades to assess the bushfire risk in "their local patch".

Insight

Vegetation management, bushfire mitigation and hazard reduction are more effective through an all-sector consultative approach, supported and coordinated through Area Fire Management Groups.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- To achieve better results for the community, entities work proactively together in a cooperative environment.
- Plans outline and detail how the impact of bushfires will be managed and coordinated.
- Entities proactively and openly engage with communities.
- There is a shared understanding of bushfire risks and hazard mitigation strategies.

3.4 Emergency communications

(Report 2, p32)

3.4.1 Public engagement

The report provides a case study where the Local Disaster Management Group in the Southern Downs Regional Council Area successfully moved its community engagement from the preparedness to response phase to ensure community members remained engaged with events affecting them, such

as the Stanthorpe fires. This involved holding community forums and regular weekly meetings, all of which was live streamed to reach a broad audience. The cross sharing of community messaging and information facilitated the collating and dispersal of accurate information and helped dispel rumours. As a result, the following insights and applications were provided.

Insight:

Activities that provide continuity of engagement and information provision from preparedness through to response and that take advantage of available technology to reach the maximum number of residents may result in better informed and more proactive communities before, during, and following disaster events.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Entities proactively and openly engage with communities.
- The community makes informed choices about disaster management and acts on them.
- Entities proactively work together in a cooperative environment to achieve better results for the community.
- A collaborative culture exists within disaster management.

3.4.2 Community messaging and warnings

(Report 2, p34)

Relevant 2018 recommendation 13

The national messages for catastrophic fire danger ratings should be integrated with all existing and new community bushfire safety information (accepted by Queensland Government).

As previously noted (Community Insights sect 3.1), the single most likely source for community members to access information about disaster events was emergency services websites and/or Facebook pages. Many respondents expect individual warnings to mobile and landline telephones, particularly as a text. This emphasises the need for the distributed message to be concise, clear and with instructions that can be acted upon by those receiving them. Some examples from New South Wales and Victorian experience included interactive mapping, intuitive navigation and real-time updates, simple clear messaging and links to services for hearing and visually impaired users.

Insights:

Bushfire Community Warning Messages, particularly those at the "Watch and Act" level, are not always able to be clearly understood by the community and disaster sector entities.

Warnings and alerts may be more effective when the community receives simpler messaging, including the provision of fire location and direction maps as part of the messaging.

Community safety may be enhanced if forward commanders who have direct situational awareness of fire and weather conditions on the ground have delegated authority to directly issue emergency warnings to a localised area.

The application of this insight for the broader disaster management sector should be considered in the following ways. Warnings and alerts are more effective when:

- Entities distribute communications that use plain language.
- Community receive relevant, timely, consistent and easy-to-understand information.

- When they meet the need of the community.
- Are tested for understanding and effectiveness.

3.4.3 Government Wireless Network (GWN)

(Report 2, p37)

The GWN provides end-to-end encryption from the radio terminal to radio consoles to support mission critical services. A key component of the GWN is to enhance interoperability between disaster management entities. Currently, only police, fire, and ambulance services have a limited supply of GWN radios.

Insights:

When entities are deployed to fires within the GWN footprint, responders are more effective when they are equipped with GWN radios. Observations indicate that capability integration and community safety may be enhanced when strategic communication plans are collaboratively developed by all entities in all facets of response operations.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Resources, including communication systems, are being shared with entities who need them when they need them.
- Entities developing integrated capabilities and shared capacity (including communication) to reduce the impact of fires on the community.
- Entities working together in a cooperative environment to achieve better results for the community including understanding different needs and understanding the capability limits of the resources.

3.4.4 Media management

(Report 2, p39)

In general, the Report found that media was managed well across all three bushfire events.

Insight: *Media management may be more effective when a collaborative and coordinated approach is taken between key agencies.*

3.5 Response

(Report 2, p40)

3.5.1 Liaison officer

Placement of Queensland Police Service (QPS), Queensland Parks and Wildlife Services (QPWS) and Queensland Ambulance Service (QAS) liaison officers in Regional and State Operational Centres (ROCs and SOC) facilitated a proactive and cooperative environment to achieve better results for affected communities. For example, QPS liaison officers were able to channel fire prediction advisories directly to QPS to inform evacuation and road closure decisions and declaration of a disaster. QAS liaison officers assisted in the effective coordination of support to those involved in firefighting operations, including medical and first aid support. QPWS liaison officers provided expert advice in

vegetation management, including fire behaviour through various vegetation types and assessment of the impact of fire suppressants through aerial drops in fragile environmental areas.

Insight:

The early placement of QPS liaison officers in ROCs resulted in enhanced cooperation with QFES and allowed disaster management entities to respond to incidents as they arose, including more effective management of evacuations and road closures. The placement of QAS liaison officers in SOC and QPWS liaison officers in ROCs assisted in the effective coordination of support entities involved in firefighting operations. Including QPS and affected councils on incident management teams may result in more collaborative and informed decision making, improved resource management, increased situational awareness, and more timely and informed consequence management.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Shared understanding of how the impact of fires will be managed and coordinated.
- Collaborative culture within disaster management.
- Entities develop integrated capabilities and shared capacity to reduce the impact of disasters on the community.
- Centralised point of truth for collecting and confirming situational awareness, resourcing and staffing requirements for operations.
- Resources are prioritised and shared with those who need them.

3.5.2 Temporary District Disaster Management Group

(Report 2, p43)

On 8 September 2019 the Logan/Gold Coast temporary district disaster management group was established under section 28A of the *Disaster Management Act 2003*, in response to the spread of the Sarabah bushfire across disaster district boundaries. This was the first time a temporary district disaster management group had been established during a response and required the development of governance processes and forms for establishment and approvals, now available for future similar actions. The benefits of establishing the temporary group included more effective fatigue management and rostering, better communication, and information flows.

3.5.3 Evacuation of correctional facilities

(Report 2, p44)

During the 2019 period, two correctional facilities were evacuated - Numinbah Correctional Centre (7 September) and Palen Creek Correctional Centre (12 November). The evacuation of the Centres had unforeseen advantages for firefighting operations. The use of the facilities as staging centres for responders and support agencies represents good practice in capability integration, collaboration and coordination.

3.5.4 Capability development

(Report 2, p45)

Insight:

The response to the fires was significantly enhanced through the deployment of suitably trained SES officers to refill aircraft and water. The use of SES officers in this new role, demonstrated effective integrated capabilities and shared capacity and consideration of opportunities for further support roles for SES officers will enhance community safety.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Entities develop integrated capabilities and shared capacity to reduce the impact of disasters on community.
- Entities proactively work together in a cooperative environment to achieve better results for the community.
- A collaborative culture exists within disaster management.

3.5.5 Incident management skills and knowledge

(Report 2, p 48)

QFES incident commanders involved in the September fires faced unprecedented conditions and fire behaviour, including severe catastrophic fires. Consideration needs to be given to how to continuously improve planning, preparation and response to these changing fire conditions to minimise the negative aspects of future fire effects on community. This may be achieved through further training exercises and experience to empower individuals to manage an escalating complex incident. QFES currently have only 4 Fire and Rescue Staff who hold level 3 Incident Management qualifications. Victorian Country Fire Authority has 189 equivalent accredited level 3 senior incident commanders.

Insight:

Future capability to plan, prepare and respond to severe and catastrophic fires may be enhanced through the provision of best practice knowledge and skills for senior incident commanders/controllers.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Entities further develop integrated strategic capabilities and shared capacity to reduce the impact of severe and catastrophic disasters on the community.
- Future capability development for senior incident commanders to plan, prepare and respond to severe and catastrophic fires should be:
 - Determined by needs, roles and responsibilities.
 - Informed by evidence, risk, and doctrine.
 - Informed by local, state, national, and international best practice and research.
 - Examining lessons from this and other comparable events.
 - Consistent with recognised methodology.

3.5.6 Operational information and intelligence

(Report 2, p 51)

Relevant 2018 recommendation 12 (assessed as being immediate*) The ability to share, analyse, interrogate and display information from disparate entities should be progressed as a matter of some urgency (Queensland Government response – accept in principle)

The Report notes good feedback about the QFES Situational Awareness Platform and products available from it. The Qld Disaster Management Arrangements (QDMA) Data Sharing Group was established to collect relevant data from QFES and other stakeholders across prevention, preparedness, response and recovery and allow it to be used and shared. Data layers include emergency alerts, line scan burnt areas, QPWS Flames Feed data, BOM weather warnings and daily precipitation, QFES local govt area fire bans. Some examples of available products include Operation Redux dashboard and the Public Information Officer dashboard.

Provision of consistent, standardised, up-to-date maps that provide a vegetation layer (what type of vegetation and how long it will take to burn) and burn scar/black-out areas to regions would ensure all those responding during the event were using the same information and intelligence.

** Four recommendations (1,2,12, and 22) were assessed as being **Immediate** (outcomes that should begin straight away and demonstrate implementation without delay) and the remaining 19 recommendations as being **Timely** (completed at the most appropriate moment). These are detailed in Appendix C p 69 of the report.*

Insight:

The provision of consistent maps and map layers (in hard copy) using the same information and intelligence enhances the entity's ability to develop integrated capabilities and shared capacity and reduce the impact of fires on the community.

The application of this insight for the broader disaster management sector should be considered in the following ways:

- Entities making decisions based on the best available intelligence and the capability and capacity of all entities.
- Resources including mapping layers be shared with entities who need them, when they need them.
- Entities develop integrated capabilities and shared capacity (including map layers and hard copy maps) to reduce the impact of fires on the community.

4 Conclusion

The 2018 review identified three key opportunities for improvement in the management of bushfire in Queensland:

1. Bushfire mitigation.
2. Community education and warnings.
3. Where primary agency response runs in parallel with disaster management arrangements.

The IGEM Qld Bushfires Review Report 2: 2019-20 noted in particular that:

- The emergency service sector has the opportunity to capitalise on the need for clarity in warnings, acknowledging that much work is already taking place.



- It would be beneficial for all responders to have access to the most appropriate radio communications for the area they are working in.
- There should be universal use of liaison officers across the state.
- Capability of incident commanders/controllers to prepare, plan and respond to trending conditions should be enhanced to improve community safety.
- The comments regarding and establishment of lessons management programs across numerous disaster sector management entities suggest they are effective.



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