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Fighting to save an international icon – K’gari (Fraser Island)

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Abstract

The Office of the Inspector-General of Emergency Management (IGEM) undertook a review into a bushfire event on K’gari (Fraser Island), Queensland in 2020 that attracted worldwide media attention. The review examined the preparedness and response to the bushfire to identify examples of good practice and opportunities for improvement. The fire started on 14 October 2020 as a result of an illegal campfire on the island. The bushfire burned for 8 weeks, burning over 50% of the island’s vegetation. K’gari is the world’s largest sand island and is a UNESCO World Heritage Listed site. It features pristine and ancient rainforest areas, sand dunes and lakes. It also presents challenges for traditional firefighting efforts due to the heavy canopies of forests and narrow and sandy 4WD tracks. The island is home to the traditional owners, the Butchulla people, who were part of the Incident Management Team and Incident Control Centre during the event. They provided advice and guidance on the use of fresh and salt water for waterbombing operations and the location of culturally significant sites. Their Land and Sea Rangers were also involved in the firefighting response. This paper summarises the report of the post-event review that was tabled in the Queensland Parliament on 27 May 2021.

Introduction

K’gari is the world’s largest sand island, located along the Queensland coastline approximately 300 km north of Brisbane. The island was listed as a UNESCO World Heritage site in 1992. Today, over 90% of the island is designated as a national park and managed by Queensland Parks and Wildlife Service (QPWS). The island features a small number of freehold and leasehold areas including townships located at Orchid Beach, Eurong, Happy Valley and Kingfisher Bay. The majority of the island’s 182 residential and commercial property owners do not live permanently on the island but visit intermittently or use their properties to operate holiday letting and tourism businesses. K’gari attracts over 300,000 visitors annually. Thus, there is an ongoing need to manage the important cultural and conservation values of K’gari with the increasing numbers of visitors.

This review (IGEM 2021) was of a vegetation fire that started on 14 October 2020. The fire was reported following an illegal campfire near Orange Creek, at the north-eastern side of the island. Fire authorities identified several factors contributing to the fire spreading quickly being high temperatures, strong and dry northerly winds, vegetation structures and types, difficult terrain and limited access via dry, loose sand tracks. During the subsequent 8-week firefighting response, the bushfire travelled from the north of the island southwards towards Kingfisher Bay. The fire posed a threat to townships, government buildings, significant cultural sites for the Butchulla people as well as tourist facilities including campgrounds at Cathedral Beach and the iconic Kingfisher Bay Resort and village. The fire burnt approximately 85,000 hectares (more than half the island) and, fortunately, there was no loss of life and no homes were damaged. Difficulties experienced by responding agencies included widespread mobile phone and internet blackspots, dry and flammable vegetation, inaccessible terrain and narrow sand tracks.



Inspector-General Alistair Dawson and staff from IGEM join Winston Williams and Scott Bell from Happy Valley Rural Fire Brigade and Russell Postle from Happy Valley Community Association to inspect affected areas.

Image: Corinne Mulholland

Conducting the review

The review focused on the preparedness and response aspects of the event. Bushfire hazard mitigation activities were considered given the significant effect these have on preparedness. In commencing the review, IGEM undertook the largest community engagement program in its 6-year history. This included targeted discussions with the Butchulla people including meeting with staff and board members of the Butchulla Aboriginal Corporation and co-designing and co-delivering a Butchulla People’s Forum in Hervey Bay. It was important for the Butchulla People’s Forum to be held on the mainland in recognition of the cultural, economic and financial barriers that many Butchulla people face in accessing the island. There was a strong desire from the Butchulla Aboriginal Corporation to increase the level of consultation and dialogue between QPWS, QFES and the corporation in relation to land and fire management on K’gari and in accordance with their Native Title Determination. The corporation also partnered with QPWS and other agencies to map areas of cultural significance to inform future bushfire mitigation and response activities on the island.

Five community and business forums were conducted, one each at Orchid Beach, Happy Valley, Kingfisher Bay, Urangan and Rainbow Beach with 147 attendees in total. IGEM also received and considered 78 written submissions from community, environmental, business and tourism representatives. Issues raised in submissions related to management of the island as a national park rather than a world heritage site, the maintenance of fire lines and breaks, frequency and scale of planned hazard reduction burns and wanting to see better integration of cultural burning practices on the island. Overwhelmingly, participants indicated they wanted to see state agencies work closer with the community and local businesses to plan and prepare for bushfires on the island and to undertake planning and hazard mitigation practices that align with K’gari’s status as a world heritage site. Traditional owners, local community, business and tourism operators also wanted more communication from QPWS and QFES about decisions that may affect them before, during and after bushfire events.

IGEM convened a virtual forum of researchers and academics with specific interests in K’gari as part of the review’s data-collection phase. The researchers noted a lack of cultural burning

undertaken on K'gari in recent years and acknowledged efforts to implement traditional fire practices with the Butchulla Aboriginal Corporation. They highlighted the important role of Butchulla QPWS rangers, as well as the Land and Sea Ranger program, and indicated that the cultural experience of these rangers should be integrated into the overall fire practices and management of the island.

Written submissions were also invited from all Queensland Government departments, agencies and interest groups across the emergency management, environment and land management sectors. IGEM also held face-to-face interviews and discussions with personnel from agencies relevant to the review including first responders, incident controllers, park rangers, senior officials from QPWS and QFES, disaster managers from councils and the Queensland Police Service. A wide range of documentation, operational doctrine, legislation, policies, bushfire plans, event records, media reports and situational reports were also reviewed and analysed.

The review was mapped and themed against the Standard for Disaster Management in Queensland¹ (the DM Standard). This included shared responsibilities for:

- bushfire risk
- bushfire mitigation planning
- community engagement
- information and education, public communications and warnings
- training, exercising and resource planning
- information sharing and intelligence
- response operations, including command, control and coordination
- proactive collaboration and coordination between responsible entities.

As part of a desktop analysis, IGEM considered the observations, insights and recommendations of the 2018 and 2019 Queensland Bushfire reviews (IGEM 2019) and the Royal Commission into National Natural Disaster Arrangements.² IGEM completed a literature review of emergency and disaster events that have occurred in national parks and world heritage sites in Australia as well as internationally. This analysis complemented a desktop review of relevant agency plans and supporting documentation, policies and processes.

Recommendations

The review made 38 recommendations and identified opportunities for QPWS and QFES to better interact with stakeholders, the Butchulla people and the local community to plan and undertake hazard mitigation. During the review, participants raised concerns about the level of bushfire preparedness and hazard mitigation activity on the island. They described a perceived decrease in the number of fire breaks and trails on the island and a lack of maintenance, a lack of coordinated bushfire and community engagement activities and the inability to seek and gain their own approvals to undertake

clearing or planned burns around the townships. The review recommended an assessment of firelines, tracks and trails be undertaken to establish an adequate network and roles and responsibilities for maintenance be agreed and documented.

This was particularly relevant across multiple land tenures on the island with landowners benefiting from closer engagement as part of a reinvigorated Locality Specific Area Fire Management Group on K'gari. QFES is expanding the Fraser Coast Area Fire Management Group and the K'gari Locality Specific Area Fire Management Group to include land management agencies and owners, the Butchulla Aboriginal Corporation and other community associations so that membership reflects the community.

The review found inter-agency arrangements for cost sharing and the use of firefighting assets during the bushfire response caused some confusion. Accordingly, during the data collection phase of the review, questions were raised about waterbombing assets that could have been deployed earlier. Waterbombing operations did not commence until 9 November 2020 or day 27 of the firefighting effort. The review recommended that the *Queensland Bushfire Plan* (State of Queensland 2020) and inter-agency arrangements between QFES and QPWS be regularly reviewed with stakeholders as well as after major bushfire events. It also recommended that QPWS and QFES agree on prearranged fiscal protocols and establish predetermined financial delegations for QPWS incident controllers to reduce confusion and improve the timely deployment of firefighting resources.

The review process found an opportunity to make bushfire risk and planning information readily available to the community. The review included a recommendation for all Area Fire Management Groups in Queensland to make their Bushfire Risk Mitigation Plans, bushfire risk mapping and methodology easily understandable and easily available. All plans should be dated to show currency and incorporate mechanisms for community feedback.

Participants at the community forums expressed stronger compliance regimes were needed to deter illegal campfires on K'gari. During visits to and tours of the island, IGEM found minimal fire-compliance signage. While there are some locations where campfires are permitted including at Dundabara and Waddy Point, the review recommended an appraisal of all campfire locations on K'gari including all signage on and off the island and maps and visitor permit information to provide consistent information about campfires. Another recommendation was the consideration of novel solutions to encourage visitor compliance, for example, the use of Remote Piloted Aircraft, expanding the use of automatic number plate recognition technology and using mobile phone check-in apps to support visitor management.

1 Standard for Disaster Management in Queensland, at <https://www.igem.qld.gov.au/sites/default/files/2019-12/NEW%20Standard%20for%20Disaster%20Management%20in%20Queensland%20v2.0.pdf>.

2 Royal Commission into Natural Disaster Arrangements, at <https://naturaldisaster.royalcommission.gov.au>.

IGEM identified good-practice examples that included:

- community consultative committees at each township established by Fraser Coast Regional Council
- community planning undertaken by the Happy Valley Rural Fire Brigade and community associations at Orchid Beach and Happy Valley
- embedding representatives of the Butchulla people into the Incident Management Team and Incident Control Centre during the bushfire response
- the Enhanced Fire Management Project implemented by QPWS.

The review found that significant community preparedness and planning were undertaken by residents, property and business owners in readiness for a bushfire event. The organisation and levels of engagement achieved by the Orchid Beach Progress Association, Happy Valley Community Association and Kingfisher Bay Progress Association to bring their communities together, undertake specific bushfire mitigation activities and share information was impressive. These associations were aided by expert advice and assistance from the officers and volunteers from the Orchid Beach and Happy Valley rural fire brigades. In the review, IGEM also acknowledged the efforts of the Kingfisher Bay Resort and Village management and the River Heads Rural Fire Brigade.

The review included a case study on the Happy Valley Community Association that developed a Hazard Reduction and Fire Management Plan for the township. The plan divided the township into sectors and outlined hazard mitigation activities including planned burns, clearance of fire control lines and creating safe access to the helipad. Fraser Coast Regional Council, as part of its Community Coordination Committee initiative, allocated funding to install 2 water tanks in the township. These were installed just prior to the K'gari bushfire event. Planned burns were also undertaken by the Happy Valley Rural Fire Brigade over 3 months in the lead-up to the start of the bushfire season. A hazard reduction burn on the block owned by the Department of Education was conducted in August 2020. During the bushfire in 2020, the fire-front approached this block, slowed and stopped at this point where it met the previously burnt area.

The report acknowledged the extensive work that later went into enacting the Incident Action Plan for the township. As conditions continued to worsen in late November 2020, members of the Happy Valley Rural Fire Brigade and the Community Association enacted the Incident Action Plan. Approximately 50 residents and property owners who decided to remain in the township were allocated tasks and responsibilities to undertake as part of the plan. Brigade members also had developed a written options analysis for QFES that included creating a fire break, clearing tracks and undertaking backburns. These efforts, along with the response from agencies and township's communication plan, assisted in the defence of Happy Valley. Since the fire, residents and the Rural Fire Brigade from Eurong are engaging with the Happy Valley Community Association and Rural Fire Brigade to apply their learnings around mitigation and response.

During the K'gari firefighting response, a liaison officer role from the Butchulla Aboriginal Corporation was added to the Incident Management Team. Incident controllers have indicated that the addition of a member from the Indigenous local community in the Incident Management Team helped greatly with operational advice on culturally significant sites and localities and being able to describe their peoples' connections to country. A recommendation from the review was that those responsible for land and fire management consider liaison officer roles for local Indigenous people in incident management.

The way forward

The K'gari Bushfire Review (IGEM 2021) made 38 recommendations, which are all supported or supported in principle by the Queensland Government. IGEM has commenced monitoring, evaluating and reporting on the progress of agencies in responding to the review's recommendations.

Acknowledgment

IGEM acknowledges the Butchulla people as the traditional owners and custodians of K'gari and respects their connection to the land, sea and community.

References

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