

## **Eurobodalla Shire Council Submission to the NSW Government Inquiry - 2019-20 Bushfires**

### **Executive Summary**

The extreme fire event experienced across Eurobodalla over the 2019-20 summer caused unprecedented damage to the natural and built environment, burning approximately 80% of the Eurobodalla LGA, and sadly cost three lives.

It is inevitable that bushfires will again be experienced within Eurobodalla in the future.

The NSW Government inquiry aims to review the response to this event and related matters to gain insights into how to improve the resilience of our community and the environment in the future.

Many of the issues under review require more detailed research by the NSW Government to ensure an evidenced based approach.

There were a number of significant challenges outlined throughout this submission, which if addressed, will make responding to such an emergency so much easier. As it was, the Eurobodalla LEMO coined the phrase during this event to 'adapt, invent and overcome', to reflect the many collective challenges resolved through the collective efforts of so many to respond to this disastrous campaign fire event and keep our community safe.

The key recommendations we believe the NSW Government should act upon are listed below with further detail provided through this submission:

- i) the NSW Government should fund, build and maintain the proposed Eurobodalla Regional Integrated Emergency Services Precinct in Moruya as a matter of priority with a purpose- built Emergency Operations Centre
- ii) the NSW Government review regulation and policy to facilitate improvements to dwellings that were constructed prior to the introduction of bushfire management and construction standards including the introduction of compliant asset protection zones and improvements to the construction standards of the dwelling to make them more resilient.
- iii) the NSW Government should fund the NSW Rural Fire Service to deliver additional education to assist our community to become increasingly resilient to bushfire events through appropriate building construction, property preparation and bushfire survival planning
- iv) the NSW Government should provide greater certainty for landowners wishing to establish appropriate asset protection zones to existing dwellings (or rebuilt dwellings lost in these fires) within their own property without the need for expensive environmental studies or biodiversity offsets
- v) appropriate management of fuel loads in the landscape needs to occur taking a non-tenure approach, coordinated through bushfire risk management plans and committees. This should include a review of potential use and benefits from low intensity burning techniques used historically by the Indigenous communities.
- vi) The NSW Government should ensure there continues to be a well-resourced and capable emergency response capability in each local area well supported by

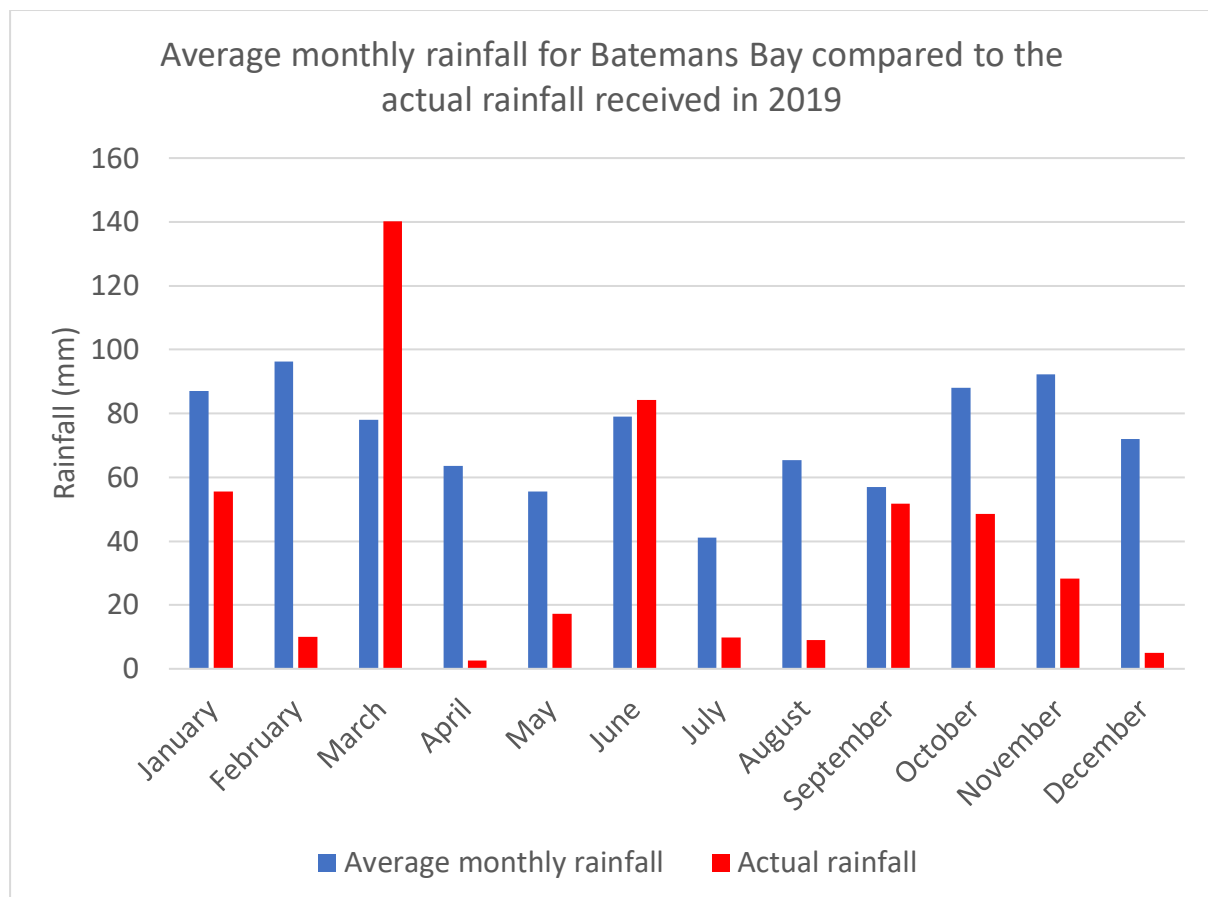
- emergency management structures at a local, regional, State and Australian Government level
- vii) the NSW Government change the response funding arrangements to ensure Councils are funded for the day labour costs associated with deploying Council staff engaged in the emergency response under Section 44 declarations and other declared emergencies.
  - viii) the NSW and Australian Government change the funding arrangements to ensure Councils are funded for the day labour costs associated with clean-up and rebuilding of transport and other related infrastructure without the need to sign-up to the proposed new disaster funding arrangements.
  - ix) the NSW Government should review the arrangements for evacuation centres including the training of additional local NSW Government personnel who work within the EOC and evacuation centres. Catering arrangements should also be reviewed.
  - x) NSW Government fund recommended improvements to the resilience and preparedness of Council owned buildings used as evacuation centres
  - xi) critical infrastructure resilience strategies should be identified, funded and implemented for all major infrastructure with additional financial support from the NSW and Australian Governments including:
    - a. telecommunications systems such as towers and associated facilities (which impacts emergency response communications, mobile phone services, ABC and commercial radio, television)
    - b. power supply to the whole of Eurobodalla LGA and to critical infrastructure sites
    - c. the arterial transport network including highways and major regional roads
    - d. water and sewerage systems including additional Government funding for the proposed Eurobodalla Southern Water Storage
    - e. hospitals
    - f. schools
    - g. emergency operations and evacuation centres
  - xii) additional regulations should be implemented to require improved business continuity (in particular alternate power supply) for critical private businesses including:
    - a. all fuel service stations
    - b. major food retailers
    - c. aged care providers

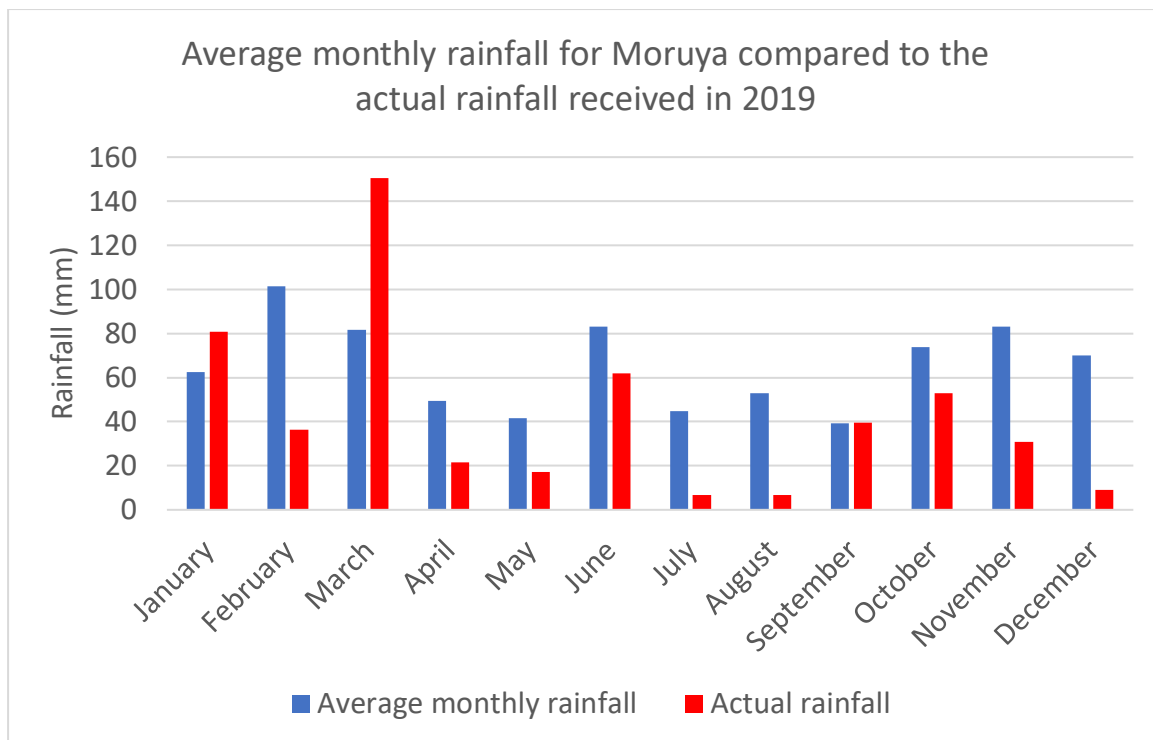
**1. The causes of, and factors contributing to, the frequency, intensity, timing and location of bushfires in NSW in the 2019-20 bushfire season, including consideration of any role weather, drought, climate change, fuel loads and human activity.**

The 2019-20 fires burnt approximately 80% of the Eurobodalla landmass including 90% of National Parks and State Forests with devastating consequences to life, property, community well-being and the economic viability of Eurobodalla businesses.

Detailed information on the weather and soil moisture conditions leading up to and during this event will be made available from the Bureau of Meteorology and RFS to the inquiry.

Advice indicates that the three-year period leading into the 2019-20 summer was the driest on record in NSW. The following graphs show the rainfall in 2019 compared to the average rainfall for Batemans Bay and Moruya. This demonstrates the extremely dry winter leading up to and during the fire event.





The inquiry will likely find that the fires impacting the Eurobodalla started from lightning strikes, with the exception being the Araluen Road fire. This latter fire is the subject of criminal charges against the individual involved which is a matter for the NSW Police and the courts.

The inquiry should also research the history of fire along the NSW coast using information from previous events to gain further insight into fire behaviour, rather than just relying on the information from this single event. This should include reference to available information from previous research and reports (e.g. Bushfire History of the South Coast Study Area J.A. Duggin CSIRO July 1976). A review of the 1994 fire should also provide further insights, noting many of the properties lost in this event were built after that fire event.

The inquiry should also look to the future. It is recommended that the NSW and Australian Government fund research by an appropriate university and/or agency, to track the build-up of fuel loadings over the next five-year period. The Eurobodalla landscape offers a very good test case with the variation in fire intensity offering a ‘live research laboratory’. This information could then be added to existing intelligence fed into the Eurobodalla bushfire risk management plan.

There are many who believe that more regular hazard reduction burning is the answer, and this will be a factor. However, we need only look to history to understand this is a complex issue, as this extract from the above paper demonstrates in describing the 1968 bushfires.

*‘The cause of the Clyde fire was possibly lightning strikes in the upper reaches of the Clyde River. The fire broke out around Pidgeon House Creek on 26 October 1968 and moved quickly under the influence of hot and dry, north-westerly winds. The fire front split in two on reaching cleared country and passed to the north of Milton and to the south of Ulladulla. Both fronts*

*eventually burnt to the coast. **This fire burnt over the same country as the Pigeon House fire of 1964-65. The fact that this area was able to carry a second fire in less than 4 years was the result of prolific generation and growth of fire weeds and Acacia spp. after the earlier fire.***

Similarly, the 2019-20 bushfires in Eurobodalla raced through recent hazard reduction burns as a crown fire in the prevailing conditions on New Year's Eve. The area the subject of a previous hazard reduction burn along the Princes Highway south of Batemans Bay, re-burnt intensely on the morning of 31 December 2019.

Research of the information held by the Rural Fire Service will show that severe drought conditions, high night-time temperatures, high winds and very low humidity of less than 10% played a significant role in the extreme fire behaviour over the proceeding night and the morning of New Year's Eve 2019.

In rural areas, expansive cleared agricultural lands and bush also burnt with extreme intensity resulting in the loss of three lives, numerous stock and wildlife, homes, sheds, machinery, fencing and pasture. The remoteness of these areas, the need to direct resources to the areas to support the greatest number of people and the risk to fire fighters, meant that the provision of on-the-ground fire-fighting support in these areas was limited. The decision of these residents to stay and defend their property, sadly cost them their lives.

Council has been advocating to Government to fund, build and maintain a purpose built regional integrated emergency services precinct in Moruya with a purpose-built emergency operation centre. The Eurobodalla Emergency Operations Centre (EOC) for this fire event was operated from the Moruya RSL Hall. The EOC is a make-shift arrangement only made effective by the collective efforts and commitment of those people operating out of the facility.

It is now well accepted that a co-located facility with the appropriate technologies and support systems, is best practice.

## **2. The preparation and planning by agencies, government, other entities and the community for bushfires in NSW, including current laws, practices and strategies, and building standards and their application and effect.**

The NSW Rural Fire Service has carriage for planning for bushfire in NSW. A local bushfire risk management plan is prepared for each local government area (LGA), in our case under the Eurobodalla Bushfire Risk Management Committee (EBRMC). This plan is reviewed and signed off by the NSW Bushfire Coordinating Committee.

The Eurobodalla Bushfire Risk Management Plan (EBRMP) was endorsed by the Eurobodalla Bushfire Management Committee on 17 October 2019 for submission to the NSW Bushfire Coordinating Committee. The plan is yet to be signed off by the NSW Bushfire Coordinating Committee. However, the previous EBRMP 2011 remains in place.

The EBRMC takes a non-tenure approach to bushfire planning with appropriate representation from all government agencies, Council and the community. This includes representation from Local Aboriginal Lands Councils.

The EBRMC is an appropriate mechanism for considering bushfire planning using a non-tenure approach. The Rural Fires Act 1989 already contains powers for the RFS to require any landowner, including Government landowners, to take appropriate action to mitigate fire risk on their property.

The undertaking of bushfire hazard reduction burning across tenures should be further investigated in more detail by the EBRMC and NSW Bushfire Coordinating Committee. Bushfire hazard reduction burning remains a valuable tool in managing fuel loads in the landscape. The NSW Bushfire Coordinating Committee should also be resourced to investigate the applicability of low intensity burns used historically by Indigenous communities.

**3. Responses to bushfires, particularly measures to control the spread of the fires and to protect life, property and the environment, including:**

- **Immediate management, including issuing public warnings**
- **Resourcing, coordination and deployment**
- **Equipment and communication systems**

The multi-agency response to the 2019-20 bushfires was extraordinary in its scale and effort. Those involved showed great courage, skill and commitment to protecting our community, and we are deeply appreciative of their efforts in helping to save our community.

Despite this, sadly three lives were lost in remote rural areas of the bushfire in southern sector of the Eurobodalla, where the parties decided to stay and defend their properties.

However, there is little doubt that the combined efforts of the Incident Management Team, Emergency Operations Centre, the local media and of our community, saved countless lives that would have otherwise been lost in this bushfire event.

The Eurobodalla bushfires burnt through the most populated areas of Eurobodalla destroying hundreds of homes, other buildings and businesses overnight and through the following day. Despite this, no lives were lost, or people seriously injured in the path of this devastating northern fire. This included keeping our fire fighters and the many other agencies and Council teams safe in responding to the firestorm to help protect our community and keep it operational.

The change in public messaging to put life over property is acknowledged as being an influencing factor in this respect.

**RFS Incident Management Team (IMT)**

The RFS response was outstanding, and the efforts of professional staff and the many volunteers and out of area crews, including those from other States and overseas, are truly appreciated.

Our Council would also like to recognise the amazing contributions of the other parties involved in the IMT including:

- i) NSW Forestry
- ii) National Parks and Wildlife Service
- iii) NSW Police
- iv) Eurobodalla Shire Council staff
- v) Local plant and equipment contractors
- vi) NSW Fire & Rescue
- vii) Victorian Country Fire Association
- viii) Overseas fire fighters from Canada and USA
- ix) Air support teams
- x) Volunteer community groups and businesses supporting catering

The role that Forestry NSW plays in frontline containment, emergency response and clean-up work deserve special praise. The skilled and committed personnel, well trained and experienced from continuously working in bush environments and associated forestry equipment, proved invaluable to the efforts help our community in this event.

The Eurobodalla bushfire was initially managed through the Shoalhaven IMT to address the Currawan bushfire with the majority of impacts occurring in the Shoalhaven LGA. An RFS forward command was established in Eurobodalla for this fire to work with the Eurobodalla Emergency Operations Centre and appropriate communications established with the Shoalhaven IMT and EOC. A Section 44 declaration was in place to cover the fire-fighting response down to the Deua River at Moruya.

At the same time, the Black Range Fire was burning near Braidwood in the Queanbeyan Palerang Regional LGA. Appropriate communications were in place to manage the impacts of this fire across LGA boundaries, in this case, mainly relating to potential impacts on the interconnecting Kings Highway and Araluen Road.

On 26 December 2019, additional fires started in the southern areas of the Eurobodalla and in the Snowy Monaro Regional LGA (the Badja Fire). This resulted in the establishment of a separate Incident Management Team based in Moruya to manage both the Eurobodalla and Bega Valley bushfires on 30 December 2019 with the Section 44 declaration extended to cover the respective areas.

The Far South Coast Management Team managed the Eurobodalla and Bega Valley fires thereafter until they were declared contained. The Section 44 declaration was lifted at 1800hours on 4 March 2020. During this period additional bad fire days were experienced in early December, Tuesday 31 December, Saturday 4 January, Friday 10 January, Thursday 23 January, Friday 31 January and Saturday 1 February 2020.

The loss of power and telecommunications (phone, ABC radio and television) resulted in difficulty communicating with segments of the community for specific periods of time. It is evident that the general population is now dependent on these forms of communication. Every effort should therefore be made to improve the resilience of telecommunication

systems. At the same time, on-going education should be undertaken to ensure people are more self-reliant, particularly in preparing well in advance and making early decisions to act.

The RFS IMT had capable Media Officers in place with primary responsibility for communication with the community regarding the fire and firefighting activities. This was supplemented by the extensive communications coming from a State level, via the Fires Near Me App, phone texts, through the work of the Eurobodalla EOC (including on-line and communications manually distributed across the Shire by Council Rangers and the NSW Police), by local print and radio media, national television and a series of specific public meetings (supported by the RFS, Police, Council and EOC teams).

#### **a) RFS IMT Media Officers**

These roles are essential at a local level as it provides local knowledge expected and needed by the community.

It can be challenging balancing consistent State-wide messages and those specific messages required at a local level. Both are needed.

In our view, greater delegation should be provided to the local IMT Media Officer and the Incident Controller to ensure timely messaging is shared with the community and EOC.

#### **b) Fires Near Me App**

This App provided a good level of information on the presence of fires within Eurobodalla and the current level of threat level to specific areas. This was extremely helpful for all involved, particularly as alert levels increased or changed.

Some in the community seemed to have an over-reliance on the map and an expectation this would be continuously updated to show a live status. This is an unrealistic expectation given the mapping is dependent on having appropriate information from aerial line scans and/or in-field observations. It may be more appropriate to tweak referencing on the map to better reflect the time of the update.

Other feedback indicated some people wanted more specific information to their particular property location. One challenge in using the App is the information is aimed at where people are likely to be impacted. Where practicable, it is important to look at ways to reduce anxiety in areas unlikely to be impacted. This is challenging given the very nature fire risks pose.

#### **c) Regional Awareness**

Regional awareness is critical in public communication in an event with a scale across multiple LGAs. This was demonstrated when media was released from Shoalhaven IMT inviting people to return to the South Coast on 10 January. At this same time, Far South Coast IMT and Eurobodalla EOC were still actively discouraging people from coming to Batemans Bay through to Narooma due to on-going fire activity and the high risks to the community in Eurobodalla. The reference to the South Coast should have been changed to reflect the specific areas where it was safe to return.



## **Eurobodalla Emergency Operations Centre**

The Eurobodalla EOC supported the Shoalhaven IMT and the Far South Coast IMT throughout the Eurobodalla fires. The EOC was at alert level from 26 November 2019 and formally moved to active on 1 December 2019. The EOC moved from fire to flood emergency on 10 February 2020 without fully standing down. The flood event was also subsequently formally declared a natural disaster.

The EOC is a multi-agency team activated to support combat agencies in a major emergency. In the case of bushfire, the combat agency is the RFS. In the case of flood, the combat agency is the SES.

The EOC is led by the Local Emergency Operations Controller (LEOCON) supported by the Local Emergency Management Officer (LEMO). The local chief Inspector of NSW Police is the primary LEOCON for Eurobodalla, with Council staff performing the role of the LEMO. Other replacement personnel assisted from local and out of area resources to allow rotation.

Each key agency provided a Liaison Officer within the EOC on an as needs basis. The Eurobodalla EOC included representation from:

- i) NSW Police (LEOCON, Police)
- ii) Council (LEMO, Engineering, Media, Administrative & IT Support)
- iii) Rural Fire Service
- iv) State Emergency Services
- v) NSW Ambulance
- vi) NSW Health
- vii) Transport for NSW
- viii) Essential Energy
- ix) NSW Local Lands Services
- x) NSW Department of Primary Industries
- xi) NSW Community and Justice
- xii) Australian Defence Force

Other bodies working remotely with the EOC included the local media, NSW Maritime, Volunteer Rescue Association, Surf Clubs, Anglicare, Red Cross and Salvation Army.

Due to the sheer scale of the fires across NSW, the RFS were unable to provide a full-time RFS Liaison Officer in the Eurobodalla Emergency Operations Centre for the duration of the fire, except on a few days. Consequently, alternate successful measures were implemented to ensure adequate communication between the IMT and EOC teams including:

- Provision of a NSW Police Liaison Officer within the IMT for direct liaison back to the Local Emergency Operations Controller
- Regular visits to the IMT for briefings by the LEOCON and/or LEMO, and/or by the RFS to the Eurobodalla EOC
- Joint teleconferences
- Joint public presentations/meetings, including on New Year's Eve at Hanging Rock in Batemans Bay (with appropriate use of mainstream and social media)

- Provision of a Media Officer within the EOC to liaise with the RFS Media Officer (noting the RFS Media was responsible for public messaging on the fire itself)

This is quite common in actual disasters and the emergency management arrangements provide flexibility to adapt to the resources at hand. Nonetheless, not being co-located made the processes of coordination more difficult, despite available technologies.

The Eurobodalla EOC reported regularly to, and was supported by, the Regional Emergency Operations Centre and ultimately the State EOC.

The efforts of the Eurobodalla EOC and Council team assisting were extraordinary. The EOC operated in a united and committed team environment. These efforts contributed significantly to keeping our community safe, providing for evacuees, assisting vulnerable people, communicating with the community on matters within the EOC's remit and assisting with the response to restore services to the community.

The efforts of the EOC included overcoming the challenges of no power, no highway access and no access to fuel, to evacuate tens of thousands of people from Eurobodalla within a 48 hour period was exceptional and a critical step in protecting visitors and allowing available resources to be directed to supporting the resident population.

The NSW Police and State Emergency Services undertook extensive door knocking in remote and rural areas in advance of fire days. The Volunteer Rescue Association also assisted on one occasion but was unable to resource further assistance. These face to face activities supplemented the advice provided by the RFS IMT and RFS media team using agreed written messaging. These visits assisted to identify additional vulnerable people, encouraging earlier action by the parties involved as well as providing additional information about evacuation arrangements for people and animals.

The current arrangements regarding telecommunications relies on Telcos reporting through to the State EOC level. This was problematic and limited information to the Eurobodalla EOC or IMT regarding the impact of fire on telecommunications. In turn this resulted in challenges in informing the community about the impact and anticipated likely timing of restoration of services across Eurobodalla. The effectiveness of these arrangements appears to be limited by the amount of resource allocated to provide specific advice back to a regional and local level, where it is critical. Improved arrangements that require a TelcoFAC to better service local and regional EOCs is essential.

Council has taken the initiative to meet with major Telcos since the event to discuss communication and preparedness and resilience of telecommunications facilities.

Council's teams undertook numerous activities to assist in the response including fire containment strategies and response work (eg provision of fire breaks in Forestry lands, tree falling and clearing to secure road access, provision of refuelling critical non-Council infrastructure and the like). The NSW Government funding arrangements under the Section 44 declaration do not cover the day labour costs of Council Operational teams. This is an unfair and completely unsatisfactory funding arrangements.

The NSW Government change the response funding arrangements to ensure Councils are funded for the day labour costs associated with deploying Council staff engaged in the emergency response under Section 44 declarations and other declared emergencies.

Council is often able to divert resources to respond quickly and reduce the time to recover the community, at the expense of other programs using day labour Operational team. These efforts should also be funded to undertake clean-up after the disaster and recovery of transport and other infrastructure without the need to sign-up to the proposed new disaster funding arrangements.

Prior to the start of the fire event, Council increased its own ability for Operational teams to be linked to the Council radio system. This proved crucial and became a main source of communication for a period for Council's transport, water and sewer, workshop and electrical teams. Nonetheless, coordination of essential Council activities relied on Coordinators going to individual staff homes to arrange activities due to the lack of phone services in some instances.

The efforts of Council teams to operate the water and sewer system without power for an extended period was extraordinary. This proved critical to ensure water was available for firefighting activities and residents.

### **Evacuation Centres**

The EOC also coordinated the establishment and de-establishment of evacuation centres in Batemans Bay, Moruya and Narooma based on the fire predictions from the RFS.

Key messaging directing evacuees to family and friends in the first instance was successful in re-directing some people to take respite in safer locations without impacting the evacuation centres, demonstrating support and self-reliance within our community

The operation of the evacuation centres was coordinated by the NSW Department of Community and Justice with volunteer agencies including the Salvation Army, Anglicare and Red Cross performing their respective roles under the existing emergency management arrangements.

Numerous evacuees were relocated into temporary accommodation. This was easier once the many visitors were evacuated from Eurobodalla freeing up available accommodation.

The fires across NSW resulted in unprecedented numbers of evacuation centres in simultaneous operation in fire impacted communities. This did stretch available NSW Government resources.

At the same time, the New Year's Eve fires resulted in unprecedented numbers of people being evacuated to the available centres and along other available coastal reserves and areas. The limited resources available from the Department of Community and Justice on New Year's Eve, meant that Council staff volunteered to supplement the resources at short notice, allowing opening of all three evacuation centres to the community.

During this period, local service clubs, surf lifesaving clubs, Councillors and members of the community also undertook to assist at a time of great community need. The role of the clubs was invaluable in helping keep our community safe and deserve special recognition. These clubs included:

- Batemans Bay Soldiers Club
- Batemans Bay Surf Lifesaving Club
- Tomakin Social Club
- Moruya Golf Club
- Moruya Bowling Club
- Tuross Head Country Club
- Club Narooma
- Narooma Golf Club
- Narooma Surf Lifesaving Club

Subsequently the fire events in early January 2020 saw up to nine and half thousand people register through the three evacuation centres. This included people evacuating from Bermagui (Bega Valley LGA). Many more made use of public reserves, golf courses and clubs.

There were also periods where closure of highway access resulted an inability to open the Narooma evacuation centre. In this case, alternate arrangements were made with the support of Club Narooma to look after a number of residents overnight. Council contacted to the Club Secretary Manager personally to thank the club for their support of the community.

On one occasion an aged care facility relocated patients unnecessarily creating additional challenges in managing aged patients in the Batemans Bay University of Wollongong.

**Despite the many challenges in dealing with such extraordinary numbers of evacuees, and although this was a time of anxiety and inconvenience for the community, the primary objective moving the population away from the fire front and keeping them safe for a short period, was successfully achieved.**

It is important to remember that the arrangements in place are intended to keep people safe and to manage the expectations of the community in the difficult circumstances prevailing at that time. This was perhaps best summed up by the Manager of the Moruya Evacuation Centre when addressing the many hundreds of people at a briefing where it was highlighted that 'this is a life boat situation – we are not on a cruise ship'.

That said, there are many lessons to be learnt from this event. Already the NSW Department of Community and Justice is reviewing the additional resourcing and training needed to support future events with an emphasis on training additional local personnel and investigating improved catering arrangements. This training should include dealing with cultural sensitives and instances where carers drop vulnerable people at evacuation centres during emergencies with no support.

The fact that people remained well in these circumstances was predominately due to the volunteers that 'stepped up'. With no power, limited toilets and showers, no bedding, extreme temperatures and significant overcrowding, it is very fortunate and a credit to those people who took control of the situation that a severe outbreak of illness did not eventuate.

Council is pursuing grant funding under the NSW ClubGrants program to improve the resilience and functionality of Council's facilities utilised as evacuation centres in times of need.

Council has received some community feedback that the purpose of Neighbourhood Safer Places (NSPs) is still not well understood by the community.

Similarly, despite messaging to the contrary, some people chose to go to the Bodalla club late in the piece only to find the club was closed. This highlights the need for people to improve their bushfire survival plan and make decisions to leave earlier, particular when telecommunications are compromised. The RFS should consider additional community education in this respect to help improve the self-reliance of the community.

Local Land Services (LLS) had responsibility for managing animals dislocated due to fire in this event on behalf of the NSW Department of Primary Industries. The Moruya showground and saleyards were both made available. Many people took horses into a self-care arrangement at the showground.

Additional arrangements had to be implemented during the event to manage smaller animals such as pigs and goats. Both the Moruya High School and Batemans Bay High School provided invaluable assistance by making their sites available to assist house animals and we are grateful for their help.

During the event, public messaging was adjusted to encourage people with animals to allow additional time to prepare and relocate animals to a safer location. Unfortunately, this was not practical in remote rural areas and numerous farm stock were burnt in the fire. This resulted in direct stock losses and a need to put stock down post the fire event.

Similar impacts were felt on the wildlife population, with direct losses and actions required to humanely put down wildlife.

On a brighter note, local vets, Mogo Zoo and WIRES volunteers cared for and assisted in the recovery of injured wildlife. This was aided by the work of the ADF who assisted constructed a new roof to provide an animal wildlife shelter at Mogo Zoo.

Lessons learnt from this response are already informing the review being undertaken by LLS to improve animal care in future events.

### **Eurobodalla EOC Facility**

The Eurobodalla EOC was established in make-shift arrangements at the Moruya RSL Hall. The facility was progressively adapted as the fire event progressed and the threat increased.

This facility is not designed for the intended purpose. It is a credit to the committed EOC personnel that they were able to function at such a high level within this facility.

The separation from the RFS IMT made coordination more difficult. It is now well accepted that a co-located facility with the appropriate technologies, facilities and supports systems, is best practice.

Council has been advocating to Government to fund, build and maintain a purpose built regional integrated emergency services precinct in Moruya with a purpose-built emergency operation centre. This was the subject of a multi-agency review and recommendation by Lt Gen Ken Gillespie AC, DSC, CSM to the Premier of NSW in 2018 to proceed with a new State-owned facility in Moruya. This recommendation was supported by then Ministers Constance, Hazzard and Grant.

It is acknowledged that the existing facilities within Moruya for the RFS, Ambulance and Fire & Rescue are all in need of upgrade or replacement. Moruya is the agreed location for a regional emergency services facility.

Council urges the NSW and Australian Governments to urgently fund a modern State owned Regional Integrated Emergency Services facility in Moruya with a purpose-built Emergency Operation Centre co-located with the NSW RFS, SES, Fire & Rescue and Ambulance.

#### **4. Any other matters that the inquiry deems appropriate in relation to bushfires**

The EOC coordinated numerous additional activities to ensure the community was cared for during the event. This identified areas where improved preparedness and resilience by various parties would have mitigated significant impediments to both the fire fighting and community support activities.

Some of these include:

##### **i) Telecommunication systems including Government radio networks, ABC radio, television, NBN, Council radio networks**

Many of the critical telecommunications sites have multiple providers at one facility.

In this fire event, Council's team led work to prepare Wandera Mountain towers in the face of the on-coming fire. Whilst damage still occurred, the main tower was saved allowing services to be switched from onto the residual tower. Council also assisted in the establishment of generator power and supplied fuel to generators throughout.

It is recommended that the inquiry review and make recommendations on the:

- a) responsibility for preparedness of each telecommunications site (ie vegetation management at each site, access)
- b) minimum design, construction and maintenance requirements of telecommunications facilities to ensure a greater resilience to bushfire (and other natural disasters)
- c) improved provision of information under the emergency response arrangements to local EOCs and IMTs on the location, impacts of damaged infrastructure on service to the community and response arrangements to restore damage from natural disasters

d) alternate more resilient power systems be provided to telecommunications sites

## **ii) Electricity Power Supply to Eurobodalla**

The efforts of Essential Energy teams during and after this fire event were extraordinary. A Liaison Officer was provided within the Eurobodalla EOC which proved essential for coordination of a wide range of activities and prioritisation of response efforts. This coordination through the EOC was aided by the intelligence gathered from the RFS IMT and Council's own ground crews.

The 2019-20 fires caused major periods of power losses across Eurobodalla, even during the early phases of the fire within the Shoalhaven LGA.

The power supply to Eurobodalla is limited to the primary feeders from the north (two 132kV lines). This meant that once this northern supply system was compromised, there were major impacts to the community and telecommunications (including ABC radio and Government radio networks).

Some of the impacts on the power supply were due to 'flash overs', with the high voltage power supply understandably unable to be switched back on until the entire supply lines were verified as being sound. This verification proved challenging as the power lines remained in active fire grounds and/or encased in heavy smoke (making aerial surveillance impracticable at times).

Critical power supply infrastructure was identified early by Essential Energy, the IMT and EOC, and additional measures put in place to mitigate the risk of losing that infrastructure (eg critical sub-stations). These were not tested as the fire did not get to these sites.

The fire also destroyed hundreds of power poles and brought down lines. Timber power poles were particularly vulnerable and when they burnt, they presented both a significant risk (burning pole and wires down).

Similarly, underground power supplies were burnt at key above ground locations and back underground. This proved difficult to re-instate quickly.

Essential Energy did identify key facilities and prioritised work to restore power for the greatest good. This work took account of the safety of their own personnel and critical service requests provided through the EOC.

Essential Energy also secured numerous temporary generators in a range of sizes to support critical infrastructure, the evacuation centres and individual property owners. This was assisted by direct conversations by our local member Andrew Constance MP who secured large generators from AusGrid.

Essential Energy is already investigating alternate and back-up systems to critical infrastructure and remote areas.

Essential Energy should be further requested to:

- a) Investigate ways to make the power supply system into Eurobodalla more resilient, ideally with built in redundancy of supply to Eurobodalla
- b) Investigate more resilient power pole arrangements on priority lines (eg metal poles such as those within the Araluen valley which survived the fire)
- c) Investigate alternate and back-up systems to critical telecommunication infrastructure

The NSW and Australian Governments should consider additional grant funding to support the efforts of Essential Energy to make the power supply system more resilient and/or provide remote power supply systems.

### **iii) Water and sewer**

The efforts of Council teams to operate the water and sewer system without power for an extended period was extraordinary. This proved critical to ensuring water was available for firefighting activities and to residents.

This was ultimately assisted by Essential Energy who collaborated to provide critical generators for power and ultimately to reinstate power to key sites.

Council has generators to support the water and sewer systems. However, the extent and duration of the power outage in this event, stretched resources.

Council has already commenced a review of its own generator capacity with a view to acquiring additional units to better support critical elements of our water and sewer systems during such events.

Council's water supply was solely dependent on the Northern Water Treatment Plant and Deep Creek Dam during the firestorm. Council's main water pump stations at Deep Creek Dam and the Deua River, and the Northern Water Treatment Plant, all came under direct threat, with the fire burning through the entire Deep Creek Dam catchment and over the Northern Water Treatment Plant. The fire ultimately was stopped at Araluen Road, not reaching the Deua River water pump station.

Advance preparations assisted to protect this critical infrastructure, with only minor damage sustained.

Due to high demand by residents seeking to protect their properties, and operating without power supply, Council was forced to pump untreated water from a pool in the Deua River into the southern half of the Eurobodalla supply system to keep up with the volume of water needed. The public were informed, a boil water notice was introduced, and additional water testing undertaken.

This event did highlight the vulnerability of the water supply during drought conditions with only a single supply source servicing the entire Shire population and fire fighting activities.

Council is building a second water storage, the Eurobodalla Southern Water Supply Storage, behind Bodalla. The construction of this second facility will provide additional resilience in such fire events and allow easier management of water across the Shire wide supply system.



Council has funded and completed the design and approvals phase of this \$105m project and secured \$25.612m from the NSW Government. Council continues to advocate to both the NSW and Australian Governments for additional funding to make this project viable. Meanwhile preliminary works on the new Tuross River water pump station commenced in March 2020.

Additional Government funding for this critical water infrastructure project is required to secure the water supply, provide additional water for farmers and the environment, and provide a high valued injection of funding to support the Eurobodalla recovery.

#### **iv) Arterial transport network including highways and major regional roads**

The Princes Highway and Kings Highway were impacted by both active fire and the associated smoke, and by fire affected hazardous trees and other infrastructure damage.

Similar impacts were experienced on Council's road network with regional roads (eg George Bass Drive) and major local distributor roads closed for period during the fire event.

The efforts of Transport for NSW and Council's roads teams in managing road closures, in assessing, prioritising and re-opening key roads to reconnect the community were remarkable in difficult circumstances.

For instance, the Princes Highway and George Bass Drive routes were assessed on New Year's Eve by Council as the fire was still burning and decisions made to activate North Head Drive, George Bass Drive, Coronation Drive and Beach Road that same day. This Council owned coastal route would ultimately be used to evacuate tens of thousands of visitors and some residents from Eurobodalla in the coming days after extensive efforts to remove hazardous trees prior to re-opening the Princes Highway.

As the fire moves south along the highway, Transport for NSW brought out of area crews to support local resources and made extensive efforts to re-open the fire affected highway network as soon as it was safe to do so. They also adapted the Live Traffic website and App to map key local roads (such as Araluen Road) during the event to ensure this information was publicly available. Transport for NSW were challenged by the sheer number of queries to these sites and are understood to be reviewing how to make this system even better.

Similar impacts from the fire were felt on the local road network with hundreds of kilometres of road impacted, thousands of fire impacted trees, loss of timber bridges and other infrastructure. The efforts to restore access by a few private individuals, Forestry NSW and Council's own crews were exceptional and critical to firefighting efforts, to access residents and to provide essential food and water to people and animals.

The tree work undertaken on both the Kings Highway and key local roads prior to the fires, made restoration of access after the fires significantly easier. It also made it easier to use the highway as a key fire break to undertake back-burning operations with increased safety for everyone involved. Although these tree works had previously been undertaken to improve road safety, they were ultimately of significant benefit in reducing risk to first responders and Council/T4NSW's tree crews.

Council and T4NSW worked closely together to share available resources, including out of area contract teams, to achieve the best outcomes for the most people. These arrangements took account of the active fire ground and the need to restore essential access for fuel and food deliveries, with Council making a significant contribution to removal of hazardous trees along the Kings Highway.

The communication between Transport for NSW, Council, the NSW Police through the EOC arrangements was exceptional.

#### **v) Privately owned facilities**

The loss of power and impacts of the fire on local residents who staff key private facilities created major challenges in responding to the fire.

##### **a) Fuel service stations**

The loss of power, and closure of the highway network, effectively meant there was no ability to obtain fuel for firefighting or for the community.

The EOC identified one service station in each town and worked closely with the service station owners, Councils electrical team, Essential Energy and local contractors to re-wire the service stations and hook up generators to enable fuel to be provided. Once operational, this did create challenges with traffic management with the subsequent rush to buy fuel. However, this proved manageable, with these temporary power supply arrangements, ultimately proving vital to the evacuation of 10's of thousands of people out of Eurobodalla, and the refuelling of firefighting equipment.

During the period we were without fuel supply, arrangements were made with local fuel carriers to re-distribute fuel loads to supply fire fighting equipment. Local bus company, Marshalls Bus & Coach also made available existing stocks of fuel. Council had also pre-planned to keep all equipment full of fuel in case of emergency power loss, and arrangements were made to re-direct some of this fuel to firefighting efforts and to support generators to critical infrastructure.

The efforts of Council's Workshop Coordinator and his team during this event were simply amazing including adapting all sorts of equipment to store and distribute fuel to areas of high need. This even included adapting a sewer pod to become a temporary fuel storage unit.

At a critical time, Council's collaboration provided over 7,000litres of fuel directly to the firefighting efforts at Gundry oval. Over 6,200litres of diesel was used by fire fighters on that first day.

Throughout the duration of the fires, Council's workshop team secured and delivered over 120,000 litres of fuel for firefighting and refuelling of generators to support telecommunications, the hospital, evacuation centres, the emergency operations centre and critical water and sewer infrastructure.

The Eurobodalla EOC worked collaboratively with the Shoalhaven IMT and EOC, local fuel carriers Keiran Kay, and the NSW Police, well into the night, to get fuel tankers through to

Port Kembla through the active fire ground on the Princes Highway, and back to refuel both Eurobodalla and Bega Valley service stations. The drivers of these carriers deserve high praise for their efforts in ensuring there was fuel for aircraft, ground crews and the general public, whilst their own homes were coming under increasing threat from the Border fire.

Of course, many of these challenges can be avoided by ensuring all service stations are mandatorily required to provide an in-built capability of switching to an alternate power source in the event of power outages. For larger service stations, this should include a requirement to have that alternate power source (eg a generator and/or solar/battery back-up system) on-site.

These simple measures would have allowed access by the public to fuel stored in these service stations. The Government should, if required, regulate to require this to be implemented.

Eurobodalla Shire Council has already met with the Executive General Manager of Caltex Australia and discussed these issues. Caltex have indicated a willingness to review its arrangements, particularly for the regional centre of Batemans Bay.

Council also thanked Caltex for the efforts of their team to stay open in periods where staff were defending their own properties and of such high peak demands due to the circumstances. Similar efforts were provided by local service station operators in Moruya and Narooma.

#### **b) Major food retailers**

With the highway closed to the north, south and west, and no power, provision of food supplies became a critical issue.

Major retailers were challenged by the loss of power and an inability to staff their shops.

These retailers did adapt and showed incredible generosity offering food free to support evacuation centres rather than see it spoil.

Nevertheless, it is clear that provisions to ensure alternate power sources are readily available in times of power loss, is essential.

The NSW Government should work with all major retailers to ensure this is rectified.

#### **c) Aged Care Providers**

Aged care providers already have a requirement to ensure they have strong plans in place to enable residents to stay in place. The coordination of the activities relating to aged care facilities during emergencies is handled by the NSW Department of Health Liaison Officer.

During the height of the event, some patients were moved to other facilities by agreement between parties.

Only in one case, were patients moved despite advice to remain in place. This did lead to challenges in catering for these high care patients at a facility not designed for this purpose (ie at the University of Wollongong). The UOW staff are to be congratulated for their efforts in assisting in this situation.

It is important going forward that the NSW Government ensure, as far as possible, that aged care facilities have robust plan that enable patients to 'stay in place'.

The NSW Government should work with the Australian Government to review the changing landscape of age care and ensure suitable arrangements are in place to care for aged and vulnerable people within our community. This will become a more significant issue with the ageing population.

## **5. Preparation and planning for bushfire threats and risks**

See above.

The existing arrangements for preparing and planning for bushfire threats and risks are adequate. The lessons learnt from the Eurobodalla fires should be fed into the next review of the Eurobodalla Bushfire Risk Management Plan led by the Eurobodalla Bushfire Risk Management Committee.

It is further recommended that the NSW and Australian Governments fund more specific research:

- i) on bushfire behaviour specific to the Eurobodalla context as a result of this extraordinary event and known bushfire history
- ii) on the build-up of fuel loads in the environment in coming years following this intense burn
- iii) on the likely short- and long-term impacts of the changing climate on bushfire frequency and behaviour

## **6. Land use planning and management and building standards, including appropriate clearing and other hazard reduction, zoning, and any appropriate use of Indigenous practises**

The extent of bushfire impact on property was closely related to the proximity of the bushland. In Eurobodalla, this bushland environment is more prevalent in the rural landscape. Where the bushland environment continues through the urban footprint (such as North Rosedale), the fire impacts were higher than other areas.

Anecdotally, a greater number of homes lost to the bushfire in the Eurobodalla were constructed prior to the current planning considerations and construction standards related to managing bushfire risk. However more specific research is required to formally examine the specific outcomes in the Eurobodalla and other bushfires in this respect.

For older homes in rural areas, many would have been constructed prior to the introduction of bushfire construction and management standards. The asset protection zone (APZ) may not reflect the lower standard of building construction in relation to bushfire protection. There needs to be a simpler and more cost- effective process to encourage provision of improved APZs on these properties. In particular, there appears to be a need to relax environmental and biodiversity conservation considerations and controls to allow improved

protection to homes without undue cost to the landowner. These arrangements should also apply to dwellings being rebuilt post the fire.

If these changes are not made, the current situation will prevail, which is often cost prohibitive as a result of the environmental and biodiversity conservation assessment and offset requirements.

In addition, the objectives of the relevant legislation and policy related to the protection of biodiversity and the management of bushfire risk are currently in direct conflict. There needs to be a clearer priority given to the management of bushfire risk, once the broader strategic direction is to allow development in certain locations. This places the need for governments to have a more rigorous and strategic position on biodiversity protection and management at a regional scale and having less of a reliance on site by site assessments through the development assessment process. Linked to this there needs to be greater consideration to mechanisms to support landowners in the management of biodiversity, especially where governments make the decision for the benefit of the broader community that the protection of biodiversity over private lands has a higher value than achieving any development outcome.

There is also an opportunity to educate the community on works that can be undertaken to buildings that were constructed prior to the introduction of bushfire construction standards, especially to assist in protection against ember attack. Many of these opportunities are able to be undertaken at relatively minor cost such as leaf/gutter guard, metal gauze on windows, covering of air vents and minor openings with metal gauze etc.

There is anecdotal evidence that through ember attack, landscaping adjacent to dwellings may have contributed to their loss. There needs to be an examination of the contributing factor of landscaping in terms of its location and species type. Further there needs to be better information and education of the public around landscaping, management thereof, and general requirements and priorities for bushfire preparedness.

## **7. Appropriate action to adapt to future bushfire risks to communities and ecosystems**

One of the primary reasons for the loss of dwelling is ember attack. Refer to the comments above regarding improvements to existing dwellings to make them more resilient to bushfire threat from ember attack.

Eurobodalla looks after approximately 115km of urban bushfire interface. Already members within the community are seeking Council to widen the asset protection zones and remove additional vegetation from the environment. This work is currently covered under the bushfire guidelines. The NSW Government may wish to review these guidelines based on research and scientific advice.

Many in the community believe a more frequent regime of fire hazard reduction burning is key to reducing the overall risk to communities. Some believe the introduction of techniques used by Indigenous communities may assist in this protection. What is evidenced in this fire event, is that recent hazard reduction burns did little to change the behaviour of the New Year's Eve fire as this was a full crowning fire with spotting kilometres ahead of the

main fire front. These hazard reduction burns may have improved benefit in less severe conditions, however further research is recommended.

High value ecosystems and the future management of the environmental assets requires community consultation along with scientific research and advice related to ecosystems management. The impacts of bushfire frequency and intensity on the potential impacts on both the communities and ecosystems is essential.

Where there are high value ecosystems that are susceptible to bush fire, this needs to be considered in the management of those and surrounding lands to minimise the risk of loss or detrimental impact on the values of those lands and associated species. Additionally, the Australian and NSW Governments who have and impose on land managers the broader legislative and policy environments that require these areas and species to be protected and managed sustainably on behalf of the broader community, need to ensure that the appropriate resources are provided to manage and rehabilitate these lands be they in public or private ownership.

It has been reported that up to one third of people are not insured. This needs to be confirmed and there needs to be an examination of the reasons why people do not have insurance and actions taken to address the reasons in order to increase the rate of insurance.

The lack of insurance places increased pressure on governments, not for profit groups and the broader community to provide financial support to those impacted by natural disasters. The support provided to those not insured is often well publicised resulting in many questioning why they pay for insurance.

#### **8. Emergency response to bushfires, including overall human and capital resourcing**

Refer recommendation and commentary above. Specifically note the need for a State owned regional integrated emergency services precinct in Moruya.

There is little doubt that the response in Eurobodalla was significantly aided by the presence of a highly skilled and experienced Forestry NSW workforce resulting from the local timber industry. This resource was diverted from business as usual to undertake major works in effecting containment and frontline firefighting activities.

## **9. Coordination and collaboration by the NSW Government with the Australian Government, other state and territory governments and local government**

The scale of this fire event was unprecedented, at least in European history, with bushfires across extensive areas of the east coast and other areas of Australia.

Despite this, the RFS was able to call on resources from Victoria, Queensland, Canada and America under the current arrangements.

Anecdotally the fire event has resulted in increased inquiry into becoming an RFS volunteer. For this to be implemented, provision of appropriate on-going training and resources is essential to attract and retain volunteers.

It was evident that having one fire controller across two Shires, proved more problematic than when the Incident Controller was working in Eurobodalla. In high risk coastal areas such as Eurobodalla, consideration should be given to reinstating a fire controller in each of Eurobodalla and Bega Valley Shire Council areas.

The deployment of the Australian Defence Force assisted many aspects of the response in non-firefighting activities. This included provision of emergency supplies to remote areas for people and stock, provision of a logistic centre for donated goods, clean-up and opening accesses (within the skillset limitations noting felling fire affected trees is a specialist area), provision of additional medical support (not utilised), assessment of sea rescue options for coastal areas, provision of a ship to enact this option (ultimately not required in Eurobodalla), assistance with building an animal welfare shelter at Mogo Zoo. There is little doubt that the presence of the ADF also lifted the morale of the teams involved in the response as well as the community.

## **10. Safety of first responders**

Sadly, the response to the 2019-20 fires resulted in the loss of RFS volunteers in other areas of the State, highlighting the real danger of protecting the public.

Every element of this review should have in mind the safety of those who will need to defend life and property in the future, from planning development to training and resourcing of frontline fire fighters.

## **11. Public communication and advice systems and strategies**

Refer 3 above.

The education of the community by the NSW Rural Fire Service needs to be on-going and in advance of as well as during the fire season.

Certainly, the change in messaging in recent years appears to have engendered greater preparedness of people to leave their homes for a safer location rather than stay and defend. This almost certainly saved many lives in the Eurobodalla fires.

That said, anecdotally there were many stories of people still making last minute decisions to leave when the risk was high.

Additionally, advice about fires saw last minute property protection activities across the Shire creating many challenges and demonstrating that despite record dry conditions and high fire threat, many had left clearing and preparing their property to after there was a fire in the area.

The RFS should continue to work on key messages and provision of information to the community, including running more sessions on individual private property protection and bushfire survival planning. The RFS may achieve greater attendance by working with local community groups such as progress associations, Rotary, Lions and other community groups.