

I am a resident of Moruya Heads in the Eurobodalla and was present for the duration of the 2019-20 bushfires. My husband and I evacuated four times between 31 December 2019 and 1 February 2020 and took our elderly, terminally-ill neighbour with us each time. Although our houses survived, we were impacted by the extreme stress and uncertainty associated with the fires, as well as physically by the smoke, haze and ember rain as the fires circled around Moruya.

I would like to **respond to the following matters** in the ToR for this inquiry:

1. The causes of, and factors contributing to, the frequency, intensity, timing and location of, bushfires in NSW in the 2019-20 bushfire season

The causes and factors that contributed to the disastrous bushfires of 2019-20 are solely attributable to climate change. What we experienced in the lead up to the fires was a long period of hot and extremely dry weather which is exactly what climate scientists had predicted would occur under a global warming scenario. The soil moisture readings in the Eurobodalla shire were the lowest since recordings began 100 years ago. The bushfire season started early with fires burning on the north coast of NSW in winter and moving down the eastern seaboard consuming World Heritage rainforest that had never burnt before. By the time the bushfires hit our region in late November much of the north coast and large areas to the north west of Sydney had been devastated. The fires then proceeded to burn much of the vegetated land both in our shire and to the north and south of us including wetlands and moist gullies that, like the north coast rainforests, had never burnt before. It was clear to most people that these extreme bushfires were inevitable. We had half our average annual rainfall in 2019, as well as warmer than average temperatures. Long term locals could not remember such an intensely dry period before. By the time the fires arrived we were on Level 4 water restrictions in the Eurobodalla and large numbers of trees were dying on ridges and mountain sides. While the leaf fall from these trees probably added to fuel loads on the ground, witnesses reported fire storms burning across bare paddocks and open pasture (e.g. at Nerrigundah and around Milton and Cobargo). We were threatened from the north by the Currowan and Clyde Mountain fires and the south by the Badga Forest fire. A fire then started in the Deua Valley to the west of us as a result of a resident who decided to burn off to protect his property. This fire quickly joined up with the Clyde Mountain fire. While the long dry period in the lead up to these fires no doubt added to the fuel loads, there were areas of State forest that had been logged and cleared of understorey during 2019 which produced some of the most intense fires that then spread to neighbouring towns and settlements (e.g. Mogo State Forest).

***Recommendations:** 1. any future bushfire risk management planning must recognise that climate change is the key driver of bushfires and that increasing global temperatures will lead to longer and more severe fire seasons, this will reduce the window of opportunity for hazard reduction burning and will inevitably increase the costs of protecting life and property.*

2. all levels of government must accept the science of climate change and put climate change at the front and centre of their thinking when developing policies/strategies or planning for the future. Prior to the disastrous bushfires, Eurobodalla Council was asked to declare a Climate Emergency that required them to do just that. Only 2 of our 9 councillors supported this motion.

2. The preparation and planning by agencies, government, other entities and the community for bushfires in NSW

On New Years Eve we woke early to an SMS from the RFS asking people to evacuate Mogo. Pyrocumulonimbus clouds were visible to the south and north of us. Then the power went out, we lost mobile reception and the NBN failed. On the advice

of friends, our elderly neighbour decided to go to the evacuation centre where she thought she would be safe, since without mobile and radio reception or the internet, it was difficult to know what the fires were doing. We decided to stay home. Our neighbour returned later that day with stories about how ill-prepared the Moruya evacuation centre was – it was a basketball stadium full of people and animals with no power, no seating and few toilets. She was adamant she wouldn't go back. On New Years Day, a friend called around to tell us that there was to be a briefing at the Moruya evacuation centre at 6:30pm the next day. We spend a lot of time that day in our car listening to the car radio to try to find out what was happening with the fires. The next morning, the power came back on, but there was still no NBN and mobile phone coverage was very patchy. We arrived at the Moruya evacuation centre just after 6:30pm as people were leaving, apparently the briefing consisted of a local policeman reading dots points from a white board and refusing to answer questions. It was over in less than 5 minutes. The weather deteriorated over the next day so we packed and evacuated with our elderly neighbour to a friend's house in town which was set up to fight fires (water tanks, hoses, pumps and a generator). The power went off again and we lost water pressure. Thanks to the generator, we were able to access the internet and we spent most of the day trying to get fire ground information. At night time we took shifts to watch for embers. The danger passed when a southerly hit, so we returned home. We prepared to evacuate again on 9 January, but conditions turned out to be not as bad as anticipated so we stayed put. However, we evacuated on 10 January in deteriorating conditions and waited for a strong southerly wind change to turn the fire back. We evacuated yet again on 23 January when the fires came right into the back of Moruya. This time we went to the Moruya Bowling Club because they have power, air conditioning, comfortable seating, decent toilet facilities, cool drinks and food. Many others joined us and brought their pets. It was a harrowing day and night as the fires came to within 600m of Moruya hospital just to the west of us. A weak southerly change at 9:30pm improved conditions, but we decided not to return home until the next day. We evacuated into town for the final time on 1 February due to predicted deteriorating weather conditions. These eased in the late evening, but we stayed put until the next morning.

How well prepared were the local emergency management agencies and the Eurobodalla community given the large number of devastating bushfires that had raged across NSW in the months leading up to our own crisis? I don't believe we were well prepared for the following reasons:

- the Eurobodalla Bush Fire Risk Management Plan was out of date having last been updated in September 2011. The information contained in the plan was not current and there was no recent bushfire prone land mapping to inform important management decisions, as well as other relevant strategic documents.
- the Eurobodalla Emergency Management Plan is current but it is a tick-the-box document of no real practical use in an emergency. It follows the state-wide proforma and does not reflect the unique circumstances that exist in the Eurobodalla. Fire is classified as having a 'likely' chance of occurring with only a 'minor' consequence rating and 'high' risk rating. Our neighbouring councils recognise that fire has an 'almost certain' chance of occurring with 'major' consequences and an 'extreme' risk rating.
- recent amendments to Eurobodalla's Local Environment Plan, which were strongly opposed by 6 government agencies (including the Rural Fire Service) and a large section of the Eurobodalla community, were approved largely unchanged at the end of 2019. These planning amendments allow greater subdivision and development on steep, remote, forested country throughout

the Eurobodalla which is considered to have a high to extreme bushfire risk by the Rural Fire Service making it difficult for any development to meet the NSW Planning for Bushfire Guidelines. Most of these lands were consumed by fire during the recent bushfires, but despite this will be able to be further developed in the future putting more lives and property at risk.

***Recommendations:** 3. The Eurobodalla Bush Fire Risk Management Plan and associated bushfire prone land mapping be updated by Eurobodalla Council, as required by legislation, to reflect the realities of bushfire risk under a climate change scenario (as per Recommendation 1).*

4. The Chair of the Local Emergency Management Committee (the GM of Eurobodalla Council) to ensure that the Eurobodalla Emergency Management Plan is reviewed immediately to more accurately reflect the realities of bushfire, and other risks, under climate change as well as the circumstances that are unique to the Eurobodalla region (e.g. likelihood of catastrophic fires in the steep forested hinterland, as well inundation risks from sea level rise and storm surge in low lying coastal lands).

5. The recent amendments to the Eurobodalla LEP be reviewed and revised to reflect agency and community concerns about bushfire risk, thereby minimising further development in high to extreme bushfire prone areas. This should involve overlaying the areas burnt in the recent bushfires over the zoning changes in the LEP amendment and reversing these changes to ensure that these areas cannot be further developed.

- there were only 3 evacuation centres in the Eurobodalla (population 38,000) at Batemans Bay, Moruya and Narooma. Other towns, some of which had substantial populations (e.g. Tuross Head), were expected to evacuate to these centres. This became impossible when the Princes Highway and other roads were closed due to the bushfires. Consequently, sites such as the Tuross Head Country Club and the Bodalla Bowling Club became impromptu evacuation centres. The evacuation centres at Batemans Bay, Moruya and Narooma were sport stadiums. The Moruya evacuation centre was a basketball court with 4 female toilets and 4 male toilets and 4 showers. It had no air conditioning and no seating. When the power outage occurred, the doors were flung open to try and keep the temperature down inside. All this did was to allow smoke from the fires to fill the stadium. This became an issue especially for the very young and very old. I spoke to the mother of a young baby who was having breathing difficulties and I understand that an elderly woman died as a result. Natural light entered the stadium from polycarbonate sheets in the roof that ran the length of the building, but this also allowed the heat in. I note that polycarbonate is not particularly resistant to ember attack. As time went on, chairs appeared and people brought in mattresses to lie on. Generators were sourced and these were used to power fans which were installed in the mezzanine level above the court. At peak times there were around 2,000 people in the building, as well as many pets, so it was very crowded. Warren Sharpe (Eurobodalla Council's Local Emergency Management Officer) responded to complaints by saying that the evacuation centre was a 'lifeboat not a cruise ship'. This seems ironic now given that gastric quickly spread through the centre after about the second day. The numbers in the evacuation centre dropped markedly after the first few days with people either deciding to camp or sleep in their cars outside or to go to other locations around Moruya (e.g. Riverside Park, Moruya High School) rather than put up with the conditions at the evacuation centre. None of the evacuation centres catered for the disabled, the elderly or the infirm. Moruya hospital was at capacity, so it was fortunate that some of the local doctors opened their surgeries for the use of vulnerable patients. Eurobodalla Council's well-equipped and wheelchair accessible community centres (e.g.

Kyla Hall at Tuross Heads, Dr Mackay Centre in Moruya) remained closed during the whole bushfire emergency, as did the Council offices.

Recommendations: 6. Eurobodalla Council needs to step up to its role as chair of the Local Emergency Management Committee and work with the representatives of other agencies on the committee (RFS, police, SES, NSW Office of Emergency Management, Ambulance Service of NSW etc) to review the current evacuation centres in the Eurobodalla in terms of their adequacy to deal with large numbers of people; their number and location; the facilities they offer for all sectors of the community, but particularly the disabled, aged and infirm; and the suitability of other public or private assets that could be used in times of emergency (e.g. clubs, halls etc) and how this might be accommodated. During the recent flooding in Sydney, the City of Sydney Council opened all its community centres as refuges. Eurobodalla Council has an extensive list of community halls/centres (<https://www.esc.nsw.gov.au/living-in/facilities-parks-gardens/community-centres-and-halls>). There is no reason why these cannot be put to good use during future emergencies.

N.B. It is interesting to note that the evacuation centres at Batemans Bay (Hanging Rock Sports Stadium) and Moruya (Basketball Stadium) don't have heating or cooling nor do they have wheelchair accessible toilets and on the first days of the emergency, when there was no power, the lift at Hanging Rock Sports Stadium was unable to operate so there was no wheelchair access to the evacuation centre itself. It would be interesting to find out where disabled or elderly people went and how they fared during this time?

- power outages occurred during the fires which lasted from a couple of days to weeks in some places (e.g. Malua Bay, Tuross Head and localities around Bodalla). While this was not unexpected, it impacted some critical services which were totally unprepared. Council had to 'milk' their vehicles of diesel to supply fuel to generators at Moruya hospital, so that it could continue to operate. Council's sewerage pumping stations failed and domestic water supplies had to be taken directly from the Moruya River when the water treatment plant at Deep Creek dam was impacted. As a result, local waterways became contaminated and residents had to boil water for days. The power outages also affected a range of other services including petrol stations, which could not operate their pumps to deliver much needed fuel to residents and the hordes of tourists desperate to evacuate the area. Significantly, many RFS fire sheds were also left without power making their difficult job even more dangerous.

Recommendations: 7. Backup and emergency power set-ups need to be put in place at all Council-owned assets, as well as medical and emergency services facilities. This would include installing solar systems complete with batteries, as well as change over switches for essential circuits and reliable generators.

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 the issuing of public warnings
 - resourcing, coordination and deployment
 - equipment and communication systems
- communication systems were woeful during the peak of the bushfire crisis when we needed them most. One of the first casualties was the transmission tower on Wandera Mountain, so we quickly lost radio and television coverage, then we lost the NBN and mobile coverage. Along with power outages, which in our case were rectified relatively quickly, we had virtually no communication with the outside world. Friends and family could watch in horror as the bushfire crisis unfolded, but could not contact us. We in turn did not know the full extent of what was happening around us. Our council,

unlike neighbouring councils, chose not to step in and make sure that the community was well informed. The briefing sessions at our local evacuation centre became more informative than the initial one we had attended and a council representative (Warren Sharpe, Local Emergency Management Officer) was present at subsequent meetings after a complaint was made about the lack of a council presence. On the other hand, Bega Valley Council's mayor together with senior RFS and Emergency Services officers held daily one hour briefings across their shire during the peak of fire, which were facilitated by Council's emergency operations spokesman Ian Campbell. These were broadcast on ABC South East, as well as streamed live and placed on Council's website and were very informative. They included a Q&A session where the community was encouraged to raise issues with the panel. It wasn't until the 9 January 2020 that Eurobodalla Council organised its one and only community briefing session at Batemans Bay, Moruya and Narooma where Warren Sharpe answered some questions, but not others, and our Mayor shared her experience of the bushfires with us. Eurobodalla Council's only means of communication with the community was via their website and Facebook page, both of which were inaccessible to most elderly residents and to many others who had lost their internet connection and/or had no power. I understand that Council staff doorknocked some areas to let people know about briefing sessions, but no one I know was contacted in this way. Unlike our neighbouring councils which reopened for business in the days immediately following New Years Day and were accessible to their residents, Eurobodalla council chose not to reopen until Monday 13th January and couldn't be contacted either during business hours or on their after hours number.

Recommendations: 8. *Multi-faceted communication systems and strategies need to be developed that will reach as many residents as possible during an emerging crisis. This means using a variety of avenues from regular briefings, to physical signage or notice boards at critical locations where people are likely to congregate (Council chambers, evacuation centres, rural fire sheds, shopping centres), to radio announcements, websites and social media. Bega Valley council's communications model of daily briefings which were live-streamed to air, as well as on their website, worked well. They were well-facilitated, collaborative events involving the key players and providing the community with the opportunity to ask important questions and get timely, as well as accurate, answers.*

9. *At the time of an emergency, the community needs to have access to a body who can provide them with authoritative answers to their questions and consistent advice. The most appropriate body would be the local council who chair the Local Emergency Management Committee and have access to representatives from all the agencies involved in emergency management. Council should make itself available to the community in these times of crisis, not just at a daily briefing session or on Facebook, but as a physical presence during business hours and, if required, after hours.*

10. *Many regional areas don't have adequate mobile coverage and access to the internet is often patchy. ABC South East and ABC Illawarra were therefore a lifeline for us during this bushfire crisis. As a trusted source of information, their role as the nation's emergency broadcaster was never more important. When we had no power, no internet and no mobile coverage, we could listen in to them on our old transistors or car radios. They provided timely and accurate information about the status and location of the fires, road closures, when to evacuate etc. It is imperative therefore that the ABC is properly funded. They have suffered massive budget cuts over the last 6 years and are now in dire financial straits, which will inevitably result in a reduction in services. Now is not the time to be cutting funding to the public broadcaster, which will play an increasingly important*

role in future emergencies under a climate change scenario of more frequent extreme weather events.

- it was clear that insufficient resources were available to fight the extensive and catastrophic fires we experienced this summer. Fire crews were exhausted as the fire season stretched over weeks and then months. Friends and acquaintances who are volunteer fire fighters were doing 12 to 16 hours shifts up and down the coast as they followed the active fires across the fire grounds. Most fires that started in remote locations were left to burn until they reached the interface with infrastructure assets or settlements. As a consequence, the fires built momentum and became raging infernos that destroyed millions of hectares of native vegetation and the biodiversity it supported. They also became extremely difficult and dangerous to fight given the limited the person power and out-dated equipment available to the RFS and other support agencies. For example, budget cuts of around \$121 million to the NSW National Parks and Wildlife Service have resulted in the loss of staff with valuable experience in fighting fires and managing hazard reduction works. Similarly, the RFS budget for capital equipment was cut last year by around \$40 million. Here in the Eurobodalla, we had fire crews going out in trucks that had intermittently working water pumps and other crews attempting to fight fires in the remote steeply forested Araluen Valley who lost all communication with each other and the outside world. This is indefensible given the extreme fire conditions we will experience in future as a result of climate change.

Recommendations: 11. The technologies and strategies to identify and rapidly extinguish fires that start in remote areas need to be investigated and funded. This should included reinstating funding the NSW National Parks and Wildlife Service and State Forests so that they can rebuild their remote area firefighting teams. It also requires the Federal government to restore funding to the National Aerial Firefighting Centre and to fund a national fleet of dedicated bushfire fighting aircraft and smokejumper units so that Australia does not need to rely on leasing this equipment from private companies both here and overseas.

12. The RFS should be properly funded and provided with state-of-the-art communications and safety equipment including appropriate modern fire fighting vehicles. NSW should also restructure the Rural Fire Service so that it includes more highly trained, paid, professional fire fighters who have greater control over how emergencies are handled and can support their volunteer colleagues.

13. The Federal government's agreement to a request from the NSW government for Army Reserve units to assist with the fires was welcome, but belated. The process involved in making and responding to the request was convoluted and needs to be streamlined via changes to the relevant legislation. Given the increased likelihood of catastrophic fire events in future, Army training should include fire fighting skills and Army fire fighters should be available to assist emergency agencies during extreme events such as the fires we experienced this summer.

4. Other matters

Large areas of the Eurobodalla hinterland comprise State forests. A number of compartments in these forests are being or have been logged in the past 12 months to meet timber supply requirements under the renewed RFA. I have visited logged compartments in Mogo State forest and along the Corn Trail in Buckenboursa State forest both before and after this summer's fires. Despite the recent logging, these compartments burnt as intensely as neighbouring unlogged compartments and National Park. The compartments that were logged in Mogo State forest were just to the east and west of the township of Mogo, which sustained massive damage from

the bushfires with many houses and shops destroyed. They were also just to the west of Malua Bay, Lilli Pilli and Surf Beach which were also severely impacted by the fires. It is clear to me that logging does not minimise fuel loads and therefore the intensity of fire. In fact the evidence at Mogo indicates that recently logged areas have burnt just as intensely, if not more intensely, than unlogged areas. Research indicates that opening up forests by logging redistributes fuel from the canopy to the ground and reduces its moisture content, it also exposes wet gullies to drying winds and rather than acting as a barrier to the spread of fire, it makes them more susceptible to fire.

Recommendation: 14. *That the science on the impacts of timber harvesting on bushfire risk and intensity inform the policy and management decisions of the NSW government when considering selective or salvage logging in our national parks and state forests.*

Thank you for the opportunity to have input to this inquiry. I hope my views are considered and have some influence on the recommendations in your report to the Premier.

Yours sincerely

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