

Conference Proceedings – Speaker Transcript

A Local Government Perspective on Bridging the Gap: Fire Management at the Interface

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It's great to see so many speakers here from local government this year. Today, I'm going to give you a local government perspective on bridging the gap and fire management at the interface.

The Central Coast LGA is located about an hour north of Sydney on the New South Wales Central Coast (Slide 2). The new council is a product of the most recent round of amalgamations, bringing together the former Wyong Shire Council in the north and the former Gosford City Council in the south. The total area of the new LGA is around 1,800km², including more than 80km of coastline. Our local population sits at around 333,000 and is projected to be close to 405,000 by 2036. This equates to around 39,000 new dwellings being required on the coast to accommodate this growth.

From an environmental perspective, the LGA is looking pretty good (Slide 3), with around three quarters of the land area considered to be wooded, according to the 2015 Office of Environment and Heritage study into the New South Wales woody vegetation extent. Around half of our Council area is under state and local government ownership, with National Parks and Forestry being the largest public landholders. Darkinjung Local Aboriginal Land Council is the largest private landholder, with much of their tenure being former Crown bushland reserves.

The recent amalgamation of Gosford and Wyong local government areas brings the cumulative total of homes within 100m of bushland to 40,000. With most of our urban areas being highly developed, this places greater demand on greenfield sites to accommodate our projected population growth.

Greater than 90% of land within the LGA is considered to be bushfire prone (Slide 4). The Central Coast region, on average, is projected to experience an additional three hot days per year. The potential impact of increasing temperatures on both human health and natural ecology is well documented and the seasonal temperature variation is expected to considerably increase bushfire risk for our region.

According to a recent study undertaken by the Risk Frontiers group focussing on the 10 Sydney regions most exposed to bushfire risk, the Gosford region alone had the most homes at risk from bushfires near Sydney, with around 26,500 homes within 100m of bushland, followed by around 23,000 homes in the Blue Mountains region.

Despite this, and for obvious reasons, the proximity to bushland is not the only factor to be taken into account when assessing bushfire risk to homes. It's also important to consider factors such as whether bushfire hazards are located upslope or downslope from development, slope and aspect, as well as other variables affecting vulnerability of those communities in question. Community vulnerability can play a significant role in how communities plan, prepare, respond and recover from bushfire events.

Although councils are not firefighting authorities, we have a significant role to play in bushfire prone areas (Slide 5). This includes the approval of single dwellings and dwelling additions, as well as mitigation of bushfire risk on lands under our care and control. Bushfire management at the local level is complex, primarily due to interactions required with external organisations, as well as the community as a whole. This complexity can be exacerbated by the immediacy of social media, which can be both our best ally and our worst enemy. As such, council's role in fire management places us in a position of a consent authority and a land manager. We're also required to be a conservationist, an educator and a negotiator.

Council plays a significant role in the assessment of development applications in bushfire prone areas, particularly where Bushfire Attack Levels are considered to be BAL 29 and below (Slide 6). In these instances, council is a determining authority. For those of you not familiar with the Bushfire Attack Level system, the numbers on the screen represent the approximate intensity of radiant heat in kilowatts per metre squared that could be expected to be impacting upon any building during a wildfire event.

Councils do not always have the expertise in house to adequately assess bushfire threat associated with development applications. It is difficult for council to attract bushfire expertise in their development control sections, because most people wanting to work in the fire industry want to work for a fire authority. High turnovers of staff can lead to a shortfall in this experience. This is obviously not an ideal scenario for any consent authority. In some instances, Council may not refer questionable development applications on to New South Wales Rural Fire Service to double check as they are heavily reliant on bushfire consultants to provide suitably detailed and accurate assessments.

There's often pressure from developers, both large and small, to accommodate their bushfire protection measures on neighbouring lands, often council reserves, particularly where agencies have an existing fire break in place. There still exists a level of complacency, coupled with a lack of legislative framework, once dwellings have been approved and bushfire protection measures are put in place. Developers can construct their buildings to the highest bushfire construction standards possible, but in the absence of common sense, these structures are still just as vulnerable as those built without fire protection in mind.

How do we get home owners to be more responsible when it comes to maintaining their bushfire protection measures, such as not removing metal fly screens, checking and maintaining fire pumps or even cleaning their own gutters? There is definite merit in establishing a regular certification process to help police this behaviour and to help keep land owners accountable.

In its role as a land manager (Slide 7), Central Coast Council oversees the management of around 23,500ha of bushland comprising of water catchment areas, drainage reserves, unformed road reserves, as well as bushland reserves. We also have our coastal open space system and manage a significant amount of Crown bushland reserve.

As a bushfire hazard owner, high expectations are placed on council to remove the hazard impeding neighbouring properties from developing their lands and to mitigate what can sometimes be only a perceived bushfire risk, noting that all bushfire prone land is considered to pose a significant bushfire risk. On the Central Coast, council currently maintains over 200 fire breaks along our extensive bushland and urban interface. We also maintain around 156km of fire trail. The multi-tenure ownership of bushland areas across the Central Coast region requires a shared management approach between public land managers, private land owners and fire authorities, who may not always see eye to eye.

Research has shown that the biggest cause of house loss is as a result of ember attack (Slide 8), accounting for around 85% of homes lost. There appears to be a general lack of understanding in the community that this fact plays a crucial role in minimising house loss and damage to property. Councils work closely with fire authorities, such as New South Wales Rural Fire Service and Fire & Rescue, to help educate people about this fact. It's important to recognise that the more we understand about the urban bushland interface, the better targeted our bushfire protection measures can be (Slide 9).

I'm going to talk about a couple of case studies. The Wyong Retrofit Project was a research partnership between the University of Melbourne, the University of Wollongong and staff from the former Wyong Shire Council. Ross Bradstock was involved in this project. To date, there's been very little scientific research focussed specifically on building retrofits for improved wildfire resilience. This study looked at 10 separate sites across the Toukley and Durren Durren localities in the former Wyong Shire area that was considered to be at very high bushfire risk.

The main focus of this study was to determine whether more could be done on the built side of the boundary fence. It also posed the question, 'is there another economically viable alternative to fire breaks, asset protection zones and hazard reduction burning?' Whilst these types of mitigation activities have always been the easiest and quickest way to address bushfire risk in the eyes of the general public and, potentially, the political arena, do they really provide the best use of public funding in all circumstances? Would fire prone communities be supportive of a retrofit, shared expenses scheme?

This image (Slide 11) shows one of the sites that was looked at in Toukley Wetlands, which are protected under State Environmental Planning Policy 14. We're addressing the legacy of past planning that did not adequately assess or consider bushfire risk. This 100ha wetland is considered to pose a very high bushfire risk to adjacent dwellings. The study addressed costs associated with

preparing properties and upgrading houses to the appropriate bushfire attack levels to meet today's standards. Costs on average for five properties looked at in the vicinity of the Toukley Wetlands were around \$20,000 per property.

If we compare these figures to vegetation management in the form of fire break establishment, because hazard reduction burning in state protected wetlands is not an option, based on a total fire break distance of 2.9km and a width of 10m to protect 90 houses that are identified along this interface, each requiring their own retrofit; the total APZ construction costs over three years would be around \$218,000 with maintenance costs averaging around \$25,000 per annum, mainly due to the requirement for specialised equipment, such as all-terrain excavators.

Is there an economic question that hasn't been asked? Has anyone done an effective cost benefit analysis? Would the answer support environmental outcomes? What's going to give us better bang for buck, remembering that research has shown that 85% of houses are lost to ember attack? It is encouraging this morning to hear that more research is being done in this space.

In the land management arena, we are improving our baseline data, building on our current knowledge to ensure we are managing our reserves appropriately (Slide 12). Our comprehensive fauna survey program commenced in 2012 and included two National Parks and Wildlife count locations. The broad veg types across the landscape included wet and dry sclerophyll forests, rainforest, estuarine hanging swamps as well as dry heath. Ninety-three permanent survey sites were established in the former Gosford LGA reserves and we're looking to expand this program to the northern end of our new LGA. To date, 62 species have been confirmed as utilising our reserves, including nine threatened species. We've also undertaken preliminary wildlife corridor mapping.

Council needs to know as much as we can to make the best decisions that we can, utilising the best knowledge and research available. We recognise there are gaps in our current knowledge and we're tasked with managing lands that, in the grand scheme of things, we know very little about. Despite this, we're slowly revealing more and more about our bushland reserves.

The Long-nosed Potoroo (Slide 13), which has not been recorded east of the freeway for 30 years prior to the 2012 study, was recorded across two separate bushland reserves multiple times since 2012. Umina Coastal Sandplain Woodland and Kincumber Scribbly Gum Woodland are geographically restricted to the Central Coast, with a majority of each of these vegetation communities being located on land under council care and control. In addition, there's a number of flora species, such as the Wyong Sun Orchid, Somersby Mintbush and numerous undescribed, locally specific orchid species; these are also geographically restricted.

How do we best manage our vegetation communities and the species they support (Slide 14)? The information we have is not complete, nor is it current. There should not be an expectation or an assumption that we, as councils, know about our assets. Streamlined processes and desktop assessments have their place, but we can't manage what we don't know about. We're learning as we go with limited research undertaken to date. How can we best manage our bushland reserves if we don't really understand what we need to protect?

So how do we get the balance right? How is our role as both a consent authority and a land manager affecting the overall management of bushfire risk at this interface? If we don't get the development side of things right, it can lead to poor environmental outcomes for our reserves on the other side of the fence. Bushland reserves are not valued by all members of the public and there's significant pressure on land managers to establish fire breaks and frequently implement hazard reduction in bushland. How do we engage our communities, engage those people who believe that clearing massive swathes of bush over their back fence will save their houses? How do we get across the message that we are living in a combustible structure? That bushfire management starts in your own backyard? How do we convince them that bushfire management is that shared responsibility?

What is council doing to foster the concept of shared responsibility for the management of bushfire risks at the interface (Slide 15)? On private property, we're conducting disaster resilience workshops with aged care and childcare managers, utilising the Climate Wise Communities initiative started by Ku-ring-gai Council. We're preparing bushfire prone land mapping. We're partnering with universities on the retrofit project.

Over the years, we've provided introductory bushfire training in partnership with New South Wales Rural Fire Service for our development control staff. On public land, we're doing an annual bushfire works program, bushfire risk management planning, preparation of draft bushfire policies, partnering with Taronga Zoo and Boeing on Yellow-bellied Glider habitat restoration and community education programs, pre and post-burn monitoring on key sites across our local government area, vegetation mapping and baseline fauna surveys and involvement in the Hotspots program.

Where would we like to be in five years (Slide 16)? We'd like to have a resilient, educated and engaged community across the Central Coast. We would like development assessment processes that adequately consider bushfire threat. We would like to see compulsory pre and post-burn fire monitoring with perhaps regulation and funding extending the commitment to ongoing, long term monitoring. We'd like to see the development of a rigorous cost benefit analysis model for bushfire mitigation and retrofitting of buildings.

We'd like to have access to a central source of truth for biodiversity, including listings from other states as well as corridor mapping, improving and extending on BioNet.

We'd like to have a central source of truth for fire ecology data, improving on the Bush Fire Environmental Assessment Code basics, including things like research papers so that we know where to look. Perhaps it's an opportunity for a grant funded project? Maybe something NCC could help out with?

We see fire ecology expertise for hire; perhaps another opportunity for NCC. We see lots of exciting and new opportunities and we're looking to find specialists to help us monitor our sites. The more we understand about each side of the boundary fence, the better targeted, more effective our bushfire protection measures will be.

If you want any further information, my details are up there (Slide 17). I just wanted to acknowledge the input of Dr Anumitra Chand, Warren Brown, Mairin Ireland, David Lemke and Larry Melican.