

## **LESSONS TO BE LEARNED IN RELATION THE AUSTRALIAN BUSHFIRE SEASON 2019-20. SENATE STANDING COMMITTEE OF FINANCE AND PUBLIC AFFAIRS**

### **Introduction:**

I have been in the NSW Rural Fire Service (NSWRFS) for over 16 years as a firefighter and Training Instructor for the NSWRFS service. This is my views as a front line firefighter on some practical ideals on how we can better manage large bushfires for Austrians. I have been actively involved in the following fire events recently: Deployment the Queensland Gladstone Fires, three deployments to Best Nests far North Coast including the Grafton fires, NSW Black Range, NSW Good Good and the Calabash fires.

I have some practical information to better manage remote bush land fire ignition techniques that need to be adopted due to our drier hotter summers, improving Australian preparedness for natural disasters.

### **Hazard Reduction to mitigate the impact of natural disasters for Australians.**

*If you look at Mr Bob Carr's 2005 green legacy in which he locked up the NSW State forest and has now caused issues to future Premiers of NSW Government. Fires need Fuel, no Fuel no fires. All fire fight understand the simple fire triangle. You need Oxygen, Heat and Fuel are necessary ingredient for most fires. If you remove one ingredient, you have no fires. Maybe the state government should issues regional people in NSW with wood cutting permits to remove fallen timber in government run land. This may help reduce large timber fuels loads?*

It's unpractical to undertake large scale hazard reduction burns before the new 2020 -21 fire season, we have to much bush land to burn in a small window of opportunity. It's practical to do more hazard reduction around asset protection zones to protect Australians from Bush Fire Ember attacks. If we look back at lessons learnt for this year's fire season that start in August 2019 and ended in late February 2020 which burnt over 8 million hectares under extreme weather conditions. It's going to be nearly impossible to burn the bush during the winter months coming up to the new fire season and the recent rain events along the eastern seaboard.

It's practical to have a new Hazard Reduction (HR) / Fire Trails / Fuel Load Assessment Commissioner in either State or Federal to set practical and achievable goals for all Local Governments that manage lands on our behalf, either Federal, State or Council owned. They need to be made more accountable for their lack of inaction over a number of years. It's also apparent that the State government has not managed their current fire trails. Then there is the question about the States asking the Federal Government to help fund fires due to their neglect or ignoring old existing fire trails that they should had better managed over the years.

It's practical to look at Urban Rural interface properties HR and how quickly we can mitigate the fuel load before the 2020-21 season. NSWRFS crews will need to burn the bush 24/7 and may be practical depending on the weather conditions. It's practical to ask the State or Federal

Governments to fund Volunteers to mass together to undertake large HR like they do for when urgent fire deployments is required to back – burn for property protection.

I can only speak for myself, but I need to take my own personal experience, that I need to take leave from my current job or undertake mitigation during week days on. The other unpractical issue is the mountain of paper work required by Local District Offices and logistic requirements are difficult.

#### **Hazard Reduction, later years.**

A new Commissioner or Agency should be considered. It will need to be very proactive in its approach, either funding these tasks with a central budget, moving quickly to reduce fuel loads around populated areas, either using land clearing machinery or burning the bush more frequently. Australians who live close to National Parks should be given a one off payment to remove native vegetation to be deemed hazardous by the Local RFS Brigade. Return the permission back to local knowledge, not people who are managing this in Sydney CBD.

**The Commissioner should have the ability to issue any on the spot removal permit for land holders or any Park land that encroaching populated areas. The new agency membership should not be consist of Academics, or paid staff from other Land Management Agencies.**

**It needs to be completely independent and not empire building. Member have only a one fixed term appointment of no more than three years. Members need to be appointed with fire fighting**

**background and hazard reduction experience of more than 10yrs. Commissioner needs to reports directly back to the NSW Minister on what is achievable milestones. This Commissioner can then instruct other government and non-government land managers to undertake urgent Hazard Reduction around populated areas.**

It's practical to improve small regional airport to accommodate NSWRFs large air tankers to include new batching plants for fire retardants for a quicker turn around response time. This plan is expensive, yet practicable result can be achieved before the 2020-21 fire season.

#### **Adequacy of fire Combat agencies to manage larger bushfires**

As a fire combat agency, we need to move away from our traditional off road commercial 4WD fire tanks appliances. They have significant limitation due to the tough rugged Australian bush land. They are just overall to slow when they need to respond. You can spend millions in repairing old fire trails and the ongoing and reoccurring funding to keep them maintained for our standard 4WD Trucks or develop a new special built reliable fire truck for Australia.

It's practical that we should model our new light tanker with the same capabilities as the *Australian Defence Force (ADF) light armoured vehicles that are All Terrain (8 all-wheel drive or metal track)*. This will hopefully improve Australian preparedness to be more resilience for first responders. Research and development should be considered for a new Australian Built Firefighting light tankers with better off road capability, for remote fire applications due to our hotter and drier summers. This will speed up the response time to put fires out for all us firers.

It's unpractical to have this type of vehicle developed before the new fire season commences, but we should consider retro fitting new off the shelf Multi – Purpose rubber tracks system that can be easily installed by volunteer fire fighters or Council mechanic using basic hand tools. These rubber tracks system should be installed before the new fire seasons starts. You'll only need to remove all the existing wheels and then replace them with these new rubber track system that can be stored in each fire stations.

We need to take the fight into the Australian bush land, meet it head on, and move more quickly with the new rubber tracks appliance for drier Australian conditions to keep us all safer as we move into bigger and longer fire seasons each year. It takes days and a lot of working hours used to develop new fire controls lines for standard commercial 4WD access track to even reach the active fire edge, we are just waiting around and it's just to slow going, backwards and forwards to fill up multiple fire trucks for more water to a sealed road.

Most large Bulldozers have the ability to push through into thick Australian bush land with their metal tracks and dozer blades, we should then be able to follow behind them with this newly installed All terrain tankers with rubber tracks reaching the active fire edge quicker. Get to the fire before it gets us all again! Fire Fighting is time critical, all firefighter know this!!! If you can respond within the first 4-8hrs you have the ability to suppress small fires before they grow too an uncontained situations.

I had the opportunity to experience and follow one of these light armoured vehicles from the Australian Defence Forces during the NSW Good Good fires in the Snowy Monaro Region. I was in a standard NSWRFs Cat 7 tanker (Gross Vehicle Mass of 8 Ton), and was using low range 4WD and could not could keep up with it. It's a very impressive 8 wheel vehicle used by the ADF.

**Having the ability to use a rubber track system on the fire ground will be a significant game changer in firefighting tactic, not just waiting for it come onto open grounds with our standard fire appliances supplied by NSWRFs. Usual fire tactics is to wait until the fire reaches open grass lands or risky back burns to give depth and then fall back to property protection if all else fails. But we have a significant disadvantage against us, it's the Great Dividing Range and its rugged country we live in.**

**This type of rubber track systems, we will be able to reach more remote areas in the event of a dry lightning strikes which has started small fires in past. They all start small and just get bigger and bigger due to remote access issues and the logistical requirement to get heavy private plant and equipment to the fire edge quickly.**

Due to Australian being a hotter and drier place, we as firefighters (band of brothers and sisters) need to move away from some of our ideals, including some of our traditional firefighting equipment that was good 10 years ago. We need to look at better Multi – Purpose rubber track type for our harsher conditions. The whole World is now looking at us in how we will can better manage the new fire season of 2020 / 2021 and come up with new innovative ideas.

It's practical to develop newer mapping technology system that can map rugged Australian Terrain to quickly construct new safe access tracks for earth moving bull dozers into active fire edge using

the new retro fitted multi-track tanker in matter of hours not days. You may not be aware that the NSW Rural Fire Service has payed staff being used as Mitigation Crews.

They are tasked to maintain and clear current fire trails within NSW, including Rural Urban interface properties. They also assist in setting up large base accommodation camps for out of area deployment for NSW RFS members. It's practical for the NSW RFS to upskill themselves to operate heavy plant equipment to clear existing fire trails in NSW.

I had not much to do with this type of operation, but they use very basic hand tools to clear track of ground litter, fallen trees and large or small branches. Very time consuming process and a more practical approach would be to empower them with heavy plant equipment owned by the State Governments.

It's practical to look at installing a wet systems on residential house roof that are close or near bushland, on tiles or metal roofing. This will require using existing main pressure system and just turning on the garden tap before you evacuated your area.

There are a number of low pressure system that are now available on the market and can be easily retro fitted using a start 13mm garden hose. This can easily be installed by a handy person, DIY or a plumber.

It's practical to commence a standard water tank valve replacement program for residence who have large static water supplies. Most water tanks are fitted with either 32mm, 40mm or 50mm stop cock valve.

Each site will need to be assessed and determine if it will be able to have any 65mm fire coupling retro fitted to any existing water tank stop cock valve. Plumbers would be able to simply modify existing system at reasonable cost. This should be consider as a roll out pending the new fire season? Who will fund this, the NSW State can sort this matter out? *It's cheaper to fund this type of one off scheme than pay \$25million in building clean-up costs. Might even save more homes?*

It's practical to look at the safety of all first responder and their appliance vehicles. The State Government should consider retro fitting special metal safety cages internal for crew protection. If this too difficult to do so, they may require to consider a steel nested cage on the outside of the vehicle body and secured to the main truck body. This metal cage should be designed to absorb the initial impact from a large object.

As a firefighter, our biggest concerns when entering fire effected area is the native Gumtrees. They are like mushrooms and drop without notice.

As we all know, the NSW RFS is the largest fire fight organisation in the World, they need to look at better protection their volunteers with P3 full face masks. The norm is now becoming a longer fire season and more exposure to smoke. I am aware that the Queensland Government supplies P3 mask for their rural fire fighters.

## Summary and recommendations

It's impractical to undertake large scale hazard reduction (HR) to the Australian Bush land. There is too much to burn within a small window of opportunity.

It's practical to undertake small HR close to properties near populated urban areas every 2 years.

It's practical to remove native vegetation close or near populated urban areas by developing a standard template like the *NSWRFS 10/50 vegetation clearing*. This will need to be significantly increased and will give people living near bush land an additional way of preparing for fires including ember attack. See Attachment 'A'

It's practical, but costly and achievable that either the state or federal government assist funding this type of land clearing.

It's practical and achievable that Local NSWRFs Brigades (we have over 2000 brigades in NSW) issue a standard on the spot notice to occupiers that they are able to undertake any significant land clearing without any pending legal prosecution by local Councils to the Environmental Courts of NSW. We have the ability to issue special permits to landholder if they want to undertake special burns for agricultural burns.

It's practical and costly but may not be achievable due to internal government resistance to instruct all Government land managers to clear native vegetation by issuing them with a on the spot notice by NSWRFs local Brigades.

It's practical to have a new hazard reduction Commissioner Framework for enforcement requirements that works closely with all NSWRFs local Brigades.

It's practical and achievable but might meet resistance with NSWRFs bureaucracy much the same as the P2 and P3 masks saga as to retro fit new multi – purpose rubber track system to all current NSWRFs tankers as a one off cost, before the new fire season starts. Please see Attachments 'B' & 'C'

It's practical to develop newer and better advanced All Terrain Firefighting vehicles technologies into the future to better manage lighting ignition within rugged bushland.

It's practical and achievable to develop newer mapping technology for difficult terrain for new urgent access firefighting trails.

It's practical, achievable and will meet resistance but costly to empower the NSW State Mitigation crews with large plants and machinery for fire trail clearing for other government land management agencies.

It's practical and achievable to roll out water tank coupling for people living near the bush for RFS service vehicles using local NSWRFs brigades.

It's practical to encourage people living near the bush to install roof top sprinkler system on their own homes or buildings.

It's practical and achievable to install to all new and older fire vehicles with special steel impact resistance crew protection frames, but might meet resistance with NSWRFs bureaucracy.

It's practical and achievable to supply all front line rural fire fighters with new P3 full face masks. Fire fighters know how to manage their own dehydration. It's costly but achievable to supply new filters in bulk to all regional fire control centres. Please see Attachment 'D'

General comment:

*We have only lost around 8 million hectares of burnt land this fire season or more. We now had a good down pour of rain and the ground will stay wet until the start of new fire season 2020-2021. It's unlikely any HR will be effective before we slowly creep into the new fire season.*

*We need to shift our focus to better ignition management strategies in remote bushland when the bush starts to dry up again, then using risky urgent back burning to stop the spread of fire embers reaching unburnt ground which we still have plenty available fuel loads around.*

*Australians know that the bushland is now in its healing process due to the recent fires, dry, and dead leaves and unwanted timber matter will evenly fall onto the forest floor which is already dry and may see some areas become dangerous again in several years if we have warmer winters to come. As the Australian sun that always rises from the East and set to the West, this will filter down onto the ground floor quicker due to lack of foliage coverage and dry out the canopy floor much quicker than normal.*

Thanks,

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