

Index:

[1]	Introduction.....	Page 2
[2]	Recent Bushfire in Southern Highlands...(personal account)	Page 2
[3]	High Risk Irresponsible Burning ...(personal account).....	Page 3
[4]	Building Standards: BAL	Page 4
[5]	Other Issues [some of] previously raised	Page 5
[6]	Denudation and Climate Change	Page 6
[7]	PDF: wildlife and conservation bushfire recovery immediate response January 2020	Page 7
[8]	Blame the Bush Mentality	Page 8
[9]	Climate Change Australia	Page 9
[10]	Current situation re fuel load in bush, hazard reduction and fire intensity	Page 10
[11]	Agricultural impacts feeding droughts and fires	Page 10
[12]	City to country exodus	Page 11
[13]	Solutions to reduce frequency and intensity of bush and wildfires	Page 12
[14]	Summation	Page 14

[1] Introduction:

1. I am making this submission to the NSW Bushfire Inquiry from the following perspectives:

Firstly; having been personally affected by the fires in the 2019-20 summer – *related issues*.

Secondly; as follow up to *relevant related concerns* previously presented for over a decade to local, state and federal authorities regards the bad approach to the natural environment and the inappropriate styles of building and development – the response to which has been poor or non-existent despite numerous meetings with mayors, MP Pru Goward, presentation of petition and even an in person request given to Mr Baird to which the promised response never eventuated.

As a citizen and resident of Australia I believe I have a right – and responsibility – to make plain my objection to bad practice regardless its entrenchment since the colonial occupation of Australia.

2. I have no vested interest in making money or been paid to ‘tailor’ my observations. My logical deductions come from a good breadth of general knowledge, understanding of the natural environment and listening to genuine experts in nature and planetary ecosystems etc.
3. I am fully aware that the vested interest of many parties coloured by the entrenched old colonial approach and lack of respect for nature, profit first – health of planet last – far outweigh any compulsion by the authorities to listen to the wisdom of the individual, no matter how intelligent or logical their input, or how many lives it will protect or save in the long term. This gives grave concern as to the response of this inquiry, that it may be more of the ‘same old same old’ *blame the bush*, giving ever more excuse to over clear while continuing the age old bad practices that brought our country [and our planet] to this level of inferno.
4. *There will be those who won’t accept the issues I raise are related to the bushfire crisis*. However, anyone with a good education and understanding of the ecosystems of our planet, of atmosphere and its role in weather and life on Earth, and who has paid attention to the facts over the decades, will see the connections clearly. There is also the tendency for people to just look at the ‘little bit in front of their nose’ – short term profit or ‘self’ over long term outcomes. All the piecemeal actions [by individuals and big concerns] have long term accumulative consequence. Local areas collectively become greater national areas, and they global areas.
5. Destruction and bad planning regards the natural environment in my locality has not only destroyed village atmosphere, loss of biodiversity and natural beauty, but has undoubtedly contributed to adverse conditions locally – and thereby collectively on a broader scale. Please see later notes.

[2] Recent Bushfire in Southern Highlands: Advised to leave, but nowhere to go.

1. The authorities made it clear that any person not able [mentally or physically] to stay and protect their property were to leave early. With a southerly buster predicted to arrive late in the night I made the decision to leave to beat the road closures and loss of visibility. As a person over 60 with serious health conditions, including bronchial asthma, this was logical, though the effort to leave and find accommodation was not without difficulties, serious health implications and consequences. My area was evacuated late in the night when the Morton fire erupted from embers some 30km away. Fire was in my street at a number of areas around my property about 10 - 20m from the fence and about 30m from my house. It was undoubtedly due the Rural Fire Service [and God] that my neighbours and I still have a house standing, for which I am most grateful.
2. When a second event loomed with an expected arrival in the early hours I was met with a ‘huge gap’ in preparedness by the authorities to aid those as myself, living alone, frequently unable to drive [or drive far] for health reasons [or sans transport]. On contacting the [REDACTED] RSL [prior evacuation centre] I was told I was welcome to wait out the fire situation there. However, until there was an evacuation order the club would close 12 midnight forcing me [and all others sheltering] to leave the building. Given that the southerly change was predicted around 1 or 2 am this would mean being stranded without facilities [toilet etc] in an unfamiliar town in the middle of the night alone. There was the likelihood of dense smoke, and only my car as refuge for many hours, giving an inadequate supply of fresh air. There would be considerable risk to drive from the venue at such an hour, and to where? Many roads were closed. I would not have been able to go home at midnight, or travel for many reasons given the conditions and circumstance. [The emergency warning given around 1am]
3. There was high risk fire would revisit my street [as per the prediction maps]. With asthma and the inadequacy of my house to keep out the smoke, I would be at serious risk. To be forced to leave late in the dark on country roads hampered by my health, the blindness of night, dense smoke haze, and animals crossing while also risking a severe asthma attack just getting into the car, well – it wasn’t an option.

4. I was given some numbers to ring, all of which brought no resolution, as apparently until the evacuation notice was given there was no emergency accommodation on offer. Waiting till the evacuation order was given in day time would have been bad enough a situation, with smoke obscuring visibility on narrow and inadequate country roads, without being evacuated in the early hours, or stay 'sheltered' in an area likely to be on fire again. The roads out of my area were closed later due fire and smoke, so I would have been trapped to stay, and trapped out if I had gone to wait it out till midnight at the RSL.
5. I hope my story here makes it clear that there is a 'gap' in what constitutes a need for accommodation / evacuation shelter in a bushfire emergency. Surely the RSL could have remained open throughout the night to the next day given the fire front was expected in the early hours, and that the area I live was deemed at high risk by the authorities and we were been encouraged to leave early.
6. As there are many single older and elderly with limited capacity in these areas, to have this huge gap in facilities during a time of serious crisis is surely unacceptable. Whoever deemed there would be no evacuation facility open until an order of evacuation was actually given was working off paper not real life situations. Leaving the healthy and able without a venue given the nature of the roads, the isolation of areas etc. compounded by loss of visibility due smoke, and the timing [night and early hours] of many of the fire fronts is not good, let alone those with serious difficulties who live alone, or even those with children.

[3] High risk irresponsible burning – Goodbye country fresh air:

1. I came to the Southern Highlands to regain my respiratory health after the choking pollution of Sydney suburbia. For some time my health improved significantly. Recent years with over development crammed in an area unsuited, made more possible by lifting of zoning regulations and profit over sensibility, my health has deteriorated. Much of this is due to the huge increase in burning [most unnecessary], which is now basically all year round. Even before the bushfires I was compromised in my health by the inconsiderate and unsafe and high volume smoke, slow pile burning near my property, and escalation of fire pits and wood fire heaters.
2. With the lifestyle demand for wood fires and fire pits, from these ever increasing I am now frequently prevented from taking care of my property due the high volume smoky green burns that are left to burn all day, often overnight, even unattended non-stop for two or three days. Some burn so much in one 'green' pile it is common place for smoke to blanket and cover a square kilometre or more. Other's make huge fires that are scary to say the least, and oft leave these unattended too. With three or four burning in this manner it can be life threatening when one has respiratory health issues to be outside one's home. With no warning or notice ever given, by the time you know of the smoke your house is inundated. There are new regulations – no one follows them properly, if at all, and they still allow for too much burning in very dry conditions. Much of the stuff burnt could be composted, or on large properties be left for the poor wildlife – save too few here care about the wildlife.
3. Even during the heavy bushfire smoke period this summer and with 30+ degrees, fire pits, pile and rubbish burning, and wood fires [some produce copious smoke] were on the go, impacting the few days clear of bush smoke and hazard reduction days. The inconsiderate and bad burning has continued since the fires even on warm days and nights, and will be a nightmare now through winter. With the permit period now over I have had to endure this ignorant green burning, maximum smoke, slow fire almost every day. Very few obey the rules and burn dry and hot, or leave out the big logs etc.
4. This area has a near 100% uptake of wood fires and the theft of trees is rampant, as is the removal of trees on private land to fuel this obsession – terrible denudation of vital habitat. I have had a few occasions in which I had to call 000 as one unattended rubbish pile on a large paddock was travelling through the long dead grass. Luckily it was before the breeze had gotten up. Another time a fire was so horrendous it formed a large mushroom cloud explosion, and dense black smoke some 10m or more in the air. I had thought a gas bottle had exploded or a house had gone up. It was just a person burning in a very dangerous manner high volume petro chemical materials. It was also during tinderbox conditions. Some even burn on windy days. The wind turns a lot here, very risky. I've lost count of the number of fires left unattended by one developer this area over the years.
5. Most of the illegal or unattended burns are of a weekend [often building waste at night]. One is left with only the 000 to call and one is hesitant to be a nuisance, and its not always possible to know where the fire is given the huge conifers blocking views and risk to health to go investigate. The smoke from bushfires and hazard reduction is bad, but understandably not so avoidable. I spend my life on window and door watch, barely able at times to air my house. Even hot days past 30C is no protection. I mention this because it has often concerned me given the tinder box conditions and the vegetation of the area that it is a serious hazard. Surely residential should not be allowed all these fire pits and pile burns. Too many are irresponsible. Cramming so many 'silly' people in a small place amidst the bush and desiccated paddocks and letting them burn whatever whenever is surely not wise.

6. And if the government cared about people's health, any fires [including wood fires] would not be allowed in residential areas, but left to large rural properties well away. Already the night air is frequently bringing down smoke haze not far off what we had with the bushfires. You'd think people in a place that was on fire would want some fresh air for a change. If people went back to only burning wood fires when it is actually cold, that would be a big chunk of the year freed up for me and those with respiratory problems to recover. Much of the respiratory ill health both in the city and regional towns etc. is the smoke from all these fires, even if people don't realise it. The elderly and those with respiratory problems are greatly at risk. It predisposes one to viruses like the flu and no doubt this Covid 19. It is bad for children, causing immature lungs to be compromised, asthma, glue ear, and possibly even SIDS. It causes lung cancer through bronchial diseases. They banned coal fires for the very reason that wood fires and other burning still causes harm.
7. People have the right to burn and produce hazardous pollution while those who need fresh air have no rights for a smoke free zone on their own property to keep from serious ill health. Guess it's like all those destroying the world's ecologies – they have the right to stuff up the planet for those of us who want to keep the trees. Humans and fair practice just don't mix.

[4] Building Standards: BAL

1. My understanding of the introduction of BAL is that it was to ensure buildings were built to a standard that would make them safe in a fire event given the existing vegetation. If this is the case, it defies logic, that even in new developments the indigenous native vegetation is being stripped to almost 100%, regardless of its status of endangerment. This denudation and the ignorant manner of so called preservation [ironically] is counter-productive and unnecessary [see Denudation...].
2. Unlike many in this area I was not of the fortune to custom build, leaving the fire safety of my house at the mercy of the building regulations set by the authorities that the project builder could skimp to.
3. The project home builder said there was no requirement for a bushfire assessment. I was told by a neighbour who built recently there were no bushfire risk requirements due to 'managed lands'.
4. I have since discovered the 'cheap' windows in my project home are full of hidden vents to prevent the glass blowing in, and they allow smoke to fill my house, be it that of inconsiderate neighbours burning to produce copious masses of 'green' smoke or bush fire smoke. In hindsight it is odd given the bush roadside and wooded areas here [*the vegetation is not the problem*] that there were no requirements for windows of substantial strength [sans vents] with double glazing. The authorities have been most remiss in the standards of building they have allowed in my locality. Clearly the push for development has outweighed sensibility.
5. As any person not in the building industry I was at the mercy of the builder and the council regulations. Much of the endangered and 'supposedly protected' woodland near my home has been destroyed by all and sundry for fear of bushfires, legally and illegally, and in firewood grabs. This is all shameful and ignorant vandalism and defeats the purpose of having a tree-change. With all this fear of fire, why not a better building code in the first instance? Some of those most against the bush here are happy to throw tonnes of woodchip around and up to their house, grow massive conifer walls, or store wood or junk piles close to their house, etc.
6. There is much deliberate illegal clearing to reduce BAL ratings to reduce building costs. Conveniently the missing bushland is ignored by authorities.
7. BAL seems only to consider the immediate vicinity. Surely the overall conditions of a wider locality would be wiser, especially in light of the nature of fires in recent times.
8. *Personally, I have always believed in building to the environment*, not trashing our vital ecosystems. The consequences – known for 40 years – an inhospitable climate that has resulted in these extensive, more intense and more frequent fire events. It also makes a place devoid of soul, of the very reason I [and many] came here, to enjoy a truly natural vista, to enjoy the native participants of the ecology. It used to be a nice place. Sadly, the average person here has no love of the Australian native ecology – they come to clear and conquer it – not enjoy and marvel – or appreciate. Few of these vandals give a damn about the amenity of others or our wildlife. Sadly the demand for suburban development to appease these pretend country lovers is big business, big dollars, so the legislation for protecting our environment and ultimately our climate is bypassed. The nature and placement of this development is compounding climate change as well as impoverishment of our natural ecosystems that support life.
9. *There is much needless environmental vandalism here, both illegal and legal* for want of better planning and truly fire safe building. Currently the prevalent 'conflict of interest' within the system to favour developers [many of whom are councillors and MPs, their mates or their relatives] – thwarts the protection of the environment and

execution of good planning outcomes that protect both residents and our vital natural ecology. I have made much attempt to get a better approach. *Within my recommendations I have repeatedly stated the need for building to the environment, not destroying the ecology.* Of course I have been ignored. Resistance to change approach for a healthier and safer environment is throughout the Southern Highlands and undoubtedly the State in general given the many issues in other areas, which are also ignored by our governments. When the fox is determining the design of the chook house!

[5] Other issues [some of] previously raised which feed into fire related issues:

1. Zoning: retaining the existing woodlands, and development to go on already [human induced] barren degraded land [plenty in the Southern Highlands]. Instead the few remaining healthy stands [even *rare* good acreage] of critically endangered ecology are being decimated. The 'preservation' in these inappropriate suburban developments is a sham, with protective legislation thwarted. A common excuse is the fire risk – so it is cleared – as if BAL doesn't exist. Landowners frequently illegally clear to get more \$ for lots, knowing prosecution is unlikely. Their windfall in sales can more than compensate for any fines.
2. Destroying what little is left for want of re-zoning. State and local government have found no difficulty in removing or by passing protective legislation for the native ecology. Why then so hard to rezone and move residential onto existing barren land and genuinely protect what remains of our woodlands and forests? It is logical to do so, because it would make for an easier means to protect the incoming residents from fires.
3. The practice of denuding and damaging waterways with senseless placement of infrastructure. This common practice is bad for the environment contributing to impacts of climate change locally and accumulatively on a broader scale and downstream. [see Denudation...Page 6] Failure to provide suitable space and vegetation buffers to filter the many phosphates, pesticides, herbicides and other chemicals that run off human occupied lots into the waterways. This pollution has devastating impact on the local biodiversity, both plant and animal, often causing die back of native flora.
4. Stranding a few isolated trees out of acres of well wooded forest, damaged, undercut, to tower 20-40m on a small lot, to either: be removed later or cause serious problems or even injury to incoming residents; provide a stepping stone for fire over the buildings. This is not 'preserving' habitat despite the authorities calling it such. The instigator of this useless 'preservation' style in developments demonstrates little common sense, let alone an understanding of ecology [flora and fauna].
5. Denudation of native ecology in developments claimed necessary to protect against bushfire is contradictory:
 - i. In light of BAL
 - ii. Dead ends to trap wildlife against fences in fire and flood, or force it onto properties to meet demise due pets or human activity. Failure to incorporate animal crossings during or post development.
 - iii. Fencing that blocks wildlife corridors hemming in the few remnants also prevents access to put out a fire.
 - iv. Inadequate or non-existent buffer zones around remnant vegetation to cram in maximum lots along with inadequate roadways in the event of a fire situation.
 - v. Remnants are so stripped to the bone and narrow they are more prone to dry out and die back to become a fire issue. They are prone to firewood theft and weeds. Properly protected, widened and regenerated they would provide many benefits re healthier local conditions. [see Denudation....Page 6] They would provide windbreaks.
 - vi. Even waterways are treated in this ignorant manner, reducing all the benefits that they provide in combatting aridity by retaining moisture in the environment and the overall health of the environment.
6. The current age old retainment of a narrow band of trees on the boundary along a roadway fails as preservation:
 - i. These stranded remnants encourage wildlife onto roads with little warning due the vegetation.
 - ii. They desiccate quickly and suffer die back to result in tree issues on roads in wind and fire situations.
 - iii. Native remnants need to be wide belts within / dividing developments with adequate buffers of ember and fire retardant species and managed grassed areas [to dual as community amenity areas] forming connected wildlife corridors with animal road crossings as much as is possible.
 - iv. There needs to be a broader area consideration, not the current piecemeal lot by lot, quantity cram in approach. A broader area plan would also make for a better fire mitigation and evacuation plan.

7. Conifers: despite all the protestations that the bush is a fire risk and must be cleared to save lives, bizarrely great conifer walls are permitted, proliferating, even planted in woodland to take fire immediately from ground to canopy. These monstrous land dehydrating, killer of other plants, highly flammable [high pitch / resin content] with their huge fuel loads are causing serious threat and issues. They line roadways more densely than bush thereby posing a serious threat in fire situations. They create wind turbulence and a solid sun block. They need to be banned. They are of no habitat value for Australian fauna.
8. Subsidies for existing homes to be better equipped with fire preventative measures. E.g. Fire screens, shutters, gutter guards, etc. This would be good for business / economy too. The more protective measures and better fire-safe building designs and materials are encouraged, the more mainstream and affordable they will become. Instead of community and livelihoods destroyed, they would survive with buildings serving as safe havens, reducing the need to evacuate etc.
9. A petition from Bundanoon residents outlining many issues re loss of our natural heritage and building to the environment was given to the state government – only to be fobbed off to council, to be fobbed off by council. It was expected given the nature and the attitude in general of the majority who have ignored the connection of our native ecology with the Earth's ecosystems, and consequently climate change, and therefore bushfires.

[6] Denudation and Climate Change:

1. The world is at a critical point re climate change – hence the inferno situation – retaining and regenerating our indigenous native forests and woodlands is paramount in mitigation and reversal of man induced climate change.
2. All the individually destroyed areas of indigenous vegetation – accumulatively – contribute to local climate and weather conditions, through to global climate change. I.e.: even small areas have global consequence.
3. Denudation of indigenous woodland / forest and other indigenous native ecology has long been excused and played down from the climate change debate, with little mention in the mainstream media. It has been all about greenhouse gasses produced by fossil fuels with occasional debate about methane from beef cattle and dairy cows. Climate change is not that simple.
4. Another notable omission in the media are the many climate and weather factors contributed by human infrastructure [all forms], which have replaced and all but obliterated the natural ecologies vital in keeping our planet viable for life. As residential and commercial infrastructure becomes more dense and widespread, it increasingly eliminates vegetated areas with ever greater consequence on vital biodiversity, climatic conditions, and the water cycle etc. Processing CO2 to give oxygen is severely compromised or absent.
5. The world's forests have been removed to the point of changing their weather creation. In combination with the myriad consequences of human activity, the atmosphere of the world has changed how it operates. A hotter atmosphere is a more volatile atmosphere. Hence the change in what used to be fairly predictable weather patterns inclusive of trade winds and monsoons. [e.g. failure of monsoons in Asia and the severe drought conditions on the west coast of North America].
6. Heating oceans have also changed the atmospheric conditions above them, changing weather patterns. A hotter world has led to the melting of our poles and glaciers. All of the impacts are having myriad knock on and interconnected consequence. It is just like a domino cascade. First one or two blocks fall, each impacting numerous others; each knock on more blocks than the preceding. We are not on the first row of blocks. The cascade is already many rows down the flow. It will take a mammoth and co-operative global effort to end the cascade. Currently the measures to stop the cascade are far outweighed by the exponential increase in the contributing factors to the cascade. You don't need to be a great mathematician to work out how it will go.
7. Treed ecology has long been seen as a resource to exploit. This has often been claimed to be sustainable, however this is a fallacy. The removal of full ecologies to make room crops, e.g. pyrethrum, wheat, palm oil, plantation timbers etc. have in claiming sustainability not factored in the consequence or the removal of the original vegetation, inclusive of weather impacts. The same for all other human ecology replacement.
8. Every tree cut down contributes to climate change; every indigenous native ecology cleared or degraded has outcomes that feed into climate change in various ways. Similarly exotic trees, single or stands of.
 - i. Trees are a carbon sink, and processor of carbon dioxide giving us oxygen. Every tree cut down is no longer processing that carbon, not just today, but for the rest of its life – oft hundreds of years. To replace its current capacity it would need to be replaced by hundreds if not thousands of seedlings immediately. The oxygen percentage of our air has declined. That should raise alarm bells.

- ii. More trees are being removed than are being replanted, or able to regenerate. That's an ongoing loss.
 - iii. The more mature the tree, the greater the efficiency of processing carbon.
 - iv. Burning trees [any vegetation] releases the carbon [and other gasses] into the atmosphere.
 - v. Trees transpire and produce moisture that produces rain locally or is carried great distance to rain elsewhere.
 - vi. Trees protect lower storey and ground covers to in turn provide vital habitat and micro climates.
 - vii. In healthy ecology they keep an area humid, shade [canopy] to reduce heat gain of the ground, and prevent evaporation of soil moisture, staving off aridity and consequently drought. They protect water ways.
 - viii. Healthy ecologies and trees provide groundwater retention and protect against soil erosion, salinity, run off, flooding. Tree roots bind the land.
 - ix. Reduce wind speed, wind erosion and wind induced plant desiccation and evaporation.
 - x. Native vegetation [all levels] has evolved such that it binds the soil and therefore reduces the incidence of dust storms. [the great dust bowl of prairie States in America was human induced due removal of the original prairie grass that bound the soil even in drought – this is now common place in Australia]
 - xi. Protect loss of biodiversity: vital living organisms from soil microbes, fungi, invertebrates [e.g. worms] and house [habitat] many animals, be they reptile, bird, mammals, inclusive of pollinators. The loss of which will impact human food production as well as the ongoing regeneration of our vital ecosystems.
 - xii. Provide compounds from flora and fauna that aid in medical research; human spiritual wellbeing.
 - xiii. Local ecology may house migrating fauna, birds in particular, that then become threatened, with knock on effects in other localities or countries. Not all interconnections of flora and fauna are known until well down the track of consequence.
9. Full ecologies – i.e. all storeys retained – have myriad inter dependencies that are vital to the health of our whole environment. This is why the obsession with scalping 'country' areas of all bar a few trees is so detrimental to the health of the immediate locality, as well as contributing to climate change.
10. Stuff of basic school lessons – or at least it used to be. Basic maths tells us that if you keep removing something piecemeal indefinitely it will eventually not exist or reach a point of failure in its function.

[7] PDF: wildlife-and-conservation-bushfire-recovery-immediate-response-january-2020-200027-b

1. I was directed to the above PDF brochure on sending an email in support of the Australian Conservation Council *in regards to logging* of vital koala [wildlife] habitat even post the vast loss of vital habitat due the extensive bushfires 2019/20.
2. In demonstration as to how out of touch the local MP – and government in general – is with its constituents, I was responded to with a '*copy and paste generic*' answer about kangaroo culling. Not only was my email ignored initially [I had to resend and request acknowledgement], whoever eventually responded *did not even bother to actually read my email*. On advising the MP office of their failure to address my correspondence in a satisfactory manner, I was again ignored. Sadly this is typical when trying to get change in regards our vital ecology. Unfortunately I am not a wealthy developer, farmer, miner or logger to get any attention from my MP to the real problems facing our world courtesy of the former.
3. This brochure boasts of great things by the NSW government in response to the plight of our wildlife and ecologies due the bushfires. However, it fails to address the causes of the calamity: climate change courtesy of denudation, fossil fuels, land use and practice which are endorsed by the NSW State Government.
4. 1080: the inhumane use of 1080 in an aerial drop in an area of starving animals with the pretence that only the feral animals will be affected in short or long term is rather bizarre given that [Australian] possums in NZ are targeted with 1080. [it has proven evident that *research* in relation to chemical products is suspect e.g. Monsanto recently, DDT, haemorrhagics (e.g. Pindone: food chain knock on effect on carrion birds and raptors).
5. The term wild dog needs to change to 'feral dogs' and 'dingoes'. Dingoes are deliberately targeted as a pest under 'wild dogs' – apparently their right to Australian citizenship rescinded, despite 3000 plus years melded into the ecology and ecosystems of Australia as vital apex predator. While shooting 'true ferals' is a far better option to

poison, it still raises the question of including dingoes. Much of the footage and pest control advertisements show dingoes, not feral dogs. There is a difference!

6. Allowing dingoes their place as apex predator will eliminate many ferals such as cats, foxes and rabbits. The simple measures of Guard Animals for sensitive stock will eliminate the need to destroy the faunal balance with this needless killing of our apex predator. The sooner poisons are banned the better off our environment and wildlife will be. Please leave the “1080 is natural and safe for Australian animals” spiel for the gullible and tell that to the dinky die possums and dingoes so they know not to [in horrendous inhumane manner] die from it.
7. This PDF makes promises just like the controversial ‘token’ koala sanctuary created in Bowral, to mislead the public into thinking the NSW State government actually cares about our wildlife and wild places, while it removes all the protection for the greater mass of koala [wildlife] habitat for logging and development.
8. The PDF fails to address the great yearly loss of our wildlife through State sanctioned destruction of habitat. Open slather on our woodland and forest crushes, maims, leaves starving and un-homes our wildlife in the millions every year, destroys vital carbon sink and processing, removes cooling rain creating canopy, and oxygen creation etc.[see Denudation...]. In other words – big huge contribution to climate change which in turn is responsible for the increased intensity and frequency of fire. And goodbye Koala [and all things iconic Australian nature].
9. Why the claim to care about wildlife killed in the billions in the recent bushfires and loss of their precious habitat, while deliberately increasing the many millions [if not billions] that are killed every year, that the Government itself has aided and abetted? The NSW State Government removed protections for habitat via deliberate changes in the legislation to free it for denudation in environmentally destructive [non sustainable] logging, agriculture, infrastructure and housing and industrial development, sans measures to protect native fauna [or flora]. Add no protection from: poisoning [individuals and Government departments], road kill [need for animal crossings ignored], illegal clearing no longer prosecuted, list goes on. Sadly too, the other states have the same lack of compassion and care for our wildlife.
10. It is clear from the above PDF that it is ‘business as usual’ by the NSW Government. Glamour up the band aids while avoiding the real issues [and the government’s contribution] so as to let the destructive exploitation of our natural world continue, in total denial of these practices being the root cause of the calamity in the first instance. Another reason to believe this inquiry is nothing more than window dressing while avoiding the real issues responsible for the crisis the government itself is promoting and encouraging to increase not cease. This PDF propaganda brochure is proof in point of the constant gloss over and duplicity of this government when it comes to climate change and our precious diminishing native Australian ecology and wildlife.

[8] Blame the bush mentality:

1. The term should be “wildfire”. Exotics burn. State conifer forests burn and contribute to intensity of fires [as demonstrated in the Canberra fires], as do the prevalence of open grassland. Calling these extensive and catastrophic fires “bushfires” puts the blame on the bush, when in actuality it is the human approach to the environment that is to blame.
2. Over 200yrs knowing Australia is fire prone, and still not building to the environment [sorry – but BAL is short of the mark]. Even with two or more decades of increasing severity, extent and frequency of fires – and warnings of dire consequences from eminent scientists and conservationists – nothing. Clearly government planning is remiss and responsible for much of the loss and devastation of our ecologies [flora and fauna]; and human life, property and livelihood.
3. The need to clear adequately around one’s residence and community area is not disputed. However, the overall approach to destroying the ecology instead of building to the environment is. Australian culture is so entrenched and afraid to admit the colonial mindset is wrong and has to change. A change that could save lives and livelihoods; protect and keep Australia’s greatest treasure truly beautiful – its natural indigenous native ecology, with its iconic and precious wildlife and plants.
4. It is not disputed that Australia has a history of fire events, and that nature has evolved to accommodate this fact. However, the escalating frequency and intensity of the fires are a consequence of man-made climate change. All the head in the sand protestations, propaganda, and opinion of the under educated, won’t change that fact. Yet still the rhetoric from governments and business making excuses not to take the facts at true value. Anything, to continue business as usual.
5. Worse still, mining fossil fuel, logging and clearing is increasing on steroids. The NSW State Govt. and other states have removed protective legislation of vital habitat to increase these practices. Blame the bush, chop it all down mentality when in truth it is the clearing and destruction of the bush – the failure to develop, build and farm

sympathetically to the environment and transition to renewables – that has brought about the greater desiccation of our country and with it the greater intensity and frequency of fires.

6. The recent fire season, will undoubtedly bring about the usual counter-productive knee jerk reaction of clearing [legal and illegal] above and beyond the necessary – ironically – only to compound the issue not resolve it.
7. Bushfire is often used as an excuse and means to promote more development and logging.
8. A consequence of clearing as opposed to building to the environment, in addition to climate change impacts, is loss of biodiversity. Thereby the impoverishment, functionality and health of our ecosystems supporting all life – including human. In other words the reaction deemed to fix the problem is not only compounding it, it is creating additional crises.

[9] Climate change Australia:

1. Australia is not separate from the global atmosphere. What Australia does impacts the whole, deny it or not. Scientific fact! Accept that and get on with how Australia operates and contributes to this global soup. To maintain the false belief Australia has contributed little so has to do little is pathetic nonsense. Much of the denudation and mining in Australia is to provide the rest of the globe with produce and fossil fuels. The consequent CO2 and denudation is a carbon footprint dismissed in the 'select' statistics. Face up to the responsibility and get on with a global co-operation to mitigate and reverse* climate change.
2. Our planet is heating up quicker than predicted. However, some of us have expected a greater rapidity of pace. This is a simple deduction to have made as the crisis in denudation of the world's ecologies has been escalated exponentially with uncontrolled population explosion, and a greater per capita demand on resources. There has been no intelligent planning in this explosion of population requirements, just chop down more of the indigenous native ecology Australia and worldwide and damn the consequences.
3. **Not only is there a need to immediately combat and mitigate climate change, but an urgent need to reverse it.* The notion that we can sustain any further increase or stay where we are defies logic. Australian and world fire events are a dire warning that drastic action is imperative in the now. These fire events have clearly already set into a self-perpetuating cycle. The more fires, the more CO2 to fuel climate change and the escalation of these fires to ever greater intensity and frequency permanently destroying the little vital ecology that humans have left struggling to protect our atmosphere – the world's life support – human life support.
4. Stronger hotter winds off the centre of Australia [a result of global warming] are now more prevalent due changed global air movements. Rain laden winds are failing to make landfall. It is this desert air flow and loss of moisture that has combined with local denudation to contribute to widespread and prolonged droughts.
5. Already the impact on wildlife and humans is evident. Animals, native and stock, are already dropping dead in big numbers. One example: flying foxes – vital to ecology as pollinators. Dairy cows in Berry recent years.
6. The suburbs of Sydney are already experiencing near 50C degree days. Without mitigating climate change this will quickly escalate to 55C – even within the next few summer seasons. From the general comment it is evident that the average person / politician has not understood the implication of one degree average increase in global temperature. It is not simply one degree that will sit idly on top of the existing daily average temperature. A day that would typically be 35C to 40C degrees could easily become 50C to 60C degrees [or more]. Equally a cold day of -5C could easily become -10C or -15C.
7. Nor will all countries be affected equally from this surplus average increase in global temperatures. Australia, courtesy of its flat dry landscape will be more prone to greater heat increases and greater aridity. The hotter our climate becomes the more volatile it will become. It will not be just the heat and fire killing off life on Earth. All other weather events will continue to escalate in severity, only at an ever greater rate in an ever shorter time frame. As well as mass death – animal, plant and human – from extreme heat events and fire – there will be the resultant broad scale famine with its flow on. The wide scale and great intensity of the recent fires across vast swathes of Australia, the unprecedented drought extent and duration, the world fire and drought events are already having devastating effects on millions of people in a myriad of ways.
8. Sea level change is already swallowing land. This will escalate ever more quickly as our world burns with terrible outcomes. Australia will be included. Ignoring facts does not negate their impact.

[10] Current situation re fuel load in bush, hazard reduction and fire intensity:

1. It is questionable as to the feasibility to 'hazard reduction burn' all fire susceptible areas in NSW or Australia. Local areas of habitation by man may be doable. However, the tendency to clear – over building to the environment – will only feed the problem as discussed under denudation. While clearing in the immediate vicinity of a well-managed lot can protect a home/ building. The right balance needs to be found. Kneejerk chop down the bush and current 'modern country lifestyle' are counter-productive and are contributing to the fire situation. [see previous notes Denudation...Page 6 and further notes: City to Country...Page11]
2. Leading Fire fighters have said that greater hazard reduction is not the answer, as the time available to safely do this in an ever hotter and volatile climate encompassing over an ever increasing period of the year, is not possible. Hazard reduction can do more harm than good, having a negative impact on ecology, as well as feeding the CO2 problem. They can also get out of control.
3. Having seen a number of programs on Aboriginal burning, it is evident that this hazard burn needs to be the right time in the right way per ecology. They do a 'cool' and 'low' burn that produces much less CO2 and does not damage the ecology, but aids it. This practice has been known of since the first fleet, thereabouts, yet only recent years does there seem to be interest from the relevant organisations. [see later notes under Solutions... Page 12]
4. Reasons for greater fuel load of recent times:
 - i. Trees shed more when stressed – natural response – leaves, branches, limbs.
 - ii. Vegetation is retaining less moisture because it is absent; prolonged drought via man made climate change.
 - iii. Dryer more desiccated fuel on forest floor due absence of moisture [desiccation] / rainfall [drought].
 - iv. In the absence of moisture normal decomposition [microbial, fungal, invertebrate activity] fails to return the debris to useful nutrients on the forest floor, so it builds up to greater than usual volumes, as well as in height off the floor. In this dehydrated environment combustion occurs more readily.
 - v. Loss of fauna also promotes the failure of the ecosystem to process the ground debris etc. Native animals that have previously aided in the decomposition through eating, digging, turning etc. are the ones lost due human activity, feral animals, poisoning [includes 1080], and lower storey clearing, domestic animals [cats and dogs – peoples pets]. And so on. Undoubtedly many grazers are lost due dehydration and loss of vegetation to actually graze on also due the drought.
5. Obsessive clearing by humans allows the elements greater effect on the land. It reduces the natural processes through impoverishment of biodiversity, compromised waterways, thereby contributing to aridity and drought. Trees on managed lands are therefore more dehydrated and combustible, courtesy of this 'hazard reduction'.
6. Grassed and open lands dry out quicker [no protection from elements re heat, wind, etc.] and can aid the capacity for embers to cross considerable areas without interruption and find the right conditions to strike.
7. There is also the situation of the fires creating their own weather, because the conditions have become so extreme to facilitate such. Another reason to mitigate and put climate change in reverse, or the conditions that saw the freak tossing of a fire truck [most sadly costing lives], and the 30km spread of embers to create the Morton Fire, will only increase in occurrence – as will the fires – and no doubt become even more extreme.
8. There is no doubt that with the large fuel load due the prolonged drought conditions and the prevalence of hotter, dryer winds of greater speed [courtesy of human induced climate change] are the reason fires are more intense and frequent. Just as these fires can cause their own volatile weather due the higher temperatures, so too our hotter atmosphere is more volatile providing the extreme elements that contribute to these fire events.

[11] Agricultural impacts feeding drought and fire:

1. Being an ancient land Australia has had plenty of time to be eroded quite flat, its vast inland considerably so. [Sorry, our mountains are only hills and relatively flat] Flat open land is more arid and more prone to aridity from heat and wind. Removing the original vegetation [evolved to the land] to accommodate human activity has in turn freed up the land to a greater assault by these elements, and thereby increasing its aridity and incidence of drought, and loss of topsoil in dust storms.
2. Agriculture is itself feeding into and perpetuating drought and topsoil loss. It is self-destroying, as – for the most part – the practices create ideal conditions for greater aridity, heat and wind erosion.
3. These human induced changes in local climate conditions feed through into global climate change, as with most human altered landscape. Thereby a cycle is set up with the local conditions feeding wider area conditions which

in turn come back on local area conditions, in a self-perpetuating 'downward' spiral. Of course this is simplistic. Changed conditions on one continent can change that of others and can be quite complex. Equally conditions in one area can flow to other areas. This is more easily seen when water is diverted from its original course. However, regardless of the myriad nuances, opening land to the elements has consequences that are perpetuated by that degradation, in the immediate vicinity and further afield for the long term.

4. Entrenched colonial style clearing practices and new age industrial vast large scale fields for stock and crops – result of:
 - i. Large open areas feed drought, high wind, erosion, dust storms, [loss of topsoil], run off [flood] etc. The consequence of denuding land of its original indigenous ecology [see Denudation... Page 6]. The larger the area, the greater the consequence.
 - ii. As more and more land is opened up to 'vast' style agriculture practice, the greater the adverse conditions will become, and the more they will feed into the climate change cycle on local and global levels.
 - iii. Denudation and stock damage [particularly hoofed] to waterways reduces groundwater retention etc. [see Denudation... Page 6] and feeds this same cycle of greater aridity and loss of vital biodiversity diminishing the health of the land. Hoofed animals also compound the effects of drought due the damage their hooves do to ground holding plants and roots, which contributes to top soil erosion via wind and water.
 - iv. Wide scale use of phosphates, herbicides and pesticides impacts negatively on remnant or adjoining native ecology and waterways leaving them of little value in their original contribution to a healthy ecosystem.
 - v. Loss of original balance of fauna and flora has removed the best means for the ecosystem to remain healthy. Human introduced crops and stock are not evolved in the land to produce the same inter-related broadly diverse biodiversity. Crops do not replace the complex contribution of indigenous ecology or provide the carbon sink and water retention in the landscape either. Tree and vine crops are better re carbon sink, but fail in biodiversity, and are still very much wide open land that receives input re chemical agents and fertilisers etc.
 - vi. The more vast the field, the more readily it desiccates, the greater the demand for water to compensate, the greater the demand on waterways, aquifers etc. which in turn increases and perpetuates drought and fire.

[12] City to country exodus: [ironic] 'Tree-change' contributing to climate change and ecological destruction:

1. Previous farm lands that held remnant native vegetation, and indigenous bush areas [with wildlife] have been scalped [inclusive of substantial acreage stands of endangered and supposedly 'protected' woodlands and forest ecology] to provide ever denser residential developments and 'lifestyle' rural acreage.
2. Even large properties of 5 through to 100+ acres are severely if not completely denuded to appease 'modern country lifestyle' that demands extensive lawn, sans little else. For all the reasons previously given this compounds drought, fire conditions etc. [see Denudation... Page 6, Agriculture... Page 10]
3. Similarly once large residential lots in country towns and villages are being chopped into many small lots with no regard to the existing ecology and waterways. These more crowded areas now housing a greater population are now crammed in to result in greater problems in evacuation from fire. They also compound the loss of moisture and increasing heat sink in the locality, making it more drought and fire prone in general.
4. Despite preservation laws trees are constantly felled for these developments or by residents from dislike and firewood demands. Speaking with city tree changers you soon discover that many, if not the majority, have no love of Australian ecology. They hate gum trees and scrub out every last native plant regardless the important role they play in the environment – even on large acreage lots. They do not confine this 'sanitisation' to their own land, but to any nearby public land or nature reserve. This has led to extensive loss of vital habitat, displacement and much death of native animals for a variety of reasons [e.g. road kill, deliberate killing, loss of hollows, domestic pets, slashing of vegetation etc.]. This denudation also creates all the conditions to compound local drought and fire conditions and contribute to climate change – [see Denudation... Page 6, Agriculture... Page 10]
5. Suburbanised developments have destroyed natural waterways, removing the natural flow and absorption of ground water. Increase in infrastructure has also altered water retention in the landscape, and increases temperatures. [All hard surface infrastructure has impacts on local temperature and the water cycle. This is evident in built up areas where frosts diminish when the heat of homes, vehicles and retention of heat in thermal mass e.g. concrete and bricks changes the local conditions.] Rain is redirected into drains that is channelled away from the area instead of going to ground or into waterways, increasing local aridity.

6. Few are caring of the wildlife and boasting of killing snakes, albeit illegal and unnecessary, is common place. Vital hollow [nesting / habitat] trees are the first to be removed and burnt. Understorey removal has led to loss of habitat for smaller fauna e.g. wrens, reptiles, echidnas. This denudation and destruction of vital habitat and climate protecting ecology is ever escalating as regional population increases along with the demand for 'lifestyle' properties that leave little to no land for the normal processes of water and vegetation in the ecosystem.
7. High and escalating impact of phosphates, pesticides and herbicides, along with general rubbish is also impacting waterways which have little to no buffer, or are dumped with unfiltered storm water etc. Similarly very stranded small native remnants or individual trees suffer physical and chemical damage to shorten life.
8. Escalation and obsession with burning: home wood fires and heaters, fire pits, pile burns have compounded denudation. Tree theft from public lands is rampant, as is the illegal removal of woodland trees on private land to fuel this 'lifestyle entertainment' which burning has become, encouraged by modern lifestyle programs. It is common for wood fires to be pumping smoke all year round, even in summer, not for warmth, but for entertainment. Even in the height of the bushfire season, the few bush smoke clear days resulted in the 'lifestyle' demand for wood fires and fire pits to be lit, preventing houses to be aired in this rare moment of fresh air. This same 'fad' is prevalent in the city, and has put an even greater demand on trees for firewood. It is the native ecology that suffers. The many millions of trees that this equates to year after year is ignored.
9. Much of the supply of firewood is illegally sourced or stolen from national parks, public reserves and roadsides with no regard to the amenity, the wildlife, the degradation of the environment. With a near 100% installation of wood fires, fireplaces and fire pits in these new ever denser suburban developments in regional areas, there is a serious drain on the environment, high pollution and choking smog days becoming prevalent. The high concentration of these means to burn is creating serious health risk, especially to the elderly, the respiratory impaired and the very young. Where once the wood fire was to keep warm amidst many hundred acres with no other power source available, it is now a matter of 'fun' crammed in the hundreds to thousands in the ever increasing density of these regional developments. Yet again an example of human entertainment and lifestyle being put ahead of the health of the environment for all, and literally the health of humans too.
10. The result of this ravenous demand to burn is a multi-facet contribution to climate change: [see Denudation... Page 6].
11. *All the above on an "individual" basis "collectively" is a big impact on the environment* both in loss of habitat, carbon sink and oxygen; CO2 creation; other consequences of denudation on local and broader area climate.
12. Despite BAL, the emphasis is on denudation of indigenous ecology, regardless that this is counter-productive re climate change and removing the very entity that makes country living special. Add all the regional areas together this equates to a huge amount of rapid denudation, escalation of aridity and vital biodiversity.

[13] Solutions to reduce frequency and intensity of bush and wildfires:

1. **Population Control:** The crucial issue humans won't face; only replace one's self. The ever increasing human population is not sustainable on a finite Earth. To continue in the current manner of exploitation of the Earth's natural systems, [be it plant, animal or mineral] with the escalating demands of the individual on a global basis is also unsustainable. Even without climate change, the world's ecosystems will collapse, just perhaps a little later on. The push to populate Australia for economic reasons – a fragile land with much desert – does not factor in the nature of the continent itself. No point expounding further, because you've already closed your eyes to this one, regardless its importance and huge causal link to the fire crisis.
2. **National body / co-operation:** There needs to be a cohesive national approach to the implementation of practices to reduce the impact of bushfires. This has to include immediate aggressive climate change mitigation strategies.

Currently the issues that compound climate change and therefore the fires are not resolved because of the counter-productive and conflicting interests between Local, State and Federal departments. It is pointless having legislation and strategies in place if another level of government or department ignores or contravenes them. The economic consequences of bushfires [any natural disaster] far outweigh the cost [or few less dollars profit] for protecting the natural environment. The economy would be better served to reverse climate change.

This national approach has to then be a co-operative global approach. This should be obvious! Needed yesterday!

3. **Legislation:** that is upheld and genuinely protects our natural world. Not the current 'double speak' and 'loophole' clauses, e.g. DCP's that "*imply*" native vegetation is protected while allowing anything up to 100% denudation. Again a National approach needed, see above paragraph. All water ways, however small, public or private land need a national protection strategy and strict protective legislation to prevent degradation.

4. **Education:** in Earth's ecology and ecosystems, relationship to atmosphere, weather, and how human activity and land use impacts the Earth's systems. This education needs to be main stream as the current situation is created not only by government decisions, and business, but the accumulative effect of the actions of many individuals. Knowledge will make a clearer path to adapting human behaviours, infrastructure development and other land use to the natural world sans destroying the vital functions of the Earth that support all life.
5. **Climate Change:** *climate change must be put in reverse* to stop the ever increasing intensity and frequency of fires. Fires are already so intense as to completely destroy fire hardy ecology – many permanently, and are self-perpetuating so we cannot stay as is or go further up in degrees. [see later Solutions re land use... below]
6. **Indigenous Wisdom:** The indigenous native peoples before the coming of colonial settlement in Australia managed the land with fire for many thousands of years. They have an in depth knowledge of the ecology, such that they are able to make many judgements not available to those who lack this connection to Australia's flora and fauna. It would be sensible to tap into this wealth of wisdom, it would be foolish not to.

However, Aboriginal input must not be an excuse for not addressing climate change [fossil fuels, denudation, land use, etc.]. Without halting the rapidly escalating hotter and dryer climate any headway achieved by changing management of burning bush to that of the indigenous peoples, will be futile.

Seasons are no longer consistent, which any gardener will tell you, plants flowering out of season, and repeating their spring behaviour in autumn. Others are failing all together. List goes on. This may render the cues Aboriginal peoples use to judge time to burn less effective.

7. **End use of fossil fuels:** Rapid transmission to renewables. Incorrect rhetoric that renewables will cost more and cost jobs to justify keeping status quo has to stop. Nuclear: another extremely bad option for the planet.
8. **End burning:** Burning results in CO₂. To create CO₂ Oxygen is taken out of the atmosphere to bind with the Carbon atoms from the material being burnt. While the focus has been on fossil fuels, [i.e. materials of high carbon that have been condensed over time due pressure], there has been little said or done to reduce burning in general. This failure is probably in part due to the perception that these other burns are insignificant. Again the accumulative effect and the exponential increase due human population increase have been ignored.

The ever increasing demand for firewood for entertainment, [heaters and fire pits]. This is not only producing co₂ and reducing oxygen, it is removing the trees that process that CO₂ and provide oxygen for its original life.

Regional population shift has also caused an increase in pile burning. The obsession with 'neat' even on large acreage multiplied by sheer numbers is a contribution to CO₂ and loss of oxygen.

Burning not only changes the balance of the atmosphere in respect of carbon dioxide and oxygen, it produces many other gasses. With an ever escalating increase in burning contributing to the ever diminishing ecology to eat the carbon and provide oxygen, and moisture, the tipping points in our ecosystem will be reached so much quicker. Another reason to hazard reduction in a 'cooler' low CO₂ burn.

All this this burning is also polluting and creating a toxic and health damaging atmosphere, and is already responsible for much bronchial related illness including asthma, weakness to viruses, cancer, death etc.

9. **Land Use:**
 - i. **Build to the environment :** scrap/ revamp BAL. Research into and promote and subsidise innovative design, materials, earth rooves etc. Assist / subsidise existing homes re fire safety measures e.g. fire screens, sprinkler systems, etc.
 - ii. **Independent body** to oversee land use, management, and developments run by persons not compromised by conflict of interest: e.g. in being themselves developers or related to them etc. as is current situation.
 - iii. **Environment studies:** genuine qualified environmentalists, not unqualified consultants handpicked to tailor reports in favour of denudation. Protecting indigenous native ecologies and water ways to be a priority.
 - iv. **Development:** change in design and areas placed. Re zone indigenous native ecologies out of the residential and agricultural lands. End placement of mines and other environmentally destructive industry in existing indigenous native ecology. Better legislation to protect water ways from urban development, degradation on agricultural land, and in any area of human impact. Detailed eye level records [additional to satellite which does not see lower storeys] of native vegetation prior to development, and adherence to protection, not easy write offs.

- v. *End logging and clearing of indigenous native ecologies:* protect, repair, put back. Transition immediately to alternative plantation products grown on existing human degraded land – e.g. vacant paddocks, disused industrial sites.
 - vi. *Truly sustainable resources:* plantation timbers, bamboo; indian hemp, agricultural waste and by products, etc. for paper, wood, and fire fuel pellets. Alternative plantations and crops all require labour and will provide jobs. The timber industry will still have logging [plantation trees/bamboo], require sawmills, the paper industry will still have raw material for paper plants. There will be new processing systems to utilise waste products. Win win.
 - vii. *Retention of hollow trees,* provide nest boxes and other cover for fauna to assist the faunal flora interrelationships to revive, and in turn, repair ecology to a healthy state, in turn repairing our atmosphere and water cycles.
10. **Greenbelts: the best results if full ecology is retained or repaired – the wider the better – min say 50m.**

- i. *Residential Development:* Retain existing native vegetation as broad and connected reserves with suitable fire retardant plant buffers [indigenous native or non-invasive exotics] and low ground cover; Regeneration with indigenous natives where practical. Designs that puts homes on lots furthest from these reserves; Connection of green belts to form wildlife corridors, incorporating road crossings etc; Full ecologies will limit weed invasion. Provide canopy, carbon sink, wind breaks, amenity, wellbeing, and so on.

These reserves will reduce the climate impacts of the ever growing higher density of hard surface of human infrastructure [buildings, road, etc.]. With addition of earth rooves and roof top gardens the loss of canopy in built up areas can be compensated for. It will also provide the vital process that produces oxygen and reduces greenhouse gasses along with a myriad other benefits.

- ii. *Agricultural and Rural Residential Land:* Retain existing native vegetation with regeneration to form broad greenbelts to dissect and reduce open areas. It is preferable these belts are within a property, or rural development, not close to roads, unless already road remnants exist [many old fence line trees are vital hollow / habitat trees or seed source]. Indigenous native plants are preferable as they will aid local wildlife with suitable food and habitat.

Greenbelts will provide canopy, carbon sink, shade for stock, windbreaks, etc. They will provide many benefits re climate change and the general health of the land. [see Denudation...Page 6]

Green belting waterways will have even greater benefits increasing ground water absorption to protect against drought and erosion [see Denudation...Page 6]

Greenbelts will need some stock protection, as stock destroys and degrades ecology. Waterways should not be trampled by hooved animals. Stock should be watered via dams or other alternate means to natural creeks and streams or rivers. Even fenced, greenbelts will provide stock with shade with suitable placement in the land.

Co-operation between land owners and continuity in developments to create corridors for ease of animal movement would be preferable. Incentives to introduce greenbelts and protect existing native vegetation.

Green belts will reduce the conditions that cause aridity and heat [and cold] in the landscape, provide habitat for our ever more diminishing wildlife. Will do more good in keeping farms viable and healthy than the amount of land they lose to them. Large properties would still have ample room to clear safely around buildings to protect from fire events.

Less open land has more potential to grow more varied crops, due to the greater protection from winds, cold and heat, and drought. Healthy ecology will provide increased potential for bees and other pollinators to thrive.

Summation:

Man made rapid Climate change is a fact, not an opinion: Scientists have warned for decades that wildfires would consume the Earth. They were right. The Proof is in!

First and foremost we have to reverse climate change [reasons already discussed]. There's a lot of talk of adapting to it. Seriously! Anyone who thinks we or other life on Earth can adapt to rapid man-made climate change has no concept of what is to come or what is actually already happening in Australia and the world. Humans are destroying this planet's flora and fauna at such a rapid rate, they will all be dead long before they have the opportunity to evolve to adapt. Time has run out – for many, even humans – it ran out yesterday! The evidence is overwhelming – still nothing! Not even for the sake of one's children!

Even the desperate pleas of school children to protect their future – been well informed re climate change etc. – were denigrated, bullied, rubbished and put down by the ‘old dog’ politicians mired in the mud of ‘colonial’ ignorance sans common decency, compassion and a good education in the whole subject – all talk, no action!

Frequently the fob off that today’s young will provide the solutions. The solutions have been known for four decades [longer if those unloved ‘greenies’ were listened to.] The inventions were there over two decades ago to run vehicles without petroleum fuels, only to ‘disappear.’ The young of today will be long gone before they grow up to give us answers – action was needed yesterday. Humans are destroying the very fabric of the ecosystems of Earth that supports life. Remove life support – no life.

Our atmosphere is dependent on our oceans and forests yet humans are destroying what little viability is left in both. Humans and life on Earth as we know it only exist by the courtesy of the oxygen rich atmosphere that has evolved from plant life on land; some bacteria; plankton [and phytoplankton] and seaweed in the ocean. Instead of ceasing the activities caused by our uncontrolled human population growth, wasteful demand has increased along with the delusion the planet can give infinitum. Go back to school. Humans have not learnt their lessons. To do nothing now will be to hand down a broad reaching death sentence.

Australia and the world are experiencing unprecedented wildfire events. All other weather patterns and events are equally on the increase in intensity, extent and frequency, as is sea level rise. To ignore this warning, to fail to act, is to render our ecosystems at irreversible tipping points within the next ten years – twenty if we are lucky – worse still any day now. There is a lot of talk of 2050 milestones – without aggressive and widespread action over all areas of harm to our planet – we will not see 2050. Even now it may well be too late to halt the self-perpetuating cycles man has instigated. To do nothing is not an option. To do the very best may still leave us with a very different world to struggle in.

If you have taken the trouble to read my submission, thank you. I know that the chance is high that yet again my wisdom and insight will be ignored. That the government will do everything it can to excuse business as usual. After all, they don’t want to upset the big end of town and their today pockets. That’s how governments work, how they’ve always worked; putting the wealthy and powerful above the masses, for the here and now. The human majority with little interest in our natural world will go on ‘knocking’ us greenies, the conservationists, the climate scientists, the biologists, the botanists, all the other qualified and knowledgeable unqualified. You’ll convince yourselves that there are easier ways to stop the bushfires, the other wild weather events. You’ll continue to blame the bush. You will not take responsibility and own the problem and change bad practice. I pray the expected response is one thing I am wrong about, because everything I have told you is the truth, the fact. If the Earth’s predicament masquerades as the coronavirus and the medical experts become the climate scientists and conservationists – will you then listen and act?

Some simple basic science put in simplistic* terms for those who missed it in school:

Atmosphere = balance of gasses = life on Earth via oxygen [animals to breathe] and moisture dispersal [rain]

CO₂ [carbon dioxide] = C [carbon] + O [oxygen] a greenhouse gas

Methane is also a greenhouse gas

Fire [all burning] = a chemical reaction = O binds to C = CO₂ + other gases e.g. CO [Carbon Monoxide]

Burning: includes all human burning [fossil fuels; wood and scrub/land clearing; pile burning; burning for heating [wood, coal, any material]; and wildfires/bush and grass

The more fires /burning/ fossil fuels = less Oxygen and more CO₂ = hotter atmosphere = drought [crops, grazing lost] & more fires = less O, more CO₂ = even hotter atmosphere = more intense fires [destroys fire hardier ecology] = less CO₂ processed to Carbon and Oxygen = self-perpetuating cycle = complete death of ecology and loss of CO₂ processing and oxygen production = hotter dryer atmosphere = failed ecosystem = near all life extinguished

Ecology [plants] / sea ecology = CO₂ to C and O = carbon sink and air to breathe

More CO₂ = hotter atmosphere = hotter oceans = release of Methane to add to increasing CO₂ / loss of O [loss of seaweed, plankton & coral] = even hotter atmosphere = even hotter oceans = release of more methane = self-perpetuating cycle = near all life extinguished

More CO₂ = more acidic oceans = loss of sea life & coral / seaweed & plankton = failed ecosystem = dead oceans = breakdown of oceans ecosystem impacting food chain and life cycles ocean and land.

*Additional to the above is the consequence of pollution and impoverishment from human activity