

**Australian Plantation  
Products & Paper Industry  
Council (A3P) Submission  
To The  
Senate Select Committee  
on Agricultural and Related  
Industries - Inquiry into  
Bushfires in Australia.**



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Summary of Recommendations:

*On behalf of the Australian plantation forestry industry the Australian Plantation Products and Paper Industry Council (A3P) recommends that the Senate Inquiry:*

*Recommendation 1: note that fires will continue to occur across Australia - it is how preparation, prevention and suppression strategies are developed and implemented that is vitally important.*

*Recommendation 2: note the impacts on, and contributions made by, plantation forest growers as a direct result of the fires, and their right as key landscape managers to comment on fire management issues.*

*Recommendation 3: notes the potential supply implications on the timber industry that may impact on the viability of rural communities as a result of the 2009 fire event.*

*Recommendation 4: implement a higher level of coordination and standardisation on a landscape basis. Such historic concerns as interagency coordination, communication system compatibility, and skills capacity should be addressed.*

*Recommendation 5: notes that holistic fire management on a landscape scale stands the best chance of reducing the number of fire incidents, fire intensity, the rate of spread of fires that do occur, and consequently the community impacts.*

*Recommendation 6: recommend that a system (potentially nationally based) is developed and implemented to independently audit and report on landscape fire management actions and outcomes against agreed criteria.*

*Recommendation 7: takes a measured response when considering existing (or any variation to existing) land-use regulations.*

*Recommendation 8: notes the timber industry's significant role in rural communities and landscape management.*

*Recommendation 9: notes the plantation forestry industry's key role in fire management and the importance of holistic landscape based fire management.*

*Recommendation 10: address any impediments identified to strategic hazard reduction burning, fire access, and fire break implementation, and recommend that this form of fire prevention strategy should continue to be utilised to its full potential by all forest/land managers on a landscape scale.*

*Recommendation 11: note that the forest plantation industry has a strong focus on and history of success with active landscape fire management (prevention, detection and suppression); and that recommendations from the Senate Inquiry should promote the progression of this approach to fire management.*

*Recommendation 12: promote the implementation of viable and resilient fire detection and communication system on a landscape scale.*

*Recommendation 13: make findings which assist fire-fighting agencies to address constraints on resource availability and recruitment; and develop policy that further integrates firefighting agencies equipment and systems.*

*Recommendation 14: identifies and addresses issues with communication systems and their coverage and resilience in strategic fire-prone rural communities with particular reference to the mobile phone system.*

*Recommendation 15: recommends criteria that support land holders revising their fire management policy and procedures in order to improve fire management on a landscape scale.*

*Recommendation 16: notes that aircraft (helicopters and fixed wing) have a key role in the detection and initial suppression of wildfire, and for protection of key assets (on urban/rural interfaces); but that funding of large water bombing aircraft (eg. air-cranes) for key asset protection in urban/rural interfaces should not occur at the expense of funding of aircraft for fire detection and suppression elsewhere.*

*Recommendation 17: notes that active fire management (prevention, detection, and suppression) on a landscape scale aids in reducing fire incidents, fire intensity and spread if they do occur, but does come at substantial financial cost; and that there is scope to improve land-use planning and management in a manner that aligns fire risk with land use.*

*Recommendation 18: agrees there should be no unjustified discrimination against building materials alone, and that any discussion regarding the construction of buildings in bushfire prone areas must look at all aspects including location, environs, design and maintenance.*

*Recommendation 19: agrees that there needs to be a national standard for a uniform, consistent approach to construction in bushfire risk areas.*

*Recommendation 20: agrees that a single building approval framework is required for construction in bushfire risk areas; and that there is a need to ensure ongoing compliance with the relevant building approvals.*

*Recommendation 21: promotes policies that support the role of the plantation and commercial forestry industry in rural communities.*

*Recommendation 22: recommends that appropriate training that is focused on landscape fire management should be adopted by the relevant fire authorities.*

*Recommendation 23: reviews and identifies any inequitable industrial arrangements (such as the Victorian workers compensation example) with the objective to address potential disincentives of these arrangements across Australia.*

*Recommendation 24: note that in terms of the forest growers' response to the impacts of climate change on the environment and in particular fire management, a healthy primarily rurally-based plantation, wood processing, and paper sector with an active fire management focus will be vitally important.*

*Recommendation 25: considers the South Australian Operation Nomad initiative and look at the potential adoption of such an initiative into other high fire risk areas.*

*Recommendation 26: notes in terms of reducing the impact on biodiversity that the reduction of the occurrence and mitigation of the effects of mega fires in the Australian landscape should be the target, and strategic hazard reduction burning should be a key prevention strategy to achieve this.*

## ***Background:***

- ***Australian Plantation Products & Paper Industry Council (A3P).***

A3P is the peak national body for Australia's plantation products and paper industry, representing each of the three industry sectors – plantation growing, wood processing and paper manufacturing.

A3P member companies create and sell more than \$4 billion of product each year, and employ more than 13,500 people in plantation operations, sawmills, panel-board, and paper manufacturing plants, mainly in rural and regional areas of Australia. A3P member companies produce 12 million tonnes of wood annually and process it into products including two million tonnes of paper and more than three million cubic metres of sawn timber.

A list of A3P members and statistics on their operations is available from the A3P website: [www.a3p.asn.au](http://www.a3p.asn.au).

As A3P membership covers the majority of the timber supply chain the impacts of the Victorian Bushfires and previous bushfire events on A3P members and the industry as whole is diverse and significant.

- ***Plantation Forestry Industry***

A3P members include significant land and forest managers (of plantation, native forest and other land). These A3P members have a significant current and historical role in fire detection, suppression and management on land directly managed by them and on adjacent land holdings in the various states of Australia. A3P members that are forest growers and land managers include HVP Plantations, AKD Softwoods, Willmott Forests, Forests NSW, Norske Skog, Forestry SA, Forestry Tasmania, Forest Products Commission WA, Forestry Plantations Queensland, and Forest Enterprises Australia.

It should be noted that A3P members' forest plantation holdings are rurally based, significant in size (ie 100,000's of hectares), high value (billions of dollars overall), sensitive to fire damage, and are intensively managed assets.

These organisations play a key role (and have had a long successful history) in fire management on a landscape scale (across differing land tenures, land uses, and fuel types) including fire suppression, fire prevention, fire policy input, fire planning and management. This includes investment in fire prevention, detection, and suppression resources, commensurate with the plantation asset value and fire risk.

These organisations' general fire planning and management philosophy includes the following objectives:

- Active protection of intensively managed, high value plantation assets sensitive to fire;
- Minimising ignition from forest operations by implementing a graduated scale of operations' closures based on the forecast fire danger index;
- Active fire prevention strategies such as fuel reduction programs, fire access trails, fire-breaks to enable access to and reduce intensity of fires;
- Active fire suppression (including detection) on plantation land and the adjacent landscape;
- Investment in fire resources including trained people, fire infrastructure, and fire plant and equipment;
- Close involvement in the adjacent rural community to build and maintain relationships; and
- Co-operative landscape-based fire management with neighbours, relevant stakeholders, and other fire agencies.

A3P member organisations with their depth of fire management experience and practical application are in a unique position to comment not only the fire emergency as it directly affected their businesses but also on fire management as practiced by other organisations and land managers.

It has been demonstrated many times that the plantation forestry industry has set for itself a high standard for landscape fire management, and a strong theme in this submission is the industry's emphasis on the promotion of this active landscape fire management focus.

On this basis A3P has prepared a submission to the Senate Inquiry. The format includes both specific and broader comments on landscape and fire management issues classified under the terms of reference.

### ***A3P Submission (In relation to the Terms of Reference)***

**The incidence and severity of bushfires across Australia, including:**

- a) The impact of bushfires on human and animal life, agricultural land, the environment, public and private assets and local communities;**
  - *Key issues from 2009 bushfires (Drought and weather effect, fire prone areas, high-fuel load, and changing social demographics);*

Bushfires will remain a part of the Australian environment. Victoria has a history of large, damaging bushfires.

Weather conditions on (and leading up to) the 7 February 2009 were extreme in terms of high temperatures, low humidity, and high wind speeds, following years of drought. Even after years of drought, fuel loads (both in structure and volume) have built-up in high fire risk areas increasing the risk of a high intensity wild fire. Population growth coupled with population aging, wealth accretion, and changing life styles have created different rural communities such as smaller holdings based adjacent to native bush, forest, farms, and plantations. These smaller holdings have added another level of complexity to fire planning and management.

A3P members accept that bushfires will remain a natural part of the Australian environment, and as such look to manage fire outbreaks, minimise fire incidence, and mitigate fire damage on land directly managed and adjacent to their infrastructure and high value plantation assets. The Forest Fire Danger Index is one of the ratings systems used by fire managers to measure ignition potential and probable fire behaviour.

*“Fire danger rating systems produce one or more qualitative and/or numerical indexes of ignition potential and probable fire behaviour which are used as guides in a wide variety of fire management activities such as...*

- *Prevention planning. (eg. Informing the public of pending fire danger, regulating access and risk associated with public and industrial use of forest and rural areas);*
- *Preparedness planning. (eg. Level of readiness and pre-positioning of suppression resources;*
- *Detection planning. (eg lookout manning and aerial patrol routing);*
- *Initial attack dispatching.*
- *Suppression tactics and strategies on active wildfires; and*
- *Prescribed fire planning and execution.” (Pearce 2004)*

A3P members who were on fire duty or alert on the 7 February 2009 have commented that they had never seen a worse alignment of fire danger conditions. As a result A3P member organisations' were on full alert and fire suppression assets positioned in key risk areas.

***Recommendation 1: That the Senate Inquiry note that fires will continue to occur across Australia - it is how preparation, prevention and suppression strategies are developed and implemented that is vitally important.***

- *A3P Member Forest Grower/ Timber Processing Industry impacts and contributions;*

Some of the key A3P Member Forest Grower/ Timber Processing Industry outcomes as a result of the Victorian fires include:

- No fire related deaths of A3P member staff, but many staff have friends, relatives, and contractor colleagues who have died or been displaced, or lost homes and equipment;
- Significant loss of softwood and hardwood A3P member plantation assets. HVP Plantations lost ~11,000 ha of softwood and ~ 6,000ha of hardwood plantations (valued in the 10's of millions of dollars);
- Major timber salvage operation commenced in a difficult timber market;
  - Tight salvage timeframe of between 12 weeks and 12 months due to deteriorating timber quality;
  - Very large volumes of burnt timber to be salvaged (millions of tonnes) with significant loss of timber value;
  - Charcoal and bark content are key issues with burnt timber being delivered into processing plants (esp. paper end uses);
- Significant loss of native hardwood timber resources in key supply areas with large quantities of high-quality ash timber destroyed;
- Potentially long-term timber supply implications on A3P members through loss of younger plantations, which would have provided future timber for industry; and
- Major plantation re-establishment program (up to 5 years) putting extensive resourcing and financial demands on affected forest growers.

Some of the key A3P Member Forest Grower/ Timber Processing Industry contributions as a result of the Victorian fires include:

- Major fire suppression effort by trained personnel, light tankers, heavy tankers and heavy plant, with the objectives to protect life, public and private assets;
- Teams of trained personnel and light tankers loaned by interstate A3P members to aid in the suppression effort and aftermath;
- Timber processors donating and transporting sawn timber and other timber products to aid in the rebuilding program; and
- Timber processing industry supporting the forest growers in taking salvage timber.

***Recommendation 2: That the Senate Inquiry note the impacts on, and contributions made by, plantation forest growers as a direct result of the fires, and their right as key landscape managers to comment on fire management issues.***

- *Timber supply implications on the forest processing industry;*

Forestry (especially plantation forestry) is a capital intensive long-term industry. In conjunction, fibre processing industries undertake large investments in associated processing capacity which is underpinned by security of fibre supply.



As a result there are important commercial relationships built up over time between fibre suppliers and processing customers, as an alternate supply of fibre may take years to develop if the primary source is destroyed, say by a wildfire event.

As stated before, large amounts of current commercial fibre and future fibre stock (including plantation softwood, plantation hardwood, and native hardwood) were destroyed by the 2009 Victorian bushfires. In the short-term a large salvage program will need to occur to utilise the burnt fibre into existing industry, and in the longer-term there will be potentially significant implications on fibre processing industries from the reduction in fibre supply due to the fire event.

Forest growers (including A3P members) have yet to quantify these supply implications but the supply chain will work together to ameliorate the current and future impacts.

***Recommendation 3: That the Senate Inquiry notes the potential supply implications on the timber industry that may impact on the viability of rural communities as a result of the 2009 fire event.***

**b) Factors contributing to the causes and risks of bushfires across Australia, including natural resource management policies, hazard reduction and agricultural land maintenance;**

- National Coordination

One of the key concerns that seem to appear after every large bushfire event is that pre-fire season coordination of fire suppression authorities needs to occur in all regions of Australia. Coordination should include cross agency training, intra- and inter- agency communications, and development of an appropriate mix of skills and practical experience.

A3P suggests that independent auditing (potentially at a National level) against fire preparedness benchmarks to check the fire season readiness of public land agencies may be beneficial. Audits would take into account the extent of pre-season fuel reduction to plan, fire training, fire detection systems, fire fighting equipment and communication systems.

***Recommendation 4: That the Senate Inquiry implement a higher level of coordination and standardisation on a landscape basis. Such historic concerns as interagency coordination, communication system compatibility, and skills capacity should be addressed.***

- *Holistic landscape management of fire (role of fire management on adjacent stakeholders tenures) - Response of forest growers to fires on other stakeholders land;*

Two of the key fire management objectives of the plantation forest growers are:

- Close involvement in the adjacent rural community to build and maintain relationships; and
- Cooperative landscape-based fire management with neighbours, relevant stakeholders, and other fire agencies.

These objectives have put the plantation industry fire management practices in good stead over many years.

*“Where the plantation and native vegetation have separate managers, the plantation manager must seek the cooperation of the owner, occupier or manager of adjoining land in implementing measures which reflect, as far as possible, the risk of fire spreading from one area to the other and the protection benefit of those measures to each respective land manager.” (Department of Sustainability and Environment, Victoria. 1996)*

***Recommendation 5: That the Senate Inquiry notes that holistic fire management on a landscape scale stands the best chance of reducing the number of fire incidents, fire intensity, the rate of spread of fires that do occur, and consequently the community impacts.***

***Recommendation 6: That the Senate Inquiry recommend that a system (potentially nationally based) is developed and implemented to independently audit and report on landscape fire management actions and outcomes against agreed criteria.***

- *Land-use regulations;*

It can be the case that after a significant and traumatic incident such as the 2009 Victorian bushfires, that the initial response is to over-regulate and take an extreme precautionary approach. One such case is in regard to land-use regulations. A3P supports a measured response to any variation to existing land-use regulations in the wake of the Victorian fires. This measured response should be taken in light of past and current lessons learnt and that fire management should be looked at on a landscape basis and that prevention measures such as hazard reduction burning programs can be interventionary in nature.

***Recommendation 7: That the Senate Inquiry takes a measured response when considering existing (or any variation to existing) land-use regulations.***

c) **The extent and effectiveness of bushfire mitigation strategies and practices, including application of resources for agricultural land, national parks, state forests, other Crown land, open space areas adjacent to development and private property and the impact of hazard reduction strategies;**

- *Direct and Indirect importance of the timber Industry to rural communities;*

A3P member companies create and sell more than \$4 billion of product each year and directly employ more than 13,500 people in plantation operations, sawmills, and paper manufacturing plants, mainly in rural and regional areas of Australia, and indirectly this economic activity supports many more, for example through customers, suppliers, contractors, downstream processors, and service employment.

As a result we feel that the forest growing, timber, and fibre processing industries are very important, and have significant direct and indirect impacts, to rural and regional communities in Australia. The industry provides employment, economic stimulus, sources of volunteers, recreation, and fire management on a landscape scale in rural communities, and feels it has a strong position, demonstrated expertise, and right to engage in the fire management discussion.

***Recommendation 8: That the Senate Inquiry notes the timber industry's significant role in rural communities and landscape management.***

- *The plantation industry has a long history of developing and implementing fire management guidelines and procedures;*

As demonstrated under other points in this submission, the plantation forestry industry has a long history of developing and implementing fire management guidelines and procedures.

The plantation forestry industry plays a key role in fire management in high fire risk rural areas with specific skills, training and resources in fighting fires within a native forest and plantation situation. As demonstrated in the Victorian fires and other fire events these skills are very important especially within the current environment of social demographic shifts, rural interfaces with bush, generational shifts, and decreasing pool of trained and skilled people.

One such plantation and forest manager Forests NSW (also an A3P member) stated it succinctly in their submission to The Joint Select Committee on Bushfires in 2002:

*“Some of the lessons learnt during the Christmas 2001 bushfires, by all those engaged, confirmed the benefit of a balanced approach to fire management, and having proper fire management policies and practices. The fundamental principles of maintaining reliable access to forested areas, carrying out appropriate fire prevention and mitigation works including hazard reduction, maintaining a systematic approach to fire detection and pre-emptive dispersal of suppression appliances, plant and equipment (scaled up prior to the onset of bad weather) and early, determined initial attack by experienced, well-equipped crews once again proved vital in the containment of many fires that otherwise would have reached large and uncontrollable proportions. State Forests fire and fuel management policies, evolved through many years of fire management experience, helped restrict damage on State Forests and other lands.” (State Forests 2002)*

***Recommendation 9: That the Senate Inquiry notes the plantation forestry industry’s key role in fire management and the importance of holistic landscape based fire management.***

- *Fuel reduction management and fire prevention measures;*

Strategic hazard reduction burning is a key prevention strategy utilised by forest managers to reduce fuel load and the risk of large bushfires. Other strategies include grazing, mechanical hazard reduction (mineral earth breaks), community education, and regulation of potential fire ignitions. Strategic hazard reduction burning has been shown, by extensive research, real fire experience and history, and acceptance by land and forest managers, to be the most effective fire prevention and mitigation tool in a land/forest manager’s arsenal.

Australian plantation and forest managers have utilized hazard reduction burning as a key part of their fire management planning and policy for many years, and these well-respected fire management organizations have extensive objective evidence to demonstrate the value of the practice.

The advantages of a hazard reduction strategy are well documented.

*“Hazard reduction burning reduces fire behavior by:*

- *Reducing the speed of growth of the fire from its ignition point;*
- *Reducing the height of flames and rate of spread;*
- *Reducing the spotting potential by reducing the number of fire brands and the distance they are carried downwind; and*
- *Reducing the total heat output or intensity of the fire.*

*Prescribed burning is not intended to stop forest fires but it does reduce their intensity and this makes fire suppression safer and more efficient. Prescribed burning is not a panacea nor does it work in isolation. It must be used in conjunction with an efficient fire fighting force.” (Cheney 2004)*

There are various constraints to an optimal hazard reduction strategy including weather, adequate resources, environmental legislation, community attitudes, smoke management, adjacent land owner/manager attitudes and fire practice. Of these, only weather cannot be improved by management to get an improved result. Strategic hazard reduction programs have been declining in recent years as the nature of forest/land use and management has changed over time.

***Recommendation 10: That the Senate Inquiry address any impediments identified to strategic hazard reduction burning, fire access, and fire break implementation, and recommend that this form of fire prevention strategy should continue to be utilised to its full potential by all forest/land managers on a landscape scale.***

- d) **The identification of measures that can be undertaken by government, industry and the community and the effectiveness of these measures in protecting agricultural industries, service industries, small business, tourism and water catchments;**
- *Fire management role of the forest industry especially with a plantation focus;*

See above comments in Background about the role of the plantation industry in fire management.

***Recommendation 11: That the Senate Inquiry note that the forest plantation industry has a strong focus on and history of success with active landscape fire management (prevention, detection and suppression); and that recommendations from the Senate Inquiry should promote the progression of this approach to fire management.***

- *Fire detection and communication systems;*

The importance of quickly detecting and then responding to fire incidents (especially on high risk days) cannot be understated. For a long time forest growers fire management planning and suppression strategies have incorporated a strong emphasis on early detection and quick response.

Resources such as fire towers, aerial spotters (with fire risk based operating hours), communication systems, fire resources (such as tankers, dozers, and aerial assets) stationed in high-risk areas during high-risk days are all strategies to rapidly respond to fire incidents and suppress them as quickly as possible before the fire gains intensity and becomes difficult to control or uncontrollable.

Accurate and timely information regarding a fire's location and threat level is very important especially for the protection of lives and assets that are potentially under threat from a fire incident. A resilient detection and communication system coupled with accurate and timely information would seem to be essential in order to minimise the future impacts of fire incidents.

***Recommendation 12: That the Senate Inquiry promote the implementation of viable and resilient fire detection and communication system on a landscape scale.***

- *Maintenance of adequate and professional fire fighting forces;*

Fire plans, systems, mechanical resources, and infrastructure are all key parts of the fire management system however nothing is as important as the maintenance of an efficient and professional fire fighting force (including incident controllers, tanker and heavy plant operators, to personnel on rake-hoes). A3P members (and other land managers) are responsible for forest and land management but also have an obligation to manage fires on those lands, part of this obligation is providing adequate resources for fire management (prevention, detection and suppression), training and equipping those resources.

There are increasing challenges for land managers to provide adequate and professional fire fighting forces, these include:

- A general trend Australia wide that the number of permanent experienced fire fighters is steadily decreasing and their ages are increasing due to demographic trends;
- The appearance of general fire season fatigue amongst volunteer and company fire fighters after a number of fire seasons of increasing length and intensity;
- Increased fire training programs are required for the increasing contractor-based workforces that operate in plantation forestry and other commercial land-uses;
- Some land-use changes (ie managed forest to National Park) have not been balanced by maintenance of the fire management capacity; and
- Increasing reliance on volunteers in some high fire risk areas.

Some of these constraints are mitigated by substituting machinery (including aerial resources) but it needs to be noted that there is no substitute in the long-run for experienced, skilled and well-trained and well equipped fire fighters and fire managers well supported by ground based machinery especially when multiple high intensity fires are burning.

Another issue is to ensure that the fire-fighters are capable to undertake the tasks that are required. Programs that are worthwhile and A3P members are pursuing include the requirement to pass accreditation standards for physical fitness for fire fighting as well as training and skills to demonstrate fire readiness.

Again the 2009 Victorian fires have shown the ability and desire for other land-management agencies and fire fighting agencies to send fire fighters often interstate to provide assistance especially in an emergency. Increased standardisation of equipment, communications and fire control systems would all be very useful in maximising the outcomes arising from sharing of resources.

***Recommendation 13: That the Senate Inquiry make findings which assist fire-fighting agencies to address constraints on resource availability and recruitment; and develop policy that further integrates firefighting agencies equipment and systems.***

- *Communication systems (eg next G repeater stations for coverage – both spatially and durability);*

A key part of successful fire management, fire suppression and fire warning systems is the comprehensive spatial coverage and the ongoing durability of a viable communication system.

A3P members have other communication systems such as radio systems, but we cannot understate the effectiveness of communication by a fully functioning mobile phone system for both voice and data transfer.

The ability for the fire fighting force to quickly detect, plan and coordinate fire response early and during a fire's development is extremely important. It results in efficient use of resources, tactical fire suppression activities, and increases the potential safety of the fire-fighters involved in the fire.

In one example advised by an A3P member organisation the coverage in a particular area was substandard due to a lack of infrastructure investment resulting in less than 360 degree coverage from the existing mobile phone repeater towers. This issue could have been remedied by a relatively small investment resulting in better coverage and increased safety and fire management outcomes.

***Recommendation 14: That the Senate Inquiry identifies and addresses issues with communication systems and their coverage and resilience in strategic fire-prone rural communities with particular reference to the mobile phone system.***

- *Fire suppression, fire preparation, and fire prevention focuses of a land manager;*

The plantation industry's general fire planning and management philosophy includes the following objectives:

- Active protection of intensively managed, high value plantation assets sensitive to fire;
- Minimising ignition from forest operations by implementing a graduated scale of operations' closures based on the forecast fire danger index;
- Active fire prevention strategies such as fuel reduction programs, fire access trails, fire-breaks to enable access to and reduce intensity of fires;
- Active fire suppression (including detection) on plantation land and the adjacent landscape;

Over many years practical experience has shown that fire management based on these factors has been very effective in limiting the destruction of high value assets in or around plantation land.

For example in NSW:

***“Macquarie Plantation Area: no recorded house/structure loss from plantation fires, 138 fires have burned in or into plantations in the 22 years from 1979 to 2002, burning a total of 4,224ha (6.5% plantation area). Of the 4,224ha burnt, 3,410 ha (80%) was burnt in two large plantation fires.***

***Bombala Plantation Area: no recorded house/structure loss from plantation fires, 178 fires have burned in or into plantations in the 22 years from 1979 to 2002, burning a total of 6,551ha (6.5% plantation area). Of the 6,551ha burnt, 6,475 ha (98.8%) was burnt in one extreme fire event.” (FFMG 2007)***

***Recommendation 15: That the Senate Inquiry recommends criteria that support land holders revising their fire management policy and procedures in order to improve fire management on a landscape scale.***



- *Aircraft use and limitations – aircraft configurations that maximise potential for deployment across the landscape;*

The importance of well positioned and immediately available aircraft in the detection and reconnaissance of fire incidents cannot be understated. The ability to detect a fire very early in its development (with the added benefit of initial aerial attack), and the quality of information (resource location and fire behaviour) on a developed fire is paramount to successfully control or extinguish a fire.

A3P members have in the past and will again advocate that the most effective use of aerial fire bombing is in the early stages of the fire (initial attack), and in conjunction with support by trained and resourced ground crews. Experience and research has shown that that aerial fire bombing is ineffective at stopping the forward spread of moderate to high intensity bushfires, and containing long lines of active fires even at lower intensities.

One of A3P members Forests NSW has commented on this previously (and it still holds true for Victoria and other Australian states):

*“For improved aircraft usage in NSW a significant shift toward pre-emptive regional deployment for initial attack roles is needed. Similarly, more effort needs to be applied to ensure the most suitable aircraft for NSW conditions are identified, equipped and procured well before the onset of any fire danger period. Furthermore, it is fundamentally important that trained and competent personnel direct aircraft operations to ensure maximum benefit is obtained from this high cost suppression aid.” (State Forests 2002)*

***Recommendation 16: That the Senate Inquiry notes that aircraft (helicopters and fixed wing) have a key role in the detection and initial suppression of wildfire, and for protection of key assets (on urban/rural interfaces); but that funding of large water bombing aircraft (eg. air-cranes) for key asset protection in urban/rural interfaces should not occur at the expense of funding of aircraft for fire detection and suppression elsewhere.***

- e) **Any alternative or developmental bushfire prevention and mitigation approaches which can be implemented;**

No alternative or developmental bushfire prevention and mitigation approaches will be proposed in this submission.

A3P strongly supports the broader implementation of the known principles of active fire management on a landscape basis. These known principles have proven themselves time and time again to respond quickly to, and reduce the potential impacts when bushfires invariably start. These principles are not new or developmental but they do need to be well resourced, committed to, and implemented across the landscape, tenure, and land-use.

**f) The appropriateness of planning and building codes with respect to land use in the bushfire prone areas;**

- *Active fire and land management, and asset protection;*

The plantation industry's fire management objectives (detailed on page 5) have allowed the plantation industry to set for itself a high standard fire management over many years, however it has come at substantial financial cost (although this is evaluated against the very high cost of destruction of hectares of fire-sensitive high value asset, and the potential dislocation to processing industries). A good example of the cost analysis applied to fire management and fire risk is provided by Forests NSW:

*"Being responsible for the management of fire vulnerable assets valued at more than \$1.5 billion, situated in some of the most fire prone environments in the world, and being self insured, fire management cost plus loss factors are a central part of State Forests commercial management. Over expenditure on fire risk management would impinge on State Forest's ability to meet its commercial objectives, and under expenditure would expose the organisation to risk of unsustainable asset losses." (State Forests 2002)*

***Recommendation 17: That the Senate Inquiry notes that active fire management (prevention, detection, and suppression) on a landscape scale aids in reducing fire incidents, fire intensity and spread if they do occur, but does come at substantial financial cost; and that there is scope to improve land-use planning and management in a manner that aligns fire risk with land use.***

- *The fireproofing of housing and other buildings, including the materials used in construction.*

Standards for construction of buildings in bushfire prone areas should be nationally consistent science based, and recognize the appropriate use of wood and wood based products in matching building performance against expected bushfire risk.

Emotions run high after a catastrophic event such as was experienced in Victoria this year, the community seeks answers and the media often responds, unfortunately, with inaccurate information or ill-informed opinion. It is the natural tendency of the media to seek a story that will capture the imagination of the public.

Following the bushfires there were numerous examples of the media leading the public to believe there would have to be a major upheaval in the way we build houses and the materials we use to construct them. "All houses should be built from concrete and brick", "only non-combustible materials should be used", "no timber should be permitted" are representative of the flavour of many comments made during the period. Such an approach is not justified by objective scientific research. Any discussion on construction of buildings in bushfire prone areas needs to occur in the context of their location, environs, design and on-going maintenance; not simply on materials alone.

***Recommendation 18: That the Senate Inquiry agrees there should be no unjustified discrimination against building materials alone, and that any discussion regarding the construction of buildings in bushfire prone areas must look at all aspects including location, environs, design and maintenance.***

There is a new Australian Standard, AS3959-2009, for construction in bushfire risk areas. This standard details science based solutions for constructing houses using commonly available building materials. The standard needs further work in due course, and can be improved by incorporating more of a performance versus materials prescriptive approach to stimulate innovation. It does however provide an initial framework for designers seeking to adopt appropriate building practice commensurate with the assessed level of fire risk.

***Recommendation 19: That the Senate Inquiry agrees that there needs to be a national standard for a uniform, consistent approach to construction in bushfire risk areas.***

It is equally important that the building approval framework itself is uniform and consistent. Currently there are examples where approval to construct is required from fire services, and possibly other, authorities separate to the normal local council building approval system. This is frustrating and confusing to designers, builders and home owners and should not be allowed to persist. In addition, it is one thing to set a standard and another to ensure that standards are maintained through the life of structure. This relates not only to the structure but the surrounding environs.

***Recommendation 20: That the Senate Inquiry agrees that a single building approval framework is required for construction in bushfire risk areas; and that there is a need to ensure ongoing compliance with the relevant building approvals.***

It should be noted that building construction standards are not designed (nor should they be) to eliminate bushfire risk but to reduce it. Building standards need to be looked at in a holistic fashion with other complementary measures such as building set backs from bushland, development controls, and other measures all within a reasonable fire risk framework.

**g) The adequacy and funding of fire-fighting resources both paid and voluntary and the usefulness of and impact on on-farm labour;**

- *Rural drain of people to cities effecting potential volunteer numbers. Vibrant forestry industries in rural areas invest in fire prevention and suppression;*

In recent years demographic change (age structure and location) and changing employment opportunities has led to a drain of people from rural and an aging of the rural population affecting the recruiting pool for volunteer fire fighters. The plantation and commercial forestry industry has been a positive factor in reducing this drain of rural human resources.

The plantation and commercial forestry industry is based in rural areas and attracts both direct employees (professional and blue-collar) and indirect employees (downstream processing, service industries and contractors) adding to the pool of people that can be involved in fire management.

In addition it is a commercial imperative for the plantation and commercial forestry industry to protect their intensively managed, high value and fire sensitive asset against wildfire by directly investing in fire prevention and suppression activities, and supporting/promoting other fire-fighting agencies in order to adequately protect and resource adjacent landholdings.

***Recommendation 21: That the Senate Inquiry promotes policies that support the role of the plantation and commercial forestry industry in rural communities.***

During the February wildfires the important role volunteers have in fire management and suppression activities was demonstrated again. The spatial size, rates of spread, and varying intensity across different fuel types of the fires posed increased challenges to the fire suppression forces needing different skills, training and fire suppression/control strategies.

It highlights the key need for all fire suppression forces to have access to and a focus on fire training and strategies appropriate to landscape management. That is the ability, understanding and desire to fight fires over the full landscape, and across varying fuel types and fuel structures.

As past evidence has shown fires that burn through different fuel types exhibit different rates of spread, levels of intensity, spotting, and fire-behavior characteristics - these changes can provide opportunities for well trained fire fighting forces to apply different suppression or control strategies, such as the appropriate use of graders or dozers to construct mineral earth fire breaks depends on the fuel type.

***Recommendation 22: That the Senate Inquiry recommends that appropriate training that is focused on landscape fire management should be adopted by the relevant fire authorities.***

- *Industrial Relations Arrangements (ie workers compensation issues for CFA Forest Industry Brigades).*

A3P member organisations include both Government owned and privately owned forest growers and land managers across Australia. A3P supports the notion of an equal and incentivising playing field across Australia for industrial relations arrangements that are involved in fire management, prevention, and suppression.

As an example in Victoria, members of A3P include HVP Plantations, AKD Softwoods and Willmott Forests, all are private organisations and all have sizeable fire fighting resources, mostly under the CFA forest industry brigade structure. CFA forest industry brigade members are not covered by the same workers compensation arrangements as CFA volunteers when they fight fires in the landscape. This is a disincentive for CFA forest industry brigades to further invest in fire suppression resources, to provide these resources to further the public good, and to the concept of landscape based fire management. Currently members of CFA forest industry brigades are nominally covered under their employers' workers compensation arrangements. This imposes a large financial and administrative burden on the employer, especially in the case of deployment of the forest industry brigades on other tenures and for the public good of landscape fire management.

***Recommendation 23: That the Senate Inquiry reviews and identifies any inequitable industrial arrangements (such as the Victorian workers compensation example) with the objective to address potential disincentives of these arrangements across Australia.***

#### **h) The role of volunteers;**

Refer to specific comments under point g) above. As a general comment during the February wildfires the important role that volunteers have in fire management and suppression activities was demonstrated again. The social demographics of Australia (although changing over time) still underpin the need for volunteers to play a key role in fire management and fire suppression.

#### **i) The impact of climate change;**

Climate change is a factor but not the only factor affecting the increased incidence and frequency of large bushfires in Australia. Climate change impacts are felt in variability of both temperature and rainfall, which in turn affects the area burnt, the intensity and incidence of bushfires (ie start of bushfire season). Drought is a factor in the build-up of dry fuels however reductions in prescribed burning also certainly defines the type, amount and distribution of fuel load. Again it is a balance between very large, uncontrolled bushfires in the high risk times or increased levels of planned, cooler burns.

In isolation climate change impacts in the future will potentially increase the risk of incidence of large bushfires in parts of Australia, A3P would advocate that the presence of a healthy plantation and paper sector primarily rurally-based with an active landscape fire management focus, coupled with strong coordinated volunteer fire brigades and other landscape managers will continue to provide vital and effective fire management, prevention and suppression services in the future.

***Recommendation 24: That the Senate Inquiry note that in terms of the forest growers' response to the impacts of climate change on the environment and in particular fire management, a healthy primarily rurally-based plantation, wood processing, and paper sector with an active fire management focus will be vitally important.***

#### **j) Fire – its causes (accidental, natural and deliberate) and remedies;**

The main causes of bushfires are well known, researched and commented on, they include natural causes (lightening strikes), and arson - both deliberate and accidental. Lightening strikes occur often in remote areas, igniting some of the most difficult (to detect and suppress) and destructive bushfires on record. Arson occurs closer to settled areas. Both of these causes will continue in the future.

Education, enforcement (such as the example below), and social forces may potentially reduce the incidence of bushfires caused by arson, but natural causes will always occur.

- *Operation Nomad (ie known firebug surveillance ending in a demonstrable reduction of arson incidents);*

Unfortunately it is the experience of many fire managers that a large proportion of the fires are started arson. Reducing the incidence of fires is very important especially during very high fire danger periods in high fire risk areas.

One initiative that is demonstrated to work is Operation Nomad, undertaken by the South Australian police force. Operation Nomad is a two prong initiative:

1. The first is "that the level of threat can be reduced by educating our communities on how to be properly prepared for a bushfire and how to respond when one occurs. This is why people in high-risk areas will be getting an informative DVD in their letterboxes, to help guide them through how and why they need to prepare a Bushfire Action Plan" **(Rann 2008)**
2. The second involves police patrols visiting convicted and suspected fire bugs on days of high fire risk as well as conducting regular patrols through high risk areas. The program has been credited with reducing by half the number of fires in the Adelaide Hills that are deliberately lit.

***Recommendation 25: That the Senate Inquiry considers the South Australian Operation Nomad initiative and look at the potential adoption of such an initiative into other high fire risk areas.***

**k) The impact of bushfires on biodiversity and measures to protect biodiversity; and**

Fire has been natural part of the Australian environment for thousands of years and has shaped our ecosystems. Indeed many of our species and ecosystems need fire to regenerate. The precise effects of bushfires on biodiversity are dependent on many factors such as intensity, site conditions, extent and season. Intense mega fires effect forest and soil health, biodiversity, protection of threatened species and our water catchments.

The human, social, economic and environmental costs of severe wildfire are extremely high. Although periodic bushfire is necessary for the health of many ecosystems and species; uncontrolled, severe large scale bushfires have caused significant loss of life, property and infrastructure.

The known environmental impacts of high intensity fires include: larger areas burnt; soil damage due to heat; death of fauna and trees and other vegetation; degradation of water quality and freshwater ecosystems; and long-term impacts on water yield.

A concern of A3P is misconceptions regarding fire management and its impact on biodiversity (specifically in forested land). A3P members include significant land and forest managers (of plantation, native forest and other land). These A3P members have a significant current and historical role in fire detection, suppression and management on land directly managed by them and on adjacent land holdings in the various states of Australia. These organisations play a key role (and have had a long successful history) in fire management on a landscape scale (across differing land tenures, land uses, and fuel types) including fire suppression, fire prevention, fire policy input, fire planning and management. This includes investment in fire prevention, detection, and suppression resources, commensurate with the plantation asset value and fire risk.

To landscape and fire managers it is easily apparent and more cost-effective to prevent unplanned large scale destructive bushfires than to deal with the aftermath. Decisions around management of forested catchments, threatened species and public native forest must consider the potential environmental impacts of more active landscape management to reduce the risk of severe wildfire versus the potential adverse environmental impacts of inaction.

Strategic hazard reduction burning is a key prevention strategy utilised by forest managers to reduce fuel load and the risk of large bushfires. Other strategies include grazing, mechanical hazard reduction (mineral earth breaks), community education, and regulation of potential fire ignitions. Strategic hazard reduction burning has been shown, by extensive research, real fire experience and history, and acceptance by land and forest managers, to be the most effective fire prevention and mitigation tool in a land/forest manager's arsenal.

***Recommendation 26: That the Senate Inquiry notes in terms of reducing the impact on biodiversity that the reduction of the occurrence and mitigation of the effects of mega fires in the Australian landscape should be the target, and strategic hazard reduction burning should be a key prevention strategy to achieve this.***



## **l) Insurance against bushfires.**

No specific comment on housing insurance in bush-fire prone areas. A3P Member organisations that are land managers have a strong past, current and future focus to invest in fire management, prevention, and suppression as a primary form of self-insurance in order to protect valuable assets and minimise bushfire impacts.

### ***Conclusion***

A3P commends the volunteers and firefighters that responded to the bushfires under extremely difficult conditions. Bushfires will remain a part of the Australian environment, and Australia (especially Victoria) has a history of large, damaging bushfires. Weather conditions on (and leading up to) the February 2009 were extreme in terms of high temperatures, low humidity, and high wind speeds, following years of drought;

A3P commends the Senate for establishing the Senate Inquiry to obtain information and recommend actions following the 2009 Victorian bushfires; and calls upon all levels of Government to act upon and implement outcomes from the Senate Inquiry, and the 2009 Victorian Bushfires Royal Commission processes.

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