Submission: Inquiry into the Control of Invasive Animals on Crown Lands

I make this submission to the Parliament of Victoria Inquiry into Control of Invasive Animals on Crown Land, in response to the call for submissions closing COB 8 August 2016.

I have qualifications and extensive experience in public land management, commercial natural resource planning, community-based activities, and sustainable hunting techniques. My observations and recommendations are drawn from this relevant knowledge, and expertise.

I have chosen to comment on deer ecology, the response of deer and other species in the Australian bush, and sound ways in which to manage deer as a valuable sustainable resource. I also confirm that broadening the target species of the Victorian Game Licence system, recognising the importance of deer as a World class game species, and effecting policies that enhance access to Victorian public estate, are critical in promoting regional development, enhancing our National Parks, and increasing economic activity within Victoria. Finally, I touch on some areas of policy and operations that would assist the overall land management task.

1. Assessment of the biodiversity outcomes, community safety and limitations of the trial conducted by Parks Victoria on control of deer populations in a national park

**Deer Ecology**

- Deer species were released in Australia at numerous locations over an extended period of time (including Sambar in the 1860’s in Victoria) in order to develop and maintain cultural heritage hunting and wild food resources in Australia. Management of deer in Australia and Victoria therefore needs to respect and acknowledge the long-established cultural heritage practices associated with deer stalking and respectful treatment of animals. In doing so, a range of productive and sustainable solutions emerge to managing deer populations in perpetuity.

- The primary deer species to be found in the Victorian high country and surrounding regions is the Sambar (*Rusa unicolor*), which is an Asiatic deer that is listed as Vulnerable in its countries of origin. This species appears to be the focus of the Alpine National Park trial referenced in the inquiry Terms of Reference.

- Sambar deer are generally a forest dwelling animal with a timid disposition due to their predator avoidance behaviours. Living individually or in very small family groups, Sambar occupy a range of ecological communities in SE Australia. They have seasonal movements according to alpine conditions and generally occupy higher elevations during Spring-Autumn months. Mature animals establish a home range and tend to revisit these areas after periods of absence. This seasonal movement establishes a basis on which solutions can be embraced for regulated access to true alpine environments in Victoria in order to reduce Sambar numbers.

- Within seasons, Sambar deer have a strong daily pattern of browse, rest and watering. They use terrain and vegetation cover for protection, often being located on the edge of Alpine Ash and Snow Gum forest communities, and venturing to clearer ground in darker conditions. This pattern allows hunters to address animal numbers often away from areas of direct concern.

- The deer movements also confirm that options other than ground based hunting are extremely expensive and a misallocation of limited public resources. Many millions of dollars have previously been wasted on aerial shooting where animals are often wounded to die in pain – refer to the Kosciusko NP and Guy Fawkes River NP tragedies in NSW, which were previously covered in the media.
Hunting has been a long established activity within Australia and the Victorian landscape provides a competitive advantage to the Victorian Government to reinforce and profit from the growing hunting and outdoor recreation sector. Some parallels exist with New Zealand alpine peaks where remote deer stalking provides significant economic turnover, including international visitation and ancillary businesses.

Safety

- Hunting has occurred on many areas of Victorian Public estate for an extended period. This well regulated by the Game Management Authority and forms part of the multiple-use strategies for public lands. It has been a successful boost to wild food utilisation, economic activity in country towns, and also provides a predator-impact on wild deer numbers through cultural heritage hunting activities.
- Working closely with expert organisations such as the Australian Deer Association (ADA) to establish urban fringe hunting seasons will also gain access to responsible and highly skilled hunters in order to promote public safety.
- Targeted hunting provides a solution to controlling deer numbers on the urban fringe and this has been successfully achieved in locations such as the NSW Illawarra where residences and communities abut thick forest and rural lands. The success of urban fringe shooting of deer and other animals requires cooperation of landholders and this sometimes becomes the obstacle to a lasting solution.
- Management of public land adjoining residential areas to include a hunting season allows targeted reduction of deer and other animals without resorting to the use of nasty and inhumane poisons. Anybody that has seen a pet dog or wild animal die from 1080 poisoning will testify to the pain and cruelty inflicted by baits.

National Park Trial

- References of the Alpine National Park trial was difficult to locate, however an article dated 27 July 2015 on the Parks Victoria website provides some coverage of a trial involving ground shooting of deer in alpine areas. Whilst I could not locate a project plan and methodology on the site, there is sufficient information to draw parallels between the Parks Victoria trial project and trailing that has been conducted by Office of Environment and Heritage (National Parks Division) in NSW.
- The NSW trial included the use of limited ground based hunters to undertake shooting of species (primarily goats, rabbits and pigs in Western NSW) in the presence of OEH Officers, and only under very specific conditions. This approach may be suitable for areas in the immediate proximity of alpine resorts or similar settings, but it would seem that the trial proved to be an unsustainable and extremely expensive operation for broader National Park animal control.
- The interim report into the NSW National Park supplementary pest control trial (Feb 2016) recorded a cost of $1,274.15 per animal harvested. In contrast, over $2 million revenue and virtually free animal control was achieved by licensed hunters in NSW as recorded in the last Public Benefit assessment of the previous NSW Game Council. The latter NSW Game Council Public Benefit report covered game licensing of hunters on NSW State Forests. The results are compelling at a time of scarce financial resources.

References:

I note that the Victorian trial at the Bogong High Plains resulted in a small number of deer being harvested. This would appear to be related to the nature of the trial where hunters are directed to operate on specific days, with the changeable alpine weather having a major bearing on deer activity and the safety of hunters under unfavourable conditions. It is encouraging to see the Victorian agencies exploring enhanced access to public land and there are a number of sensible solutions to the limited results of the Parks Victoria trial at Bogong High Plains.

Vast areas of the Alpine National Park, and other locations such as the Snowy River National Park and Errinundra National Park are excluded from licensed hunting. Increased access to public lands for hunting of deer and other species provides a logical boost to economic activity in regional and rural Victoria, which is in need of economic stimulus and regional development. At the same time, the cost effective reduction of non-native species through hunting provides a positive outcome for the National Park estate. In addition to a predator-effect on deer and other animals, this also includes the regular track clearing, compliance reporting and assistance with bushfires that is provided by the hunting industry.

At a recent community meeting within the East Gippsland Council area, there was a recognition of the quality of game meats and the role that value-adding game meats can have in the community. The group identified the need for greater remote-country tourism and trade, and the need for greater access to public lands to support such activities. The prospect of more economic activity, increased public land access and the reduction of deer through licensed hunting on public land is a compelling strategy.

In the interim, Government agencies are spending considerable resources in order to attempt to control animals, including the use of toxic baits.

**Solutions and Recommendations to control of deer in alpine areas and residential fringes**

- **Extend coverage of the current Victorian Game Licence system administered by DELWP** to include the vast areas of Alpine National Park, and others such as Snowy River National Park, Errinundra National Park, and other newly created reserves that would benefit from cultural heritage hunting and targeted programs,

- **Create a hunting season for true alpine sites such as Bogong High Plains.** These sites would favour remote hunting techniques that permit deer hunting, yet lessen the impact of people. New Zealand and other countries have extensive alpine localities where remote deer hunting has evolved into a major regional development opportunity with ancillary services and employment in nearby towns. Hunting Sambar deer in remote localities has a World-wide draw card potential.

- **Create a hunting season for urban fringe localities** in order to target licensed hunters through the Victoria Game Licence system. Risk assessment and further community engagement may be required in specific areas. Engage the ADA to assist with the design of such programs, including engagement with Local Government and ancillary businesses that will benefit from increased economic activity.

- **Consider mechanisms that encourage hunters to be active in areas of greater interest for conservation objectives.** For example consider pricing or other incentives that result in more deer harvested in specific areas. Options should be explored between the DELWP Game Management unit and ADA. It is very likely that opening access to new areas may be sufficient in the first instance.

- **Enhance the funding of the DELWP Game Management unit** in order to enforce rules and regulations particularly in urban fringe areas. Additional hunting permits and tax receipts associated with economic activity, tourism and visitation will soon outweigh any costs associated with Department activities. In addition, cost savings are possible within Parks Victoria, CMA and
DELWP operations where public funds are currently directed to aerial shooting, baiting and monitoring.

2. **Consideration of the application of these types of programs for other invasive animal species in partnership with Crown land managers**

   - Increasing the list of species (e.g. feral pig, cat, fox, wild dog) that is permitted under a Victorian Game Licence will have a tangible and very cost effective benefit to the Crown, landholders and communities. This form of licensing occurs in NSW where the *Game and Feral Animal Control Act* permits hunters to take pest animals such as pigs, fox and wild dogs under a Game License provision. The results have been significant, with game and pest species reduced in areas that are open to hunting.

   - The economic and social benefits arising from a broadening of species for public land hunting is considerable. The Department of Environment and Primary Industries\(^3\) estimated that the direct economic benefit of pest animal shooting was about $59 million each year in Victoria. This does not account for the improvement of productivity for farming enterprises adjoining public land, and the additional offtake that sheep farmers and others may experience due to less wild dogs.

   - Even if only 10% of the reported 45,000 Game Licence holders managed to harvest one feral dog, or one feral pig per year, that is still over 4,500 invasive animals of each species removed from Crown land at a highly positive net present value.

   - Examples of wild dog impacts are readily available and have triggered ongoing decline of sheep based agriculture as a direct result of recurring dog attacks on properties adjoining Crown Lands. To illustrate the impact and need for alternative solutions to baiting of wild dogs, I refer you to the Landline ABC program\(^4\) posted on 11 June 2016. This program received the highest ever online viewing of any ABC Landline program because it raises genuine issues and the need for a broader scope of control for wild dogs.

**Solutions and Recommendations for other Invasive Animals**

   - Increasing the list of species that is permitted under a Victorian Game Licence to include pest animals such as feral pig, cat, fox, wild dog, goat, rabbit.

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\(^4\) [http://www.abc.net.au/landline/content/2016/s4480240.htm](http://www.abc.net.au/landline/content/2016/s4480240.htm)
3. **Assessment of the relative costs and benefits, financial or otherwise, of other forms of pest control in national parks**

**Economic Importance and High Marginal Benefit of Hunting on Public Land**

- Deer are now a natural element of the Victorian and Australian landscape. Careful management of their populations as a recreational and food resource is prudent. The above listed recommendations in section (2) outline the benefits that would be achieved by broadening the target species to be hunted on National Park estate. In addition, there are vast areas of National Park and reserve within Victoria that are not currently allocated to deer stalking and pest shooting. These areas provide an unconstrained population – there is not major predator-effect.

- The trial of on-ground shooting at Bogong High Plains is an attempt to explore options for reducing deer populations in areas that are not yet permitted for hunting. Data obtained in the trial and in a parallel trial in NSW indicates that administrative or bureaucratic approaches to animal control are limited in effectiveness.

- As stated, the interim report into the NSW National Park supplementary pest control trial (Feb 2016) recorded a cost of **$1,274.93 per animal harvested**. That is, 2,846 animals costing over **$3.6 million** in three years between 2012/13 to 2014/15. Individual ground-based operations were reported to cost an average >$17,000 in 2013 to $9,400 in 2015, to shoot primarily goats, rabbits and pigs in relatively easy going western NSW conditions.

- The NSW Game Council\(^6\) reported in a separate example that the "assessment of a deer management program in Royal National Park administered by the OEH recorded a ground shooting cost (salaries of shooters) per deer killed of **$368**".

- The use of licensed hunters through the Game Licence system is effectively **free**. The costs of licence compliance are fixed at the Game Management unit. The licensed hunters pay their own way through licence fees, consumables and travel. In contrast the layers of administration and bureaucracy that existed in the Bogong High Plains trial and NSW OEH supplementary pest management trial would be eliminated. Rangers and staff would be released to undertake their other essential duties.

- The NSW Game Council\(^7\) public benefit assessment covered licensing of hunters on NSW State Forests. It demonstrated a **$937,000 p.a. direct saving to Government** agencies due to reduced expenditure on animal control. Animal numbers were reduced through licensed shooting at **effectively zero cost**.

- The Victorian game regulation system enables communities to gain through increased economic activity, tourism, and advancement of small rural communities. This occurs by allowing regulated hunting of deer in many public lands and private lands. Hunters and visitors purchase goods and services while visiting an area, and in many cases keep towns alive. The engagement of the hunting and outdoor sector in the programs administered by Victoria ensures that illegal activities are quickly identified and addressed because stakeholders are engaged and are able to place a personal value on deer hunting. This includes the rights to use the animal meat for personal consumption, thereby respecting the harvested animal, and not wasting food and natural resources.

- The 2013 Department of Environment and Primary Industries report on the value of hunting in Victoria suggested that over 2,300 jobs are supported by hunting in Victoria. With direct annual

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6 Game Council of NSW Public Benefit Assessment 2011/12. Pg18

7 Game Council of NSW Public Benefit Assessment 2011/12.
economic benefit of $177 million and indirect benefit of $262 million, regulated hunting in Victoria contributed approximately $440 million of economic activity in one year. The recommendations made in sections (1) and (2) above are certain to lead to greater economic gain and ecological benefits for the State of Victoria.

Use of Poisons

- Poisons are currently used by Public Land agencies as part of their pest animal control tactics. These programs have had an impact on fox numbers, have less than desirable impacts on wild dog numbers, and have been used against pigs during early stages of feral pig occurrence.
- Whilst there may be a role for targeted baiting in very specific situations, there appears to be an over-reliance on this tactic, and at considerable expense. Australia has an over-reliance on pesticides and it is the Government’s role to discourage the use of chemicals and poisons not to increase the use of such pollutants in the environment, and the painful death that they cause to animals.
- Introducing a hunting season or targeted joint program for public land that adjoins residential areas, allows targeted reduction of deer and other animals without resorting to the use of nasty and inhumane poisons. Anybody that has seen a pet dog or wild animal die from 1080 poisoning will testify to the disgusting pain and cruelty inflicted by baits. In turn, impacts on non-target species show that baiting is an imprecise technique with many negative side effects, particularly in pristine remote landscapes.

Game Meat Products

- Deer have been farmed in Australia for an extensive period of time. Deer are an important livestock animal in Australia and across the Globe.
- It is noted that deer meat and products possess superior qualities and health benefits over other livestock, and this should be promoted in the interest of community health and reducing the cost of health care through healthier eating programs that include game meat products.
- Government policies that support the value of game meats in Australia are likely to create a higher tendency or price that people are willing to pay to acquire game meats. Increased consumption of healthy game meats in the community has the benefit of improved industry competitiveness, and a willingness of people to pay for permits to harvest game and pest animals. In turn, the Victorian Government is able to gain from increased economic activity and tax receipts from rurally-based and sustainable industry.

Managing Bushfires has an Impact on Game and Pest Animals

- Much of the damage to the forested and alpine Crown land over the past decade has arisen from large and intense bushfires. Such events, in some cases repetitive, have caused extensive and generational damage to forest condition, weed infestation, and increased catchment erosion and sedimentation. In this regard, any concerns over the presence of introduced animals must be viewed in the context of more serious and transcending ecosystem changes from other events.
- One of the reasons that deer and other species have thrived in the Victorian landscape, is the intense burning and creation of thickets of successional species over extensive areas. The vegetation recovery process has supported deer and other species particularly in the vast areas that are not permitted for hunting such as the alpine plains and adjoining sub-alpine forests of the Alpine National Park and Snowy River National Park. There is no major predator-effect on the animals!
• It is relevant to make this point as the speedy control of bushfires is important in reducing the conditions that favour non-native species including weeds. Rapid and effective bushfire response requires ongoing investment and resourcing of agencies with clear targets.
• Managing the conditions in National Parks that underpin invasive animal activities is the key to sustainable solutions.

**Solutions and Recommendations for Control of Animals in National Parks and Reserves**

- Adopt recommendations listed in Sections (1) and (2) above to extend the areas available to hunting through the Game Licensing system,
- Reduce reliance on poisonous baits in order to avoid animal welfare impacts associated with painful poisoning and flow on effects to the environment,
- Reinforce National Park management objective to manage ecological processes and vegetation structure through effective bushfire control. In turn this helps address conditions under which weeds and invasive animals flourish

**Summary**

It is acknowledged that the game and feral animal hunting industry creates significant economic activity in the Victorian economy. The spread of game and feral animals has been facilitated by extensive landscape fires and the absence of predatory pressures on these animals.

Expanding the list of species that may be harvested under the Victorian Game Licence system will have a significant effect on the occurrence and number of pest species that can otherwise have an impact on rural industries.

There exist vast areas of public land in Victoria where hunting is not yet permitted. The Parks Victoria organisation has attempted to curtail deer numbers through limited trialling of ground-based hunting. The results of the trial appear to be modest, and parallel results from the supplementary pest trial that is operating in NSW where it is costing $1,274 per harvested animal, primarily only rabbits, goats and pigs.

In contrast, inclusion of the vast areas of Alpine National Park, Snowy River National Park and similar reserves within permitted hunting zones would result in progressive improvement of pest animal numbers and harvesting of game such as deer. The economic and regional development gains would be supported by a reduction in deer in the alpine zones. Creation of open seasons or targeted hunting on public lands on urban fringes may also present positive results to communities.

I am willing to be contacted by the Inquiry if you require further information or assistance.

Sincerely,

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